MEETING
– AGENDA –
Ngā Take

INDEPENDENT COMMISSIONER HEARING

Komiti Whakariterite Kōrero

CH21-1
Monday, 8 March 2021
Council Chambers
Barkes Corner, Tauranga
9.30am

Western Bay of Plenty District Council

APPOINTMENT OF COMMISSIONERS

Western Bay of Plenty District Council has appointed the following Independent Hearing Commissioners to consider and determine a Resource Consent Application made by JACE investments Limited for Land Use Consent RC11997L and Subdivision Consent RC12296S to establish a Mixed-Use Commercial Town Centre at 404 Omokoroa Road, Omokoroa.

- Commissioner Jan Caunter (Chairperson)
- Commissioner David Hill
- Commissioner David Mead.

Notice is hereby given that an Independent Commissioner Hearing Meeting will be held in the Council Chambers, Barkes Corner, Tauranga on: Monday, 8 March 2021 at 9.30am

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1 PRESENT

2 IN ATTENDANCE

3 APOLOGIES

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7 REPORTS

7.1 FULL APPLICATION - JACE INVESTMENTS LTD - 404 OMOKOROA ROAD, OMOKOROA - RC11997L & RC2996S

File Number: **A3995331**

Author: **Barbara Clarke, Senior Governance Advisor**

Authoriser: **Jan Pedersen, Group Manager People And Customer Services**

EXECUTIVE SUMMARY

This report attaches **the full Application** made by JACE Investments Ltd (the Applicant), for a Land Use and Subdivision Consent to establish a non-complying, Commercial zoned 'Mixed-Use' Commercial 'Town Centre' development. This development would include office, retail/commercial precinct, medium density residential units and apartments, and visitor accommodation.

ATTACHMENTS

1. **Application Cover letter to WBOPDC**
2. **Application Form**
3. **Assessment of Environmental Effects - Application Report**
4. **Appendix 1 - Record of Title**
5. **Appendix 2 - Omokoroa Town Centre Master Plan**
6. **Appendix 3 - Architectural Plans (full set)**
7. **Appendix 4 - Urban Design Statement**
8. **Appendix 5 - Urban Design Peer Review**
9. **Appendix 6 - Services Report**
10. **Appendix 7 - Transportation Assessment**
11. **Appendix 8 - Geotechnical Report**
12. **Appendix 9 - Detail Site Investigation (revised)**
13. **Appendix 10 - Economic Report**
14. **Appendix 11 - Archaeological Report**
15. **Appendix 12 - Consulation with Utility Provider**
16. **Appendix 13 - Iwi & Hapu Consultation Letters**
17. **Appendix 14 - Subdivision Scheme Plan**
18. **Notification Executive Summary**

HOLLAND BECKETT
LAW

21 May 2020

Chief Executive Officer
Western Bay of Plenty District Council
Private Bag 12 803
Tauranga Mail Centre
TAURANGA 3143

Omokoroa Town Centre: resource consent application by Jace Investments Limited

1. We act for Jace Investments Limited in relation to this matter.

2. Please find **enclosed** for lodgement, a resource consent application for the Omokoroa Town Centre at 404 Omokoroa Road.

3. The applicant's agent is Richard Coles at Momentum Planning & Design Limited and whilst all correspondence should be directed to him, we ask that correspondence also be copied to us.

4. We look forward to receiving confirmation that the application is being processed.

5. The applicant requests that the resource consent application be publicly notified, and we have advised it that in accordance with s 95 of the Resource Management Act 1991, the time limit for this to occur is 20 working days after the application is lodged.

6. We look forward to working with the Council in relation to this matter.

Yours faithfully
HOLLAND BECKETT LAW

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encl.

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Tauranga / Rotorua / Whakatane / Opotiki

Western Bay of Plenty District Council
Te Kaunihera a rohe mai i nga Kuri-a-Wharei ki Otamarakau ki te Uru

Head Office Barkes Corner, 1484 Cameron Road, Greerton, Tauranga
Private Bag 12803, Tauranga Mail Centre, Tauranga 3143
Ph 07 571 8008 (24 hours) * F 07 577 9820
Freephone 0800 WBOPDC * 0800 926 732
Email: consentsadmin@westernbay.govt.nz
Website: www.westernbay.govt.nz

Planning Application - Land Use – s88 RMA - JACE INVESTMENTS LTD, c/o Kiwi Green Investments Limited Reference RCA200544191

Application received via RC Application Online: 21/05/2020 03:02 p.m.

Application Type Details

Application Type	Land Use – s88 RMA
What Notification of this Application is proposed?	Public Notified
Is this Application in relation to a Building Consent or RMA hold?	No

Pre Application Information

Have you had a pre-application meeting or discussed your proposal with a Council staff member?	Yes
Please provide further details such as the name of any Council staff, the date and/or the type of discussion you had e.g. a meeting, phone call, email etc.	Discussions and correspondence with Phillip Martelli and consenting team

Application

Previously Lodged Application

Have you previously lodged this application with Council and had it returned?	No

Site Details

These site details can be found on Council's mapping tool , a Record of Title or Rates bill.

Do you know your site details such as the house number, street or road name, legal description, valuation or parcel id?	Yes

Site Information Details

Property ID	1207-106
Address	404 OMOKOROA ROAD OMOKOROA OMOKOROA COMMUNITY
Legal Description	LOT 1 DP307535
Location	http://mapi.westernbay.govt.nz/HTML/?runWorkflow=HighlightProperty&valuationID=06829*017*01*
Valuation Number	06829*017*01*

Assessment Number	
Property Ward	CENTRAL
Rates Account Identifier	
Rates Account Number	
Annual Rates Assessment Amount	
Capital Value	
Land Value	
Value of Improvements	
Are there any other sites related to this Application	No

Record of Title

Appendix 1 - Certificate of Title and Easements.pdf

Maori Land - Proof of Ownership

Application

Contact Details

Applicant Details

Is the Applicant:	An Organisation, Company, Society or Trust

For correspondence purposes all contact required with the applicant will be made via the contact details provided here.

Organisation, Company, Society or Trust Name	JACE INVESTMENTS LTD, c/o Kiwi Green Investments Limited
Contact Person First Name	Craig
Contact Person Surname	Lemon
Email	craig@southernorchards.co.nz
Contact Number	021606030
Postal Address:	23 Anderson Lane, RD 2, Tauranga 3172
Are there any other applicants related to this application?	No

Site Owner Details

Who is the site Owner?	The Applicant (as above)

Site Occupier Details

Who is the site Occupier?	The Applicant (as above)

Agent Details

Are you using an Agent?	Yes
First Name	Richard
Surname	Coles
Company	MOMENTUM PLANNING & DESIGN LTD
Email	richard@mpad.co.nz
Contact Number	0274325154
Postal Address:	3 Harington Street, Tauranga 3110
Agent Reference for this application	

Solicitor Details

Are you using a Solicitor?	Yes

All correspondence will be directed to the Applicant and the Agent above (if applicable). If you are acting as an Agent on your clients behalf, please enter your details in the Agent Details above.

First Name	Vannesa
Surname	Hamm
Company	Hobec
Email	Vanessa.Hamm@hobec.co.nz
Contact Number	07 578 2199
Postal Address:	Suite 1, 525 Cameron Road, Tauranga 3110

Correspondence Preference

Preferred method of correspondence:	Email
Invoices for processing costs, financial contributions (if applicable) and/or monitoring charges associated with this activity will be sent to the applicant for payment. Do you require a copy of the invoices to be sent to another contact:	Yes
Please provide full contact name and email address	Agent - Richard Coles richard@mpad.co.nz

Site Visit Requirements

In order to assess your application it may be necessary for the Planner or Engineer to visit your site. This typically involves an outdoor inspection only, and there is no need for you to be home for this purpose.

Do you require prior notice of any site visit?	Yes
Please provide details	Call agent
Are there any locked gates/security system restricting access?	No
Are there any dogs on the property?	No
Are there any other health and safety issues to be aware of?	Yes
Please provide details	General health and safety associated with orchard

Application Details

Provide a brief and clear description of your proposal (cannot exceed 500 characters) :	The proposal is for the development of the commercially zoned land to establish a vibrant mixed-use commercial town centre

to service the growing Omokoroa community and nearby rural catchment. The town centre will comprise retail spaces, including a supermarket, shops, cafes/restaurants, bars, office space and a possible cinema.

Application Plans

Please upload the relevant plan(s) applicable to this application, for example:

- Location Plan or Aerial Photograph
- Site Plan / Floor Plan
- Elevation Drawings
- Survey Plan
- Scheme Plan
- Services Plan

Note: Include the Plan type in the name of the file you upload.

Appendix 2 - Omokoroa Town Centre_Masterplan.pdf
Appendix 3 - Architectural Plans Full Set.pdf
Appendix 14 - Subdivision Scheme Plan.pdf

Application Assessment

Note: Include the Assessment type in the name of the file you upload.

AEE Resource Consent Omokoroa Town Centre 20 May 2020 Final.pdf

Other Supporting Information or Documentation

Appendix 4 - Urban Design Statement.pdf
Appendix 5 - Urban Design Peer Review.pdf
Appendix 6 - Services Report.pdf
Appendix 7 - Transportation Assessment.pdf
Appendix 8 - Geotechncial Report.pdf
Appendix 9 - Detail Site Investigation.pdf
Appendix 10 - Economic Report.pdf
Appendix 11 - Archaeological Report.pdf
Appendix 12 - Consultation with Utility Providers.pdf
Appendix 13 - Iwi and Hapu Consultation Letters.pdf

Other Activities

Are there any other activities that are part of this application proposal?	Yes

NOTE: For any activities that are permitted activities, a compliance schedule and/or other supporting information to explain how the activity complies with the requirements, conditions, and permissions of any Plan or regulation so that a resource consent is not required for that activity, can be uploaded as an attached document.

Provide a brief description of the other activities that are part of the proposal to which the application relates, including any permitted activities or activities addressed by other authorities or under other legislation (cannot exceed 500 characters) :	Subdivision for super lots and COC for removal of contaminated soil. Permitted activities within the Commercial zone.

Appendix 14 - Subdivision Scheme Plan.pdf

Appendix 9 - Detail Site Investigation.pdf

Other Resource Consents

Are there any other resource consents required that do not form part of this application for this proposal?	No

Consultation

Have you consulted with an iwi or hapu group(s)?	Yes
Please indicate which iwi or hapu group(s) have been consulted:	• Ngati Taka • Pirirakau • Ngati Ranginui
Have you consulted any other parties?	Yes
Please provide details (cannot exceed 500 characters) :	Powerco Chorus

Written Approval

Have you obtained the written approval of any potentially affected persons?	No

Declaration Details

Draft Conditions

Some decisions are made by Council that include conditions to manage the environmental effects of the activity. The applicant is responsible for meeting the conditions of a decision issued by Council. Circulating draft conditions for comment prior to making a final decision is more effective than making changes to conditions after a decision is issued. Changes to a consent decision made by Council often require an applicant to gain further Council approval through an application process. e.g. to change or cancel consent conditions (s127 RMA) or an objection to the consent decision (s357 RMA).

Do you wish to review draft conditions prior to the issue of the consent?	Yes

Extending Timeframes

The Resource Management Act 1991 (RMA) specifies timeframes for processing resource consent applications (e.g. 20 working days for a non-notified application); however these timeframes can be extended, if necessary, with the Applicant's agreement.

Do you agree to Council extending RMA consent processing timeframes?	No

Declaration

Privacy Information

The information you have provided on this form is required so that your resource consent application can be processed under the relevant legislation. The Council collates statistics relating to resource consents and has a statutory obligation to forward these annually to the Ministry for the Environment. The Council stores the information on a public register, which must be supplied (as previously determined by the Ombudsman) to whoever requests the information. Under the Privacy Act 1993 you have the right to see and correct personal information the Council holds about you.

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

Declaration by	Agent
Tick to confirm	• I/We hereby certify that, to the best of my knowledge and belief, the information given in this application is true and correct.
Tick to confirm	• As authorised agent for the applicant, I confirm that I have read and understood the above information and confirm that I have fully informed the applicant of its/their obligations in connection with this application, including for fees and other charges, and that I have the applicant's authority to sign this application on its/their behalf.
Full Name	Richard Coles
Date	21/05/2020

Payment Details

In response to the current Covid 19 situation, the timing to make payment for a resource consent application has changed. A minimum fee will still be charged in accordance with Councils fees and charges, but will not be payable until the decision is ready for release. Council will begin processing your application without a lodgement fee payment. We anticipate this change in approach will assist applicants during these current times and further enable consent applications to progress efficiently.

Payment options	Pay invoice prior to releasing decision
Receipt #	COVID19
The minimum deposit fee (incl GST) payable prior to the release of a decision from Council, will be:	$7000.00

This is a minimum fee and has been calculated based on the type of application you have specified on this application form. All costs associated with processing the application and monitoring the issued consent over and above the minimum fee will be directly charged to the applicant. For discretionary or non-complying applications, Council may not be able to grant consent. In

these cases all application fees are still payable.

This fee includes the legal costs of preparing and registering a covenant on the title that will refer to the resource consent conditions. If the resource consent application is withdrawn or the consent is issued without a condition to require a covenant, then a fee refund of $1,000.00 (GST inclusive) will be payable.

This fee includes the cost of monitoring the issued consent at $225.00. Additional time incurred will be invoiced at $150.00 per hour.

The application will attract an additional charge of $60 where a referral has been made under the Resource Consents Consultation protocol.

These fees do not include Financial Contributions that may be imposed as conditions of consent.

For more information please refer to Council's website for a full copy of Council's fees and charges. You can also contact us on 0800 926 732, or 07 571 8008, during standard business hours or via email anytime to dutyplanner@westernbay.govt.nz.

'RC Application Online Report and Viewer'

MOMENTUM
PLANNING AND DESIGN

APPLICATION FOR RESOURCE CONSENT

Omokoroa Town Centre, 404 Omokoroa Road



For Jace Investments Limited

20th March 2020

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Document Quality Assurance

Status: Version 1

Use and Reliance

This report has been prepared by Momentum Planning & Design Ltd (MPAD) on the specific instructions of our Client, Jace Investments Limited. It is solely for our Client's use for the purpose for which it is intended in accordance with the agreed scope of work. MPAD does not accept any liability or responsibility in relation to the use of this report contrary to the above, or to any person other than the Client.

Any use or reliance by a third party is at that party's own risk. Where information has been supplied by the Client or obtained from other external sources, it has been assumed that it is accurate, without independent verification, unless otherwise indicated. No liability or responsibility is accepted by MPAD for any errors or omissions to the extent that they arise from inaccurate information provided by the Client or any external source.

Prepared by:	Tom Watts Planner/Urban Designer, MPAD Richard Coles, MNZPI Director, MPAD	
Reviewed and Approved by:	Richard Coles, MNZPI Director, MPAD	

1.0 Applicant and Property Details

The details of the applicant and the site are as follows:

To:	Western Bay of Plenty District Council
Applicant's Name:	Jace Investments Limited
Site Address:	404 Omokoroa Road, Omokoroa
Legal Description:	Lot 1 Deposited Plan 307535
Site Area:	7.9099ha (Commercial zone 5.3 hectares)
District Plan Zoning:	Commercial Zone
Designations / Limitations:	Subject to Omokoroa Structure Plan Appendix 7 District Plan Land Subject to Road Designation for Roundabout

2.0 Introduction

Jace Investments Limited is the umbrella company to several subsidiary companies. Kiwigreen New Zealand Limited is the landowner and is one of Jace Investments subsidiary companies.

2.2 Site and Location Description

The subject site is located at 404 Omokoroa Road (Lot 1 Deposited Plan 307535) and has an overall area of 7.909 hectares. The site is currently planted and operating as a kiwifruit orchard. A residential dwelling is located near the main entrance to the property from Omokoroa Road.



The site is irregular in shape as the north and western boundaries of the site are bounded by a stream/gully system. The topography of the site gently contours from east to west, from approximately 12 metres at the stream to 32 metres at the highest point on the eastern boundary adjoining Omokoroa Road (see Figure 2).

The site is subject to split zoning in the Western Bay of Plenty District Plan, with around 5.3 hectares zoned Commercial in the Omokoroa Stage 2-1A area, and the balance of approximately 2.6 hectares is zoned Future Urban. The site comprises approximately half of the Stage 2 Commercial Zone allocated to the Omokoroa urban growth area. The remaining balance of the Stage 2 Commercial Zone has been consented for a Special Housing Area containing 242 dwellings north of the site and land recently purchased by the Ministry of Education at 412 Omokoroa Road, immediately south of the site.

Properties located to the west of the site are zoned Future Urban to accommodate a projected total population of 12,500 residents living in Omokoroa by the year 2026 (Property Economics Report 2009).

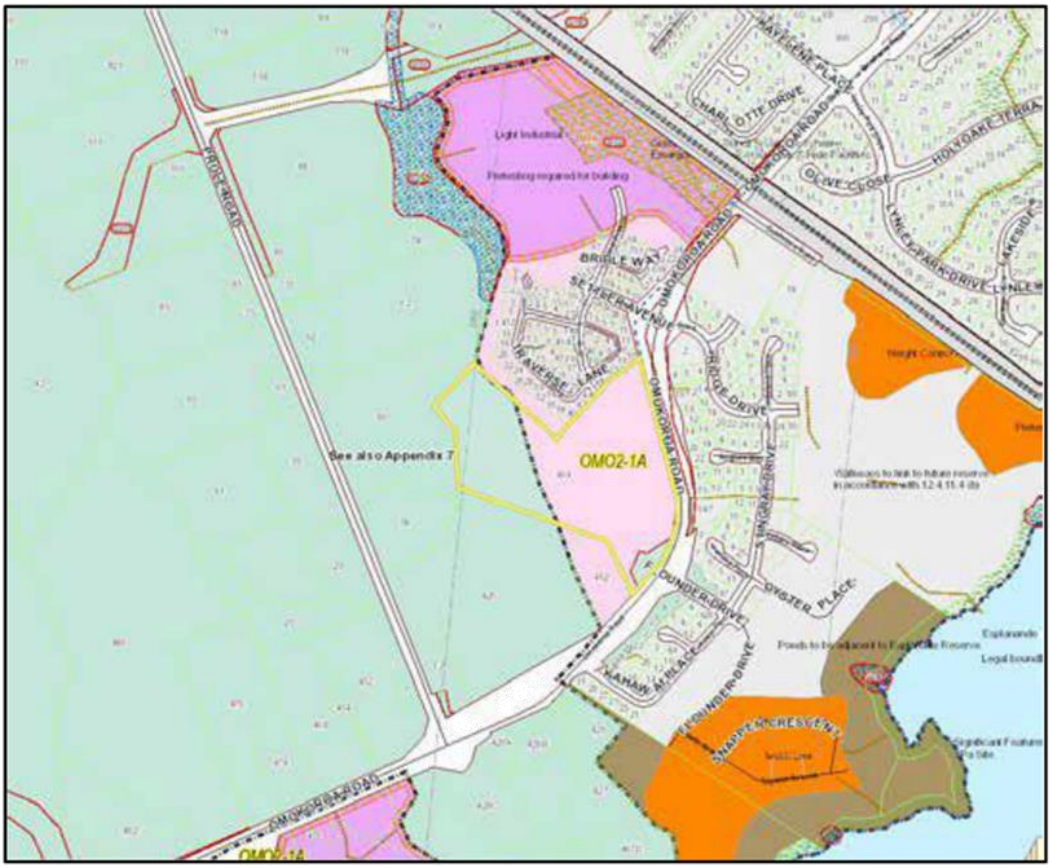


Figure 1- Operative Zoning (Site shown yellow outline)

This projection may be optimistic given development rates although recent subdivision development means that the numbers of new houses has been increasing substantially over the next few years. Council is also considering rezoning the balance future urban land at Omokoroa, which will provide a steady supply of urban land.

The existing commercial activity in Omokoroa includes a small neighbourhood shopping area at the northern extent of the Omokoroa peninsular on the corner of Hamurana Road and McDonnel Street. This comprises a few small tenancies, including cafe, dairy and takeaway store.

The existing neighbourhood centre at Omokoroa is located on Tralee Street which has approximately 4 hectares of land in total. Resource consent has recently been consented for a mixed use commercial and residential development on 1.6ha of land, being the remaining undeveloped land in this

commercial area. Other activities at this neighbourhood centre include an existing Fresh Choice supermarket, medical facilities and liquor store. This commercial area is located approximately 2.8km north of the proposed roundabout entrance to the operative Commercial zone.

The new Tralee Street development will yield approximately 9,000m2 of commercial GFA. This developing commercial hub is centrally located for the northern extent of Omokoroa, but is also geographically constrained by surrounding residential development and would not be anticipated to support residential development at the southern end of the peninsula.

The application site is located on a secondary arterial road connecting Omokoroa peninsula to State Highway 2. There is a bus stop within 100 metres of the site, and two more located nearby. Pedestrian and cycle networks are established near the site and provide connections to the wider context of Tauranga City. Sustainable modes of transport are therefore accessible to the site and are encouraged within the community.

2.3 Proposal

The Masterplan

The Omokoroa Town Centre Masterplan is illustrated in Figure 2 (See also FP Drawings 2.1.10 &2.1.10B). It outlines the proposed site layout, comprising a mixed-use retail/commercial precinct with medium density residential units, and visitor accommodation adding activation and passive surveillance to the town centre.

2.1 Vision

The proposal is for the development of the commercially zoned land to establish a vibrant mixed-use commercial town centre to service the growing Omokoroa community and nearby rural catchment. The town centre will comprise retail spaces, including a supermarket, shops, cafes/restaurants, bars, office space and a possible cinema.

Residential town houses and medium density apartments in the western portion of the site are also proposed. The vision for the site is to create a vibrant centre, encompassing a mix of uses, and establishing a destination for both the local Omokoroa catchment and rural catchment in close proximity to Omokoroa. Given the recreational attributes of Omokoroa and the new cycleway nearing completion, Omokoroa is likely to be a regional destination for recreation.

The overall design concept is to establish a town centre that includes different scales of retail and office space to accommodate a variety of businesses. The ultimate mix of tenancies will be market driven and respond to the needs of the community.



Figure 2- Omokoroa Town Centre Masterplan

Building Descriptions

The masterplan has colour coded the buildings to identify their uses.

The purple building (Building M) is a supermarket which is sleeved with smaller retail shops that face the main commercial street and also convenience retail that is located adjacent to Omokoroa Road. The reason for this design is to ensure the supermarket building doesn't dominate the town centre or deactivate the commercial streets. The main access to the supermarket will be from the side street from the side road from the internal roundabout. The supermarket will have a main entrance with a two-storey glazed façade to provide light to the supermarket but also make it visible to the street. Car parking for the supermarket and sleeved retail will be below the supermarket and adjacent to the convenience retail shops that face Omokoroa Road.

The blue coloured buildings or portions of buildings (B, C, E, F, J K L, M , and N) represent the finer grained retail shops that will include cafés and restaurants (especially around the Plaza), commercial services, and other retail shops. The buildings have been designed to reflect the intent of the District Plan to establish a 2-storey format for commercial buildings with office space above ground floor retail. However, not all buildings are proposed to be 2 storeys as the anticipated demand for 1st storey commercial office space is likely to be limited. Sentinel Drive will however be the obvious key commercial street with buildings reducing in height towards the Kaimai Views subdivision and on the western side of the commercial site.

To ensure the commercial centre has presence two prominent buildings of sufficient scale will frame the main entrance to the town centre from Omokoroa Road. These include a motel (Building A) and also an office building (Building D). Both these buildings are proposed to be three storeys' in height, with two storeys facing Omokoroa Road. The office building will provide good passive surveillance of the car parking area adjacent to the MoE boundary.

The supermarket building (Building M) will have a large underground car park using the change in ground contour across the site strategically. The benefit of this is that the car park doesn't become a prominent feature of the town centre and is hidden within the building. Double sleeving the supermarket with finer grain retail activities will also disguise the supermarket to some extent, helping it to not dominate the town centre area, while still having sufficient presence to be visible. It is anticipated the southern façade of the supermarket would have a high portion of glazing which will be visible from both within the town centre but also from passing traffic on Omokoroa Road. The format would be similar to the Mount New World supermarket.



Figure 3- Reference Image of Supermarket Facade

A civic building (Building 'I') is identified to the western side of the Commercial zone. It benefits from having presence to the internal road network and fronts the reserve area to the north. Due to the change in topography in this area some terracing is proposed that can be used for passive recreation, This will be a focal point for the centre and there is an opportunity to connect to future walkways to be established in the drainage reserve connecting to the Kaimai Views subdivision. An under-croft car parking area will be located below the civic centre as well as an at grade car park. Both these car parking areas will service the civic building but also provide car parking for the public using the reserve area and shopping within the main street.

Residential terrace housing is proposed to the south west of the site (Buildings H1, H2, H3 and G), which may be either 2 storey or single storey format. This provides medium density housing within the town centre area helping promote a vibrant town centre. While these apartments are located at ground level and interface directly with the street, they will provide passive surveillance to the town centre during the evening and weekends when there is less commercial activity occurring in the town centre.

Building N on the North Eastern corner of the site is a mixed-use building of 3 storeys in height, reducing to 2 storeys adjacent to the Kaimai Views boundary. Small retail shops will be located adjacent to the road between Sentinel Avenue and Omokoroa Road.

A childcare centre is proposed on the northern portion of the town centre to provide an appropriate activity located adjacent to the Kaimai Views subdivision. This will have its own carparking area with allocated car parks. The play area will be able to benefit from the outlook over the gully drainage reserve area.

Roading

The town centre will be accessed via the designated roundabout on Omokoroa Road. The roads have been designed to be sympathetic to the existing urban form both adjacent to the site and also opposite the site. Sentinel Avenue will connect through to Omokoroa Road and will have a 20m wide road corridor. The formed carriageway will narrow as it approaches Kaimai Views subdivision to assist with traffic calming.

An internal roundabout of appropriate size and formation will be established within the town centre to enable traffic to travel freely at an appropriate speed through the town centre. The roundabout will be designed to be mountable so delivery trucks can travel to the supermarket service yard (P35 First Principles). The circulation rout for trucks is circular to ensure that they travel back up to the roundabout on Omokoroa Road recognising that most will delivery vehicles will exit towards the State Highway.

To the west of the internal roundabout will be another local road servicing the commercial area and ultimately provide a connection through to the future urban area. The is an opportunity to provide a road connection through to Prole Road on the western boundary of the MoE site, which would provide active edges on all 4 school boundaries.

To the east of the internal roundabout will be a public road that will provide access to the supermarket car parking area and the car parking for Buildings A to C. A 6m wide lane-way will connect this road to another road linking through from Sentinel Avenue to Omokoroa Road. This lane-way will service the convenience retail facing Omokoroa Road that sleeves the supermarket building. Parallel car parks will service the convenience retail and use the lane way for manoeuvring.

Car parking

The car parking demand has been assessed by Stantec who have confirmed that the supply (off and on street) is sufficient for the town centre given its configuration and layout. The mix of allocated and public car parking spaces will be determined at time of detailed building design. However, there are 4 main car parking areas including car park adjacent to the MoE site, car parking for Buildings A – C , undercroft Supermarket car parking that will also service the main street retail, and the Car Parking adjacent to the Civic building. In addition to this car parking some activities have their own car parking such as the childcare, residential apartments (Building N) and terrace units (Buildings H and G), and underground car parking for the civic building. Overall, it is considered there is adequate car parking supply.

In the even that monitoring shows there was an ongoing shortfall of car parks, additional car parks could be established by extending the at-grade car park next to the civic centre into the balance Future Urban land. The probability of these additional car parks being required is considered to be low.

Plaza Area

The Plaza area is located on the north eastern side of Building F providing a sheltered area suitable for alfresco dinning and provide a meeting point. It may also be a suitable location for some street art and or seating. As a congregation point it is anticipated the area would be paved to provide a higher level of amenity and distinguish the space.

Reserve Edge Treatment

The District Plan identifies the gully reserves have both a function for stormwater control but also provide an opportunity for walkways and passive recreation. The head of the gully has been identified as having been a potential area for relaxing, holding markets, or other civic activities. The buildings J, K and L create enclosure and a sense of intimacy for this space and a glass roofed gazebo style structure as a focal point for entertainment or market days. The entrance to this gully aspect combined with a terraced embankment (partial or wrap around) will create a unique identity and contribute to the sense of place for the Omokoroa Town Centre. There is also the opportunity to build in cultural design elements to landscaping to recognise Iwi and Hapu connections with the land.

Pedestrian and Cycle Connections

Omokoroa is in a unique position having an established network of walkways and cycleways in which to connect the town centre. The dual-purpose cycleway and footpath along the Western side of Omokoroa Road will provide excellent connectivity to the town centre. The pedestrian and road network through the town centre will be able to create key connection points as identified on the urban design plan. Roads through the town centre will be designed as low speed environments (30km/h maximum) suitable for sharing the road with bicycles and improving safety for pedestrians. Dedicated pedestrian crossings will assist in promoting a pedestrian priority to the town centre. Connections will also be possible through to the gully reserve area and future walkway linkages.

Subdivision & Staging

Subdivision consent is sought to establish the roads to vest in Council and create Commercial super lots, lots for infrastructure and for the drainage reserve area (See Appendix 14 – Subdivision Scheme Plan). The exact staging order is not yet known as this will be driven to some extent by the demand for commercial floor space, which will respond to the needs of the market as the population of Omokoroa increases. However, it is anticipated the supermarket and main retail street will be the first area to develop. The order or development works will follow the steps below.

1. Detailed design of roads and infrastructure completed, and earthworks finished contour design refined.
2. Bulk earthworks sufficient to establish the Sentinel Avenue (High Street) and super lots (1-5) either side will be completed.
3. Roads and infrastructure construction. Pump Station and associated reticulation established.
4. 224 and titles issued.
5. First buildings commence construction.

The subdivision plan has been prepared that will enable the proposed public roads to vest in Council. The balance land is effectively development super lots. These super lots will be developed in a logical order with roading and services established in general accordance with the services plan prepared by Lysaght Consultants and the MPAD subdivision scheme plan. Easements will be established over all

proposed public infrastructure where crossing the super lots. These easements are shown on the subdivision plan but will ultimately be refined following the detailed earthworks and services design. A separate lot is proposed for the pump station to vest in Council.

Due to the location of the size of the site bulk earthworks will be completed in one stage to enable the roads and infrastructure to be established. Bulk earthworks will be completed for the super lots also to enable 'shovel ready' development site available as and when market demand for additional commercial space is needed.

The super lots will be held together in one certificate of title until the detailed design of second phase earthworks, buildings and services is completed, at which point future subdivision applications, most likely freehold unit titles, will be made to address such matters as access, car parking and any additional easements needed for services. Allocation of car parking will be addressed too, which will include sub tenancies and areas to be held in common.

Earthworks

The proposal includes large scale earthworks of up to 50,000m3, which equates to approximately 1m cut to fill across the whole site as an average. An earthwork model has been prepared by First Principles taking into account the finished grades for roads, buildings and car parking areas (Drawings 2.1.03). The design has followed Council's Development Code in terms of achieving accessibility for pedestrians and also vehicles.

An erosion sediment and control plan will be prepared for the bulk earthworks consent to the Regional Council. This will address sediment control ponds and cut off drains and address the effects of sediment laden stormwater discharging to the drainage reserve. These will follow the BOPRC Stormwater and Erosion Control Guidelines.

Dust suppression will be by way of water source from Council's reticulated supply (capped at 50m3 per day) and also from the applicant's water bore which is located on site. Application of water will be by way of water cart at rate not less than 5mm per day over the exposed earthworks area.

Earthworks will be stabilised as soon as practicable to minimise effects of sediment run off. No earthworks will occur in winter months unless a resource consent for winter earthworks is obtained.

Consent Lapse Period

Due to the scale of the project and anticipated residential growth at Omokoroa, a 10-year resource consent term is sought from Council.

3.0 Activity Status

3.1 Resource Consents Applied For

The following resource consents are sought from Western Bay of Plenty District Council.

1. Land use consent for the town centre masterplan, associated buildings and activities, and development works including earthworks.
2. Subdivision consent to establish the super lots and lots for roads and infrastructure.
3. A certificate of compliance is sought with respect to the permitted works under the NES for Assessing and Managing Contaminants in Soil to Protect Human Health.

3.2 Operative Western Bay of Plenty District Plan

An assessment of the District Plan rule framework has been completed for all proposed activities. In summary, there are several performance standards for the Commercial zone which are not met, which relate to access, car parking, residential activities at ground floor etc. However, the town centre masterplan and proposed buildings generally comply with the overall vision for the Omokoroa Town Centre.

These non-compliances are considered within the assessment of environmental effects (AEE) (Section 4) and supporting Appendices.

The plan provides for Commercial activities within the Omokoroa Town Centre as an RDA pursuant to Rule 19.3.3(b)). This rule says all activities other than dwellings are RDA's subject to Council preparing a town centre plan. No town centre plan has been prepared by Council, and activity status is unclear. However, taking a conservative approach, Council may consider that the activity defaults to non-complying pursuant to Rule 4A.1.4, which states:

> *With the exception of those activities that are provided for in the general provision of the District Plan, any activity that is not listed in the activity lists in the District Plan shall require a resource consent for a Non-Complying Activity.*

One other aspect of the proposal also triggers a non-complying activity classification. This is the second access onto Omokoroa Road (a strategic road being secondary Arterial road) which is a one way exit from the northern end of the town centre onto Omokoroa Road. The designated roundabout is also proposed to be established. As no formal written approval from WBOPDC has been provided, the activity is classified as non-complying pursuant to Rule 4B.4.2(a)(ii).

Overall, the proposal is a non-complying activity due to the establishment of access onto Omokoroa Road, and potentially, due to the proposed commercial activities being established without a Council prepared Town Centre Plan. We are mindful that this could be interpreted either way, but have taken a precautionary approach to activity classification.

Rule Number & Description	Comment
19.4.1 General (a) Building height, setback, alignment and design (i) All buildings shall be provided with a veranda not less than 2m wide, 3m above street level, 0.3m back from the kerb line and not more than 0.4m thick;	Does not Comply The Masterplan has identified key pedestrian streets where verandahs are considered necessary. This is shown on the Active and Important Building Façade Plan. Not all buildings will have verandahs such as the residential units, childcare centre, and the Civic building may be setback from the front boundary of the street. The proposed development internalises active frontages and places residential activities to the northern and north western boundaries. Given the proposed mix of activities the provision of verandah's has been included on most of the commercial buildings within the site facing the village green areas. As the verandah's do not cover the surrounding street network the proposal does not comply with this standard. Restricted Discretionary Activity (RDA)
19.4.1 Building Height **Maximum height is 11m**	Does not comply The site requires bulk earthworks to provide for appropriate road grades and transition areas to flatter car parking and/or access to buildings. Three storey buildings are proposed at the gateway to Omokoroa Town Centre and also Building N. These 3 storey areas are established using the change in contour. While it is possible to establish 3 storey buildings within 11 meters this may not account for changes to the natural contour. Measurements of the Masterplan model show various encroachments through the 11m maximum height plain.
19.4.1(a) (vii) Continuous retail frontage – Development in the Commercial Zone shall be constructed up to the road boundary except for vehicle access up to 6m wide per site. Each building shall have clear windows on the ground floor that must cover at least 50% of the building's frontage to a main street and at least 25% for all other streets and public areas, such as walkways and public parking areas.	Does not comply. The economic analysis has made reference to a target commercial GFA that can be supported by the ultimate catchment for the Omokoroa Town centre. As a consequence, the main commercial streets have the continuous retail frontage. The residential buildings will not have a continuous retail frontage or canopy and the civic building is set back slightly from the street as it will have some hard-landscaped areas surrounding the building.

Rule Number & Description	Comment
	RDA
19.4.1 (a)(viii) No car parking, other than underground parking, shall be located within 10m of any street boundary.	Does not Comply The masterplan generally complies with the 10m setback. However, there are some car parking areas that do not comply, such as between buildings A and B, the childcare centre, Building N, and car parking adjacent to the civic building (Building I). RDA
19.4.1 (b) Daylight All site boundaries adjoining Residential and Rural Zones: No part of any building /structure shall exceed a height equal to 2m height above ground level at all boundaries and an angle of 45 into the site from that point. Except where the site boundary is with a road in which case this rule shall not apply in respect to that boundary. Provided that: A building /structure may encroach through the above daylighting plane where the written approval of the owner(s) of the immediately adjoining property to the specific encroachment is obtained.	Complies The only boundaries relevant to this provision are the boundaries with the Kaimai Views subdivision and the MoE school site. All buildings comply with the daylight standard provisions.
19.4.1 (c) Offices The floor area utilised for office purposes on the ground floor is not to exceed 20% of the total gross floor area of the ground floor of the building . Explanatory Note: This rule does not apply to Commercial Service activities.	Does not Comply All office activities are located above ground floor or are ancillary to the retail activity being less than 20% of the GFA. The exception is Building B. Given the identified demand for retail activities there is insufficient demand for retail on the ground floor of all buildings. Given the tenant is yet to be confirmed the office activity may fit within the definition of 'commercial service' and be permitted. However, this resource consent seeks flexibility to have non 'commercial service' offices at ground floor to provide more flexibility to end users. RDA
19.4.1 (d) Yards All buildings/structures Minimum 3m where a property adjoins a Residential, Rural Residential, Future Urban, Rural Zone or reserve boundary.	Complies

Rule Number & Description	Comment
Provided that: A building /structure may be located within a side or rear yard and up to a side or rear boundary where the adjoining property is a road or where the written approval of the owner of the immediately adjoining property to a specified lesser distance is obtained Except that: Where any yard adjoins: -A Strategic Road or a designation for a Strategic Road (except in the Commercial Zones in Katikati and Te Puke), it shall be a minimum of 10m; - A railway corridor or designation for railway purposes, it shall be a minimum of 10m. Provided that: On Secondary Arterial Roads, and any railway corridor or designation for railway purposes, lots created by way of an application for subdivision consent approved prior to 1 January 2010 will be exempt.	Does Not Comply With respect to Omokoroa Road – Building A is located 7m from the legal road boundary rather than 10m. This building will have a 2 storey façade facing Omokoroa Road of sufficient height to be prominent and help form the gateway to the Omokoroa Town centre (See FP SOU.01). All other buildings comply.
19.4.1 (e) Dwellings Commercial Zone rules shall apply, except as specified below: (i) Any habitable room in new residential activities established in the Commercial Zone shall be designed to meet an internal Leq noise level of 45dBA at all times; An acoustic design report from a suitably qualified acoustic engineer will be required to show that the required noise standards will be met; (ii) All dwellings shall be located above ground floor.	Does not Comply Due to the results of the economic assessment for retail activities it is not necessary to have commercial activities at ground floor throughout the whole town centre. Buildings G, H1 to H3 and N include residential dwellings at ground floor. The main retail street will not have any residential activities at ground level.
19.5(b)(i) No building shall exceed 50m in length across any continuous dimension and the commercial development is to provide a minimum 200m² pedestrian court/plaza to act as a point of focus and physical congregation within the centre	Complies All buildings will comply with this design standard. A 240m2 plaza area is provided adjacent to Building F and will form a prominent focal point.
For every square metre of ground floor retail there shall be an equivalent upper floor area provided for other Permitted or Controlled Activities	Does not comply Not all buildings are 2 storey. Prominent buildings have been designed to be two or

Rule Number & Description	Comment
	three stories to provide legibility to the town centre.
19.5(b)(iii) A portion of the required car parking is to be provided along the commercial/reserve boundary to facilitate shared us	Complies Car parking is located adjacent to the civic building (Building I) and will adjoin the stormwater reserve.
19.5(b)(iv) Access to Omokoroa Road shall be by way of a roundabout as shown in the Structure Plan and from the controlled intersection from the Industrial Zone.	Generally, complies Principal access is from the proposed structure plan roundabout at the primary gateway to the town centre. As part of the commercial zone and the industrial zone adjacent to the Railway land has been superseded by the SHA, a second access is proposed to Omokoroa Road as an exit only from the Commercial area. This is to reduce traffic flow driving through the SHA. RDA
19.5(c) Any habitable room in new residential activities shall meet an internal Leq noise level of 45dBA at all times. An acoustic design report from a suitably qualified acoustic engineer will be required at the time of building consent application to show that the required noise standards will be met.	Will comply The residential apartments will be designed with glazing, insulation, and ventilation to ensure that the 45dBA internal Leq standard is achieved.
19.5(d) Covered walkways of at least 3m in width are to be provided along the frontage of all buildings and a network of uncovered walkways/cycleways to connect the commercial area to the car parking, light industrial, reserves and residential lands. The uncovered walkways are to be a minimum of 1.5m wide constructed of asphalt, exposed aggregate or similar materials.	Generally, complies The main pedestrian street of the town centre, plaza area and convenience retail area will all have covered walkway areas as will the supermarket and underground car park. Parts of the town centre area have been selected for civic use or medium density residential apartments where covered walkways are not considered appropriate or necessary. RDA
19.5(e) Amenity planting and fencing at 1.8m high of service yards shall be provided incorporating a minimum width of 4m of vegetative planting achieving 4m in height. The Omokoroa Road boundary is also to be screen planted, with trees at a minimum height of 1.2m at the time of planting, to a minimum depth of 4m achieving a minimum 4m in height.	Will comply The amenity planting parallel to Omokoroa Road will comply with the 4m width and 4m height for specimen trees. A totally screened landscape is not proposed as this will reduce passive surveillance of Omokoroa Road and the town centre, particularly the convenience retail area.

Rule Number & Description	Comment
	Detailed landscape plans will be prepared for each building at time of building consent.
19.5(f) Lights within the Zone are to be no higher than 5m and be either standard or bollard design	Will comply A lighting plan will be prepared at time of development work approval for public roads, private roads, buildings and reserve areas.
19.5(g) Daylighting - Measured at the boundary, no part of any building /structure shall exceed a height equal to 2m plus the shortest horizontal distance between that part of the building /structure and the commercial/reserve boundary and the boundary with Omokoroa Road.	Complies
19.5(h) Carparking is to provide maximum convenience for the public using commercial or reserve facilities. Any such parking is to be screen planted along Omokoroa Road and all parking areas for more than ten cars are to include specimen trees to provide shade to 30% of the car parking areas in summer.	Complies/Will Comply
19.5 (i) The maximum coverage shall be 80% of land area	Complies
19.6.2 Subdivision (refer also to Section 12) (a) No minimum lot size. (b) Council may impose conditions regarding access to and from the existing and newly created lots.	Complies It is proposed to establish super lots to enable the development of the town centre and, in particular, the vesting of public roads and Council infrastructure. Easements are proposed over the super lots to provide access to infrastructure to vest in Council.
12.3.2.1 Lots for network Utilities, Reserves	Complies Lot 101 (Wastewater reserve) will be established for the proposed pump station. Lot 102 for drainage reserve.
12.3.7 Subdivision Scheme Plan	The scheme plan has been prepared in accordance with the information requirements.
12.4.1 Site Suitability	The CMW geotechnical report has assessed the suitability of the site for Commercial use and confirmed that the land is suitable and anticipated bulk earthworks being undertaken to achieve the finished ground level. A GCR would be provided by CMW and submitted to Council as part of the 224 certifications.

Rule Number & Description	Comment
	Earthworks will exceed the 300m2 maximum area permitted in the Omokoroa Stage 2 Structure Plan Area. Consultation has commenced with Pirirakau, Ngati Taka, and Ngati Ranginui. Appendix 7 of the District Plan has an agreed protocol which will be followed.
12.4.2 Contaminants in Soil	Will Comply A DSI has been completed and only identified localise contamination. The recommendations of the DSI will be followed and a resource consent applied to the Regional Council for remediation.
12.4.3.1 & 12.4.3.2 Future Servicing	Will comply See Services report and scheme plan.
12.4.4.1 General	Will Comply See TIA prepared by Stantec
12.4.4.2 Proposed Roads	Complies See TIA by Stantec
12.4.4.3 Street Landscaping	Will Comply Street landscaping is addressed in the Masterplan, Urban Design Statement and guidelines and also addressed in the Stantec TIA.
12.4.4.4 Property Access **(A) Lots to be formed by formed legal roads**	Will Comply See Stantec TIA and also Scheme Plan
(b) Access to Strategic Road	Refer to 4B.4.2
4D.3.3 Commercial Signage	Will Comply Signage will be on buildings in accordance with the permitted activity standards. The prominent gateway buildings should provide a legible visual cue to the town centre without the need for a freestanding tower sign.
4B.4.2 Access to Strategic Roads	Will Comply All new access will be via new road intersections. No vehicle crossings area proposed.
4B.4.4 Access to Urban Roads	Complies/Will comply

Rule Number & Description	Comment
	All vehicle crossings will be greater than 25m from an intersection and be formed during road construction. All access grades of ROW will comply.
4B.4.5 Loading path and space dimensions	Complies See Stantec TIA for HGV swept path assessment and commentary in Section 10 recommendations of TIA.
4B.5.6 On site Manoeuvring	Complies/Will comply All car parking and access shall be designed in accordance with NZS 2890.1 or other standards as described in the TIA.
4B.4.7 Parking Loading Requirements	Does not comply The car parking proposed has been assessed and confirmed as adequate for the anticipated car parking demand. See Stantec TIA car parking demand analysis which is consistent with Rule 4B.4.8 joint provision of car parking and loading. RDA
4B.4.10 Formation of parking and loading areas	Will comply
4B.4.12 Service lanes	Complies No service lanes are designated for this site. Shared pedestrian areas may also act as service vehicle access for retail shops overlooking the gully reserve.
4B.4.4 Access to Urban Roads	Complies/Will Comply Access to the newly created lots are shown on the master plan and are consistent with 4B.4.4
4B.4.8 Car Parking	**Does not comply** with permitted activity standards 4B.4.7. See Stantec assessment of car parking demand in accordance with Rule 4B.4.8(a) (Appendix 5). **RDA**
4B.4.5 Loading Path and Space Dimensions	**Complies** See the Stantec TIA Appendices and Section 10 of same report - Design Recommendations.

Rule Number & Description	Comment
4B.4.6 On Site Manoeuvring	**Complies** Both cars and trucks can manoeuvre on site. See Stantec TIA
4B.4.12 Service Lanes	**Complies** No service lanes are identified on the planning maps for this area. The pedestrian accessways to the marketplace will be dual purpose and provide access for service vehicles at very low speed similar to Red Square Tauranga CBD. Service lanes and loading areas will be established but these will remain private or held in common ownership. The exception is the loading area on Sentinel Avenue to service smaller retail shops.

Earthworks Classification

Rule 4A.5 classifies earthworks as a permitted activity. Plan Change 85 has been notified and decisions made with respect to earthworks of a volume greater than 1000m^3. This effectively covers medium size earthworks between 1000m3 and 5000m3 at which point a resource consent from the Regional Council is required for large scale earthworks. At the time of preparing this resource consent application Western Bay of Plenty advised that the rules with respect to Plan Change 85 had no effect.

Earthworks volumes have been calculated at approximately 50,000m3 which provides for gentle recontouring of the site to achieve appropriate road grades that area also practical to include services in their alignment.

Overall Activity Classification

With respect to the Commercial zone rules the proposal is classified as a non-complying activity due to the secondary access proposed onto Omokoroa Road

4.0 Assessment of Environmental Effects

The key environmental effects relevant to this application include.

- Town Centre Design
- Urban Design Effects
- Bulk and Scale of Buildings
- Car parking Effects
- Traffic and Access Effects
- Infrastructure Servicing Effects
- Geotechnical Effects
- Noise Effects
- Economic Effects
- Archaeological Effects
- Cultural Effects
- Site Contamination Effects

4.1 Town Centre Design

The town centre design has drawn upon development outcomes sought by the District Plan, particularly the criteria and performance standards identified in Rule 19.5. To summarise, these are listed below with commentary as to how the town centre plan has responded to these criteria.

Mixed Use Areas – The town centre has been designed to have a mix of activities including general retail, cafes and restaurants, offices, a civic building and residential units. This mix will assist the town centre remaining a safe and vibrant area of Omokoroa (See Figure 11 – Urban Design Statement).

Visually broken building facades of a human scale – the architectural design has recognised the need to establish a modulated building form with some buildings having propriety over others in terms of the bulk and scale (See First Principles plan set – Appendix 3).

Muted Natural or Recessive Colours – There is a detailed design element that will be applied at time of detailed architectural design. A colour palette can be restricted to certain colours, however applying conditions of consent to limit the reflectivity of various paint colours may be a suitable condition of resource consent.

A maximum of One Connection to Omokoroa Road – The Omokoroa Structure Plan identifies a northern and southern roundabout connect from the Commercial zone to Omokoroa Road. The performance standard to have only one road connection to Omokoroa Road as prescribed by 19.5(b)(iv) isn't consistent with the updated Structure Plan – Road Projects Plan[1]. This may have resulted from a change to the Structure Plan as a result of the Omokoroa SHA development, which amended the location of the roundabout. Because of the narrower road through the SHA site, it is

[1] Omokoroa Roundabouts are identified as Commercial Area Roundabout O7-2 and Special Housing Area Roundabout O8-1 (P17 – Appendix 7 DP)

proposed to have an additional exit only connection to Omokoroa Road on the north of the town centre site. Given the original intent to have a town centre with permeable road connections this is an appropriate solution and will minimise through traffic through the SHA and not detract from the safe operation of Omokoroa Road.

Landscaped Carparking and set back from Omokoroa Road – The site falls away from Omokoroa Road towards the stormwater reserve area. A 4m landscaped area is required along the whole length of Omokoroa Road for amenity planting, with the exception of access points for pedestrians and cyclists. This landscaping strip has been included in the Town Centre Plan and car parks will include specimen trees to provide shade and visually break up the car parking areas (See Urban Design Statement pages 5, 12, and 17).

Functional and Alternative Mixed Use (including residential) on upper floors – The town centre design includes mixed use buildings including commercial and residential mix (Building N) and also retail with office (several buildings). It is likely that Building D will have commercial service offices at ground floor and other offices above ground floor. A civic building is proposed at the head of the gully which will be a focal point for the centre and link to the green corridor towards the stormwater ponds. Car parking areas are disbursed across the town centre providing convenient parking and walking access to the shops (See First Principles drawings 2.1.10 & 2.1.10B)

An outlook and amenities that relate to the adjoining gully system – This has been achieved by designing buildings to face the head of the gully to provide an active edge to the reserve and create a focal point suitable for a market place. A glass roofed folly is proposed as a feature leading to a terraced area that will help provide a passive recreation area and connect to the network of walkways/cycleways that Council are promoting through drainage reserve areas. See Design Guidelines Statement (Page 8 & 14) and also First Principles drawings 2.1.18.

The Provision of Residential Accommodation to Promote Vibrancy in the commercial area -

Establishing residential activities within the town centre helps create a 24-hour surveillance and also provides a customer base for businesses. Two residential areas are proposed within the Town Centre including the terrace houses on the western side of the site and building N at the northern part of the site adjacent to Kaimai Views.

Building N will be a mixed-use building with commercial tenancies at grade to through road between Sentinel Avenue and Omokoroa Road. To reduce the buildings scale, it has been stepped back from the northern boundary with Kaimai views. While being on the southern side of the residential subdivision dominance effects are mitigates through this building design.

The terrace houses in Buildings H1-H3 and G will create a residential edge to a part of the town centre. While the District Plan promotes residential activities above ground floor, the economic analysis has identified that the demand for commercial GFA is similar to what has been promoted in this town centre design. This cluster of residential activity will also provide a transition to likely medium density residential activity on the applicants land zoned future urban. It is therefore considered to be appropriate and well located within the town centre design.

4.2 Urban Design Effects

The Urban Design Report has considered the urban design considerations of the town centre and immediate surrounds in some detail. The Omokoroa town centre outcomes sought by the District Plan include:

(i) Mixed use areas;

(ii) Visually broken building facades of a human scale;

(iii) Muted natural or recessive colours;

(iv) A maximum of one connection to Omokoroa Road thereby preserving that road's primary function as a transport corridor;

(v) Landscaped carparking and set back from Omokoroa Road;

(vi) Functional and alternative mixed use (including residential) on upper floors;

(vii) An outlook and amenities that relate to the adjoining gully system;

(viii) The provision of residential accommodation to promote vibrancy in the commercial area.

All these matters have been built into the town centre design.

The extension to Sentinel Avenue will ultimately be the main commercial street, which will include larger gateway buildings at the entrance from Omokoroa Road. Finer grain retail shops will be located in buildings B, E, F, J, K L and M. The supermarket, Building M, is sleeved with finer grain retail shops to help disguise the supermarket building and avoid it dominating the town centre.

The plaza area is located adjacent to building F and a marketplace space will be located adjacent to Buildings I, J, K and L overlooking the gully. There is an opportunity to establish some terracing[2] to create a transition from this cobbled pedestrian area to the vegetated gully, which also acts as a stormwater reserve. These two areas are the congregation focal points of the town centre and should create a usable and interesting urban area. It is anticipated some food and hospitality businesses would establish in these areas to activate them. These design elements along with quality architecture, hard and soft landscaping will create a vibrant town centre that is attractive to not only the Omokoroa community but also as a destination for visitors.

The location of commercial and residential activities within the town centre has taken into account the Kaimai Views subdivision development to the North, and also the recently acquired school site to the south. Connections for pedestrians and vehicles has been developed in accordance with the outcomes sought by the District Plan.

Carparking areas have been dispersed throughout the town centre and are either hidden behind or underneath buildings, located adjacent to the school site for practical dual use, or next to the civic building and marketplace, which is a requirement of the. Using these techniques helps avoid large car parking lots creating a more intimate and user-friendly town centre.

First Principles have prepared conceptual designs of buildings to help guide future detailed architectural design. These drawings are indicative but provide a clear indication of architectural

[2] See Urban Design Report Figure 7 and Page 14 shows the marketplace and terracing for passive recreation.

design and location of important facades and active frontages. This is discussed in some detail under Section 5.0 of the Urban Design report (See also Figure 6).

Consideration of how the site sits within the landscape has also been completed (See Urban Design report - Landscape Framework Plan P 12). This shows the connectivity to the reserve network including the harbour reserve and cycle network. It also shows 400m and 800m walking distance, which highlights the accessibility the new subdivisions will have to the centre. Importantly, these subdivisions are developed with houses rapidly being built through. It is anticipated that within 5 years these subdivisions will be close to being fully developed with houses.

The Urban design report also considers the 7 C's of the New Zealand Urban Design Protocol and how the proposal is consistent with those urban design qualities. Much of this commentary is also repeated within this AEE and the other technical reports supporting this application.

Overall, the town centre is well designed and maximises the opportunities of the site helping create a vibrant commercial focal point for the community. The centre will be legible and provide the community with a mixture of *retail, office, accommodation, and hospitality* experiences enhanced through good architecture with intimate spaces to meet, relax and enjoy the unique identity and character of Omokoroa.

4.2 Bulk and Scale of Buildings

4.2.1 Bulk and Location Overview

The bulk and scale of development is generally consistent with the performance standards of the Commercial zone. Buildings will vary between one and three storey's in height. Due to the fall on the site (natural ground) and the definition of height in the District Plan, some buildings will exceed the maximum height limit. This is necessary to create useable floor plates for commercial activities that need a flat single level floor.

The location of buildings and building separation provides for transition points where floor levels can change. While the finished contours reduce the slope grade, necessary for car park and pedestrian areas, the fall on the site will remain towards the gully being the natural overland flow path.

The town centre design includes creating a prominent buildings to promote legibility. Some buildings will have 3 storeys but may exceed the permitted maximum height as a result of earthworks modifying the site to ensure road long sections and car parking areas have a suitable grade. Localised retaining will be required around the site, which will be kept to a minimum.

The building yard setback and overshadowing standards are met in respect to the Residential boundary interface on the northern boundary with Kaimai Views, which is fenced along the common boundary with the residential lots.

The supermarket building is the largest building on the site, which will retain presence but be softened through the modulation of the building, varied roof line and sleeving finer grained retail along both the main Omokoroa Street and also the convenience retail shops that face Omokoroa Road. The southern end of the building is proposed to have a two-storey glass façade providing a prominent and active edge to the town centre. This will help promote vibrancy.

Overall, the development will have a clear town centre legibility when viewed from other off-site locations and will appear to be a two storey format despite some discreetly designed under-croft car parking achieved using the natural site contours. The effects of building scale area acceptable and will provide legibility to the Omokoroa Town Centre. Effects on the adjacent residential zone will be less than minor due to compliance with daylighting, yards and maximum height. The effects are therefore considered to be less than minor.

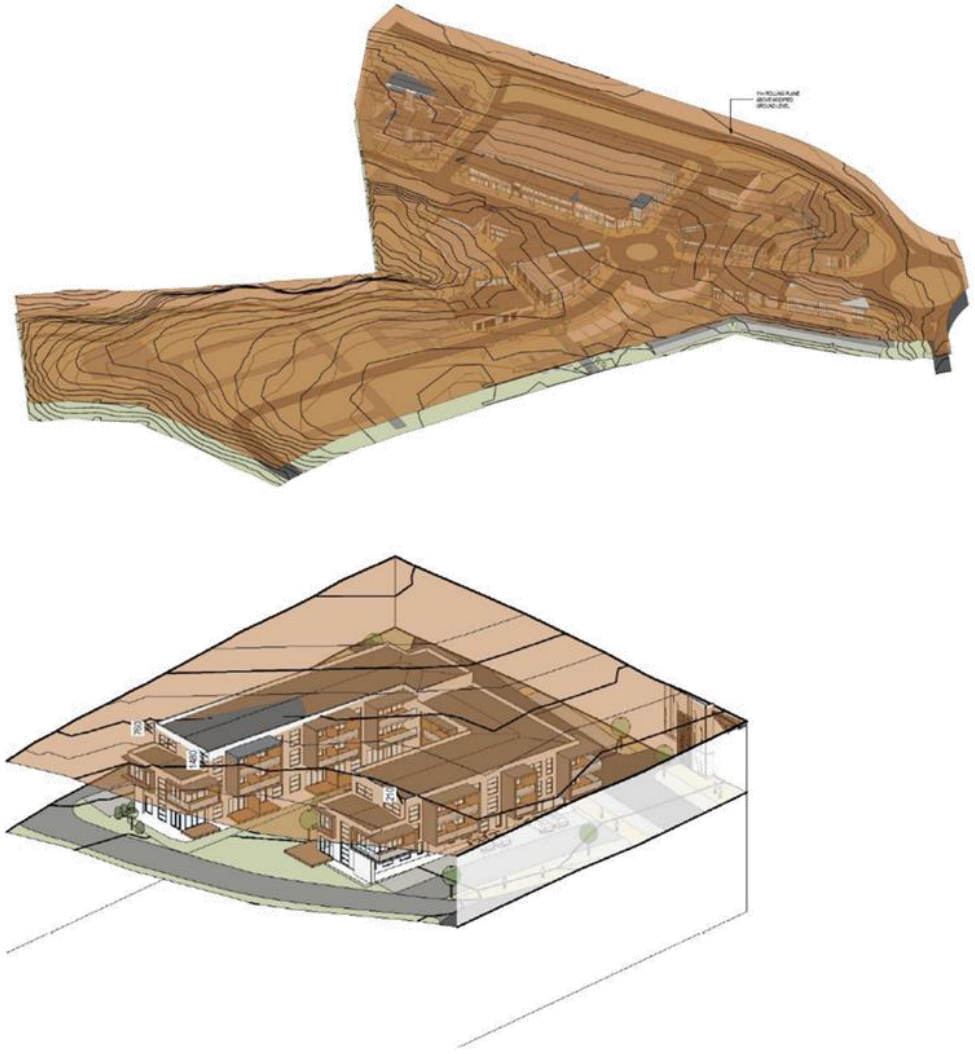
4.2.2 Specific Assessment of Height Encroachments

Subdivision forms part of the application, therefore on completion of the subdivision the ground level will be measured from the modified ground level resulting from the subdivision as per the District Plan definition of ground level.

> ***"Ground Level"*** *means the finished level of the ground at the time of the completion of the most recent subdivision in which additional lots were created, except that where no such subdivision has occurred, ground level shall be deemed to be the existing level of the ground. Council may require a survey to determine existing ground levels.*

For completeness encroachments above existing ground level are also included in the application so the effects of the ground level change and proposed buildings can be considered.

Rolling plane across site showing encroachments through modified ground level.



6 BUILDING N - HEIGHT INTRUSION, MODIFIED GROUND

A summary of the building encroachments through the height plain from the modified ground level are as follows.

Building Reference	Height Encroachment	Comment
Building A	310 and 760mm	Nearest sensitive zone is opposite Omokoroa road – Effects considered less than minor.
Building D	Intrusion up to 2280mm on western side of gateway building adjacent to Sentinel Avenue.	The encroachment is separate from sensitive zones by a considerable distance 30m plus. Effects less than minor.

Building Reference	Height Encroachment	Comment
Building J	400mm northern corner of building adjacent to gully and marketplace	Minor encroachment no adverse effects.
Building N	760mm at north eastern corner increasing to 1480mm	Building located on southern side of Kaimai Views subdivision. Building setback from boundary. Effects are considered to be minor.
Building M	340 to 1840 on western side of building	Minor encroachment due to modulated roof line on western side of building and architectural feature providing legibility. Effects are less than minor.

A summary of the building encroachments through the height plain from the existing ground level are as follows.

Building Reference	Height Encroachment	Comment
Building A	between 1860 and 3750mm	Nearest sensitive zone is opposite Omokoroa road – Effects considered less than minor. Omokoroa road corridor 37m wide.
Building B	up to 2600mm	Effects internalised within he development and therefore less than minor.
Building C	up to 1110mm	Very small portion of roof above 11m height contour. Effects less than minor.
Building D	between 730 to 1800mm	The encroachment is separate from sensitive zones by a considerable distance 30m plus. Effects less than minor.
Building N	2500mm to 3680mnm	Building located on southern side of Kaimai Views subdivision. Building setback from boundary. Effects are minor.
Building J	Up to 3155mm	More significant encroachment but effects internalised within the development. Effects less than minor.
Building K	Up to 2130	More significant encroachment but effects internalised within the development. Effects less than minor.
Building M	710-2300mm	More significant encroachment but effects due to modulated roof line on western side of building and architectural feature providing legibility. Effects are less than minor.

Bulk and Dominance Effects – As shown by the rolling plane images (FP Drawings 2.1.15D and 2.1.15E), any projections through the permitted rolling height plane above both existing and modified ground level will have minor effects due to the site being below the residential land to the East and North of the site and the proposed buildings being setback from all the site boundaries.

The finished ground contours establish a shallow amphitheatre on which the town centre will be built. Contour change and building modulation will help reduce any dominance effects, while recognising the town centre had to be legible and have some visual presence.

Daylighting – Daylighting recession plain to residential and rural boundaries is measured with the 2.0m / 45 degree plane as per below. The only building that this relates to is building N, against the northern boundary with Kaimai Views. As shown in the section below, building N does not encroach through the daylighting envelope.

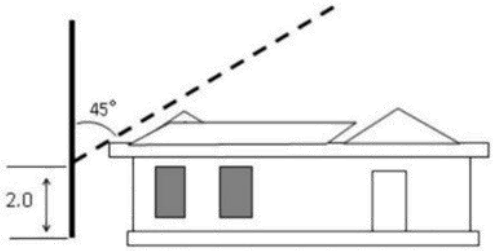


Figure 1: Daylighting Calculation

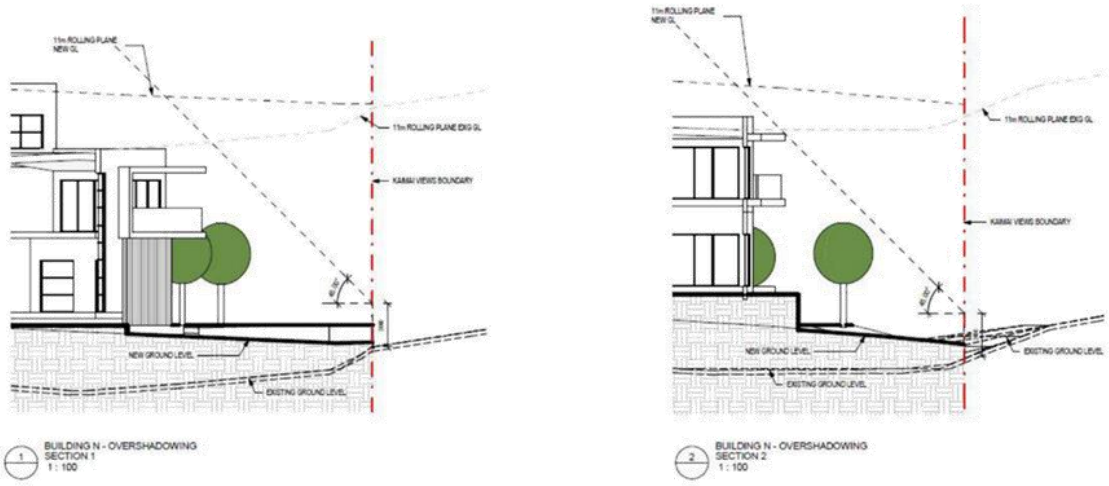


Figure 4 - Building N Daylighting

4.4 Traffic and Access Effects

Stantec has assessed the road network and expected traffic generation from the town centre development on the road network and assessed the town centre design, its connections to existing and proposed roads, and also pedestrian and cycle connectivity (See Appendix 7).

The Omokoroa Structure Plan identified the location and extent of the town centre and also the key connections onto the Omokoroa Road network. Stantec has commented on how the Omokoroa Structure Plan area has been developed with the Special Housing Area (Kaimai Views) using land zoned Commercial and Industrial. Also, a property at 412 Omokoroa Road has been purchased by the Ministry of Education for a new school. The balance commercial land is owned by the applicant and the proposed town centre design is generally consistent with the outcomes sought by the Omokoroa Structure Plan with respect to roading and transportation. The key transportation elements of the structure plan include a new roundabout connection to Omokoroa Road and a northern connection, now via access through the Kaimai Views subdivision.

As the Kaimai Views road reserve and formed carriageway is narrower than a normal through road an additional access point is proposed which is a northbound left out only. Stantec has recommended that a raised central median be established on Omokoroa Road to prevent right turn movements out of the town centre or from southbound Omokoroa Road traffic. Stantec discuss this in section 5.4.3 of the TIA recommending a standard tee intersection is proposed. This has been incorporated into the Structure Plan design.

The internal road network consists of an extension to Sentinel Avenue which will continue from Kaimai Views through to Omokoroa Road. An internal roundabout is proposed to enable service vehicles to access the supermarket and designated truck loading area. Stantec have confirmed the design parameters of this roundabout and the tracking curves through the town centre. They have confirmed that the design is logical, practical, and also provides for future connections through to the Future Urban land and western boundary of the MoE school site see conclusions Stantec report.

The Stantec report also considers the super lot design confirming access points to car parking areas, service/loading areas and road design is appropriate for the anticipated low traffic speed that has been designed to provide pedestrian connectivity and providing for bicycles.

The provision for public transport has been considered in section 6.5 of the transportation assessment including the location of existing bus route and also a recommendation that a bus route through the town centre be a long-term goal. The location of the centre to existing and potentially future public transport is excellent.

Given the above it is considered that the effects of traffic generation and impact on the existing road network is acceptable.

4.5 Carparking Effects

The Stantec transportation assessment has assessed the District Plan car parking standards and also assessed the car parking demand of the town centre using NZ Transport Agency Research Report Trips and Parking Related to Land Use (RR453). The car parking demand assessment identifies that 759 car parks are needed. The car parking provided is 92% of the assessed car parking demand (See 9.4.2 of the TIA). Stantec confirm that while there is a small shortfall (8%) of overall car parks from the ultimate car parking demand, the car parks provided should meet peak car parking demand.

Stantec have assessed the car parking layouts and confirmed the tracking curves are adequate. Ultimately each super lot will undergo detailed design which may fine tune the car parking layout and vehicle crossings onto the proposed road network.

The town centre is proposed to be developed in stages and may include one or more of the super lots depending on demand. Each stage will require a car parking demand assessment and confirmation that sufficient car parks will be provided. It is recommended a condition of consent is included in the resource consent to require this assessment.

Overall, the car parking supply is considered acceptable for the town centre.

4.6 Earthworks Effects

The site will require large scale earthworks to develop the site for the town centre of a scale similar to the adjacent residential subdivisions. A preliminary design for these earthworks has been completed as part of the town centre design model which indicate approximately 50,000m3 of cut to fill material is required. This quantity will be confirmed following detailed architectural and engineering design, which will affect the final finished contours.

The long sections through the site prepared by First Principles graphically show the extent of filling and cutting. CMW will provide an updated report to consider all proposed final grades prior to the works being undertaken.

Erosion and sediment control measures will be designed in accordance with the BOP Regional Council's Erosion and Sediment Control guidelines to ensure that no sediment laden runoff discharges to the gully area without proper treatment. Due to the natural contour of the site the dirty water will be contained and there is a low probability of adjacent land being adversely affected.

Dust suppression will be via application of water to the exposed earthworks area. Water sources include Council's reticulated supply up to 50m3 and from a water bore on the site RC63408 which provides for 1695m3 to be taken per week. The bore water can be stored in tanks so a water cart can refill on site without delay.

The earthworks effects will therefore be acceptable and in accordance with best practice.

4.7 Infrastructure Servicing Effects

An infrastructure report has been completed by Lysaght Consultants who have assessed the availability of the 3 waters (Appendix 6).

4.7.1 Water Supply

Existing infrastructure is located within the Omokoroa Road reserve, and within the Kaimai Views development in Sentinel Avenue. It is proposed to connect the network within the site to both of those locations as per the appended plans. Upgrades to the network are proposed as per the Lysaght Report, which conclude a new 200mm water main is needed in the eastern side of Omokoroa Road and also upgrading the 50mm rider main adjacent to Flounder Lane to a 200mm to complete the loop. Lysaght's have confirmed that with these upgrades there should be sufficient capacity to service the town centre for the predicted demand. It should be noted that the town centre development will take several years to complete so the impact on the network will be progressive rather than immediate.

4.7.2 Wastewater

The wastewater reticulation in Omokoroa was upgraded several years ago and the reticulated network has sufficient capacity. Lysaght Consultants has completed a preliminary layout of the wastewater system that will be gravity fed to a pump station within the site, which will pump the wastewater via a rising main to the existing wastewater system on Omokoroa Road. Lysaght's have confirmed there is adequate capacity in the network to receive the town centre's wastewater.

4.7.3 Stormwater

The stormwater network has been assessed by Lysaght Consultants who have confirmed that the downstream stormwater ponds include all the land within the Town Centre site. Preliminary stormwater reticulation design has been prepared using the finished contours of the site to discharge to the gully. This will require and outfall with energy dissipation devices and Lysaght recommend rock armouring the gully floor to prevent scour. The town centre road network including pedestrian paths provides for a secondary flow path towards the gully system. These flow paths will need to be designed to ensure that adjacent building floor levels are sufficiently elevated to avoid flooding from overland flows. This design will be completed during detailed engineering design.

Overall, the site can be easily serviced with stormwater infrastructure given the established downstream stormwater ponds and natural fall on the site towards the gully area.

4.7.4 Power

The site has an existing power connection which will require to be upgraded as the town centre is developed. We have written to Powerco but are awaiting their reply at the time of completing this AEE. Given the existing Commercial zoning and planned growth at Omokoroa it is anticipated the power supply will not be an issue.

A condition is offered requiring the loading on the power supply network to be assessed and upgraded if necessary.

4.7.5 Telecom

Ultra-fast Broadband is available in Omokoroa, As Ultrafast Fibre has recently completed the installation project.

We have also connected Chorus who have confirmed that a telecom supply through the centre can be provided as an when required.

4.8 Geotechnical Effects

CMW have completed a geotechnical investigation for the site to confirm the soil conditions and consider issues such as slope stability, liquefaction ability to reuse material on site for engineered fill. A building line restriction is identified on the CMW plan and has been taken into account when preparing the town centre plan.

The geotechnical report summarises key findings as follows.

- The proposed town centre development is considered to be geotechnically acceptable.

- The works will not worsen the instability of the site.
- There is no increase in instability to other property.
- Is not at risk for issues of instability arising from both on-site and off-site (for example, a landslip originating from an adjoining property)

The geotechnical effects are therefore acceptable.

4.9 Noise Effects

The effects of future activities will be subject to individual compliance with the noise standards of the Commercial zone. There are no special setback considerations required at the boundary between the Commercial zone and adjoining residential development to the north. Other residentially zoned land is located on the opposite side of Omokoroa Road and is therefore buffered by this separation.

The town centre design has located residential activities towards the northern boundary and western boundaries which in turn will establish a separation between the adjacent sensitive residential sites and true commercial activities.

Given the town centre design compliance with the noise standards of the District Plan are able to be met. The noise effects will therefore be acceptable.

We recommend the following Consent Conditions:

- *Noise from all activities on the site shall comply with the noise limits specified in Rule 4C.1.3.2 (b) of the District Plan.*
- *Noise from all construction activities shall comply with the noise limits specified in Rule 4C.1.3.1 of the District Plan.*
- *For residential units, an acoustic design certificate shall be provided at the time of building consent demonstrating the building has been designed so that the internal noise limits set out in Rule 4C.1.3.2 (c) are not exceeded. Where windows and doors must be closed in order to meet the internal noise standards, an alternative means of ventilation shall be provided which meets all relevant requirements of the Building Code Section G4.*

4.10 Economic Effects

The economic effects of the proposal have largely been considered at the time of zoning the land Commercial in the late 2000's. A 13-hectare Commercial zone was established at that time. Since then the Commercial zoned land area has been reduced in area as a result of the Special Housing Area at Kaimai Views and through land acquisition by the MoE, which has reduced the zoned Commercial land area to approximately 5 hectares.

RCG have been engaged to review the earlier economics reports that supported the original zoning and also a revised report by Property Economics that was commissioned by Foodstuffs in 2013 and a report by RPS in 2018 prepared for the Omokoroa Structure Plan Review. The Revised Property Economics report considers a much smaller commercial area of 2 hectares is required focused around the supermarket and convenience retail activities. RPS concluded a 3.5 hectare commercial centre is required to service the anticipated population at Omokoroa. RCG have analysed the assumptions of

all economic reports and undertaken their own research on population growth at Omokoroa. In summary, they have noted the following points.

1. RCG generally agree with a 3.5 ha town centre area excluding roads and reserves.
2. The proposed town centre is in line with the 3.5 ha town centre area (excluding roads).
3. The location of the town centre on the application site has similar or better attributes than other town centre options Council is considering.
4. The site is consistent with the Smartgrowth 'centre hierarchy'.
5. Stages 1 and 2 of Omokoroa Urban Growth Area are anticipated to be fully developed by 2029 (Smartgrowth assumptions).
6. The town centre is consistent with the outcomes sought by the District Plan.
7. The development of the town centre will have positive economic effects.
8. Any negative economic effects will be minor and limited to 'trade competition'.

The economic effects are therefore considered to be acceptable and consistent with the operative Commercial zoning.

4.11 Archaeological Effects

Archaeology BOP have undertaken and survey of the site to determine if archaeological sites are present. No archaeological sites were identified. There may be subsurface sites. Appendix 7 of the District Plan - Omokoroa Town Centre Structure Plan identifies a procedure for involving hapu and Iwi groups.

Archaeology BOP recommend obtaining an authority from the Historic Places Trust to modify, damage or destroy archaeological sites. This will be completed prior to earthworks commencing in consultation with Iwi and Hapu regarding potential cultural effects.

4.12 Cultural Effects

Consultation letters have been sent to Pirirakau, Ngati Taka and Ngati Ranginui. We have contacted the Iwi and Hapu and will continue to liaise with them during this processing of this resource consent. No archaeological sites have been identified but there may be subsurface features that may be uncovered during earthworks. A discovery protocol will be prepared with these Iwi/Hapu groups.

The masterplan aims to align with the outcomes sought by the operative District Plan, which amongst other matters seeks to create an active edge to the gully reserve. Hard and soft landscaping in this area will help transition from the urban space to the green drainage reserve area. There is an opportunity for cultural referencing in the design of landscaping and possibly the opportunity for urban art that could form a point of interest for the marketplace area. We will continue to consult with Iwi regarding these opportunities.

4.13 National Environmental Standard for Assessing and Managing - Contaminants in Soil to Protect Human Health (NES)

Geohazard Environment have completed a Detailed Site Investigation with respect to National Environmental Standard for Assessing and Managing - Contaminants in Soil to Protect Human Health (NES). Due to the kiwifruit orchards the site is identified as a HAIL site. Geohazard has undertaken soil samples across the whole site including the portion of the site that is zoned Future Urban. One sample was identified as above background levels for arsenic and additional sampling was completed to confirm the extent of the contamination. The contaminated area was localised and Geohazard consider that no remediation is necessary.

In addition to the arsenic contamination, fragments of relic shed cladding containing asbestos was also identified on the site and Geohazard sampled the soil to confirm the no asbestos was present in the soil. The soil samples confirmed this was the case and Geohazard has recommended a pick over to remove the material as no soil disturbance is required. The applicant has completed this pick over and disposed of the material to landfill.

The NES provides for the disturbance and removal of contaminated soil as a permitted activity under Section 8(3) of the regulations. For removal, up to $5m^3$ of material per $500m^2$ of land area can be removed from the site provided it is disposed of to a facility authorised to receive such material. As the application site is 5ha, the maximum soil that can be removed from the site as a permitted activity is $500m^3$. It is estimated approximately $2m^3$ of material will be removed from around the arsenic hot spot and disposed of to an approved land fill. These works comply with the permitted activity standards of the NES and will be completed by appropriate qualified contractors in accordance with section 8 (3)(a) of the NES.

As the DSI found that no other areas of the site contained any contaminants in or on the land above background concentrations as per section 5(9), the NES does not apply to the remainder of the site.

The environmental effects with respect to site contamination are considered to be less than minor.

4.14 Conclusion

In conclusion, the environmental effects resulting from the proposed town centre commercial design and associated commercial and residential activities are considered to be acceptable and anticipated by the District Plan.

The design of the town centre has made the most of the site and achieved the specific outcomes sought by the District Plan with respect to the Omokoroa Town Centre. The new town centre will achieve a very high standard or urban design quality and will contribute positively with the Omokoroa environment in accordance with the outcomes sought by the District Plan. The environmental effects will be positive for the community and less than minor with respect to neighbouring sensitive zones and adjacent Ministry of Education.

5.0 Statutory Assessment

5.1 Objectives and Policies Assessment

Commercial Zone

Extracts from the Explanatory Statement of the Commercial Zone

A new town centre has been planned at Omokoroa to support its existing and future planned population of 12,000 people as well as the surrounding rural catchment.

Council has a Built Environment Strategy to assist in achieving good urban design outcomes in line with the New Zealand Urban Design Protocol and to promote the principles embodied within the Crime Prevention through Environmental Design national standard.

Important issues for the Commercial Zone include the containment of the Commercial Zone and also ensuring that activities within the Zone are managed so not to adversely affect adjacent residential areas. It is also important to ensure that residential activities in the Commercial Zone do not detract from the viable operation of the commercial area. Special provisions are included in the Commercial Zone to avoid reverse sensitivity effects.

Commercial Zone Significant issues

19.1.4 The adverse effects on visual amenity resulting from large and/or badly designed buildings /structures and including potential adverse effects from lighting and inappropriate signage.

19.1.5 Commercial activities attract large numbers of people resulting in a large number of traffic movements, generating adverse effects such as pedestrian/vehicle conflict, noise, dust, fumes, odour, and a large concentration of people which can lead to noise, privacy and behaviour issues affecting the amenity of the area.

19.1.6. The adverse effects of commercial activities such as rubbish generation, smell and noise.

19.1.7. Non-commercial activities such as dwellings have the potential to improve the vibrancy of town centres and improve safety outside normal retail hours provided they are appropriately located and designed.

19.1.9. The adverse effects of heavy transport travelling through commercial centres especially pedestrian/vehicle conflict and associated noise/dust/odour problems

19.1.10. There is a need to integrate pedestrian and cycleways both to and within commercial centres to minimise reliance on motorised transport.

Objectives

19.2.1 Objectives

1. Consolidated commercial centres that are vibrant commercial environments that encourage social and cultural interaction.

2. Well designed commercial centres which reflect accepted urban design principles.

3. Convenient and safe commercial centres.

4. Commercial development of a scale that is appropriate for the location.

5. Public, civic and private space that relate well to each other.

6. Commercial centres that have a high level of amenity.

7. Commercial Zones in which commercial activities can operate effectively and efficiently, without undue restraint from non-commercial uses which may require higher amenity values.

8. Important heritage buildings and landscape features are retained.

9. An efficient network of road, cycle and pedestrian linkages connecting the District's commercial centres to surrounding urban areas.

10. The development of commercial centres and associated transportation networks that enhance social, economic and cultural activity through attention to design detail and the integration of the public, civic and private places nearby and therein.

11. The development of town centres that complement adopted documents compiled with the respective communities such as town centre plans and comprehensive development plans.

Policies

1. Provide for the comprehensive development of commercial areas, including the redevelopment of multiple commercial sites by:

(a) Encouraging the aggregation of land titles in accordance with the relevant town centre plan.

(b) Providing incentives (such as a reduction in the required number of onsite car parks) to off-set the acquisition of land required to achieve relevant town centre plan design outcomes.

2. New development or redevelopment of commercial centres is consistent with the design elements of the relevant adopted town centre plans.

3. Limit the establishment of commercial activities in non-commercial zones.

4. Ensure buildings /structures in Commercial Zones:

(a) Provide sufficient shelter for pedestrians so as to protect them from the natural elements.

(b) Do not compromise pedestrian access unless the characteristics of the locality of the site or the site itself are such that verandas or other forms of pedestrian shelter are not required.

(c) Support the development of areas that encourage social interaction.

5. Encourage alternative routes for heavy transport so as to avoid adverse effects such as danger to pedestrians, dust, noise and odour associated with such movements through commercial centres.

6. Ensure noise levels are such as to maintain a reasonable quality commercial environment.

7. Locate residential activities so they do not conflict with the integrity of the Zone and are designed and located so as to avoid reverse sensitivity effects such as noise.

8. Prevent non-commercial activities that conflict with or detract from the integrity of the Commercial Zone.

9. Apply financial contributions and other consent conditions to assist in avoiding or mitigating potential adverse effects of future subdivision and development.

10. Identify and protect Significant Heritage and Landscape Features.

11. Apply height limits that are appropriate for the location of the Commercial Zone especially in relation to smaller communities such as Maketu, Pukehina and Paengaroa where large commercial buildings /structures could detract from the amenity of the area.

12. Promote pedestrian and cycle accessibility by controlling the location and design of accessways.

13. Require retail frontages to be orientated towards streets and other public areas, such as public walkways and parking areas.

14. Ensure that development in Commercial Zones is designed and constructed to be consistent with the New Zealand Urban Design Protocol and National Guidelines for Crime Prevention through Environmental Design.

4B.2.1 Objectives – Transportation, Access, Parking and Loading

4B.2.1 .1. To provide an integrated, efficient, safe and sustainable transportation network that supports the social and economic wellbeing, and land use pattern of the sub-region as defined in this District Plan and that maintains or enhances the regional strategic linkages.

4B.2.1 .2. To provide for more efficient land use, development and subdivision of existing areas in a way that recognises and integrates with the functions of different road types, transport modes and the defined transportation network.

4B.2.1 .3. To encourage the use and development of alternative modes of transport including, but not limited to, public transport, cycling, walking and other non-vehicular forms of transport that provide for an integrated, efficient, safe and sustainable transport network.

4B.2.1 .4. To provide safe and efficient public carparks in town centres.

4B.2.2 Policies – *Transportation, Access, Parking and Loading*

1. To recognise and provide for the existing and future transport network including the linkages to other districts and regions.

2. To avoid, remedy or mitigate the adverse effects of land use, development and subdivision on the safety, efficiency, sustainability and capacity of the transportation network.

3. To manage the land use, development and subdivision of areas to achieve compatibility with the roads they front and the wider transportation network, with particular regard to the potential effects on that network, including, but not limited to, the safe and efficient provision of site access at the local level and intersections within the wider network and the effects of reverse sensitivity experienced between the operation and use of the transportation network and the establishment of adjacent land uses.

4. To ensure the integrated management of road, rail, sea and air transport networks to facilitate the long-term efficient and sustainable management of the wider transportation network.

5. To recognise and provide for network wide effects of land use change on transport networks by assessing the effects of land use change across the networks affected. 6 February 2013 Section 4B - Transportation, Access, Parking & Loading 5

6. To recognise and provide for the function of each road as described in the road hierarchy, and provide for the efficient use of that road type, by managing the intensity and form of land use, development and subdivision that impact on these roads.

7. To encourage the efficient use of land particularly in identified land use zones to reduce the potential impacts on the transportation network.

8. To ensure land use, development and subdivision planning provides for the implementation of multi-modal transport activities including public transport, walking and cycling facilities that address the identified need for new facilities/networks or enhance existing facilities/networks.

9. To maintain or enhance the sustainable and efficient use of arterial and collector roads through the use of transport optimisation methods and techniques (for example traffic demand management) that encourage adjacent land uses to provide access in keeping with the function of the road in the roading hierarchy and support alternative modes of transport.

10. The access, parking and loading effects of activities on the transportation network shall be avoided, remedied or mitigated with particular regard given to the level of service the road provides within the District's roading hierarchy.

11. Activities should be established and operate in a manner which ensures safe and effective on-site and off-site vehicle parking, manoeuvring and access and pedestrian access.

12. Provide safe, usable and attractive networks and associated linkages for pedestrians, cyclists and motor vehicles.

13. To ensure that the amenity value and public safety in town centres are not affected by vehicle movements across footpaths to and from on-site parking areas.

14. That Council be the preferred provider of parking facilities in the town centre.

4C.1.2.1 Objective - Amenity

An environment free of unreasonable noise in accordance with the character and amenity of the zone within which the noise is generated and received. 4C.1.2.2

4C.1.2.2 Policies - Amenity

1. Ensure activities do not generate noise levels inconsistent with the character and amenity of the zone in which the generated noise is received.

2. Exempt from the maximum permitted noise level requirements are those activities which are an integral part of accepted management practices of activities associated with production land in rural areas as well as other activities clearly of a temporary nature (e.g. construction works, military training exercises).

3. Have regard to any relevant New Zealand standards, guidelines, or codes of practice in the assessment of applications for resource consents.

4D.2.1 Objectives – Signs

1. *Maintenance and enhancement of the visual amenity of the District from the adverse effects of signs while recognising the different sensitivities of different locations.*
2. *Avoidance of the adverse effects of signs on the safe and efficient operation of roads within the District.*
3. *Mitigation of the adverse effects on traffic safety of activities which attract people to the site where the activities are taking place. 4D.2.2*

Policies 1 - Signs

1. Signs should be of a size, type, colour, number and/or location as to maintain and enhance the visual amenity of the respective zone.

2. Signs visible from roads should be positioned and designed so that the signs do not distract motorists or otherwise impair their ability to drive safely.

7.2.1 Objectives – Historic Heritage

1. Protection and preservation of a unique or representative range of historic heritage items of value to the community and to the nation.

2. The protection and conservation of buildings and objects of historic heritage value to the District.

3. That the Kaitiakitanga of tangata whenua in relation to sites and objects of cultural and natural heritage is respected.

7.2.2 Policies – Historic Heritage

1. Public awareness and appreciation of historic heritage resources should be increased so as to minimise adverse effects on the historic heritage feature or on the spirituality associated with the site or feature.

7. Tangata whenua should be consulted regarding the identification, protection and management of sites and objects considered to be of cultural and natural heritage value.

10.2.1 Objectives – Infrastructure

1. Development, operation, maintenance and upgrading of infrastructure and network utility systems and services so as to efficiently and effectively meet the current and foreseeable needs of the District.

6. The establishment and management of land use activities, or undertaking of subdivision in a way that avoids, remedies or mitigates potential reverse sensitivity effects that may impact on the safe, effective and efficient operation of infrastructure and network utilities.

10.2.2 Policies – Infrastructure

1. Provision of infrastructure and network utility development should be sequenced in a way that integrates with the long-term planning and funding mechanisms of local authorities and central government policies, directions and strategies.

4. Assessment of resource consent applications should have regard to the functional, locational, technical and operational requirements of infrastructure and network utilities. Recognition shall be afforded to the requirements of, and constraints on, the efficient and effective development, operation, maintenance, and upgrading of infrastructure and network utilities.

12.2.1 Objectives - Subdivision

1. Subdivision and development that provides for and reinforces the existing built form and local character of an area.

2. Subdivision and development is planned in an integrated manner and provided with the necessary infrastructure and services to ensure that the land is able to be used for its intended purpose.

3. Infrastructure and services are designed and constructed to minimum standards which will result in improved environmental outcomes without significant additional cost to the community.

4. Sufficient infrastructure capacity is provided to ensure the efficient and equitable provision of services to all land in the catchment.

5. Comprehensive assessment of development proposals to ensure that the full effect of the proposal is able to be determined.

6. Subdivision and development that minimises the effects from stormwater run-off.

7. Subdivision design and development that takes into account the principles of optimum energy efficiency and the benefits of renewable energy.

12.2.2 Policies – Subdivision and Development

1. All urban subdivision is to have regard to subdivision guidelines contained in the Development Code, Built Environment Strategy and urban design protocols and guidelines which provide urban design outcomes.

2. The design of subdivision is in accordance with structure plans .

3. Require subdivision to be undertaken in accordance with any staging requirements to ensure the effective and efficient servicing of land within the catchment.

4. Require subdivision and development to provide infrastructure and services to meet the reasonably foreseeable needs of other land in the vicinity of the development .

5. Require subdivision and development to comply with the minimum standards in the Development Code for the provision of infrastructure and services, or to an alternative standard which is as effective and efficient in the long term and results in improved environmental outcomes.

6. Require all subdivision and development proposals submitted to Council to include a comprehensive assessment prepared in accordance with the information requirements of the Development Code.

7. Subdivision and development practices that take existing topography, drainage and soil conditions into consideration with the aim of minimising the effects of stormwater run-off.

Objectives and Policies Commentary

The vision for the site is to create a viable and vibrant town centre, encompassing a mix of uses, and establishing a destination for both the local catchment and greater Western Bay of Plenty Sub-Region (Obj 19.2.1.1, 19.2.1.2, 19.2.1.4). The range of potential tenancies within the centre will cater for social and cultural diversity and provide opportunities for interaction. i.e at the Plaza area or marketplace areas.

The town centre has been comprehensively designed taking into consideration site constraints and the immediate context, including surrounding subdivisions and uses and also the wider landscape context (Obj 12.2.1.1, 12.2.1.2, Pol 12.2.2.7)). It's design is generally consistent with the Omokoroa Structure Plan outcomes for the town centre and the Council's Development Code (Pol 12.2.2.2, 12.2.2.5). Care has been taken on edge treatment to ensure compatible land uses with boundaries adjoining Kaimai Views (Obj 19.2.1.11, Pol 19.2.1.1, Obj 4C.1.2.1).

Key pedestrian/cycle and vehicle connections make the town centre permeable, encouraging connections from adjacent sites, and promoting sustainable forms of transport. Consideration of the existing public transport routes and also future alternate routes once the town centre is established will provide for multi modal transport (Obj 19.2.1.9, 4B.2.1.1, 4B.2.1.3).

Adequate car parking for both visitors and staff will be provided for within the town centre, with on streetcar parks and specimen tree planting helping to slow the traffic speed of the high street (Obj 4B.2.1.4, Pol 4B.2.2.11) . The location of the car parks has been carefully located throughout the town centre to avoid having a dominant large tar sealed area. The southern car parking area provides for weekend use of the school fields being located immediately adjacent. It is considered that this will help the ton centre to be vibrant throughout the week and weekend (Pol 4B.2.2.4).

The proposed building architecture is contemporary, however respectful to surrounding land uses, i.e residential townhouses will address the street and the mixed use building N, which has been designed to have the top floor set further back from further from Kaimai Views complying with the overshadowing rules (19.2.1.4). Active retail frontages have been identified for the main street but is a focus for the whole development to promote safety both during the day and night (Pol 19.2.2.13).

A strong use of trees and landscaped areas within the public realm will draw from the greenery of the Gully reserve area and the reserve network proposed. As outlined in the Urban Design Statement, the town centre masterplan adequately meets the seven 'c's described in the New Zealand Urban Design Protocol.

The town centre is located towards the southern end of the Omokoroa Peninsular, making it convenient for existing and proposed residential areas The centre will be accessible via foot, bicycle, and bus through the existing route along Omokoroa Road and Tralee Street, with bus stops within close walking distance of the town centre (19.2.1.4(b), 4B2.1.3).

CPTED principles have been employed within the masterplan design. These include:

- Design to create permeability to surrounding sites, multiple pedestrian connections are proposed, both from the surrounding walking and cycle network and also the future networks

of the gully reserve area and access to and around the proposed civic building (Obj 19.2.1.5, Obj 19.2.1.10).

- Passive surveillance of the centre will be provided from the residential component looking over public realm, and from the first-floor office spaces during daytime hours. Activation of The new high street, through front doors to the street, also helps provides a level of passive surveillance (4B.2.2.12).
- Lighting will be particularly important within the centre, especially around the pedestrian areas and marketplace area at the head of the gully reserve. Providing clear, well-lit routes to and from this area will be important to maintain safety for the community. This will designed during detailed design of the buildings and hard landscape areas.

Shared surfaces are employed to provide priority to pedestrians, but these areas may also be used for service vehicle access to commercial premises. The use of paving, bollards and potentially speed humps in certain areas will help to ensure pedestrian safety (Pol 4B.2.2.13).

The infrastructure required for the town centre is either established or within close proximity to the site and able to be efficiently and effectively extended. New infrastructure will integrate into the existing networks. Capacities have been considered and proposed upgrades have been documented in the services report (Obj 12.2.2.3, Obj 10.2.1.1, Obj 10.2.1.2, Policies 10.2.2.1). The town centre will be developed in stages with appropriate infrastructure for each stage (Pol 12.2.2.3). Subdivision will facilitate the staging including vesting of roads and infrastructure with balance land forming super lots.

Based on the above the town centre masterplan is in line with the objectives and policies of the District Plan, and in line with the Omokoroa Structure Plan.

5.2 Part II of RMA

In *RJ Davidson Family Trust v Marlborough District Council* [2018] NZCA 316 the Court of Appeal set out that an assessment against Part 2 of the RMA is only recommended where there is a relevant deficiency in the planning instruments. In this case, the District Plan provisions adequately address the matters associated with the development of Commercial land for the Omokoroa town centre, therefore, the assessment of the relevant District Plan provisions as described within this AEE have already given substance to the principles set out in Part 2 of the Act.

For completeness, we provide an assessment against Part 2. It has been determined that the matters set out at Part 2 should prevail over other provisions of the Act or other planning documents in the event of there being a conflict between these.

Section 5 RMA

Under section 5(1), the purpose of the RMA is to promote the sustainable management of natural and physical resources, with "sustainable management" defined under Section 5(2) as meaning:

"Managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while –

a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonable foreseeable needs of future generations; and

b) *Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*

c) *Avoiding, remedying, or mitigating any adverse effects of activities on the environment."*

Comment

As demonstrated within the AEE and urban design report, the proposed town centre is well connected to its surrounding context, through a number of pedestrian and cycle links, and access to an existing bus route, therefore promoting sustainable means of transport. There is an opportunity in the future to have the bus route amended to stop within the town centre which would further enhance accessibility through public transport. It will be a place for people to work, shop, socialise, and relax which will result in positive social and economic effects.

The masterplan design has been refined through an urban design review process to make the most of the opportunities unique to the site to create a town centre design with a strong sense of place and a focal point for the Omokoroa community.

The proposal is consistent with the purpose of the Resource Management Act.

Section 6 RMA – Matters of National Importance

There are no matters of national importance relevant to this proposal.

Section 7 RMA – Other Matters

The relevant sections of Section 7 of the Act include:

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to -

(b) the efficient use and development of natural and physical resources:
(c) the maintenance and enhancement of amenity values:
(f) maintenance and enhancement of the quality of the environment:

Comment

The town centre masterplan design makes good use of the finite commercial land resource. Amenity values of the nearby residential area have been maintained by locating town houses on the west and a mixed-use apartment building to the northern boundaries of the site. The plaza area which will include restaurant and café activities have been located away from the periphery of the site to ensure noise standards are complied with.

The establishment of plaza and marketplace areas will provide for passive recreation within the commercial area creating also a destination and meeting point for the community. Both these areas will have active edges to ensure they remain vibrant and also safe.

The quality of the environment will be enhanced through the creation of quality urban landscape treatments and the establishment of good quality architecture that interacts positively with adjacent sites.

Section 8 RMA – The Treaty of Waitangi

There are no relevant effects in relation to the principles of the Treaty of Waitangi. No archaeological sites are recorded on the application site. There are future opportunities for place naming that may draw from historic events at Omokoroa.

Conclusion

For the reasons above, the proposal is consistent with purpose and principles outlined in Part 2 of the Resource Management Act 1991.

5.3 Notification

The applicant requests that the resource consent application be publicly notified pursuant to Section 95A of the RMA.

6.0 Conclusion

The town centre masterplan design responds positively to the established urban environment and has taken into account likely future land uses to the south and future urban activities to be located on the balance of the applicant's land (currently zoned Future Urban).

This site has been zoned Commercial for the purposes of establishing a town centre at Omokoroa for over ten years. This is consistent with the SmartGrowth centres hierarchy. As the site is located adjacent to approximately 1000 residential sections developed south of the ECMTRL, which are rapidly being built upon, an immediate urban community is within walking/cycling distance to the town centre once established. The centre is also accessible to the developed residential suburb north of the railway line via the walkway and cycleway and only 1.2km from the State Highway, so also accessible to the rural catchment.

The master plan has been developed in collaboration with the applicant's project team with an independent urban design peer review and commentary from Council staff. The outcomes of this review confirms a strong land use strategy, which provides for a true mix of land uses which will meet the needs of the local and wider community through the provision of a wide range of retail options, supermarket, food and beverage options, commercial services, office space, motel and civic amenities. First Principles architects have designed the buildings to meet the requirements of the Omokoroa Area Master Plan for the Commercial zone including mixed use buildings, visually broken facades, adaptable buildings, open air amenity spaces and inclusion of a variety of residential accommodation. Compliance with this design vision will help create a vibrant commercial area and focal point for the community to enjoy. The proposal will result in positive social, environmental, and economic effects.

Overall, the proposed town centre masterplan and the buildings, roads and amenity spaces are consistent with the objectives and policies and town centre outcomes sought by the operative District Plan and Councils Built Environment Strategy.

It is considered the gateway test for non-complying activities to have been met on both accounts being consistent with the objectives and policies of the District Plan and having environmental effects that area minor.

Appendix 1 – Certificates of Title

Appendix 2 – Town Centre Masterplan

Appendix 3 –Architectural Plans and Cross-sections

Appendix 4 – Urban Design Statement

Appendix 5 – Urban Design Peer review

Appendix 6 – Civil Engineering Report

Appendix 7 – Transportation Assessment

Appendix 8 – Geotechnical Report

Appendix 9 – Detailed Site Investigation – Soil Contamination

Appendix 10 – Economic Report

Appendix 11 – Archaeological Assessment

Appendix 12 – Iwi / Hapu Consultation

Appendix 13 - Consultation Utility Providers

Appendix 14 – Subdivision Scheme Plan

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD
Search Copy

R.W. Muir
Registrar-General
of Land

Identifier **29280**
Land Registration District **South Auckland**
Date Issued 25 October 2002

Prior References
SA25B/71 SA54D/456

Estate	Fee Simple
Area	7.9099 hectares more or less
Legal Description	Lot 1 Deposited Plan 307535

Registered Owners
Kiwi Green New Zealand Limited

Interests

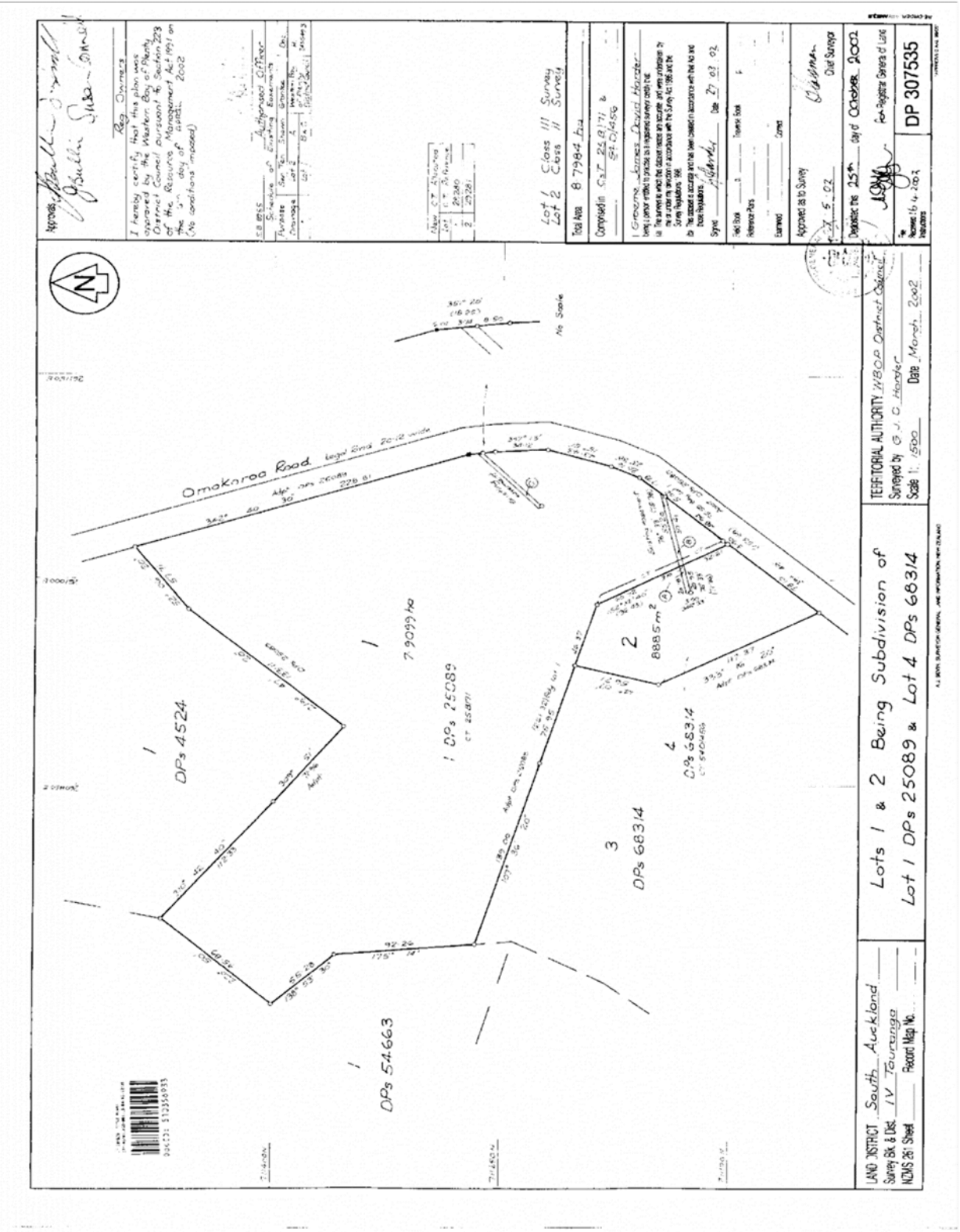
Subject to a drainage right (in gross) over parts marked B and C on DP 307535 in favour of The Tauranga County Council created by Transfer H245549.3 - 7.8.1979 at 12.12 pm

The easements created by Transfer H245549.3 are subject to Section 37 (1) (a) Counties Amendment Act 1961

10067793.4 Mortgage to Bank of New Zealand - 12.6.2015 at 12:06 pm

10912251.2 Variation of Mortgage 10067793.4 - 25.9.2017 at 3:37 pm

Identifier **29280**



Approved by the District Land Registrar, South Auckland H009822/1974
New Zealand

H245549.3TE

MEMORANDUM OF TRANSFER

26JL79 DTY ######

NEW ZEALAND STAMP DUTY TA

ALBERT NORMANBY RAPHIEL GANE of Omokoroa, Farmer

(hereinafter together with his executors administrators and assigns referred to as "the Grantor")

registered as the proprietor of an estate in fee simple

subject however, to such encumbrances, liens, and interests as are notified by memoranda underwritten or endorsed hereon, in all those pieces of land situate in the Land Registration District of South Auckland containing

FIRSTLY; SEVEN DECIMAL EIGHT SIX SEVEN EIGHT HECTARES (7.8678 ha) be the same a little more or less being Lot 1 on Deposited Plan S.25089 and being all the land contained in Certificate of Title Volume Folio (South Auckland Registry)

SECONDLY; SEVEN DECIMAL FOUR ONE EIGHT ZERO HECTARES (7.4180 ha) be the same a little more or less being Lot 2 on Deposited Plan S.25089 and being all the land contained in Certificate of Title Volume Folio (South Auckland Registry)

AND WHEREAS the Grantor has agreed to transfer and grant unto the Body Corporate called the TAURANGA COUNTY COUNCIL (hereinafter with its successors and assigns referred to as and included in the term "the Corporation") an easement in gross in and over such portion of the above described lands being that part of Lot 1 on Deposited Plan S.25089 as is marked "C" and "B" and that part of Lot 2 on Deposited Plan S.25089 as is marked "A" such portions of the said lands being hereinafter referred to as and included in the term "the said easement areas" for the drainage and discharge of water whether rain tempest spring soakage or seepage water for disposal thereof in such manner as the Corporation shall determine

NOW THIS MEMORANDUM OF TRANSFER WITNESSETH that in pursuance of the said agreement and in consideration of the premises the Grantor doth hereby transfer and grant unto the Corporation full and free right liberty and licence for all times hereafter to take carry convey drain and discharge water whether rain tempest spring soakage or seeping water in any quantities through over and along the said easement area and for such purposes and from time to time to construct extend maintain alter repair renew and cleanse open drains pipes conduits through over along under the said easement area AND also full power and authority for the Corporation its surveyors engineers workmen agents and servants with or without horses carts and other vehicles and machines from time to time at at all times to enter and remain for any of the purposes aforesaid upon the said easement area as shall be neccessary for such purposes and generally to do and perform such acts and things in or upon the said easement area as may be necessary or proper for or in relation to any of the purposes aforesaid together with any additional rights attaching to

IN CONSIDERATION of the sum of

(which sum includes $ for chattels)

paid to

(the receipt of which sum is hereby acknowledged) DO HEREBY TRANSFER to the said

all estate and interest in the said piece of land above described

easements of right to drain and discharge water as contained in the Seventh Schedule of the Land Transfer Act 1952 AND the Grantor and the Corporation hereby covenant and agree the one with the other of them as follows :

THAT all works authorised to be carried out hereunder shall be carried out as expeditiously as possible and with as little disturbance to the surface of the said easement area as possible and immediately upon completion of any such work the surface of the said easement area shall be restored as nearly as possible to its original condition.

THAT the Corporation will from time to time repair and make good all damage to fences gates or drains upon the said easement area by the carrying out by the Corporation of any of the works hereinbefore mentioned.

THAT the Grantor will not without the consent of the Corporation place any buildings erections or fences on the said easement area or any of them and will not at any time hereafter do or permit or suffer any act whereby the rights powers licenses and liberties hereby granted to the Corporation may be interfered with or affected..

NOTHING HEREIN contained or implied shall be deemed to compel the Corporation to drain water through the said Easement area and the Corporation may discontinue and recommence such drainage at will.

THAT nothing herein contained shall be deemed to abrogate limit restrict or abridge any of the rights powers and remedies vested in the Corporation by any statute and in particular by "the Land Drainage Act, 1908" "The Counties Act 1956" and "The Public Works Act, 1928" or any of them or any amendment thereof or any acts passed in substitution therefor

IN WITNESS WHEREOF these presents have been executed this 17th day of July One thousand nine hundred and seventy-nine (1979).

SIGNED by the abovenamed
ALBERT NORMANBY RAPHIEL GANE
in the presence of

A N R Gane

Witness:

Occupation: Solicitor

Address: Tauranga

THE COMMON SEAL of the Body Corporate called)
the TAURANGA COUNTY COUNCIL was hereto)
affixed as the Corporation in the presence of:)



COUNTY CHAIRMAN

COUNTY CLERK

No.

TRANSFER OF

A N R GANE Transferor

TAURANGA COUNTY COUNCIL Transferee

The easement created by the within transfer is subject to Section 37(1)(a) of the Counties Amendment Act 1961

[signature]
ACL

Correct for the purposes of the Land Transfer Act.

[signature]
Solicitor for Transferee.

I HEREBY CERTIFY THAT THIS TRANSACTION DOES NOT CONTRAVENE THE PROVISIONS OF PART IIA OF THE LAND SETTLEMENT PROMOTION AND LAND ACQUISITION ACT 1952.

Solicitor for the purchaser or lessee.

Particulars entered in the Register as shown in the Schedule of Land herein on the date and at the time stamped below.

Assistant Land Registrar of the District of South Auckland

DISTRICT LAND REGISTRAR SOUTH AUCKLAND, N.Z.

District Land Registr
Hamilton No.2
258/71 258/72
AUG 7 12 12 PM '79
[signature]
ACL

H
2 4 5 5 4 9

1

THE HAMILTON DISTRICT LAW SOCIETY

RICE PRINTERS

ING	USE	GROUND FLOOR M²	FIRST FLOOR M²	TOTAL M²	UNDERCROFT PARKING
	MOTEL / HOTEL	1085	1085	2170	Y
	RETAIL / OFFICE	550	550	1100	N
	RETAIL / OFFICE	745	745	1490	N
	OFFICE	640	640	1280	Y
	RETAIL / OFFICE	550	550	1100	N
	RETAIL / OFFICE	560	560	1120	N
	MEDIUM RESIDENTIAL	430	430	860	N
	MEDIUM RESIDENTIAL	785	785	1570	N
	CIVIC	700	-	700	Y
	RETAIL / OFFICE	760	760	1520	N
	RETAIL / OFFICE	1265	1265	2530	N
	RETAIL / OFFICE	970	-	970	N
	SUPERMARKET / RETAIL/ OFFICE	5365	1085	6450	Y
	APARTMENT / RETAIL	1175	1175	2350	N
	CHILDCARE	500	-	500	N
		16,080	9,630	25,710	

PARKING	
STREET	567 SPACES
TREET	107 SPACES
L	674 SPACES



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notes:
l scale off drawings

REVISIONS

FIRSTPRINCIPLES architects & interiors

Project: OMOKOROA TOWN CENTRE

Drawing: MASTERPLAN

Drawn By:	Checked By:	Date:
CD/KL	GP	18/05/

USE	GROUND FLOOR M²	FIRST FLOOR M²	TOTAL M²	UNDERCROFT PARKING
MOTEL / HOTEL	1085	1085	2170	Y
RETAIL / OFFICE	550	550	1100	N
RETAIL / OFFICE	745	745	1490	N
OFFICE	640	640	1280	Y
RETAIL / OFFICE	550	550	1100	N
RETAIL / OFFICE	560	560	1120	N
MEDIUM RESIDENTIAL	430	430	860	N
MEDIUM RESIDENTIAL	785	785	1570	N
CIVIC	700	-	700	Y
RETAIL / OFFICE	760	760	1520	N
RETAIL / OFFICE	1265	1265	2530	N
RETAIL / OFFICE	970	-	970	N
SUPERMARKET / RETAIL/ OFFICE	5365	1085	6450	Y
APARTMENT / RETAIL	1175	1175	2350	N
CHILDCARE	500	-	500	N
	16,080	9,630	25,710	

RKING	
REET	567 SPACES
EET	107 SPACES
	674 SPACES



1 MASTERPLAN - PARKING PLAN
1 : 750

0m 10 20 30 40 50 100m

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Locate off drawings

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FIRSTPRINCIPLES architects & interiors

Project: OMOKOROA TOWN CENTRE

Drawing: MASTERPLAN - PARKING PLAN

Drawn By:	Checked By:	Date:
CD/KL	GP	18/05/

USE	GROUND FLOOR M²	FIRST FLOOR M²	TOTAL M²	UNDERCROFT PARKING
MOTEL / HOTEL	1085	1085	2170	Y
RETAIL / OFFICE	550	550	1100	N
RETAIL / OFFICE	745	745	1490	N
OFFICE	640	640	1280	Y
RETAIL / OFFICE	550	550	1100	N
RETAIL / OFFICE	560	560	1120	N
MEDIUM RESIDENTIAL	430	430	860	N
MEDIUM RESIDENTIAL	785	785	1570	N
CIVIC	700	-	700	Y
RETAIL / OFFICE	760	760	1520	N
RETAIL / OFFICE	1265	1265	2530	N
RETAIL / OFFICE	970	-	970	N
SUPERMARKET / RETAIL/ OFFICE	5365	1085	6450	Y
APARTMENT / RETAIL	1175	1175	2350	N
CHILDCARE	500	-	500	N
	16,080	9,630	25,710	

KING	
EET	567 SPACES
ET	107 SPACES
	674 SPACES

AREA OF SITE FADED DOES NOT FORM PART OF APPLICATION

ZONE BOUNDARY

BUILDING USE
- OFFICE
- RETAIL
- MOTEL
- MEDIUM RESIDENTIAL
- CIVIC
- CHILDCARE
- SUPERMARKET

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Project: OMOKOROA TOWN CENTRE

Drawing: MASTERPLAN - GROUND FLOOR LEVEL

Drawn By:	Checked By:	Date:
CD/KL	GP	18/05/

	FLOOR M²	FLOOR M²		PARKING
MOTEL / HOTEL	1085	1085	2170	Y
RETAIL / OFFICE	550	550	1100	N
RETAIL / OFFICE	745	745	1490	N
OFFICE	640	640	1280	Y
RETAIL / OFFICE	550	550	1100	N
RETAIL / OFFICE	560	560	1120	N
MEDIUM RESIDENTIAL	430	430	860	N
MEDIUM RESIDENTIAL	785	785	1570	N
CIVIC	700	-	700	Y
RETAIL / OFFICE	760	760	1520	N
RETAIL / OFFICE	1265	1265	2530	N
RETAIL / OFFICE	970	-	970	N
SUPERMARKET / RETAIL/ OFFICE	5365	1085	6450	Y
APARTMENT / RETAIL	1175	1175	2350	N
CHILDCARE	500	-	500	N
	16,080	9,630	25,710	

ARKING	
REET	567 SPACES
EET	107 SPACES
	674 SPACES



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notes:
Locate off drawings

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Project: OMOKOROA TOWN CENTRE

Drawing: MASTERPLAN - FIRST FLOOR LEVEL

Drawn By:	Checked By:	Date:
CD/KL	GP	18/05/

SHEET LIST

Sheet Name	Sheet Number	Sheet Issue Date	Current Revision
COVER	0.0.10	19/05/2020	
LOCATION PLAN	1.0.10	08/05/2020	
MASTERPLAN	2.1.00	18/05/2020	
MASTERPLAN - PARKING PLAN	2.1.01	18/05/2020	
MASTERPLAN TOPO	2.1.02	18/05/2020	
MASTERPLAN CUT 3D	2.1.03	18/05/2020	
MASTERPLAN - GROUND FLOOR LEVEL	2.1.10	18/05/2020	
MASTERPLAN - FIRST FLOOR LEVEL	2.1.10B	18/05/2020	
3D'S	2.1.12	08/05/2020	
BUILDING HEIGHT ABOVE MODIFIED GROUND LEVEL	2.1.12A	08/05/2020	
3D'S	2.1.13	08/05/2020	
BUILDING HEIGHT ABOVE MODIFIED GROUND LEVEL	2.1.13A	08/05/2020	
3D'S	2.1.14	08/05/2020	
BUILDING HEIGHT ABOVE MODIFIED GROUND LEVEL	2.1.14A	08/05/2020	
3D'S	2.1.15	08/05/2020	
BUILDING HEIGHT ABOVE MODIFIED GROUND LEVEL	2.1.15A	08/05/2020	
OVERSHADOWING DIAGRAMS	2.1.15B	08/05/2020	
OVERSHADOWING SECTIONS	2.1.15C	19/05/2020	
ROLLING PLANE INTRUSIONS - EXISTING GROUND LEVEL	2.1.15D	19/05/2020	
PERSPECTIVES	2.1.16	08/05/2020	
PERSPECTIVES	2.1.17	08/05/2020	
PERSPECTIVES	2.1.18	08/05/2020	
AXONOMETRIC	2.1.20	08/05/2020	
ACCESS GRADIENT SECTIONS	3.1.10	08/05/2020	
SITE SECTIONS	3.1.11	08/05/2020	
BUILDING A - HOTEL	4.0.10	08/05/2020	
BUILDING A - HOTEL	4.0.11	08/05/2020	
BUILDING B & C - RETAIL + OFFICE	4.0.20	08/05/2020	
BUILDING B & C - RETAIL + OFFICE	4.0.21	08/05/2020	
BUILDING D - OFFICE	4.0.30	08/05/2020	
BUILDING D - OFFICE	4.0.31	08/05/2020	
BUILDING E - RETAIL + OFFICE	4.0.40	08/05/2020	
BUILDING E - RETAIL + OFFICE	4.0.41	08/05/2020	
BUILDING F - RETAIL + OFFICE	4.0.50	08/05/2020	
BUILDING F - RETAIL + OFFICE	4.0.51	08/05/2020	
BUILDING I - CIVIC	4.0.80	08/05/2020	
BUILDING I - CIVIC	4.0.81	08/05/2020	
BUILDING J - RETAIL + OFFICE	4.0.90	08/05/2020	
BUILDING J - RETAIL + OFFICE	4.0.91	08/05/2020	
BUILDING K & L - RETAIL	4.1.10	08/05/2020	
BUILDING K & L - RETAIL	4.1.11	08/05/2020	
BUILDING M - SUPERMARKET + RETAIL	4.1.20	08/05/2020	
BUILDING M - SUPERMARKET + RETAIL	4.1.21	08/05/2020	
BUILDING N - APARTMENTS	4.1.23	19/05/2020	
BUILDING N - APARTMENTS	4.1.24	19/05/2020	
INSPIRATION IMAGES	7.0.00	08/05/2020	
INSPIRATION IMAGES	7.0.10	08/05/2020	
INSPIRATION IMAGES	7.0.11	08/05/2020	
INSPIRATION IMAGES	7.0.12	08/05/2020	
INSPIRATION IMAGES	7.0.13	08/05/2020	
INSPIRATION IMAGES	7.0.14	08/05/2020	
PERSPECTIVES	7.0.15	08/05/2020	
PERSPECTIVES	7.0.16	08/05/2020	
GRAIN STUDY	7.0.17	08/05/2020	



OMOKOROA TOWN CENTRE

JACE INVESTMENTS LTD

OMOKOROA ROAD, OMOKOROA

RESOURCE CONSENT

19/05/2020

FIRSTPRINCIPLES
architects & interiors
po box 14214, tauranga MC 3143, new zealand



RESOURCE CONSENT

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General notes:
1. Do not scale off drawings.
2. Contractor shall verify and be responsible for all dimensions on site.
3. Architects to be notified of any variation between the site dimensions and those on plans.
4. Clarification must be sought from the Architect on all documentation for any discrepancies between drawings, schedules and specifications

REVISIONS

FIRSTPRINCIPLES
architects & interiors
+64 7 574 6728, po box 14214, tauranga MC 3143, new zealand

Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: LOCATION PLAN
Scale: @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

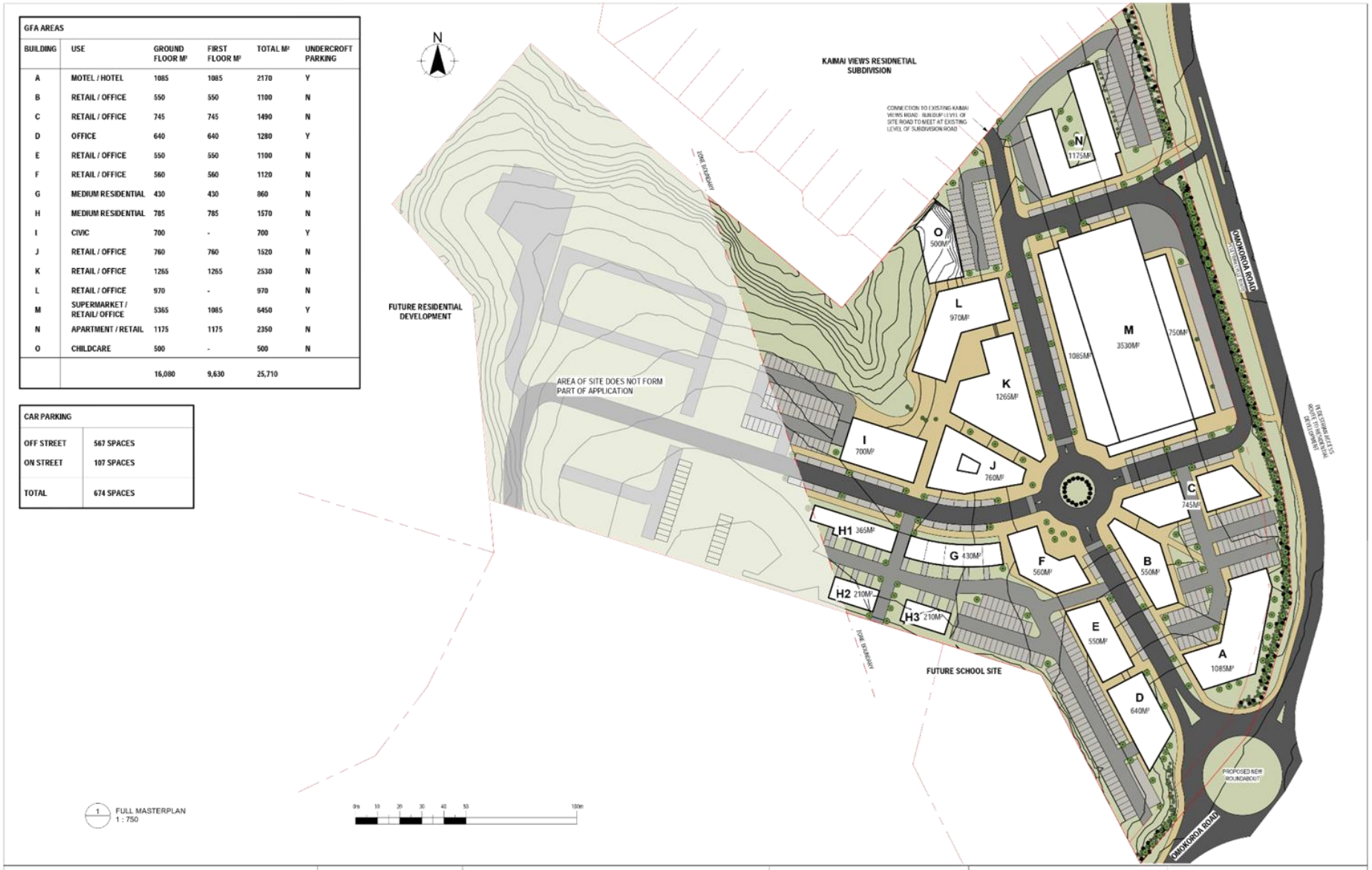
Project No.	Sheet No:	Revision:
SOU.01	1.0.10	

GFA AREAS

BUILDING	USE	GROUND FLOOR M²	FIRST FLOOR M²	TOTAL M²	UNDERCROFT PARKING
A	MOTEL / HOTEL	1085	1085	2170	Y
B	RETAIL / OFFICE	550	550	1100	N
C	RETAIL / OFFICE	745	745	1490	N
D	OFFICE	640	640	1280	Y
E	RETAIL / OFFICE	550	550	1100	N
F	RETAIL / OFFICE	560	560	1120	N
G	MEDIUM RESIDENTIAL	430	430	860	N
H	MEDIUM RESIDENTIAL	785	785	1570	N
I	CIVIC	700	-	700	Y
J	RETAIL / OFFICE	760	760	1520	N
K	RETAIL / OFFICE	1265	1265	2530	N
L	RETAIL / OFFICE	970	-	970	N
M	SUPERMARKET / RETAIL/ OFFICE	5365	1085	6450	Y
N	APARTMENT / RETAIL	1175	1175	2350	N
O	CHILDCARE	500	-	500	N
		16,080	9,630	25,710	

CAR PARKING

OFF STREET	567 SPACES
ON STREET	107 SPACES
TOTAL	674 SPACES



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REVISIONS

FIRSTPRINCIPLES architects & interiors
+64 7 574 6728, po box 14214, tauranga MC 3143, new zealand

Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: MASTERPLAN
Scale: As indicated @ A1

Drawn By: CD/KL | Checked By: GP | Date: 18/05/2020
Project No.: SOU.01 | Sheet No.: 2.1.00 | Revision:

GFA AREAS

BUILDING	USE	GROUND FLOOR M²	FIRST FLOOR M²	TOTAL M²	UNDERCROFT PARKING
A	MOTEL / HOTEL	1085	1085	2170	Y
B	RETAIL / OFFICE	550	550	1100	N
C	RETAIL / OFFICE	745	745	1490	N
D	OFFICE	640	640	1280	Y
E	RETAIL / OFFICE	550	550	1100	N
F	RETAIL / OFFICE	560	560	1120	N
G	MEDIUM RESIDENTIAL	430	430	860	N
H	MEDIUM RESIDENTIAL	785	785	1570	N
I	CIVIC	700	-	700	Y
J	RETAIL / OFFICE	760	760	1520	N
K	RETAIL / OFFICE	1265	1265	2530	N
L	RETAIL / OFFICE	970	-	970	N
M	SUPERMARKET / RETAIL/ OFFICE	5365	1085	6450	Y
N	APARTMENT / RETAIL	1175	1175	2350	N
O	CHILDCARE	500	-	500	N
		16,080	9,630	25,710	

CAR PARKING

OFF STREET	567 SPACES
ON STREET	107 SPACES
TOTAL	674 SPACES



1 MASTERPLAN - PARKING PLAN
1 : 750

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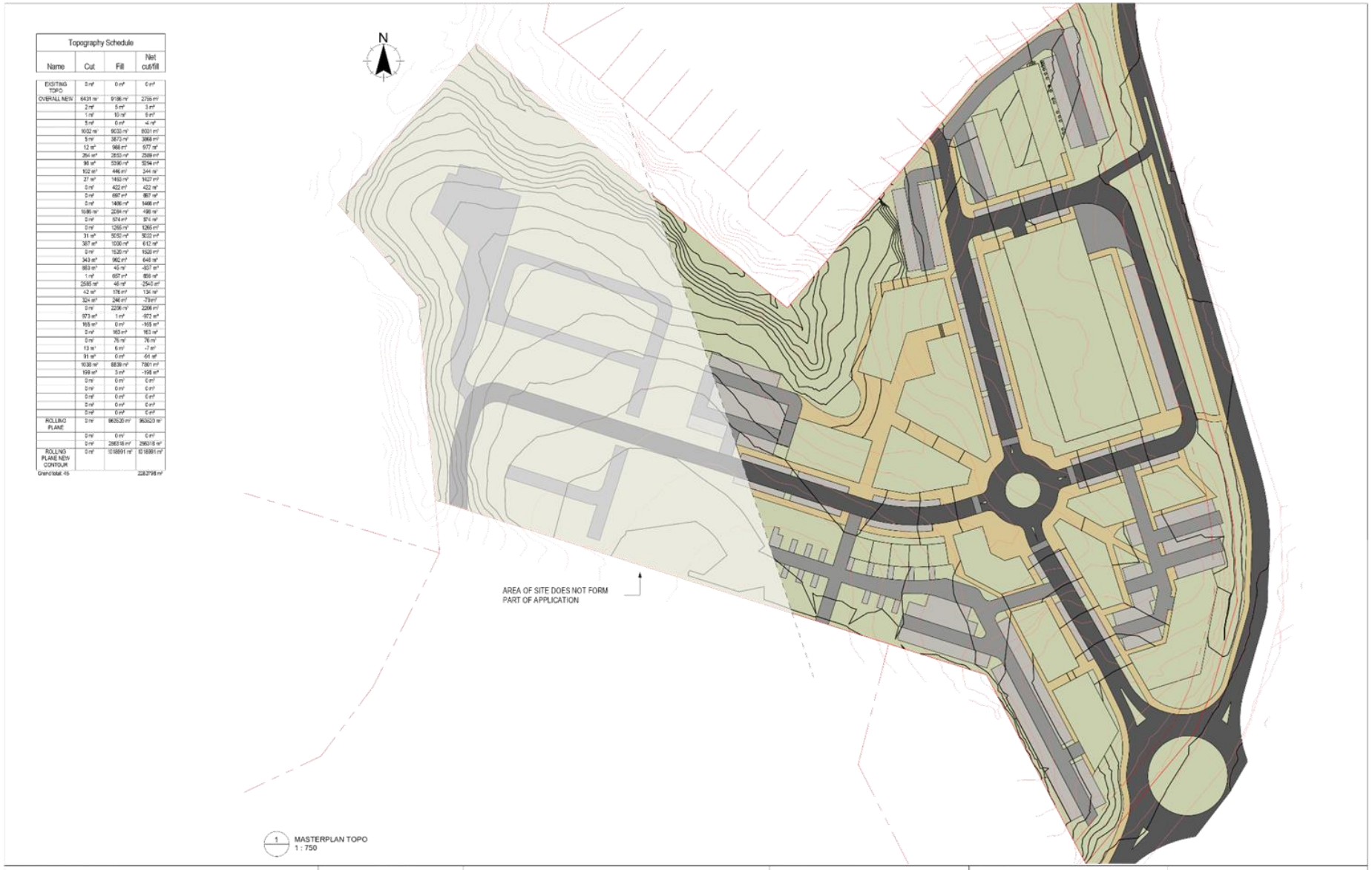
+64 7 574 6728, po box 14214, tauranga MC 3143, new zealand

Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: MASTERPLAN - PARKING PLAN
Scale: As indicated @ A1

Drawn By: CD/KL
Checked By: GP
Date: 18/05/2020
Project No.: SOU.01
Sheet No.: 2.1.01
Revision:

Topography Schedule			
Name	Cut	Fill	Net cut/fill
EXISTING TOPO	0 m²	0 m²	0 m²
OVERALL NEW	6431 m²	9196 m²	2765 m²
	2 m²	5 m²	3 m²
	1 m²	10 m²	9 m²
	5 m²	0 m²	-4 m²
	9032 m²	9033 m²	9031 m²
	5 m²	3873 m²	3868 m²
	12 m²	988 m²	977 m²
	264 m²	2853 m²	2589 m²
	98 m²	5390 m²	5294 m²
	102 m²	446 m²	344 m²
	27 m²	1453 m²	1427 m²
	0 m²	422 m²	422 m²
	0 m²	887 m²	887 m²
	0 m²	1486 m²	1486 m²
	1686 m²	2084 m²	498 m²
	0 m²	574 m²	574 m²
	0 m²	1265 m²	1265 m²
	31 m²	5053 m²	5022 m²
	387 m²	1000 m²	612 m²
	0 m²	1520 m²	1520 m²
	343 m²	992 m²	648 m²
	883 m²	45 m²	-837 m²
	1 m²	857 m²	856 m²
	2585 m²	45 m²	-2540 m²
	42 m²	176 m²	134 m²
	324 m²	246 m²	-79 m²
	0 m²	2206 m²	2206 m²
	973 m²	1 m²	-972 m²
	165 m²	0 m²	-165 m²
	0 m²	163 m²	163 m²
	0 m²	76 m²	76 m²
	13 m²	6 m²	-7 m²
	91 m²	0 m²	-91 m²
	1038 m²	8839 m²	7801 m²
	198 m²	5 m²	-193 m²
	0 m²	0 m²	0 m²
	0 m²	0 m²	0 m²
	0 m²	0 m²	0 m²
	0 m²	0 m²	0 m²
	0 m²	0 m²	0 m²
ROLLING PLANE	0 m²	963520 m²	963520 m²
	0 m²	0 m²	0 m²
	0 m²	2983.18 m²	2983.18 m²
ROLLING PLANE NEW CONTOUR	0 m²	1218691 m²	1218691 m²
Grand total: 45			2282798 m²



1 MASTERPLAN TOPO
1 : 750

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architects & interiors
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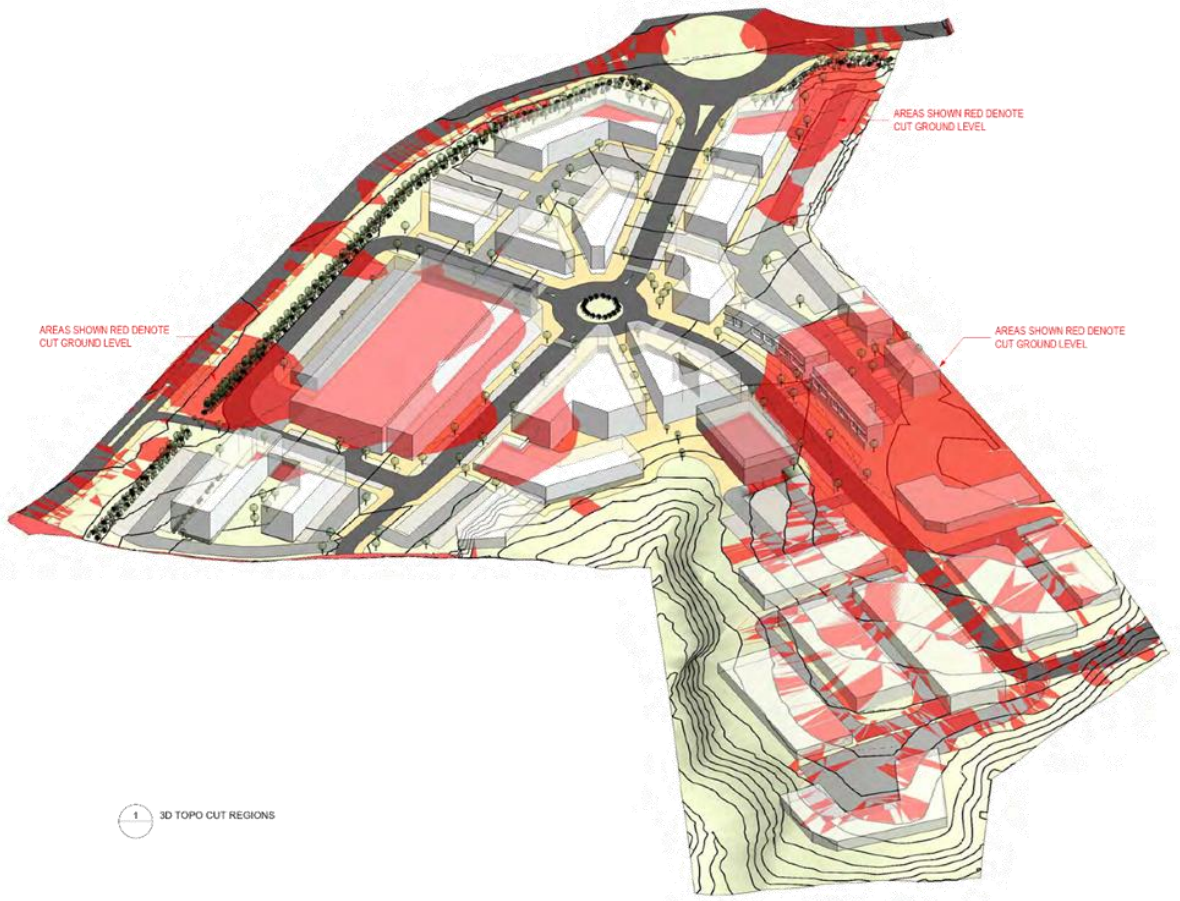
Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: MASTERPLAN TOPO
Scale: 1 : 750 @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	2.1.02	



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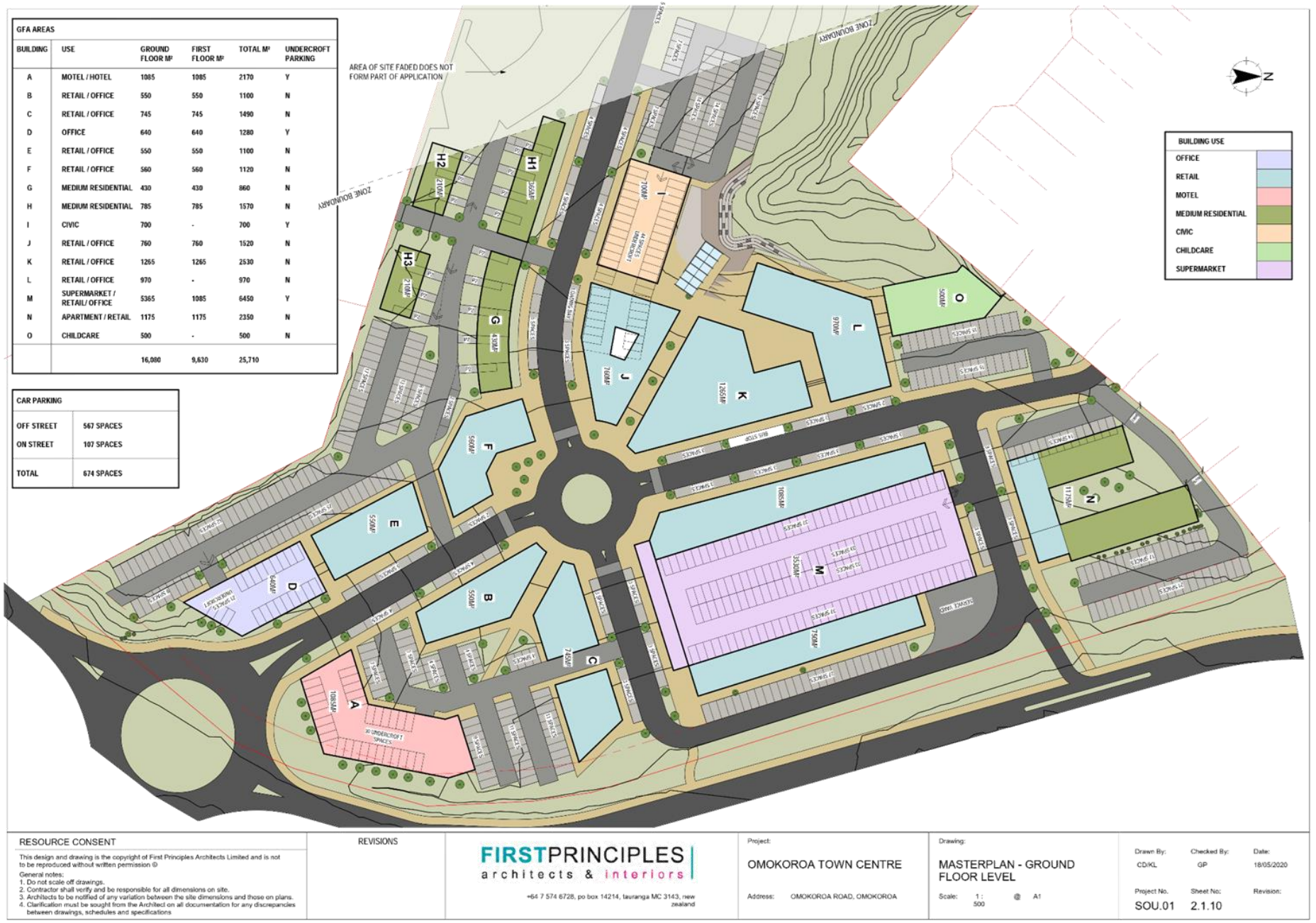
Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: MASTERPLAN CUT 3D
Scale: 1 : 100 @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	2.1.03	


GFA AREAS
BUILDING | USE | GROUND FLOOR M² | FIRST FLOOR M² | TOTAL M² | UNDERCROFT PARKING
A | MOTEL / HOTEL | 1085 | 1085 | 2170 | Y
B | RETAIL / OFFICE | 550 | 550 | 1100 | N
C | RETAIL / OFFICE | 745 | 745 | 1490 | N
D | OFFICE | 640 | 640 | 1280 | Y
E | RETAIL / OFFICE | 550 | 550 | 1100 | N
F | RETAIL / OFFICE | 560 | 560 | 1120 | N
G | MEDIUM RESIDENTIAL | 430 | 430 | 860 | N
H | MEDIUM RESIDENTIAL | 785 | 785 | 1570 | N
I | CIVIC | 700 | - | 700 | Y
J | RETAIL / OFFICE | 760 | 760 | 1520 | N
K | RETAIL / OFFICE | 1265 | 1265 | 2530 | N
L | RETAIL / OFFICE | 970 | - | 970 | N
M | SUPERMARKET / RETAIL/ OFFICE | 5365 | 1085 | 6450 | Y
N | APARTMENT / RETAIL | 1175 | 1175 | 2350 | N
O | CHILDCARE | 500 | - | 500 | N
16,080 | 9,630 | 25,710
CAR PARKING
OFF STREET 567 SPACES
ON STREET 107 SPACES
TOTAL 674 SPACES
AREA OF SITE FADED DOES NOT FORM PART OF APPLICATION
ZONE BOUNDARY
BUILDING USE
OFFICE
RETAIL
MOTEL
MEDIUM RESIDENTIAL
CIVIC
CHILDCARE
SUPERMARKET
N
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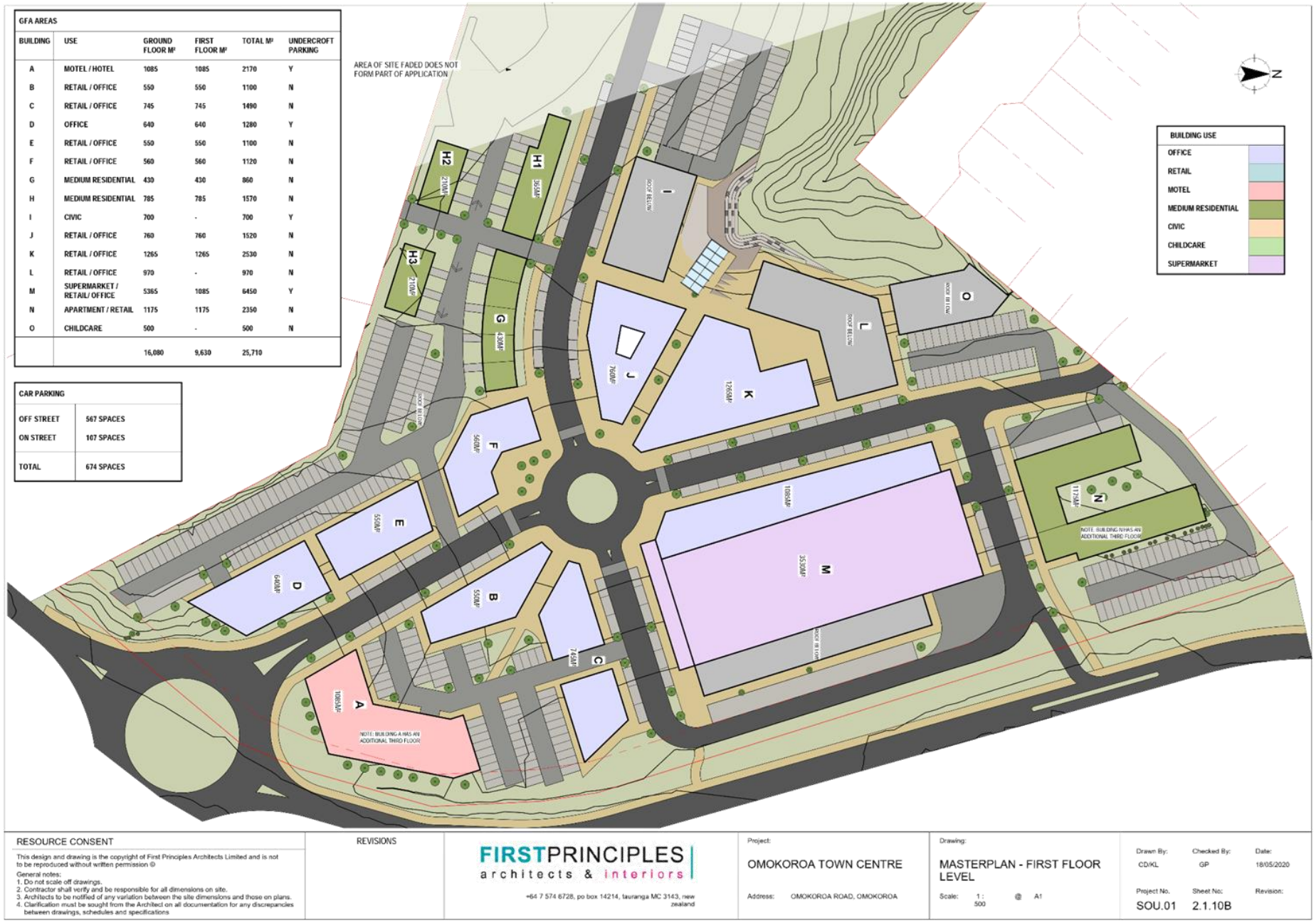
REVISIONS
FIRSTPRINCIPLES
architects & interiors
+64 7 574 6728, po box 14214, tauranga MC 3143, new zealand
Project:
OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA
Drawing:
MASTERPLAN - GROUND FLOOR LEVEL
Scale: 1 : 500 @ A1
Drawn By: CD/KL
Checked By: GP
Date: 18/05/2020
Project No. SOU.01
Sheet No: 2.1.10
Revision:


GFA AREAS
BUILDING | USE | GROUND FLOOR M² | FIRST FLOOR M² | TOTAL M² | UNDERCROFT PARKING
A | MOTEL / HOTEL | 1085 | 1085 | 2170 | Y
B | RETAIL / OFFICE | 550 | 550 | 1100 | N
C | RETAIL / OFFICE | 745 | 745 | 1490 | N
D | OFFICE | 640 | 640 | 1280 | Y
E | RETAIL / OFFICE | 550 | 550 | 1100 | N
F | RETAIL / OFFICE | 560 | 560 | 1120 | N
G | MEDIUM RESIDENTIAL | 430 | 430 | 860 | N
H | MEDIUM RESIDENTIAL | 785 | 785 | 1570 | N
I | CIVIC | 700 | - | 700 | Y
J | RETAIL / OFFICE | 760 | 760 | 1520 | N
K | RETAIL / OFFICE | 1265 | 1265 | 2530 | N
L | RETAIL / OFFICE | 970 | - | 970 | N
M | SUPERMARKET / RETAIL/ OFFICE | 5365 | 1085 | 6450 | Y
N | APARTMENT / RETAIL | 1175 | 1175 | 2350 | N
O | CHILDCARE | 500 | - | 500 | N
16,080 | 9,630 | 25,710
CAR PARKING
OFF STREET 567 SPACES
ON STREET 107 SPACES
TOTAL 674 SPACES
AREA OF SITE FADED DOES NOT FORM PART OF APPLICATION
N
BUILDING USE
OFFICE
RETAIL
MOTEL
MEDIUM RESIDENTIAL
CIVIC
CHILDCARE
SUPERMARKET
NOTE: BUILDING A HAS AN ADDITIONAL THIRD FLOOR
NOTE: BUILDING N HAS AN ADDITIONAL THIRD FLOOR
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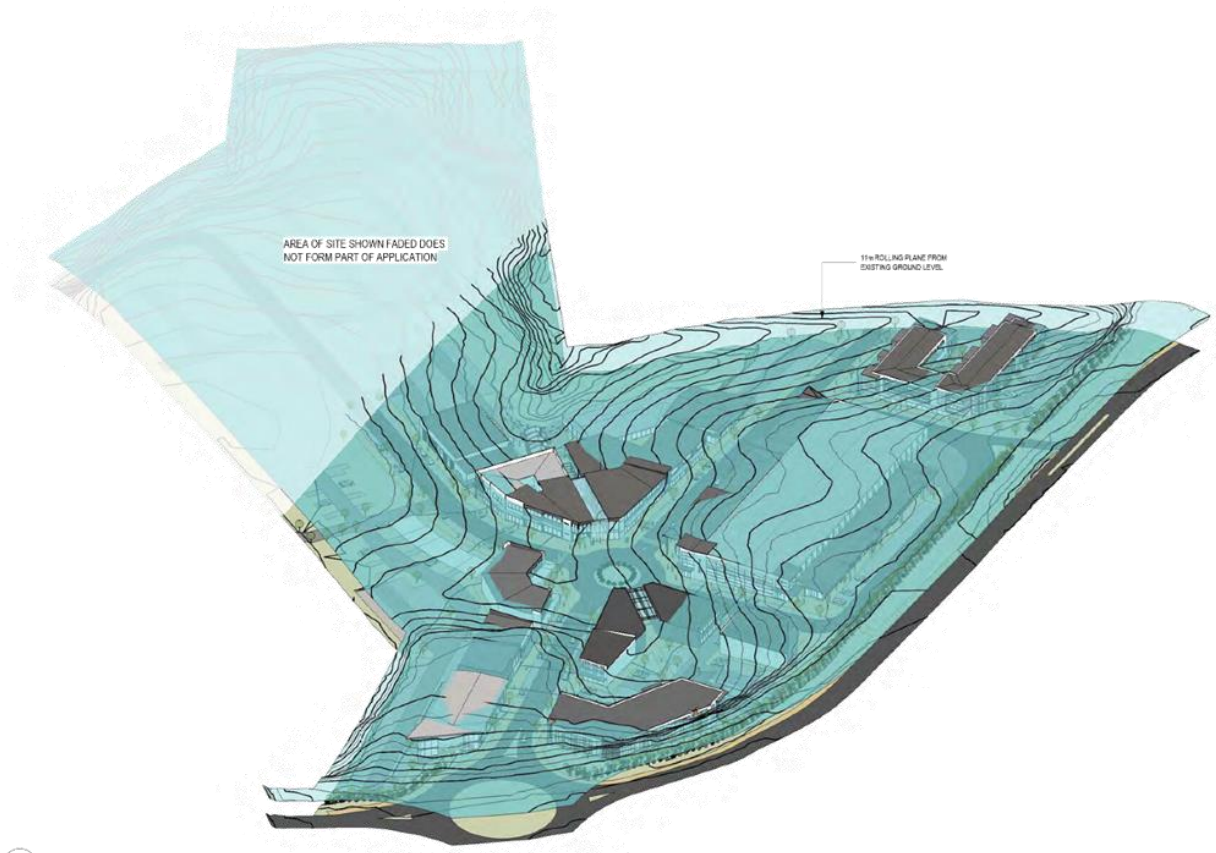
REVISIONS
FIRSTPRINCIPLES
architects & interiors
+64 7 574 6728, po box 14214, tauranga MC 3143, new zealand
Project:
OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA
Drawing:
MASTERPLAN - FIRST FLOOR LEVEL
Scale: 1 : 500 @ A1
Drawn By: CD/KL
Checked By: GP
Date: 18/05/2020
Project No. SOU.01
Sheet No: 2.1.10B
Revision:



1 AERIAL 1

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REVISIONS

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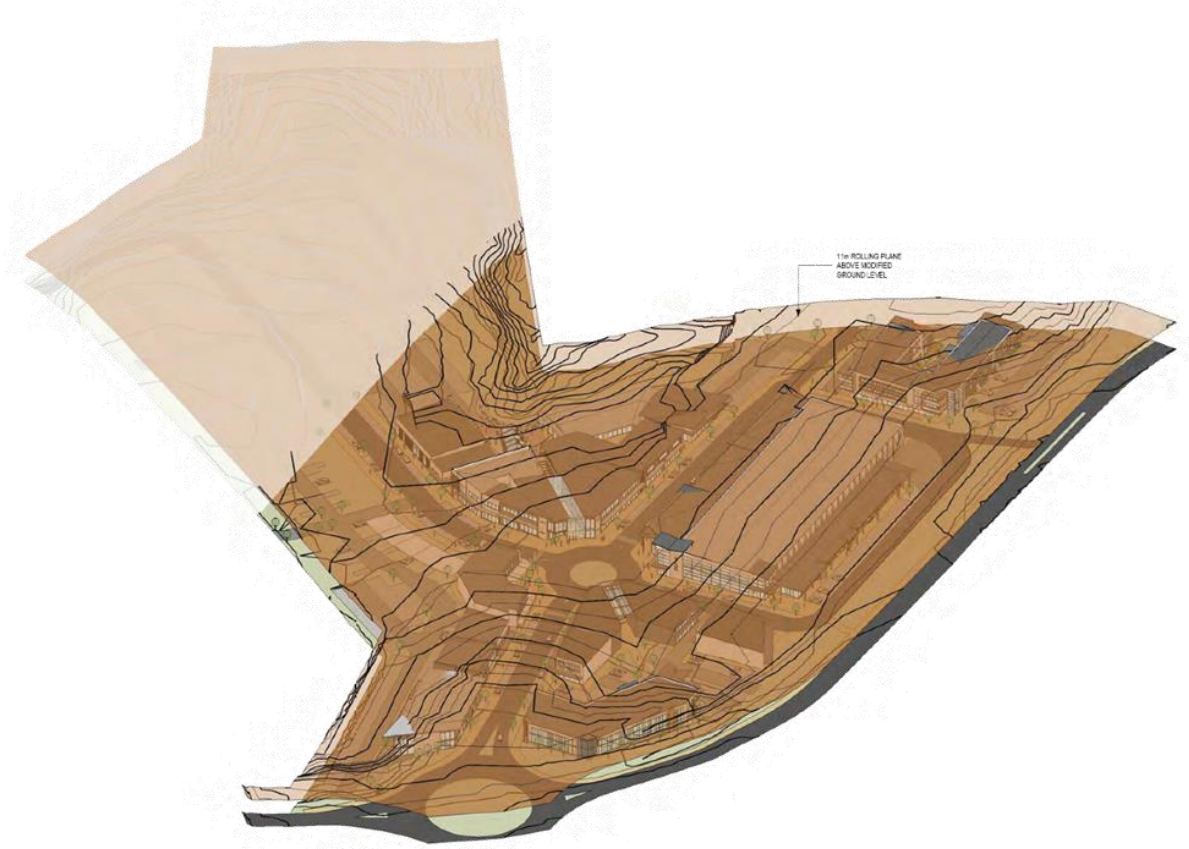
architects & interiors
+64 7 574 6728, po box 14214, tauranga MC 3143, new zealand

Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: 3D'S
Scale: @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	2.1.12	



1 AERIAL 1 NEW CONTOUR ROLLING PLANE

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REVISIONS

FIRSTPRINCIPLES
architects & interiors
+64 7 574 6728, po box 14214, tauranga MC 3143, new zealand

Project: OMOKOROA TOWN CENTRE

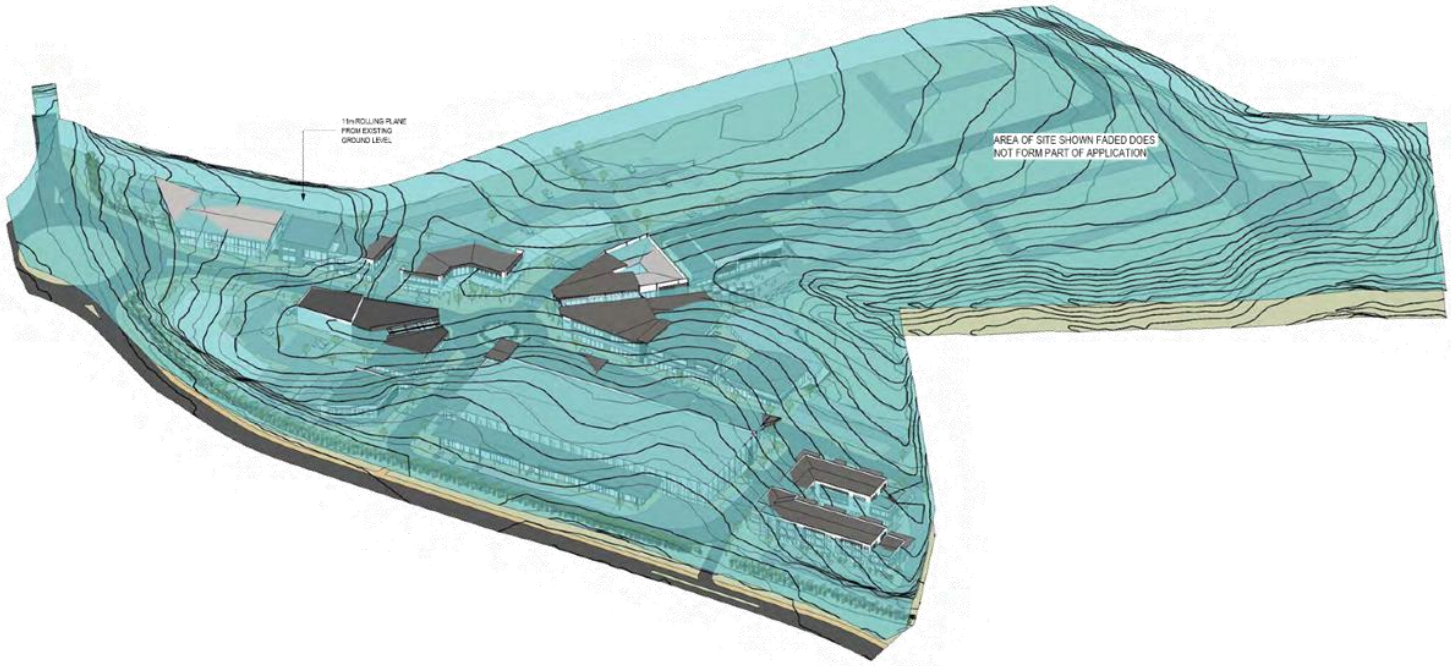
Address: OMOKOROA ROAD, OMOKOROA

Drawing: BUILDING HEIGHT ABOVE MODIFIED GROUND LEVEL

Scale: @ A1

Drawn By:	Checked By:	Date:
Author	Checker	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	2.1.12A	



1 AERIAL 2

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REVISIONS

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architects & interiors
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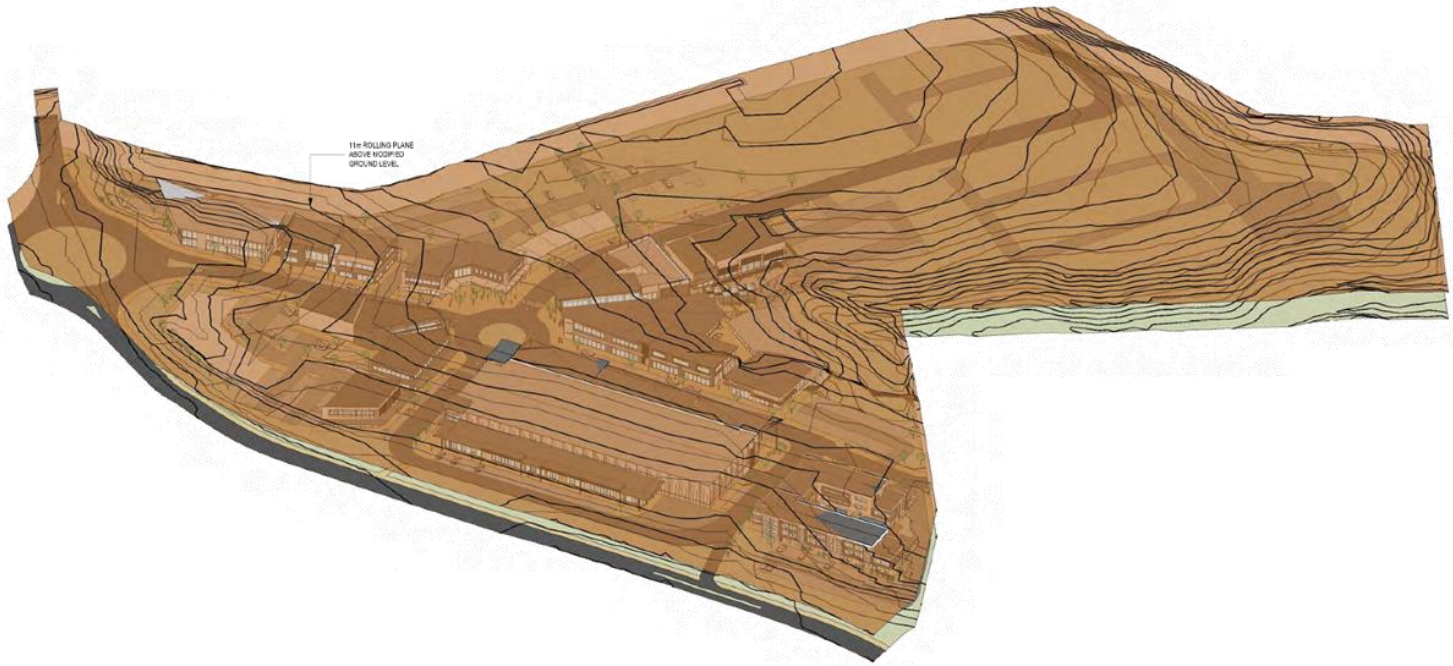
Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: 3D'S
Scale: @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	2.1.13	



1 AERIAL 2 NEW CONTOUR ROLLING PLANE

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Project: OMOKOROA TOWN CENTRE

Address: OMOKOROA ROAD, OMOKOROA

Drawing: BUILDING HEIGHT ABOVE MODIFIED GROUND LEVEL

Scale: @ A1

Drawn By:	Checked By:	Date:
Author	Checker	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	2.1.13A	



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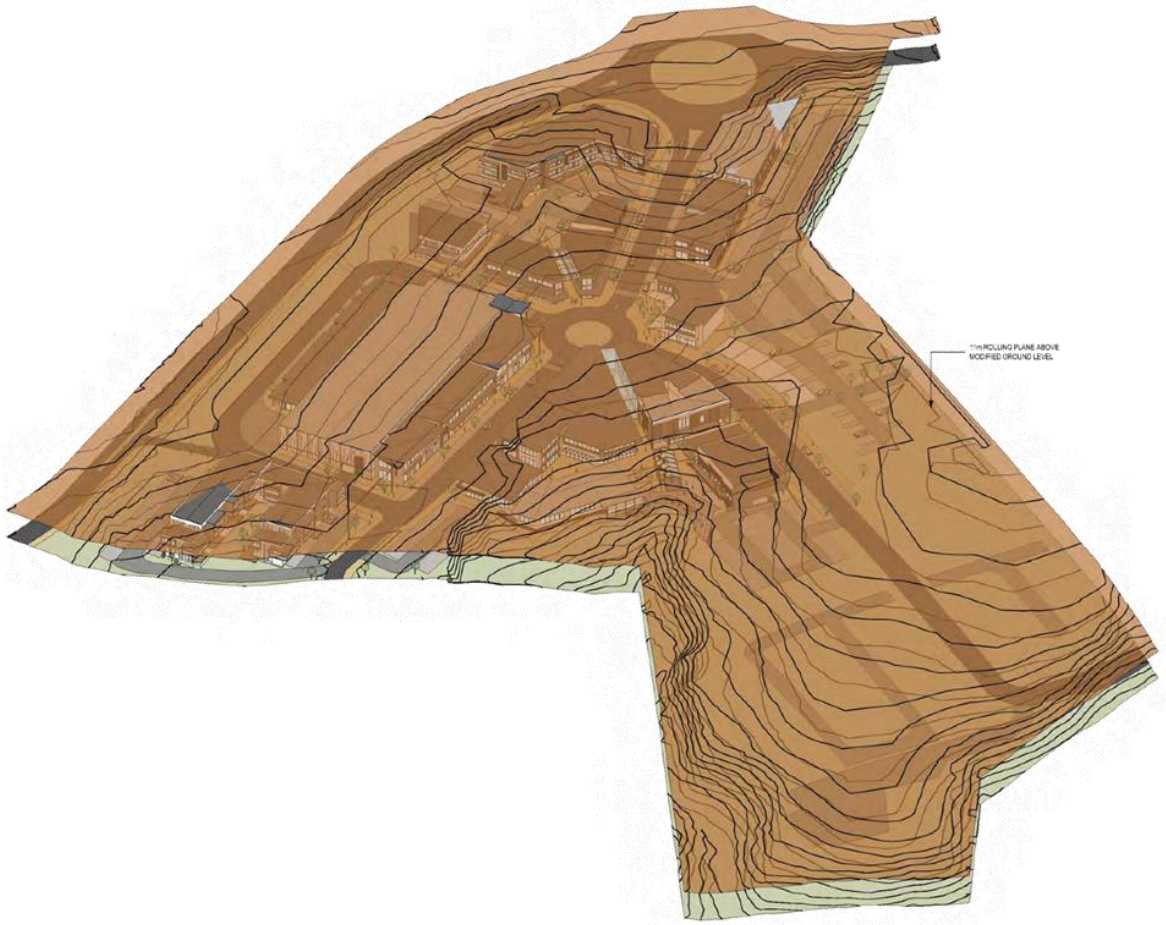
Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: 3D'S
Scale: 1 : 500 @ A1

Drawn By: CD/KL
Checked By: GP
Date: 08/05/2020
Project No.: SOU.01
Sheet No.: 2.1.14
Revision:



1 AERIAL 3 NEW CONTOUR ROLLING PLANE

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REVISIONS

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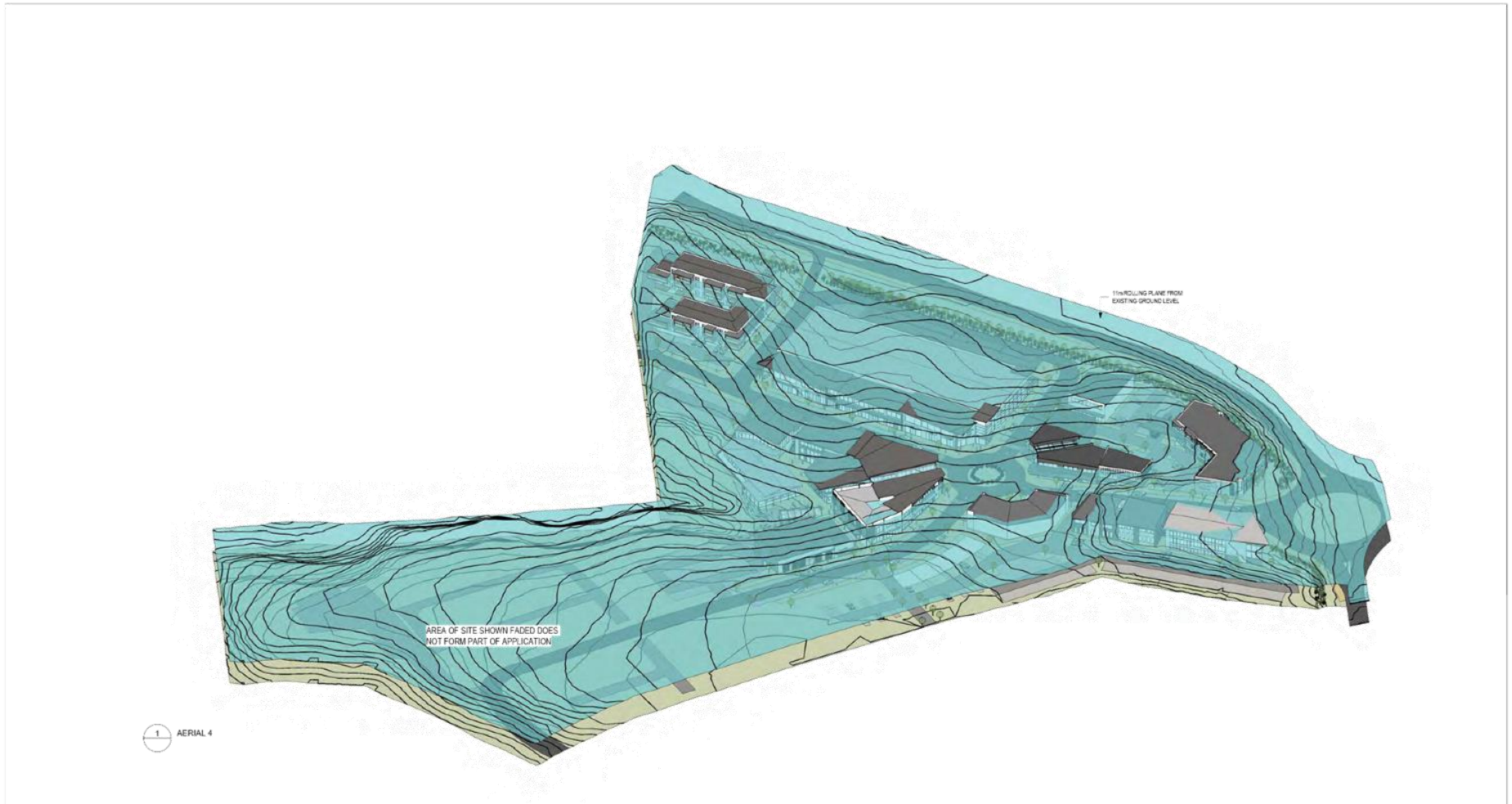
architects & interiors
+64 7 574 6728, po box 14214, tauranga MC 3143, new zealand

Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: BUILDING HEIGHT ABOVE MODIFIED GROUND LEVEL
Scale: @ A1

Drawn By:	Checked By:	Date:
Author	Checker	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	2.1.14A	



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REVISIONS

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architects & interiors
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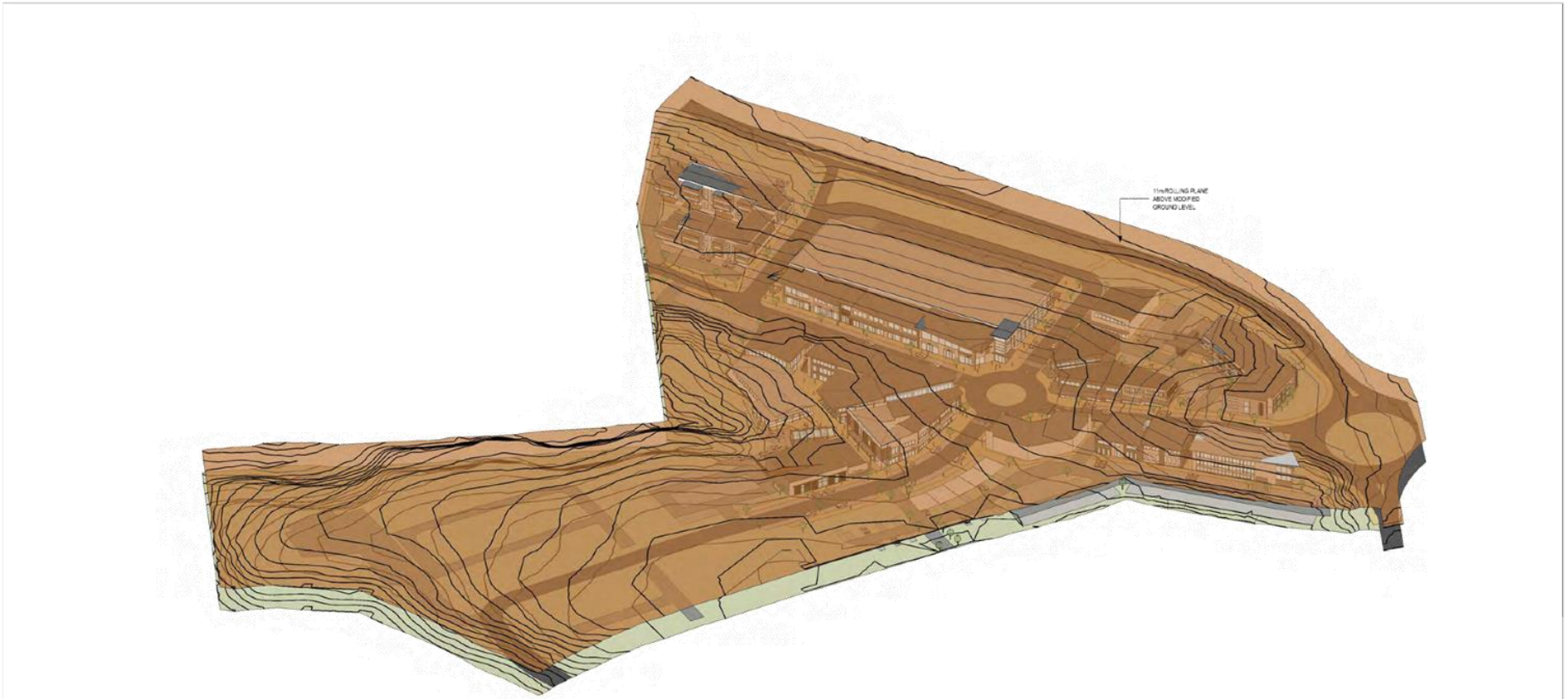
Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: 3D'S
Scale: 1 : 500 @ A1

Drawn By: CD/KL
Checked By: GP
Date: 08/05/2020
Project No.: SOU.01
Sheet No.: 2.1.15
Revision:



1 AERIAL 4 NEW CONTOUR ROLLING PLANE

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REVISIONS

FIRSTPRINCIPLES
architects & interiors
+64 7 574 6728, po box 14214, tauranga MC 3143, new zealand

Project: OMOKOROA TOWN CENTRE

Address: OMOKOROA ROAD, OMOKOROA

Drawing: BUILDING HEIGHT ABOVE MODIFIED GROUND LEVEL

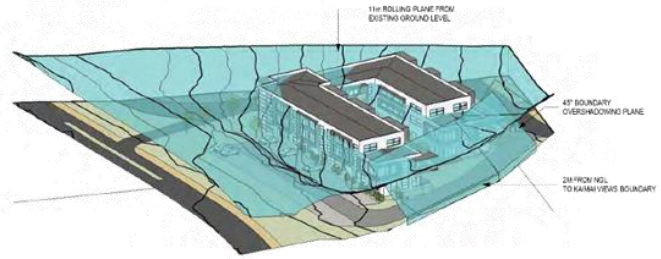
Scale: @ A1

Drawn By:	Checked By:	Date:
Author	Checker	08/05/2020

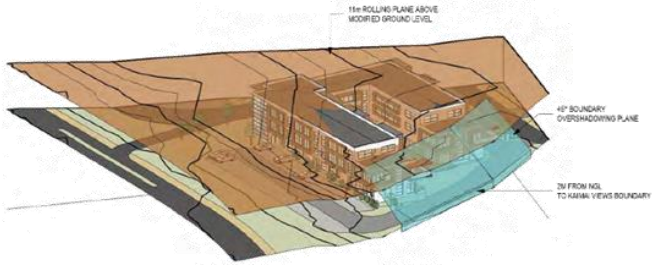
Project No.	Sheet No:	Revision:
SOU.01	2.1.15A	



2 AERIAL 2 NEW CONTOUR ROLLING PLANE BUILDING N



1 AERIAL 2 NEW CONTOUR ROLLING PLANE BUILDING N Copy 1



3 AERIAL 2 NEW CONTOUR ROLLING PLANE BUILDING N Copy 1 Copy 1

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REVISIONS

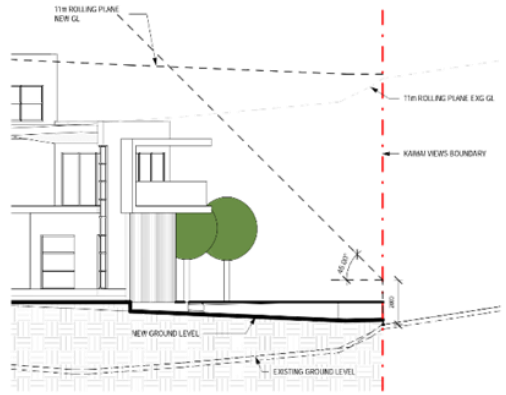
FIRSTPRINCIPLES
architects & interiors
+64 7 574 6728, po box 14214, tauranga MC 3143, new zealand

Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

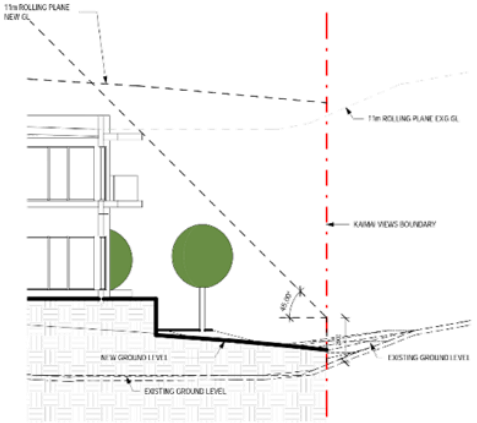
Drawing: OVERSHADOWING DIAGRAMS
Scale: @ A1

Drawn By:	Checked By:	Date:
Author	Checker	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	2.1.15B	



1 BUILDING N - OVERSHADOWING SECTION 1
1 : 100



2 BUILDING N - OVERSHADOWING SECTION 2
1 : 100

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REVISIONS

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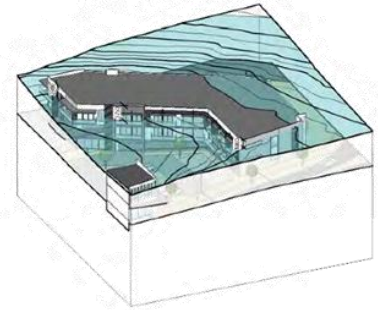
+64 7 574 6728, po box 14214, tauranga MC 3143, new zealand

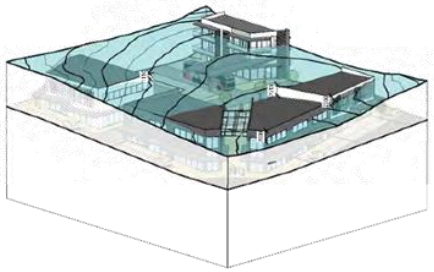
Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: OVERSHADOWING SECTIONS
Scale: 1 : 100 @ A1

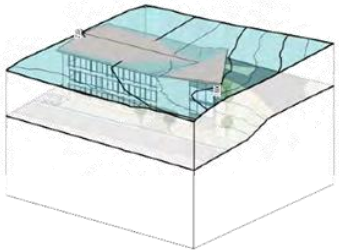
Drawn By: Author
Checked By: Checker
Date: 19/05/2020
Project No.: SOU.01
Sheet No.: 2.1.15C
Revision:



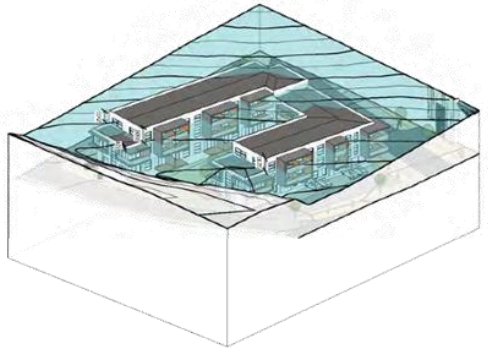
1 BUILDING A - HEIGHT INTRUSION



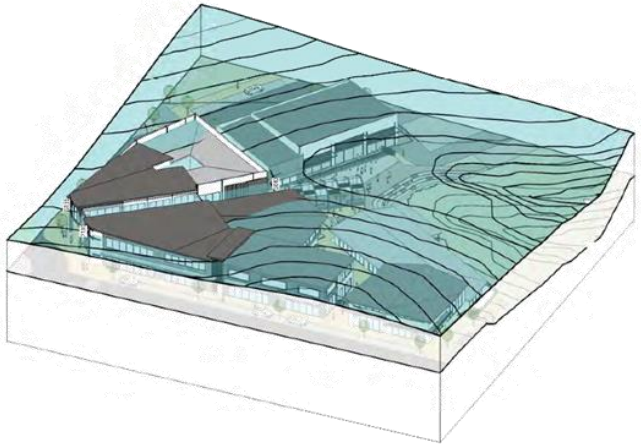
2 BUILDING B&C - HEIGHT INTRUSION



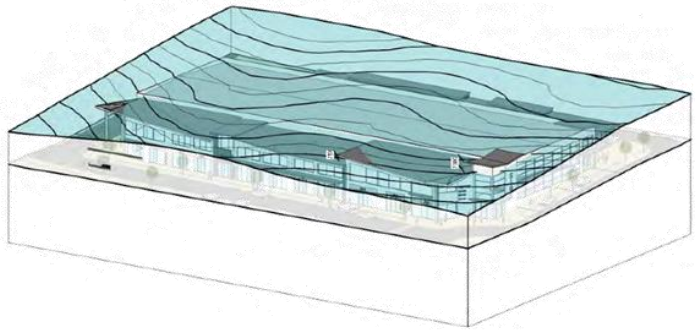
3 BUILDING D - HEIGHT INTRUSION



6 BUILDING N - HEIGHT INTRUSION



4 BUILDING I, J K L - HEIGHT INTRUSION



5 BUILDING M - HEIGHT INTRUSION

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Project: OMOKOROA TOWN CENTRE

Address: OMOKOROA ROAD, OMOKOROA

Drawing: ROLLING PLANE INTRUSIONS - EXISTING GROUND LEVEL

Scale: @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	19/05/2020

Project No.	Sheet No:	Revision:
SOU.01	2.1.15D	



1 MAIN ENTRY ROUNDABOUT VIEW



2 INTERNAL VIEW - TOWARDS ROUNDABOUT



4 INTERNAL VIEW - TOWARDS INTERNAL ROUNDABOUT

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Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

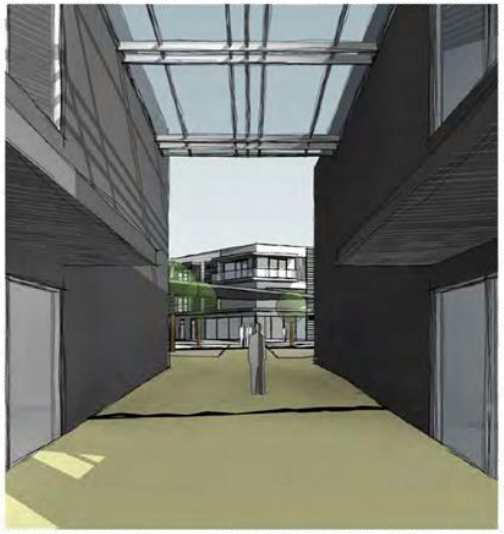
Drawing: PERSPECTIVES
Scale: @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	2.1.16	



1 VIEW FROM KAIMAI VIEWS - TOWARDS SUPERMARKET AND CENTRAL ROUNDABOUT



4 INTERNAL VIEW - TOWARDS HOTEL



3 INTERNAL VIEW - CORRIDOR BETWEEN BUILDINGS K & L



2 VIEW TOWARDS CENTRAL ROUNDABOUT

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Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: PERSPECTIVES
Scale: @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	2.1.17	



1 VIEW FROM GULLEY TO MARKET PLACE

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Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: PERSPECTIVES
Scale: @ A1

Drawn By: Author
Checked By: Checker
Date: 08/05/2020
Project No.: SOU.01
Sheet No.: 2.1.18
Revision:



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Project: OMOKOROA TOWN CENTRE

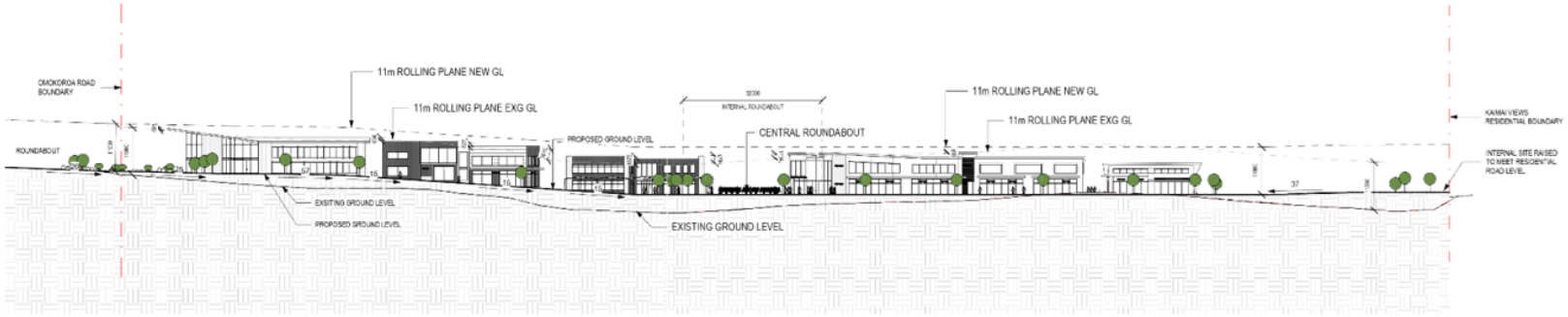
Address: OMOKOROA ROAD, OMOKOROA

Drawing: AXONOMETRIC

Scale: @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	2.1.20	



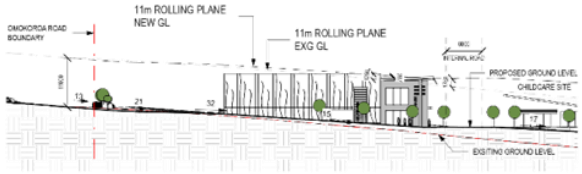
1 2.1.108 MAIN ROAD 1
1 : 500

2 2.1.108 MAIN ROAD 2
1 : 500

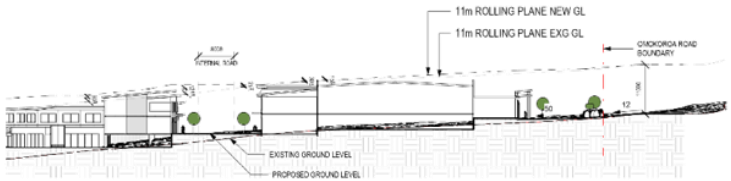
3 2.1.108 MAIN ROAD 3
1 : 500



4 2.1.108 ROUNDABOUT SECTION
1 : 500



5 2.1.108 SECONDARY EXIT TO OMOKOROA ROAD
1 : 500



6 2.1.108 INTERNAL ROAD SECTION
1 : 500

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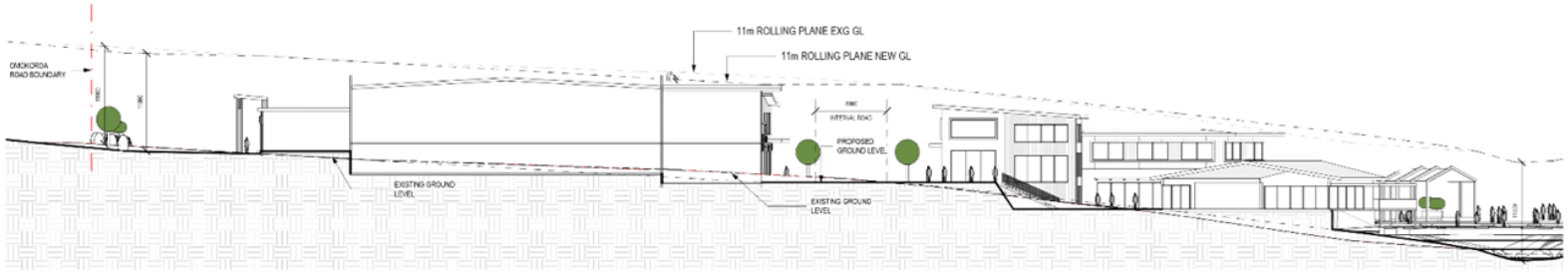
Drawing: ACCESS GRADIENT SECTIONS
Scale: 1 : 500 @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	3.1.10	



1 2.1.10B SECTION THROUGH SUPERMARKET AND RETAIL
1 : 250



2 2.1.10B SECTION THROUGH BUILDING N
1 : 250

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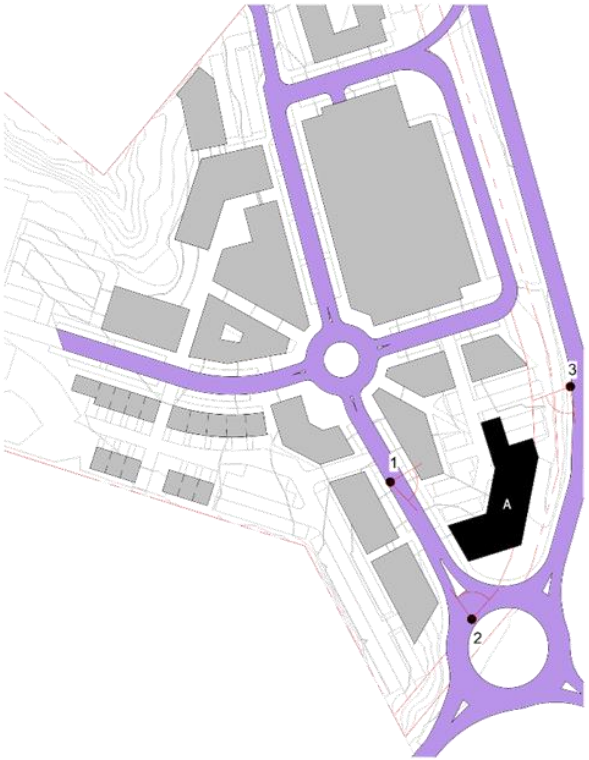
Address: OMOKOROA ROAD, OMOKOROA

Drawing: SITE SECTIONS
Scale: 1 : 250 @ A1

Drawn By: Author
Checked By: Checker
Date: 08/05/2020
Project No.: SOU.01
Sheet No.: 3.1.11
Revision:



A MASTERPLAN - BUILDING A LOCATION OF VIEW POINTS
1 : 1000



1 A_VIEW 1



2 A_VIEW 2



3 A_VIEW 3

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Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: BUILDING A - HOTEL
Scale: 1 : 1000 @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	4.0.10	



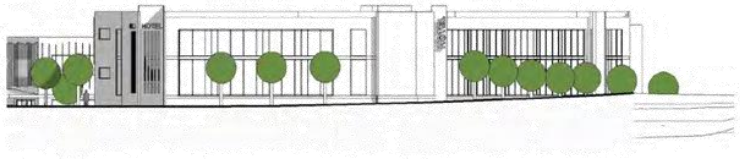
1 BUILDING A LOWER GROUND FLOOR PLAN
1 : 400



7 BUILDING A GROUND FLOOR PLAN
1 : 400



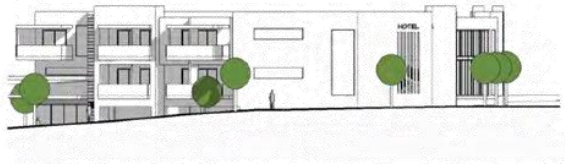
5 BUILDING A FIRST FLOOR PLAN
1 : 400



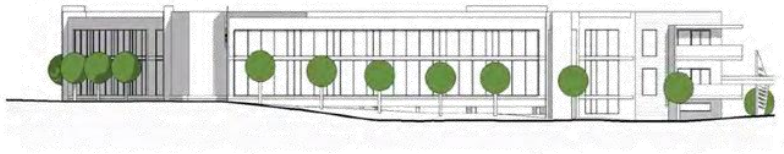
4 A_SOUTH ELEVATION
1 : 200



6 A_NORTH ELEVATION
1 : 200



3 A_WEST ELEVATION
1 : 200



2 A_EAST ELEVATION
1 : 200

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Address: OMOKOROA ROAD, OMOKOROA

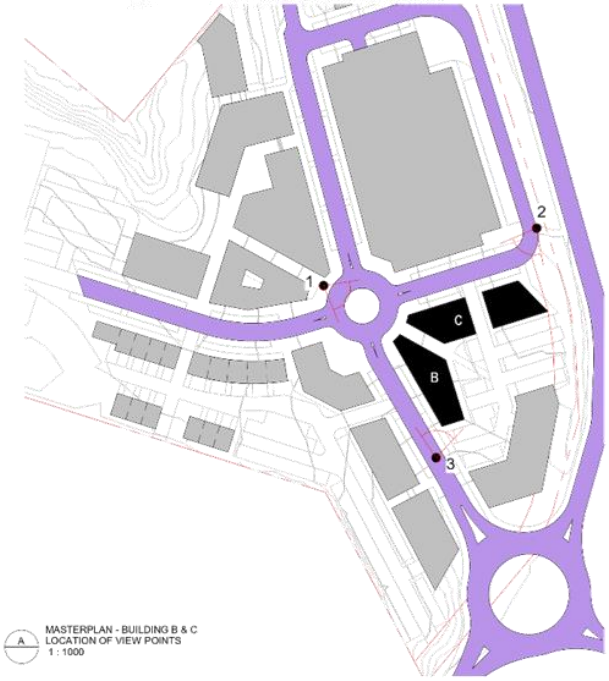
Drawing: BUILDING A - HOTEL
Scale: As indicated @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	4.0.11	



1 BC - VIEW 1



A MASTERPLAN - BUILDING B & C
LOCATION OF VIEW POINTS
1 : 1000



2 BC - VIEW 2



3 BC - VIEW 3

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Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: BUILDING B & C - RETAIL + OFFICE
Scale: 1 : 1000 @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

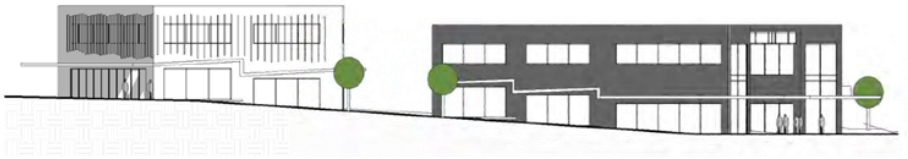
Project No.	Sheet No:	Revision:
SOU.01	4.0.20	



4 BUILDING B & C - RETAIL AND OFFICE
GROUND FLOOR PLAN
1 : 400



5 BUILDING B & C - RETAIL AND OFFICE
FIRST FLOOR PLAN
1 : 400



1 C - NORTH ELEVATION
1 : 200



3 B & C - NORTHWEST ELEVATION
1 : 200



2 B - WEST ELEVATION
1 : 200

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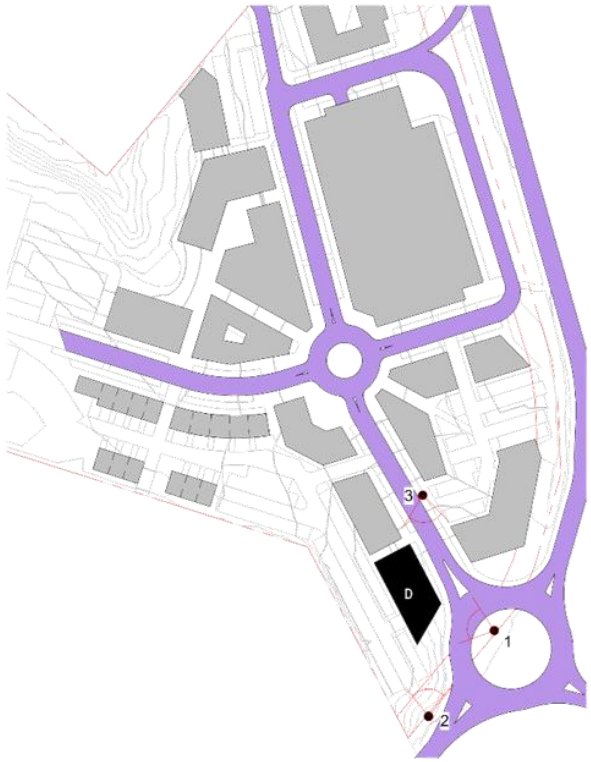
Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: BUILDING B & C - RETAIL + OFFICE
Scale: As indicated @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	4.0.21	



A MASTERPLAN - BUILDING D LOCATION OF VIEW POINTS
1 : 1000



1 D_VIEW 1



2 D_VIEW 2



3 D_VIEW 3

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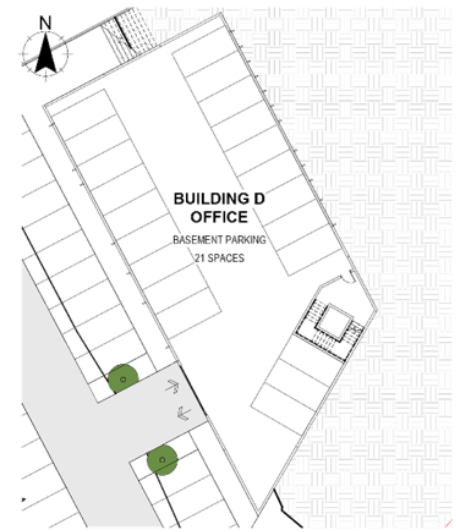
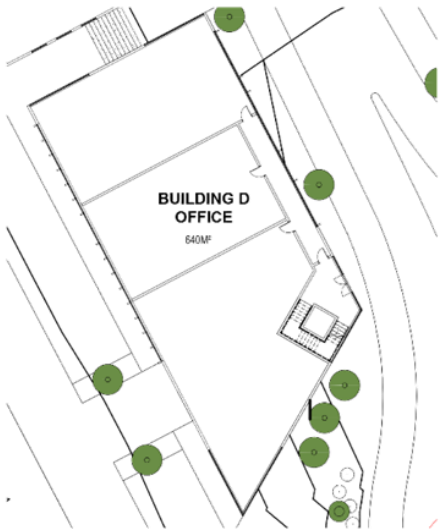
Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: BUILDING D - OFFICE
Scale: 1 : 1000 @ A1

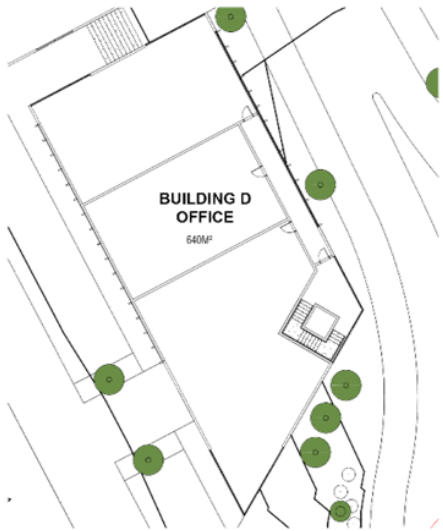
Drawn By: CD/KL
Checked By: GP
Date: 08/05/2020
Project No.: SOU.01
Sheet No.: 4.0.30
Revision:



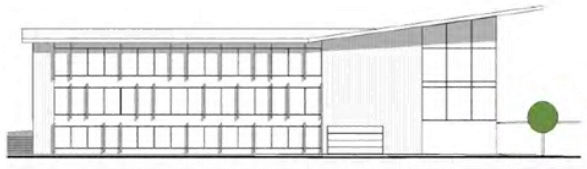
7 BUILDING D_SUB GROUND FLOOR PLAN
1 : 200



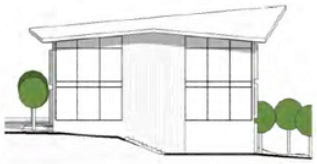
1 BUILDING D_GROUND FLOOR PLAN
1 : 200



4 BUILDING D_FIRST FLOOR PLAN
1 : 200



6 D_SOUTHWEST ELEVATION
1 : 200



3 D_NORTHWEST ELEVATION
1 : 200



2 D_NORTHEAST ELEVATION
1 : 200



5 D_SOUTHEAST ELEVATION
1 : 200

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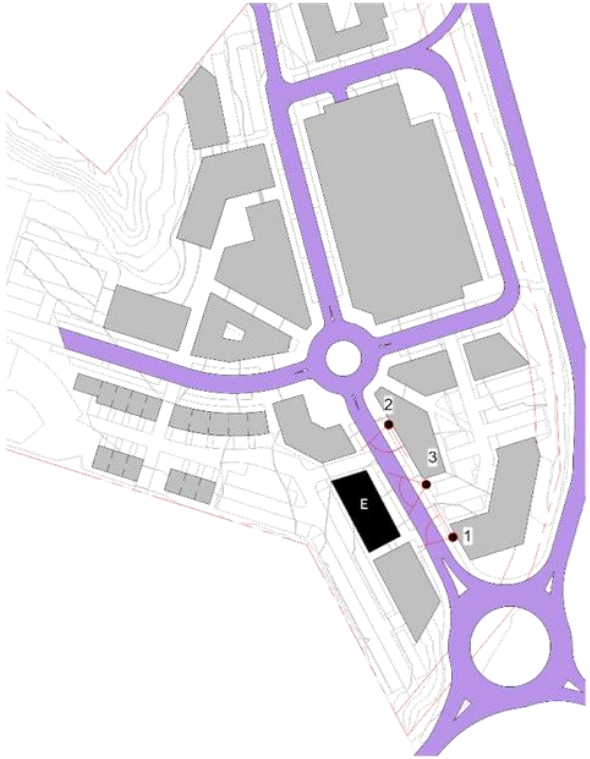
Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: BUILDING D - OFFICE
Scale: 1 : 200 @ A1

Drawn By: CD/KL
Checked By: GP
Date: 08/05/2020
Project No.: SOU.01
Sheet No.: 4.0.31
Revision:



1 MASTERPLAN - BUILDING E LOCATION OF VIEW POINTS
1 : 1000



2 E_VIEW 1



3 E_VIEW 2



4 E_VIEW 3

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REVISIONS

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+64 7 574 6728, po box 14214, tauranga MC 3143, new zealand

Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

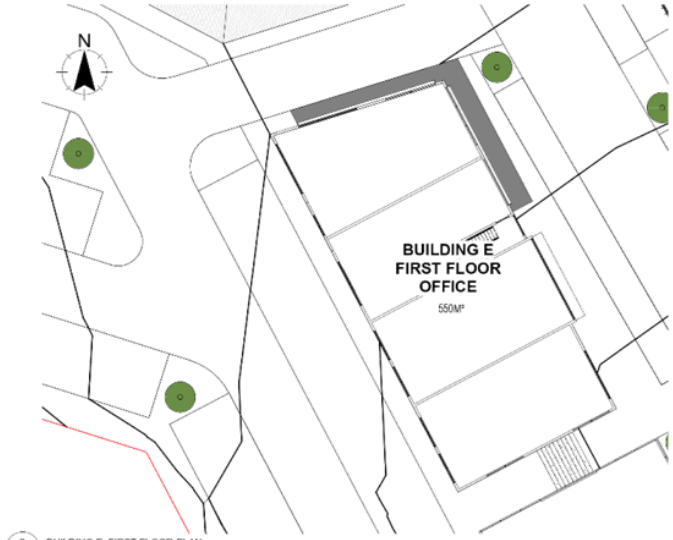
Drawing: BUILDING E - RETAIL + OFFICE
Scale: 1 : 1000 @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	4.0.40	



1 BUILDING E_GROUND FLOOR PLAN
1 : 200



2 BUILDING E_FIRST FLOOR PLAN
1 : 200



3 E - EAST ELEVATION
1 : 200



4 E - NORTH ELEVATION
1 : 200



5 E - WEST ELEVATION
1 : 200

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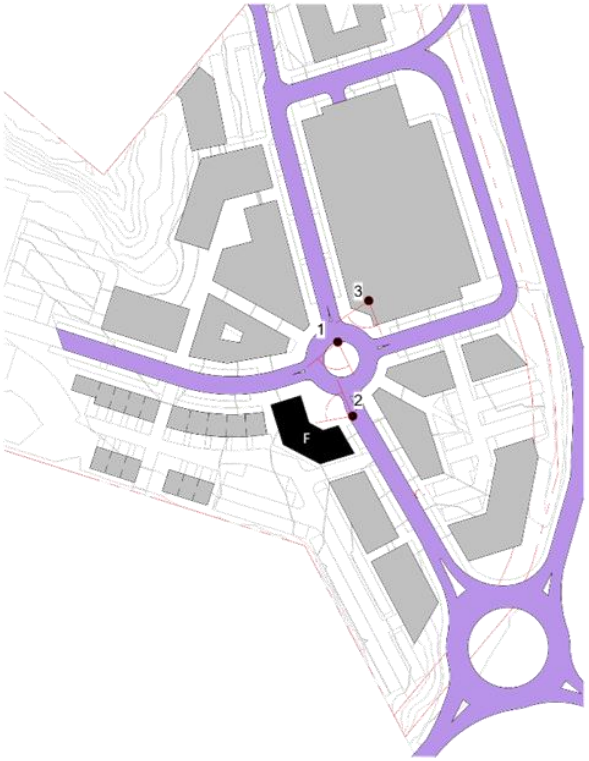
Address: OMOKOROA ROAD, OMOKOROA

Drawing: BUILDING E - RETAIL + OFFICE
Scale: 1 : 200 @ A1

Drawn By: Author
Checked By: Checker
Date: 08/05/2020
Project No.: SOU.01
Sheet No.: 4.0.41
Revision:



A MASTERPLAN - BUILDING F LOCATION OF VIEW POINTS
1 : 1000



1 F_VIEW 1



2 F_VIEW 2



3 F_VIEW 3

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Address: OMOKOROA ROAD, OMOKOROA

Drawing: BUILDING F - RETAIL + OFFICE
Scale: 1 : 1000 @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

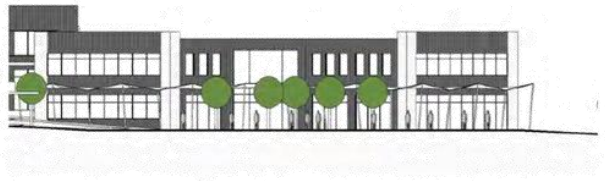
Project No.	Sheet No:	Revision:
SOU.01	4.0.50	



1 BUILDING F GROUND FLOOR PLAN
1 : 200



2 F_EAST ELEVATION
1 : 200



6 F_NORTHEAST ELEVATION
1 : 200



3 F_NORTH ELEVATION
1 : 200



4 BUILDING F FIRST FLOOR PLAN
1 : 200



5 F_VIEW 4

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Project: OMOKOROA TOWN CENTRE
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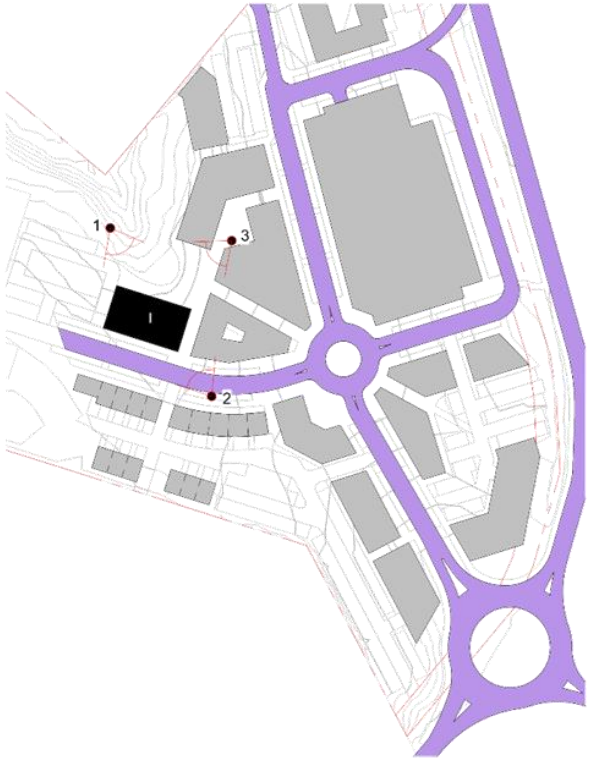
Drawing: BUILDING F - RETAIL + OFFICE
Scale: 1 : 200 @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	4.0.51	



3 I_VIEW 3



A MASTERPLAN - BUILDING J LOCATION OF VIEW POINTS
1 : 1000



1 I_VIEW 1



2 I_VIEW 2

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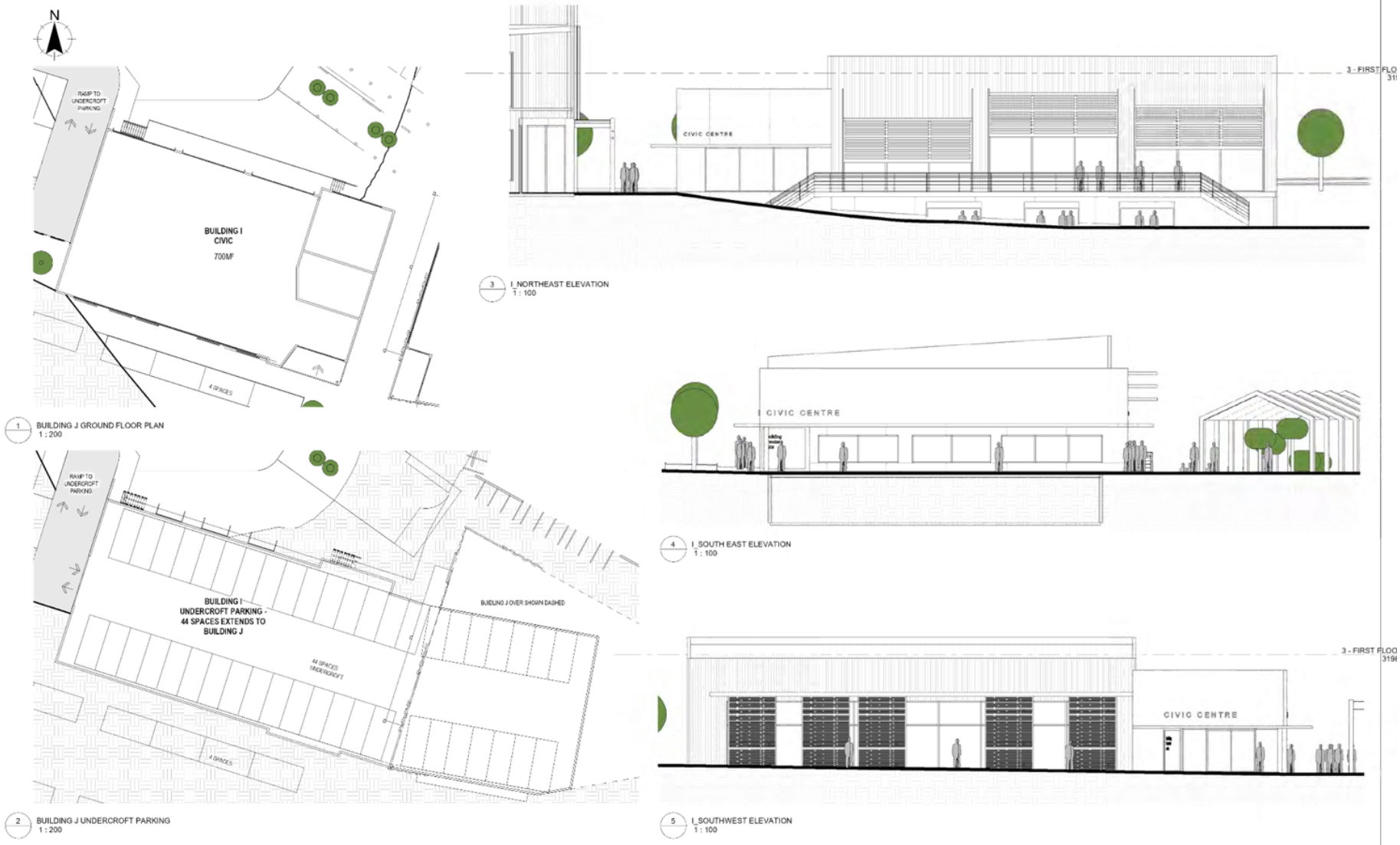
Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: BUILDING I - CIVIC
Scale: 1 : 1000 @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	4.0.80	


N
RAMP TO UNDERCROFT PARKING
BUILDING I
CIVIC
700MF
4 SPACES
1 BUILDING J GROUND FLOOR PLAN
1 : 200
3 I_NORTHEAST ELEVATION
1 : 100
CIVIC CENTRE
3 - FIRST FLO
31
4 I_SOUTH EAST ELEVATION
1 : 100
RAMP TO UNDERCROFT PARKING
BUILDING I
UNDERCROFT PARKING -
44 SPACES EXTENDS TO
BUILDING J
BUILDING J OVER SHOWN DASHED
44 SPACES UNDERCROFT
4 SPACES
2 BUILDING J UNDERCROFT PARKING
1 : 200
5 I_SOUTHWEST ELEVATION
1 : 100
CIVIC CENTRE
3 - FIRST FLOO
319
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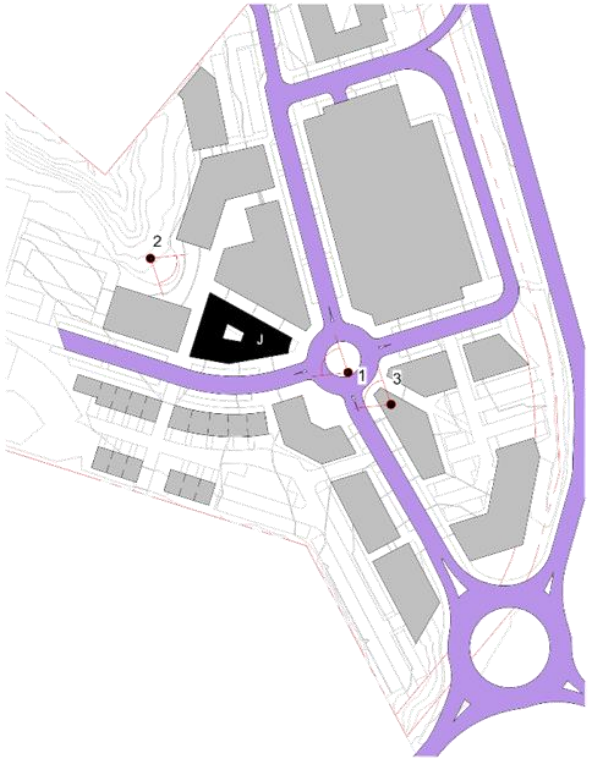
+64 7 574 6728, po box 14214, tauranga MC 3143, new zealand
Project:
OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA
Drawing:
BUILDING I - CIVIC
Scale: As indicated @ A1
Drawn By: CD/KL
Checked By: GP
Date: 08/05/2020
Project No. SOU.01
Sheet No: 4.0.81
Revision:



A MASTERPLAN - BUILDING K LOCATION OF VIEW POINTS
1 : 1000



1 K_VIEW 1



2 K_VIEW 2



3 K_VIEW 3

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Address: OMOKOROA ROAD, OMOKOROA

Drawing: BUILDING J - RETAIL + OFFICE
Scale: 1 : 1000 @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

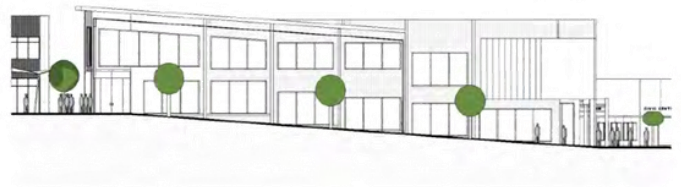
Project No.	Sheet No:	Revision:
SOU.01	4.0.90	



A BUILDING K GROUND FLOOR PLAN
1 : 200



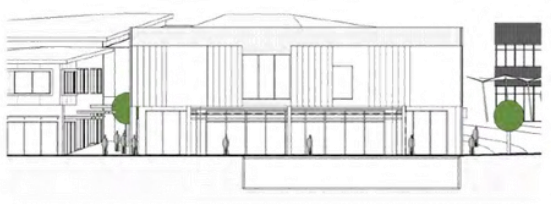
B BUILDING K FIRST FLOOR PLAN
1 : 200



1 K_NORTH EAST ELEVATION
1 : 200



2 K_SOUTH EAST ELEVATION
1 : 200



3 K_NORTH WEST ELEVATION
1 : 200

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Drawing: BUILDING J - RETAIL + OFFICE
Scale: 1 : 200 @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

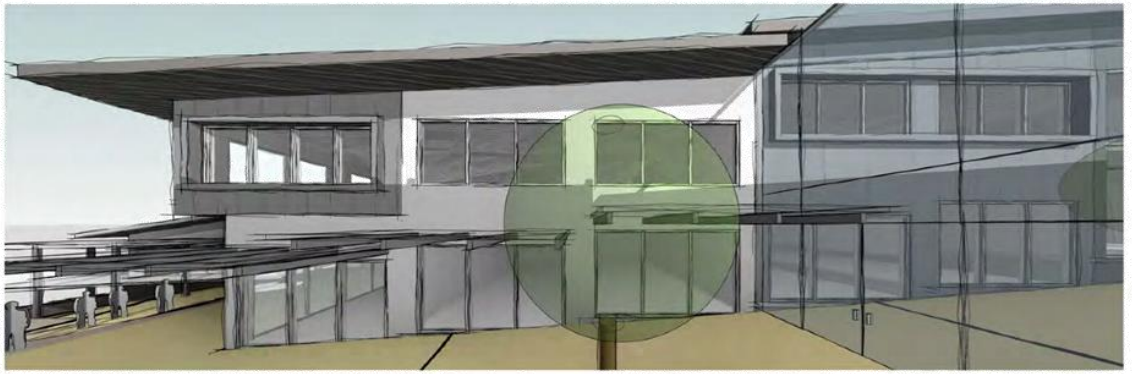
Project No.	Sheet No:	Revision:
SOU.01	4.0.91	



1 L_VIEW 1



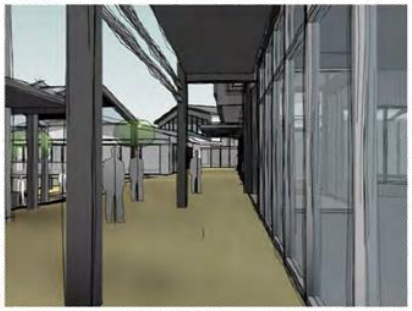
A MASTERPLAN - BUILDING L LOCATION OF VIEW POINTS
1 : 1000



2 L_VIEW 2



3 L_VIEW 3



4 L_VIEW 4

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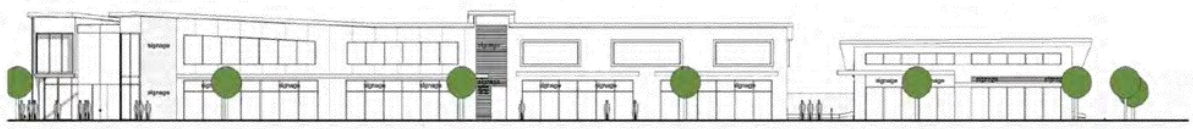
Drawing: BUILDING K & L - RETAIL
Scale: 1 : 1000 @ A1

Drawn By: CD/KL
Checked By: GP
Date: 08/05/2020
Project No.: SOU.01
Sheet No.: 4.1.10
Revision:



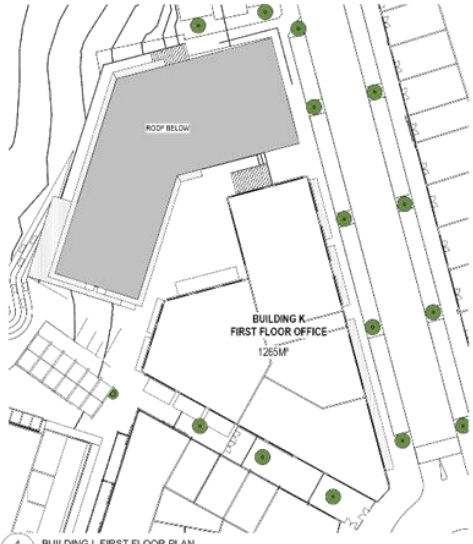
1 BUILDING L GROUND FLOOR PLAN
1 : 400



2 L_EAST ELEVATION
1 : 200



3 L_SOUTH WEST ELEVATION
1 : 200



4 BUILDING L FIRST FLOOR PLAN
1 : 400



5 L_VIEW 5

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Project: OMOKOROA TOWN CENTRE
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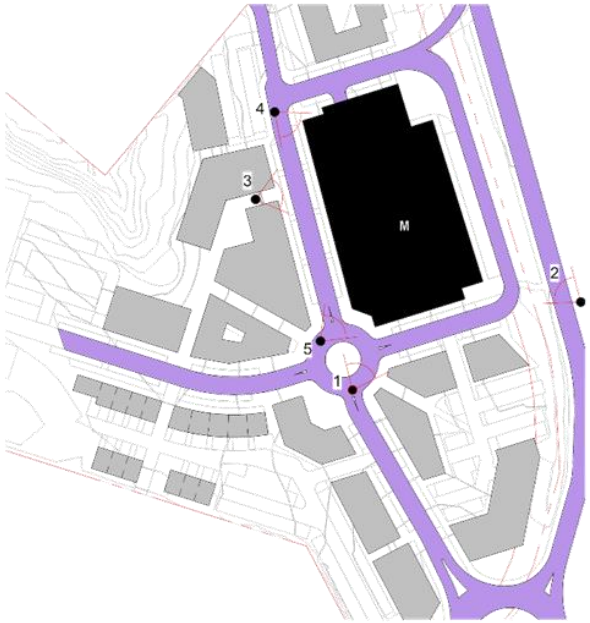
Drawing: BUILDING K & L - RETAIL
Scale: As indicated @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	4.1.11	



3 M_VIEW 3



A MASTERPLAN - BUILDING M LOCATION OF VIEW POINTS
1 : 1000



1 M_VIEW 1



2 M_VIEW 2



4 M_VIEW 4

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Address: OMOKOROA ROAD, OMOKOROA

Drawing: BUILDING M - SUPERMARKET + RETAIL
Scale: 1 : 1000 @ A1

Drawn By: CD/KL
Checked By: GP
Date: 08/05/2020
Project No.: SOU.01
Sheet No.: 4.1.20
Revision:



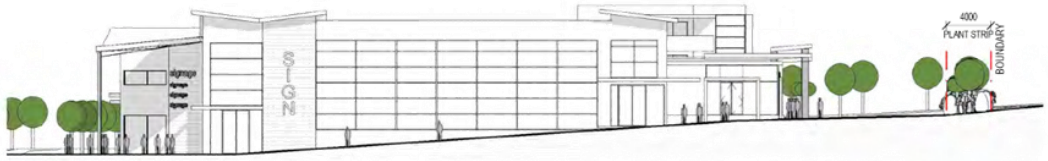
1 SUPERMARKET & RETAIL GROUND FLOOR PLAN
1 : 500



5 SUPERMARKET & RETAIL FIRST FLOOR PLAN
1 : 500



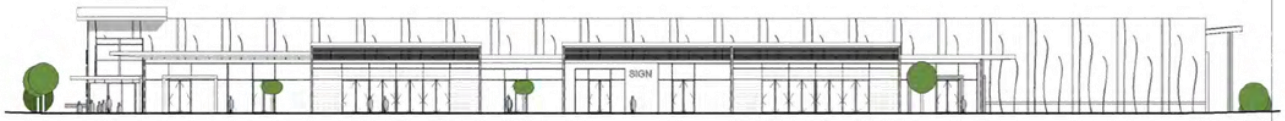
6 M_VIEW 5



3 M_SOUTH ELEVATION
1 : 200



4 M_WEST ELEVATION
1 : 200



2 M_NORTH ELEVATION
1 : 200

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Address: OMOKOROA ROAD, OMOKOROA

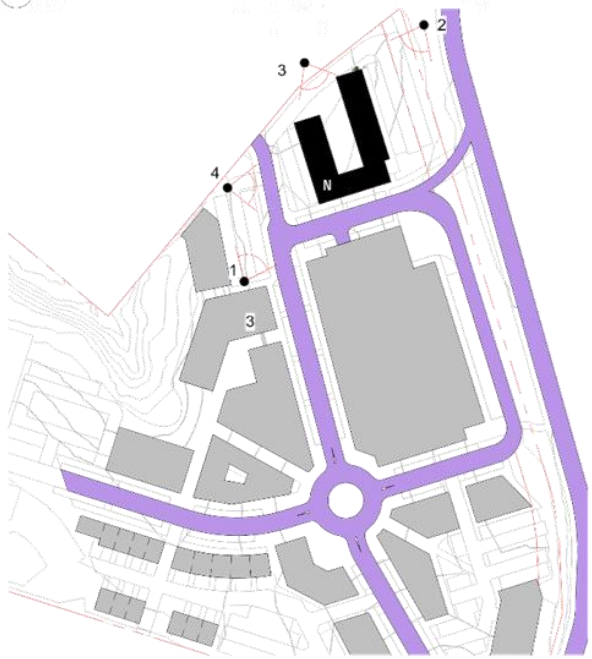
Drawing: BUILDING M - SUPERMARKET + RETAIL
Scale: As indicated @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	4.1.21	



1 N_VIEW 1



A MASTERPLAN - BUILDING N LOCATION OF VIEW POINTS
1 : 1000



2 N_VIEW 2



3 N_VIEW 3



4 N_VIEW 4

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Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: BUILDING N - APARTMENTS
Scale: 1 : 1000 @ A1

Drawn By: Author
Checked By: Checker
Date: 19/05/2020
Project No.: SOU.01
Sheet No.: 4.1.23
Revision:



3 BUILDING N GROUND FLOOR PLAN
1 : 500



5 BUILDING N FIRST FLOOR PLAN
1 : 500



4 BUILDING N SECOND FLOOR PLAN
1 : 500



6 N_VIEW 5



1 4.0.10 N_NORTH EAST ELEVATION
1 : 200



7 N_SOUTH EAST ELEVATION
1 : 200



2 4.0.10 N_SOUTH WEST ELEVATION
1 : 200

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Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: BUILDING N - APARTMENTS
Scale: As indicated @ A1

Drawn By: Author
Checked By: Checker
Date: 19/05/2020
Project No.: SOU.01
Sheet No.: 4.1.24
Revision:





COMMUNITY SPACE/ MARKET PLACE



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Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: INSPIRATION IMAGES
Scale: @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	7.0.00	





COMMUNITY SPACE/ MARKET PLACE / RETAIL





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Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: INSPIRATION IMAGES
Scale: @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	7.0.10	





COMMUNITY SPACE/ MARKET PLACE / RETAIL + OFFICE





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Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: INSPIRATION IMAGES
Scale: @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

Project No.	Sheet No:	Revision:
SOU.01	7.0.11	











COMMUNITY SPACE/ MARKET PLACE / FOOD

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Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: INSPIRATION IMAGES
Scale: @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/2020

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SOU.01	7.0.12	











COMMUNITY SPACE

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RETAIL / OFFICE

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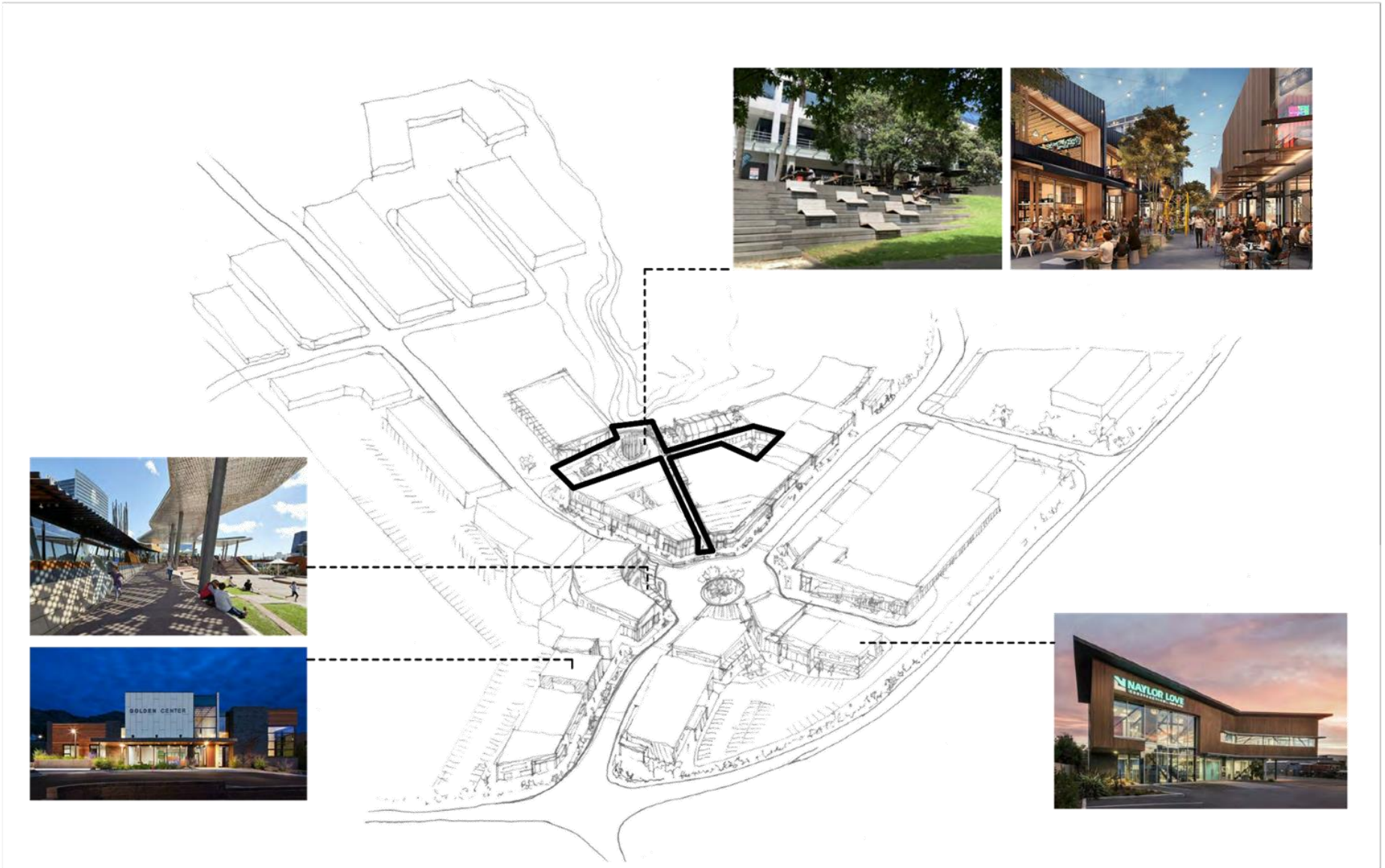

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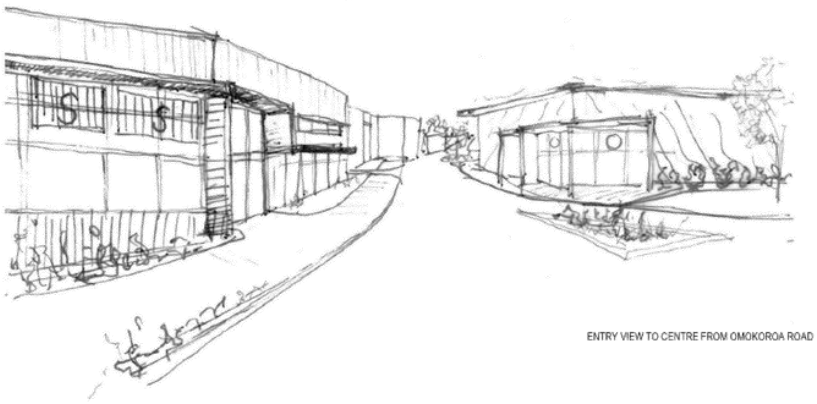
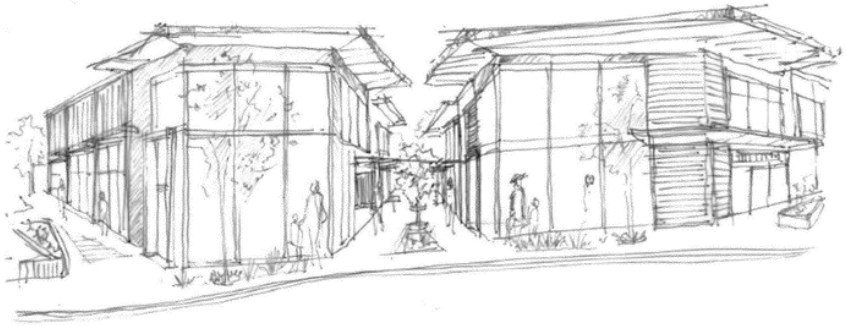


ENTRY VIEW TO CENTRE FROM OMOKOROA ROAD



VIEW TOWARDS COMMUNITY SPACE + MARKET PLACE

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Address: OMOKOROA ROAD, OMOKOROA

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MOMENTUM
PLANNING AND DESIGN

OMOKOROA TOWN CENTRE MASTERPLAN
URBAN DESIGN STATEMENT MAY 2020



1.0 Introduction to Design Guidelines

1.1 Purpose

The purpose of these design guidelines is to provide a framework for assessing and approving buildings at time of building consent. The buildings will need to be in general accordance with the masterplan. It is recognised that through the detailed design process of developing the town centre infrastructure that there may be minor changes that will impact on building design. However, the key urban design outcomes sought for the town centre are set down in the masterplan consent.

The masterplan design has been prepared taking into account the outcomes sought for the Omokoroa Town Centre in Council's District Plan, particularly the Stage 2 Omokoroa Structure Plan. It also aims to maximise good urban design outcomes helping enhance the sense of place for the Omokoroa Community.

2.0 Site and Context

The subject site is located at 404 Omokoroa Road (Lot 1 Deposited Plan 307535) and has an overall area of 7.909 hectares. The site is currently planted out as a kiwifruit orchard and contains one residential dwelling located near the boundary adjacent to Omokoroa Road.

The site is irregular in shape as the north and western boundaries of the site are bounded by a stream/gully system. The topography of the site gently contours from west to east, from approximately 12 metres at the stream to 32 metres at the highest point on the eastern boundary adjoining Omokoroa Road (see Figure 2).

The site is subject to split zoning in the Western Bay of Plenty District Plan, with around 5.3 hectares zoned Commercial in the Omokoroa Stage 2-1A area, and the balance of approximately 2.6 hectares is zoned Future Urban. The site compromises approximately half of the Stage 2 Commercial Zone allocated to the Omokoroa urban growth area. The remaining balance of the Stage 2 Commercial Zone is consented for a Special Housing Area containing 242 dwellings north of the site. Properties located to the west of the site are zoned Future Urban to accommodate a projected total population of 12,500 residents living in Omokoroa by the year 2026. This projection maybe optimistic given development rates.

The existing commercial activity in Omokoroa includes a small neighbourhood shopping area at the northern extent of the Omokoroa peninsular on the corner of Hamurana and McDonnel St. This comprises a few small tenancies, including cafe, dairy and takeaway store. Future commercial activity is largely focused within 3.9 hectares of commercial zoned land on the corner of Tralee Street and Omokoroa Road, approx. 2km's north of the sibject site. This includes an existing FreshChoice supermarket, medical facilities and liqour store. The adjacent vacant land is subject to a resource consent for a mixed use development, with approximately 9,000m2 of commercial GFA. This developing commercial hub is centrally located for the current population but is also geographically constrained by surrounding residential development and would not be anticipated to support residential development at the southwest end of the peninsula. The subject site is better located to support the future urban growth identified for this area.

The site is located on a secondary arterial road connecting Omokoroa peninsula to State Highway 2. There is a bus stop within 100 metres of the site, and two more located nearby. Pedestrian and cycle networks are established near the site and provide connections to the wider context of Tauranga City. Sustainable modes of transport are therefore accessible to the site and are encouraged within the community.



Figure 1: Context Plan

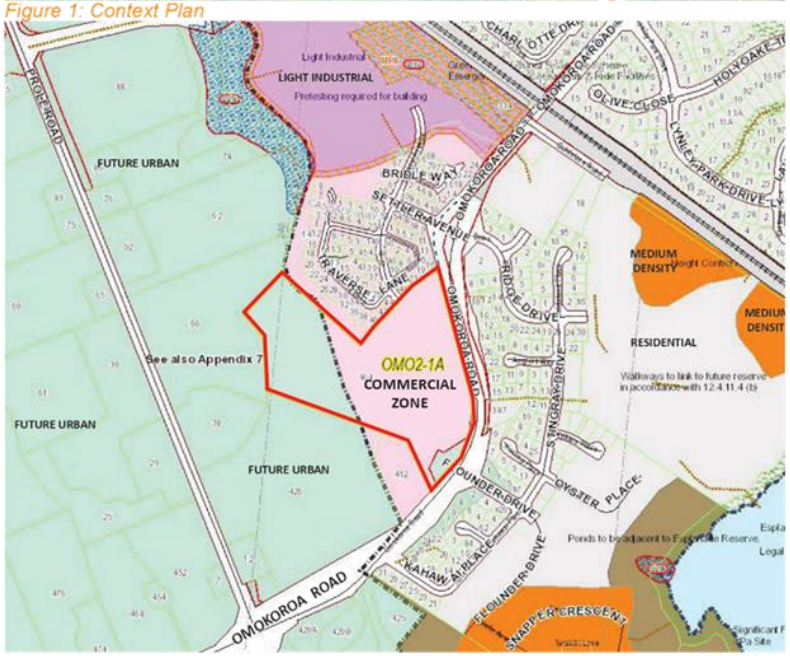


Figure 2: Zoning Plan



Figure 3: Aerial Plan, showing subject title.

3.0 The Masterplan

3.1 Vision

The proposal is to establish a framework to enable the establishment of a well-designed and functional commercial town centre. The town centre will comprise retail spaces, including a supermarket, retail shops, cafes/restaurants, bars, office space, civic building and possible cinema. Residential town houses and medium density apartments in the western portion of the site (future urban zone) is a likely outcome following future zone changes for this area. The vision for the site is to create a vibrant centre, encompassing a mix of uses, and establishing a destination for both the Omokoroa community and surrounding rural catchment.

The overall design concept is to establish a town centre that includes different scales of retail and office space to accommodate a variety of businesses. The ultimate mix of tenancies will be market driven and respond to the needs of the community.

3.2 Objectives and Principles

The District Plan sets out objectives and policies for commercial centres and also identifies design outcomes for the Omokoroa Town Centre. Based on these, a specific set of urban design objectives and principles have been developed for the town centre masterplan.

• Service the needs of the rapidly growing Omokoroa community by providing a town centre with a mix of commercial and residential uses - including medium density housing and visitor accommodation.

• Pedestrian/people focused centre that is a town centre destination for Omokoroa and the wider Western Bay of Plenty.

• Provide for and encourage alternative forms of transport to and from the centre, including bicycle and mobility parking and legible connections/directions to bus stops on Omokoroa Road.

• Create a well connected, permeable centre, with strong pedestrian/ cycle links to adjacent sites and road networks.

• Create a legible and engaging public realm, with wide footpaths, shared surfaces and range of pavement treatments.

• Establish a finer grain of retail and commercial buildings, by medium density townhouses or apartments, and a quality public realm.

• Through architecture, create prominent buildings that are legible to the centre and are recognisable from the surrounding context. i.e when travelling along Omokoroa Road.

• Establish attractive and welcoming public spaces for passive recreation, provide focal points for meeting and establishing the town centre identity.

• Provide for adequate car parking to service the needs of the visitors and staff, without compromising the centres character, which the public realm is key to.

• Cater for day time and night time use, taking into consideration safety and climate.

• Integrate trees and plants throughout to contribute to amenity, and break up hard surface areas of asphalt and paving.

• Create usable green spaces as places for the public to enjoy.

• Ensure that there is practical access and logical design response for service vehicles without dominating the town centre.

• Provide architectural and landscape responses that are respectful to both adjacent commercial sites and residential neighbours.

Masterplan Landuse Locations



Masterplan Perspectives



4.0 Movement Network

Figure 4 illustrates the proposed movement network between the site and surrounding context, including existing and proposed roads and footpaths.

As demonstrated by the diagram, the town centre is permeable to its surroundings, providing opportunities for pedestrians/ cyclists to connect with the site from all sides, promoting alternative forms of transport. This includes pedestrian links through to proposed school, and existing development to north.

The key vehicle access is from Omokoroa Road, as well as a local road through to existing Sentinel Ave to the north. Provision for a future connection to Prole Road to the west of the site is also shown.

A proposed bus route that links through the town centre and back onto Omokoroa Road is shown in orange, with a central bus stop. This along with the provision of bicycle parking facilitates sustainable forms of transport for the centre and Omokoroa community.

The town centre is also within 500 metres of the rail line, therefore if a station was ever to be built to facilitate light rail, it would be logically near the existing rail bridge on Omokoroa Road.

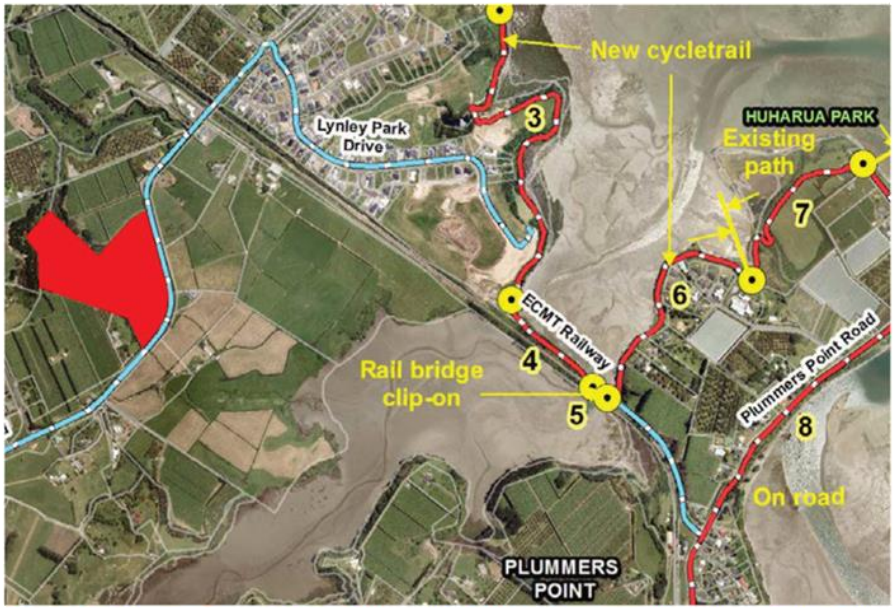


Figure 4. Omokoroa to Tauranga Cycle Way routes in blue and red, recently completed.This includes a footpath/cycle way along Omokoroa Road, that runs past the subject property. The proposed connections in and out of the site will link into this network, connecting the Omokoroa community to the centre via sustainable forms of transport.

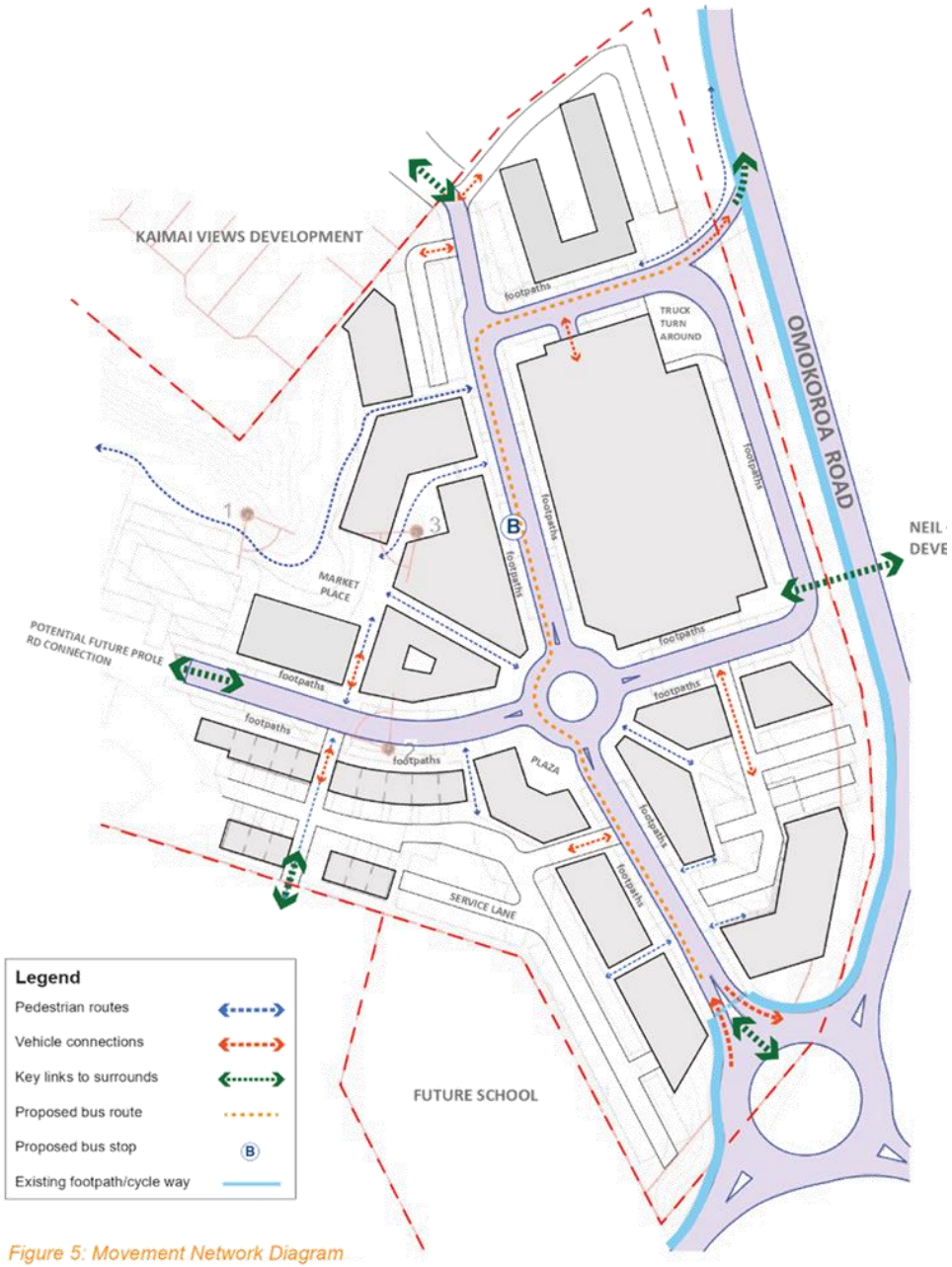


Figure 5: Movement Network Diagram

5.0 Design Guidelines

The following design guidelines are for the purpose of assessing compliance of future buildings with the Omokoroa Town Centre masterplan and outcomes sought by the District Plan and Built Development Strategy.

5.1 Commercial Architecture

5.1.1 Building Scale and Hierarchy

The masterplan recognises the importance of the town centre to be of sufficient scale, so it reads as a commercial destination for Omokoroa. To achieve this outcome the masterplan has created a two storey buildings either side of the entrance to the commercial centre from the proposed roundabout on Omokoroa Road framing the primary gateway to the centre for Omokoroa Road, a secondary arterial road.

The District Plan promotes a mix of retail, office and residential activities establishing within the town centre and this has been achieved by the masterplan. The future supermarket is an anchor tenant and important to the viability of the town centre. However, to avoid the supermarket dominating the commercial area the supermarket has been sleeved with finer grain retail activities. These face the main commercial spine road and also east facing Omokoroa Road.

Buildings will generally be scaled between 1 and 2 storeys in height, but may exceed a 2 storey height to respond to the topography of the land and needs of the uses within each building - i.e commercial floors need extra ceiling height. Additional height will be used to emphasise certain buildings and to help create focal points and areas of enclosure within the site. Figure 6 shows the masterplan and those priority buildings with a greater scale, and important facades.

5.1.2 Variety

A variety of purpose built commercial tenancies are proposed. These will accommodate retail at ground-floor, including traditional shops, services and food and beverage operations. Offices will be predominantly be at 1st floor and above, with the exception of the office building on the corner of the main street entrance and Omokoroa Road. A hotel on the opposite side of the main street is also proposed.

Larger anchor tenancies include a supermarket, large format retail opposite the southern side of the supermarket, and a civic building. There is also food and beverage precinct situated down the laneway and next to the gully, which will be a focal point for entertainment and nighttime use within the town centre.

Other commercial activities include a childcare centre along the northern boundary, which will service the existing and growing residential surrounds.



Figure 6: Active and Important Facades Plan

5.1.3 Architectural Design

Commercial buildings will be defined by contemporary architecture with clean lines and quality materials. Articulation of form and glazing across facades will be used to break up massing and create visual interest. Building layout and scale will be defined by the use, however a level of flexibility and adaptability for different types of tenancies will be designed in.

Variation in heights, roof typologies and canopies will also give architectural character to the main street. Corner buildings will be higher profile, and exhibit height and architecture that makes them notable within the town centre.

Refer to Appendix 1, for building designs and precedent imagery for the town centre.



Figure 7: Perspective looking east over market place.

5.1.4 Frontages and Canopies

Frontages

Frontages are defined as the facades that front the streets and public realm. Key to the town centre is having active edges that create a vibrant and safe pedestrian environment that promotes passive surveillance.Frontages to the pedestrian environment will be defined by retail and building entrances, higher percentage of glazing, and a variety of retail tenancies.

The final tenancy mix will define the exact location of these entrances. Ultimately this will be fine grain retail centre, with some larger anchor tenants on key corners to provide a viable commercial environment.

On larger anchor tenants, blank walls and in-active edges will be avoided through glazing, and sleeving with finer grain retail, which has been done with the supermarket tenancy.

Canopies

Canopies to create a comfortable pedestrian environment in all weather conditions will be mandatory along the main street, along the side street towards Omokoroa road, past the supermarket, and along the retail outlets that front Omokoroa Road. The Plaza area is depicted in Figure 8, but will require its own landscape plan to be developed.



Figure 8: Perspective looking over town centre plaza , showing canopy along shop fronts

5.1.5 Materials

A palette of high quality, durable materials is proposed throughout the town centre, including timbers, steel, concrete, aluminum joinery, and many others. Materials will provide an overarching cohesion to the centre, while providing flexibility for individual buildings and tenancies to express themselves. Materials will be fleshed out in detail as part of the centres detailed design.

6.2 Residential Architecture

6.2.1 Density

Residential buildings in the town centre periphery will be medium-density, providing a transition from the commercial hub to the existing and future residential land in the surrounding context.

Having medium density residential in the town centre provides a critical mass of people living in close proximity, which encourages commercial trade and vibrancy, particularly for the night-time economy, where residents will be inclined to walk into the centre and enjoy a meal, beverage or possibly the theatre.

The existing residential developments of Kaimia Views, Harbour Ridge and Neil Group and future urban land to the west will be an important customer base for these future tenancies.

6.2.2 Building Typologies/ Architecture

Architectural responses will be respectful to the residential, future urban and Ministry of Education neighbours, taking into consideration, bulk/scale and character as well as modifications to the landform.

As shown on the masterplan there are two types of residential typologies with the town centre. The first of these include 2 storey residential terraces, which are located between the road running west, and the school to the south. A central access lane will service the terrace from the rear. Those residential units that front the spine road, will have front doors and gardens with low fences on the street boundary, providing a medium density urban character that transitions nicely between the commercial built form and the future urban zone further west. The low fences help maintain passive surveillance of the street and the lanes leading to the reserve areas to the north.

The second typology is two levels of apartments that are also proposed above ground floor retail in building N, which borders Kaimai Views SHA development. This mixed-use building will provide a suitable transition between the existing residential area and the town centre environment. The northern façade of this building is set back from the adjacent residential zone to the upper level to reduce visual impact.

Apartments provide a smaller housing product which is well suited for those who enjoying living central to amenities and seek low maintenance of apartment living. Views west towards the Kaimais will also be enjoyed by those apartments on the upper level.

Perspective of apartment/retail mix is shown in figure 10, alongside.



Figure 9: Perspective hotel building located at entrance to Town Centre



Figure 10: Perspective looking at front facade of apartment building, with ground floor retail (building N)

6.2.3 Layout of Medium Denisty Residential

The layout of residential terrace blocks are designed to ensure there are active edges to the street and a retail edge at ground floor for the apartments, providing a mixed use building that activates the north-eastern corner of the site and provides passive surveillance to the walkway/cycleway on Omokoroa Road also.

Servicing and car parking for the terraces and apartments is from the rear, ensuring garaging, rubbish bins and utility areas are screened from the street. This will assist in maintaining high amenity levels in the town centre.

6.3 Public Realm and Landscaping

The town centre will have a finer grain, with an emphasis on pedestrians and quality public realm. Car parking will be located to the rear of buildings, to avoid a car dominated commercial centre.

The use of shared spaces is employed to circulate pedestrians throughout the site and breakdown the divide between car parking and pedestrians. Examples of this are shown in the precedent study included at the back of this document.

Strong and legible connections will lead pedestrians through the adjacent sites and roads, to create a permeable centre that is accessible from all sides.

Sustainable modes of transport will also be encouraged and provided for through cycle/ mobility parking and clear directions to bus route stops.

A mixture of hard and soft landscaping will be used throughout to enhance amenity and help break up the car parking asphalt and hard surfaces. Planting will seek to integrate with native flora in the surrounding context, including the gully of trees in the north west of the site. Plant species will be chosen for their ability to withstand the day-to-day effects of a compact urban form.

Streets will be activated by the residential component of the development to the west and apartments in the north east corner. Front doors, landscaping and modest boundary fences will add distinct town house residential character to the street edge.

The interface with the proposed school site to the south includes a pedestrian link between the town centre and school to promote permeability and allow students and staff to access amenities and travel through the centre to residential areas to the north (See Figure 11).

The terraced area at the head of the gully reserve will have a strong pedestrian focus with paved walkways primarily for pedestrians but also for service vehicles to shops and may be used as a focal point for future Omokoroa market days. This may spread as far as the car parking to the west of the proposed civic building.

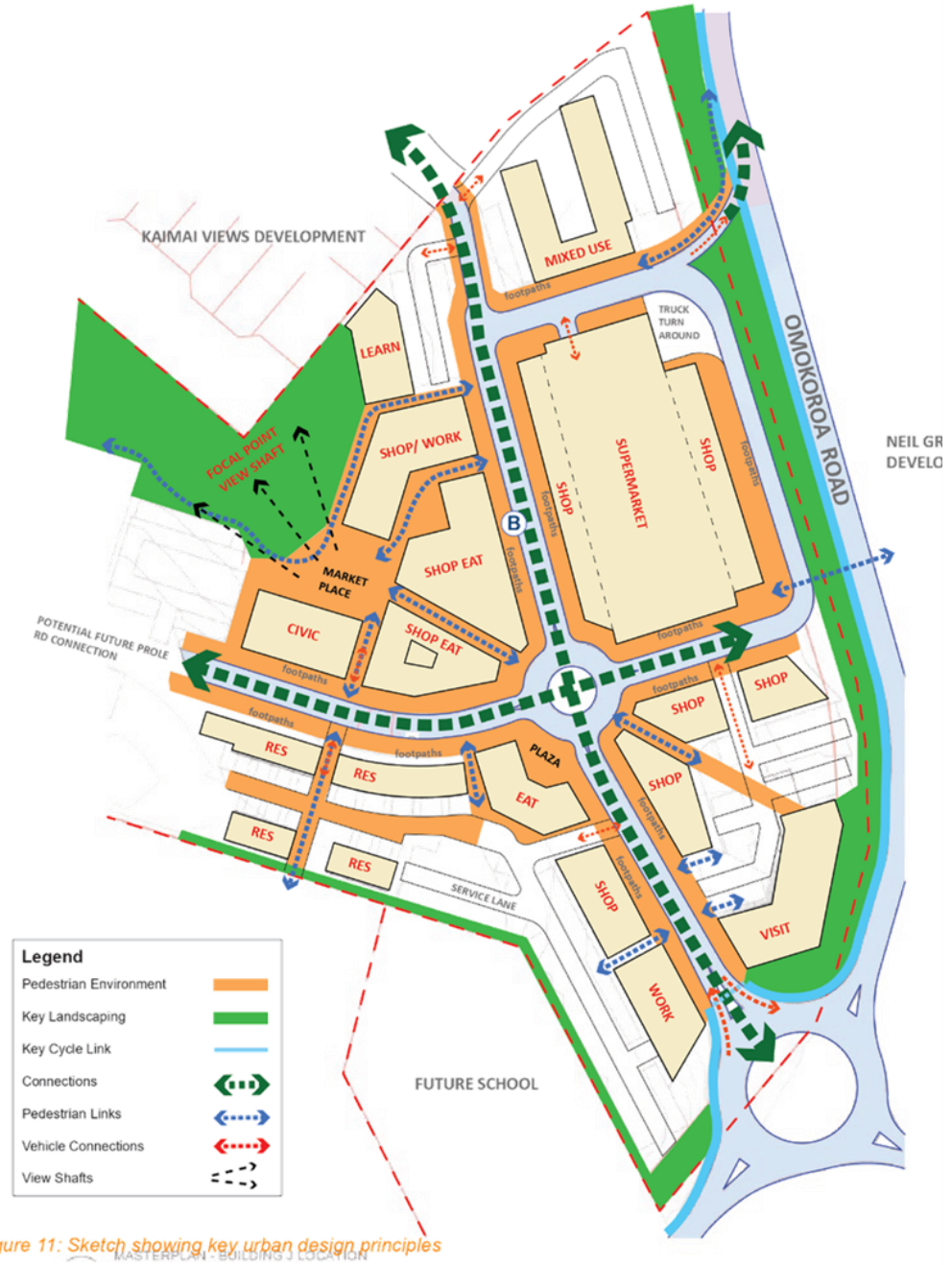


Figure 11: Sketch showing key urban design principles

6.3.1 Pedestrian Environment

The Omokoroa Peninsula is a community which has great opportunity to walk and cycle, especially following the completion of the Tauranga to Omokoroa cycleway. Council has developed a network of walkways and cycleways and the main one along Omokoroa Road connects directly into the town centre via several connection points along the centre's Omokoroa Road frontage.

Within the town centre will be wide footpaths, pedestrian streets and crossing places, the provision for bicycle parking throughout, linkages to the adjacent Kaimai View subdivision and walkways through the passive open space drainage area.

6.3.2 Landscaping and Street Trees

Trees are proposed along the main street to soften the built form and provide a green link from Omokoroa Road through to Sentinel Avenue, which runs through the Kiamai Views residential subdivision. The trees will be situated in raised planter beds that extrude out into gaps between car parking areas, which can also act as an informal seating area for pedestrians. The vision is to have a streetscape similar to Mount Maunganui main commercial street, example below, with trees species adapted to the Omokoroa vernacular. Some low-level shrubs will also be included in planter beds, the detail of this will come forward at detailed design phase.

Cobbles or pavers will be used within the main street to slow traffic, and create an attractive pedestrian environment. Both visually and also to slow traffic helping to prioritise pedestrians over cars. Pedestrian crossing will intercept the main street at key points, allowing users to move easily between the various buildings and uses within the town centre.



Figure 12: Tree lined shared space



Figure 13: Mount Maunganui main street, example of raised planter boxes



Figure 14: Landscaping in car parks to adhere 30% landscaping

Landscape Framework Plan



LANDSCAPE FRAMEWORK

- NATURAL AMENITY DRAINAGE RESERVE
- WBOPDC RESERVE LAND DISTRICT PLAN
- FUTURE SCHOOL GROUND
- URBAN LANDSCAPE ENVIRONMENT
- GREEN CORRIDOR
- SECONDARY GREEN CORRIDOR
- CYCLE PATH
- CYCLE PATH UNDER DESIGN
- (1) FUTURE SCHOOL SITE
- (2) FUTURE URBAN ZONE
- (3) STORMWATER RETENTION PONDS
- (4) STORMWATER MANAGEMEMT
- (5) HARBOUR RIDGE
- (6) KAIMAI VIEWS SHA
- 400m WALKING RADIUS
- 800m WALKING RADIUS

6.3.3 Parks, reserves and gully system

A network of parks, reserves and green corridors is proposed through and around the edges of the town centre, encouraging biodiversity and amenity.

Improving the existing native landscape within the existing gully system through weed control is also proposed. There are a number of existing native species within this area which will be saved and enhanced with additional planting, while invasive species such as bamboo will be removed.

This reserve area will be the key landscape area within the town centre and signposts will clearly show these pedestrian routes to direct people here. This will provide for passive recreation and also assist in the permeability of the town centre area for pedestrians and cyclists. People will be able to meander around pathways at the top of the grassed embankment and relax on the terraces that look north over the native landscape area.

While providing important amenity to the centre, the gully reserve provides an important function for stormwater management where overland flowpaths from the town centre and upper catchment will flow to the established stormwater ponds. This is also covered in detail within the civil engineering services report.



Figure 15: Landscaping along edge of pedestrian walkways to promote green links and legibility

6.3.4 Private Landscaping and Boundary Treatment

Private landscaping for the terraces will include front gardens along the spine road that runs west from the central round about. Gardens will include a small lawn area and low hedging/shrubs to the street edge. This will help soften this residential edge and create amenity for people within the adjacent public realm. This landscape treatment is shown in the supporting landscape concept plan on page 15.

Other private landscaping incudes the apartment complex, which will have a communal landscaping space within the internal courtyard of building N as shown on masterplan. This has the potential to be a raised courtyard area above the car parking at ground floor, detail of this will follow through detailed design.

Private landscaping associated with any tenancies will mainly be related to shrubs along boundary edges and in between car parks areas, to help soften the predominantly hard landscaping elements.



Figure 16: Shrubs, trees and seating along pedestrian walkways (Wraigh & Associates)


Gully Landscape Concept
Inspired by Victoria on the river, Hamilton
- Provides terraced seating for market area - users can enjoy vista north-west over native bush and beyond.
- Connect into a larger pedestrian loop around greater town centre, and adajcent future urban site.
- Enhance native species within the gully, and mitigate invasive species.
RRACES
TORIA ON THE RIVER, HAMILTON
TERRACE
ACCESSIBLE GRADE ATLEAST 1:14
WALKWAY LEVEL 20M+
ZONE BOUNDARY
NATIVE BUSH
TERRACE
SECTION AA
RETAINING
MARKET PLACE
MOKOROA TOWN CENTRE
OMOKOROA TOWN CENTRE
0
25
50

Terraces, Landscape Concept

Medium density residential will be provided in the form of terraces on the periphery of the town centre. Landscaping will be used to enhance the amenity of the private spaces and soften the boundaries with the public realm. This will be achieved through garden areas, shared surfaces across ROW, and low boundary fences, to create a quality urban design outcome with the Western Boulevard, the school site, and the internal laneway that services these terraces.





Figure 17: Medium Density, terrace examples - source pinterest

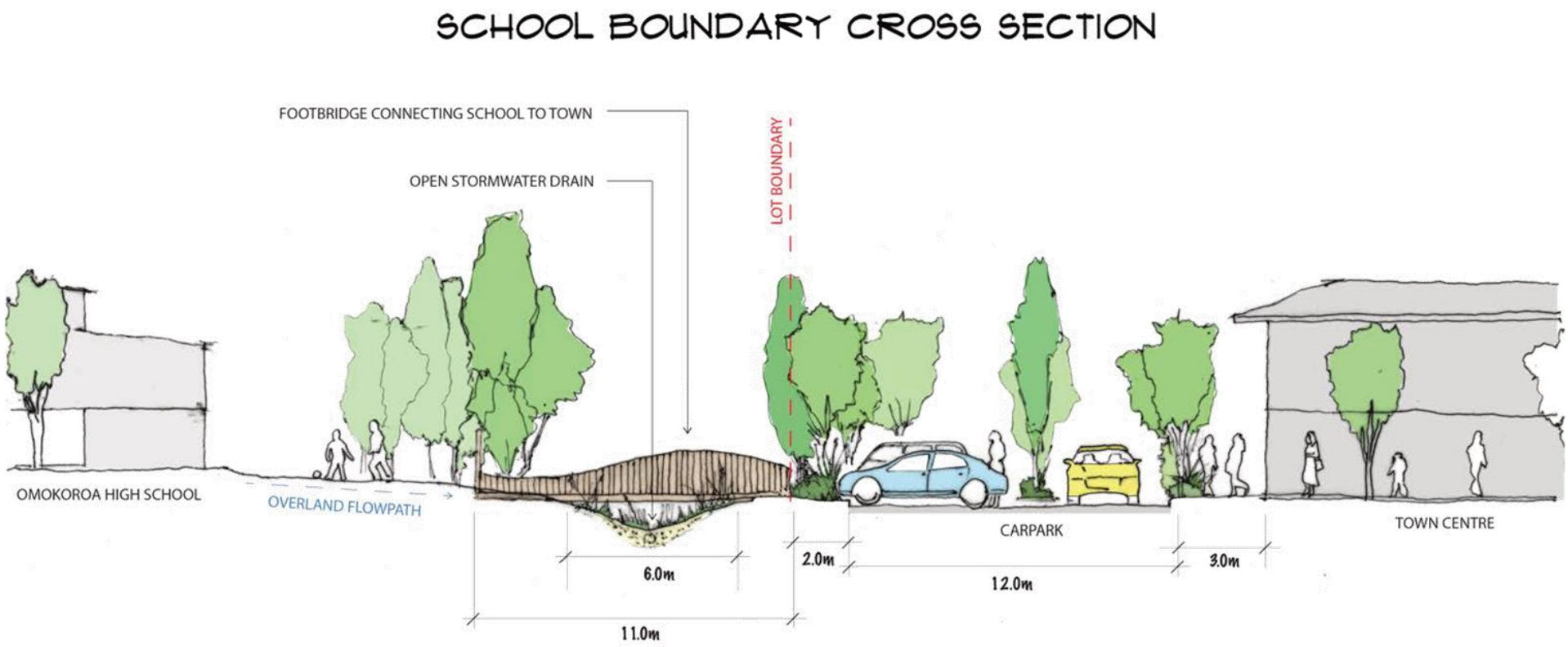
6.3.5 Future School Boundary

The Ministry of Education has recently purchased land to the south of the town centre. The development plans for the school are not yet known, however ensuring there are connections and an active edge along this boundary has been a key principle for the town centre design.

The town centre plan context plan also demonstrated how a future road connection could be established along the western boundary of the school site, which would connect the western area of the town centre through to Prole Road. Once prole road is urbanised there will be strong vehicle, pedestrian and cycle connectivity.



Figure 18: Example of footpridge over swale, source: google images, DC Sturctures Studio



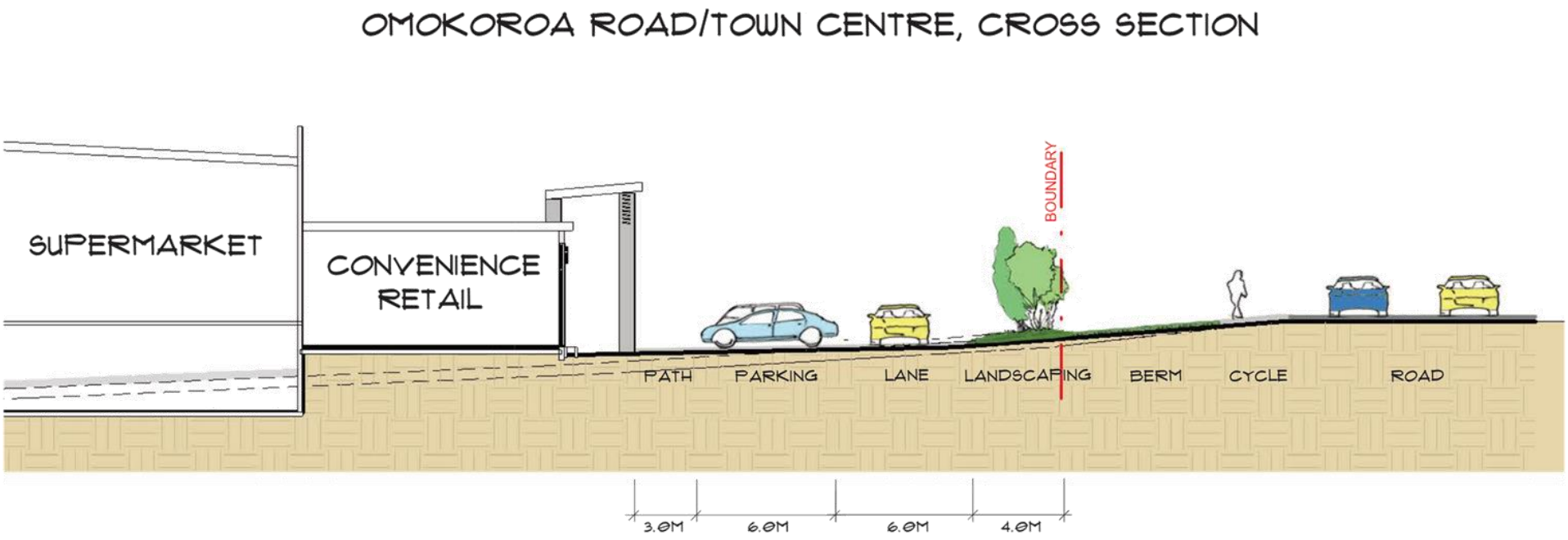
6.3.6 Omokoroa Road Boundary

The boundary to Omokoroa Road is defined by a 2m wide cycle route which forms part of the Omokoroa Road cycleway, and a 4m wide landscape strip running parallel to this, creating amenity and a natural buffer between the vehicle carriage way and town centre. This landscaping strip is required under the district plan and will link into the existing planting in front of Kaimai Views SHA.

As you move further into the centre there is a service lane, providing access to the retail strip that sleeves the eastern side of the supermarket. This will include smaller tenancies, housing uses such as takeaways, where vehicles and pedestrians can stop in briefly. A cross section of this boundary is shown below.



Figure 19: Example of convenience retail strip, proposed along Omokoroa Road: source google



6.3.7 Kaimai Views SHA Boundary

The boundary to Kaimai Views SHA is an important one, as it provides a local neighbourhood link for both vehicles and pedestrians from the residential area into the town centre. Some filling at this boundary of the site will allow an at grade connection, providing an extension of the existing termination of Sentinel Drive as shown in the aerial below.



6.3.8 Species

Native species are preferred plant species for the streetscape and reserve areas. Native plants will be enhanced within the gully reserve, including additional planting of large native Podocarps and removal of invasive species.

The following exert from the Omokoroa Built Environmental Strategy (2008) will also be taken into consideration when specifying shrubs and trees. It highlights a number of tree species that are of interest to the local community.

How can we get there:

- Create a boulevard effect by planting an appropriate tree species along Omokoroa Road. The space between trees should not be further than 15 metres.
- Landscape the roundabout and plant a cluster of trees on the roundabout. Arrange the trees and landscaping in a way that will allow the erection of a sculpture on the roundabout.
- Obtain the input from Tangata Whenua with the design of the gateway.
- The following tree species are some of the examples listed by the community for consideration.
    - Knightia Excelsa (Rewarewa)
    - Myrsine Salicina (Toro)
    - Sophora Tetraptera (Kowhai)
    - Magnolia Grandiflora
    - Platanus
    - Asian, Turkey or English Oaks (Quercus)

Proposed plant species (Native and Exotic)

	*Knightia Excelsa (Rewarewa)*		*Platanus (Plane tree)*
	*Myrsine salicina (Toru)*		*Quercus robur (English Oak)*
	*Sophora Tetraptera (Kowhai)*		*Anemanthele lessoniana (wind grass)*
	*Magnolia grandiflora (Southern magnolia)*		*Phormium tenax (Flax)*
	*Hebe (Emerald green)*		*Dodonaea viscosa (Ake ake)*

7.0 NZ Urban Design Protocol

The NZ Urban Design Protocol identifies some key principles which need to be considered when designing new urban areas, including Greenfield areas. These are expressed as key urban design qualities including context, character, choice, connections, creativity, custodianship, collaboration. The following section assesses the proposal against each one of these.

Urban Design Qualities	Commentary
Context *Quality urban design sees buildings, places and spaces not as isolated elements but as part of the whole town or city. For example, a building is connected to its street, the street to its neighbourhood, the neighbourhood to its city, and the city to its region. Urban design has a strong spatial dimension and relationships between buildings, places, spaces, activities and networks. It also recognises that towns and cities are part of a constantly evolving relationship between people, land, culture and the wider environment.*	Context has driven the proposed uses within the masterplan. The lack of commercial activities within Omokoroa has identified the need for the proposed offices, retail and bars/restaurant activities to service the growing community. Individual tenancies will be market driven so building design provides for flexibility and adaptibility. Also, the future residential component will offer a unique townhouse/apartment product that will contribute positively to the local residential market.
Character *Quality urban design reflects and enhances the distinctive character and culture of our urban environment, and recognises that character is dynamic and evolving, not static. It ensures new buildings and spaces are unique, are appropriate to their location and compliment their historic identity, adding value to our towns and cities by increasing tourism, investment and community pride.*	The vision for the site is to establish a town centre to service the Omokoroa peninsular. The masterplan design has an emphasis on pedestrian connectivity and quality public realm. The indicative building heights and locations in the masterplan respond to the topography of the site, and the associated activities for each building. Additional height will be used to express certain buildings to create land marks within the town centre. Landscaping will be used throughout the site to enhance amenity and help break up the hard landscaping elements and car parking asphalt. This will also help to integrate the site with the suburban character in the surrounding area.

Urban Design Qualities	Commentary
Connections *Good connections enhance choice, support social cohesion, make places lively and safe, and facilitate contact among people. Quality urban design recognizes how all networks - streets, railways, walking and cycling routes, services, infrastructure, and communication networks - connect and support healthy neighborhoods, towns and cities. Places with good connections between activities and with careful placement of facilities benefit from reduced travel times and lower environmental impacts. Where physical layouts and activity patterns are easily understood, residents and visitors can navigate around the city easily.*	The masterplan is designed to have strong connections to the surrounding context, as illustrated by the Movement Network diagram. Clear pedestrian and cycle links through to Sentinel Avenue and Omokoroa Road, as well as routes through to the recreational area along the stream bank are provided for. Strategically, there is provision for a route connecting the site to Prole Road and creating connection to the future urban zone adjacent to the site.This is a likely cycle route that may eventually connect to a Katikati trail. Regarding vehicle access, the main access point will be provided at the roundabout on Omokoroa Road at consent stage, with provision for a secondary reciprocal access connecting with Sentinel Avenue, which would include a bus route.
Creativity *Quality urban design encourages creative and innovative approaches. Creativity adds richness and diversity, and turns a functional place into a memorable place. Creativity facilitates new ways of thinking, and willingness to think through problems afresh, to experiment and rewrite rules, to harness new technology, and to visualise new futures. Creative urban design supports a dynamic urban cultural life and fosters strong urban identities.*	The urban design approach to the centre draws from a numbers of European precedents which put pedestrians first over cars, to create a vibrant public realm for shops/retail/services and green spaces for meeting people and passive recreation. Creativity will be expressed through these public spaces, architecture and street art. Key buildings will have more scale and be more architecturally prominent to create focal points within the centre.

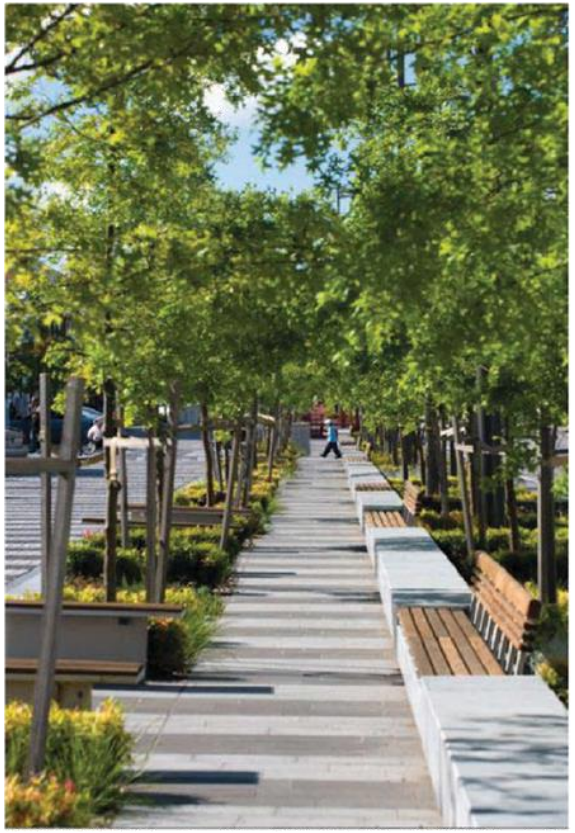
7.0 NZ Urban Design Protocol

Custodianship *Quality urban design reduces the environmental impacts of our towns and cities through environmentally sustainable and responsive design solutions. Custodianship recognises the lifetime costs of buildings and infrastructure, and aims to hand on places to the next generation in as good or better condition. Stewardship of our towns includes the concept of kaitiakitanga. It creates enjoyable, safe public spaces, a quality environment that is cared for, and a sense of ownership and responsibility in all residents and visitors*	The masterplan has been prepared in collaboration with a project team consisting of technical consultants and planners, as well as taking into consideration the strategic vision for Omokoroa as a self sufficient community. Key to this is creating a quality destination and good range of services that meet the needs of the local community. There is also a strong emphasis on sustainability, with alternative modes of transport being encouraged over car dependence, particularly for the local community. Consideration of infrastructure requirements have also been a key to the proposal, and there is potential for low impact stormwater design to be employed.
Collaboration *Towns and cities are designed incrementally as we make decisions on individual projects. Quality urban design requires good communication and co-ordinated actions from all decision-makers: central government, local government, professionals, transport operators, developers and users. To improve our urban design capability we need integrated training, adequately funded research and shared examples of best practice.*	The Omokoroa Community Plan and Structure plan which identifies the needs of the community has been a guiding document, along with the relevant objectives and policies of the District Plan. As recognised by Council and the project team, there has been a strong demand for commercial land uses in Omokoroa to service the substantial growth that the area is experiencing. The proposal is aligned with this need, and therefore aligned with the needs of the community. Ongoing consultation and collaboration is key to this project going forward.

8.0 Precedent Study



1. Programming spaces to create identity and to be used by the community



2. Tree lined streets with a variety of paving treatments and permeable surfaces to passively manage stormwater runoff



3. Shared public spaces



4. Shared surfaces for integrated uses and to breakdown the division between car park and public realm areas



5. Nightime economy - market space



6. Recreational spaces integrated into public realm



7. Planting trees to help break up large hardstand surfaces and improve the amenity of the urban environment.



8. Legibility of public and shared spaces

URBAN DESIGN PEER-REVIEW OF THE NEW PROPOSED OMOKOROA TOWN CENTRE, OMOKOROA

For Momentum Planning and Design Limited

By

Dr Lee Beattie

May 2020

EXECUTIVE SUMMARY

This report provides an independent urban design peer-review of the Omokoroa Urban Design Statement prepared by Momentum Planning and Design Limited for the development of a new mixed-use commercial town centre at 404 Omokoroa Road, Omokoroa.

The key conclusions of this peer-review of Urban Design Statement and the overall proposal are that:

- The proposed layout, scale and intensity of overall development logically respond to the site's opportunities and constraints and the new town centre will positively contribute to, and successfully integrate with the surrounding Omokoroa area;
- The new town centre will provide a strong focal point for the local Omokoroa community (and wider rural catchment) by creating an attractive place for people to visit, engage, work and live, which provides a high level of public and private amenity;
- The new town centre provides a true mix of land use activities with a wide range of retail options, a supermarket, food and beverage options, commercial services, office space, motel, public open space and civic amenities. This is supported by a range of different housing types, options and residential unit sizes;
- There is clear hierarchy of movement, encouraging active and pedestrian options which could reduce travel demand and actively encourage public transport and active travel options to, within and from the site;
- The proposal creates a quality public realm experience, with strong public open and civic spaces;
- It creates a positive relationship with the Omokoroa Road edge, the adjacent Kaimai residential subdivision and the proposed new school;
- The development is of an appropriate scale, form and height for its context in a commercial zone;
- The proposal has a solid building bulk, massing and height strategy creating buildings that are designed to be easily distinguishable from one another, are visually interesting, and will create the feeling of a vibrant town centre.

I have undertaken a peer-review of the applicant's UDS and undertaken my own analysis of the proposal and support the outcomes described in the UDS for the reasons I have discussed above.

In my view, this a strong urban design proposition and as a result, I support **consent being granted on urban design grounds**

Dr Lee Beattie PhD MNZPI MRSNZ
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1.0 Introduction

This report outlines an independent urban design peer review assessment of the Omokoroa Town Centre Urban Design Statement prepared by Momentum Planning and Design Limited for the development of a new mixed-use town centre at 404 Omokoroa Road, Omokoroa.

I understand that the Urban Design Statement (UDS) supports a resource consent application by Jace Investment Limited to establish a mixed-use commercial town centre comprising a wider range of land use including retail spaces, supermarket, commercial services, hotel, cafes/restaurants, bars, civic and public space, and office space at 404 Omokoroa Road, Omokoroa.

In undertaking this review, it is my understanding that the site is zoned Commercial Use under the operative Western Bay of Plenty District Council's District Plan (District Plan) and that the site forms part of the Omokoroa Stage 2 Structure Plan Area, where a Commercial Area Masterplan is required for development in a commercial zoned area. I have considered these District Plan provisions, including Part 19.5 (Development of a Commercial Area Master Plan for the Commercial Zone – Omokoroa Stage 2 Structure Plan Area).

This peer-review should be read in conjunction with:

- The application and the AEE prepared by Richard Coles of Momentum Planning and Design Limited, including its planning assessment, which covers the relevant district planning matters ;
- Omokoroa Town Centre Masterplan Design Guidelines (May 2020) Statement prepared by Tom Watts of Momentum Planning and Design Limited; and
- The plans and drawing by First Principles architects and interiors "*Omokoroa Town Centre: Jace Investments LTD*" dated 8 May 2020.

2.0 Scope and Involvement

I have been engaged to provide an independent peer-review of the UDS by Tom Watts of Momentum Planning and Design Limited. In my view, this UDS provides an in-depth and relevant urban design assessment of the current proposal.

In undertaking this peer-review, I have:

1. Undertaken a site visit to gain an understanding of the site, its locality and wider surrounding context and characteristics;

2. Undertaken in-depth discussions with Richard Coles and Tom Watts (the applicant's planner and urban designer) considering the relevant urban planning and urban design considerations and opportunities for the site's development;

3. Been involved in a number of positive internal design review meetings discussing the design concepts and philosophy with Graham Price and the architectural team at First Principles, leading to a number of changes to the overall proposal, ensuring a strong and positive urban design outcome for the site (and its relationship to the wider urban fabric) are achieved;

4. Undertaken a review of the final version of the UDS;

5. Considered the relevant District Plan urban design matters for the Commercial Zone; and

6. The New Zealand Urban Design Protocol.

The drawings relied on for the peer-review were prepared by First Principles architects and interiors referred to as "*Omokoroa Town Centre: Jace Investments LTD*" dated 8 May 2020.

3.0 Urban Design Issues Considered

In essence, in my view the key urban design considerations relevant to the proposed development (in no order of significance) are:

- The layout, scale and intensity of development should logically respond to the site's opportunities and constraints and positively contribute to the development of this part of Omokoroa and actively integrate with surrounding environment;
- The new town centre should provide a strong focal point for the local community, creating an attractive place for people to visit, engage, work and live, providing public and private amenity, reduced travel demand and actively encourage public transport and active travel options;
- The development should provide a new town centre with a true mix of land use activities, to provide for the local needs of the existing and future residents in Omokoroa and the wider rural catchment;
- The development should activate and improve the quality of the public street edge (both the streets in the development and at its edges) and positively contribute to the public realm generally;
- The development should be of an appropriate scale, form and height to its context in its location within a commercial zone;
- Establishing active edges to the public open spaces, including the proposed open space (gully) adjacent to new civic area to ensure these space effectively integrate into the wider open space network; and
- Buildings should be designed to be easily distinguishable from one another, be visually interesting, and to create the feeling of a town centre.

In my view all these matters have been addressed in the UDS and these elements have been carried through the overall design philosophy and final design of the proposed new town centre. I agree with the UDS assessment of the New Zealand Urban Design Protocol including its relationship with character, context, connections, choice, creativity, collaboration and custodianship and how these have all been considered and given effect to as part of the proposed development.

4.0 Design Response

The details of the design response have been set out in the UDS and the detailed plan prepared by First Principles architects and interiors (*Omokoroa Town Centre: Jace Investments LTD* dated 8 May 2020.) The town centre design has evolved thought a number of significant design iterations, with changes being made in terms of:

- The location and position in the internal roading and pedestrian network to improve the quality of pedestrian experience and encourage active travel options to, within and from the site;
- Size and scale of the public and civic spaces and their relationship with the internal movement network;
- Double sleeving the supermarket to create three active edges, with under-croft carparking to create a strong and positive street presence with the new High Street (main North/South Road);
- Creating a strong pedestrian and cycling connection to the adjacent proposed school, also serving the wider residential catchment in Kaimai Views and beyond;
- Improve the opportunities for public transport options to and from the new Town Centre;
- Refining building bulk, massing, and positioning throughout the site to create a stronger urban design and public realm outcomes for the overall development;

- Focusing of the active edges towards the High Street (main North/South Road) to provide for an active and vibrant town centre;
- Creating a stronger street presence and relationship with Omokoroa Road though the positioning and orientation of built form with the appropriate land use responses;
- Creating a stronger gateway experience into the new town centre from Omokoroa Road;
- Increasing the range of proposed housing typologies and options to enable a true cross section of the community to establish within the town centre;
- Addressing the residential interface with Kaimai Views to ensure their residential amenity is not compromised;
- The quality of overall building materiality and responses to the public realm; and
- The use of building height to create definition and variety throughout the new town centre, to create buildings that are designed to be easily distinguishable from one another and are visually interesting.

These changes have significantly strengthened the urban design and public realm outcomes for the proposal, especially in the way the proposal addressed its relationship with Omokoroa Road and the wider environment. It has also significantly improved the quality of the public realm within the town centre and provides for a range of housing options to be achieved.

In my view, the UDS sets a clear vision and set of objectives and principles which have guided the design philosophy and final design of the new town centre development. These are supported by:

- A strong land use strategy, which provides for a true mix of land uses which will meet the needs of the local and wider community through the provision of a wide range of retail options, supermarket, food and beverage options, commercial services, office space, motel and civic amenities. This is supported by a range of different housing typological options, with a range of unit sizes;
- A movement strategy with a clear hierarchy of movement, encouraging active and pedestrian movement options;
- A building bulk, massing and height strategy to create definition and variety throughout the new town centre, with buildings that are designed to be easily distinguishable from one another and are visually interesting; and
- A range of architectural responses to ensure variety in building design.

Overall, I consider that the proposed new town centre will achieve a very high standard of urban design quality, and will contribute very positively with Omokoroa environment in accordance with the outcomes sought by the District Plan for the commercial zone.

5.0 Conclusions

I have undertaken a peer-review of the applicant's UDS and undertaken my own analysis of the proposal and support the outcomes described in the UDS for the reasons I have discussed above.

In my view, this a strong urban design proposition and as a result, I support **consent being granted on urban design grounds**.

LYSAGHT

JACE INVESTMENTS LIMITED
RESOURCE CONSENT SERVICING REPORT
OMOKOROA TOWN CENTRE
OMOKOROA ROAD, OMOKOROA
REVISION 1

Client Jace Investments Limited

Project Omokoroa Town Centre

LCL Ref 204509

Report Type Resource Consent Servicing Report

Report Date 15/05/2020

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DOCUMENT CONTROL					
DOCUMENT ID:					
REV.	DATE	REVISION DETAILS	AUTHOR	VERIFIER	APPROVER
1	15.05.2020	For Consent	DH	MS	MS

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1. Engineering General Arrangement Drawing
2. Kaimai Views Pond Calculations and Catchment Drawing
3. Omokoroa Town Centre Masterplan and Super-lot Subdivision Design

1.0 INTRODUCTION

Lysaght Consultants Ltd ("Lysaght") was engaged by Jace Investments Limited to provide a preliminary engineering servicing design to support an application for a commercial resource consent application at 404 Omokoroa Road, Omokoroa. This report describes the proposed servicing of the development and is submitted with the following Engineering General Arrangement Drawing to Western Bay of Plenty District Council ("WBOPDC") to support the resource consent application.

The concept services design has been undertaken in general accordance with the requirements of WBOPDC's Development Code ("The Code"), NZS 4404:2012, the New Zealand Building Code ("NZBC"), relevant New Zealand Standards, and standard engineering practice.

1.1 SITE DESCRIPTION

Site Location:	404 Omokoroa Road Lot 1 DP 307535
Slope & Topography:	The site slopes generally northwest from Omokoroa Road toward a stream gully running along the northern site boundary. Approximately 12-14m of fall is present across the site, with steep banks falling to the stream gully.
Existing Structures:	An existing house and garage is proposed for removal to waste. Most of the site is in kiwifruit orchard, which is also to be removed to waste to accommodate the proposed development.
Proposed Development:	A commercial development comprising retail, office, accommodation, civic facilities, and childcare.
Surrounding Properties:	Residential and horticultural land use. Omokoroa Road runs along the eastern site boundary. A WBOPDC drainage reserve lies to the north.



Figure 1: Existing site contours and aerial. The existing stream is denoted by the blue arrows.

2.0 EARTHWORKS

2.1 Earthworks Proposed

Earthworks are required to enable the proposed development. The general landform of the site will remain similar to the existing, in that fall toward the stream gully to the north will be maintained. Conceptual design has been undertaken by MPAD, and that design is discussed elsewhere in the consent application.

All necessary applications will be made to Bay of Plenty Regional Council ("BOPRC") to enable the earthworks. Those consent applications will detail the proposed compliance with the BOPRC guidelines for erosion and sediment control.

3.0 ROADING

A traffic impact assessment has been prepared by Stantec and is appended to the resource consent application.

Detailed design of the internal roading is yet to be carried out, but the requirements of The Code will be complied with throughout the development, in terms of road widths, grades, crossfalls, etc. The suitability of the proposed road network has also been considered by the Stantec Transportation Impact Assessment.

4.0 STORMWATER

4.1 Existing Stormwater Infrastructure

The site is served by the recently completed stormwater pond associated with the Kaimai Views development to the north. Catchment plans (showing the site as part of sub-catchment C1a) and calculations for the pond design are appended to this report, which confirm that the site has been included in the pond catchment at an assumed impervious ratio of 90%. The existing watercourse immediately north of the site will convey the runoff from the site to the pond.

4.2 Existing Overland Flow Paths

Secondary stormwater flow from the upstream catchments (on the eastern side of Omokoroa Road) flow through the existing site toward the stream and subsequently the pond. The detailed design of the site will need to safely convey those flows through the site in large storm events without presenting a flood hazard to the proposed buildings. The appended drawing shows a suitable flow route that would achieve this, and the appended calculation sheets demonstrate typical channel profiles suitable for the safe conveyance of those flows and the flow generated by the subject site. The appended pond calculations demonstrate that a total secondary flow rate (in a 100-year temporal pattern storm of 649 l/s enters the site form the upstream catchments, "Goldstones A" and "Neil Group" (163 l/s and 486 l/s respectively, refer figure below). The flow rate from "SHA-B" is shown flowing through catchment C1a, but has been excluded from these calculations as it enters the existing stream corridor from the northern side of the watercourse, and not through the subject site.

As per the appended plan, the upstream overland flowpaths are to be intercepted by an open channel along the Omokoroa Road boundary, and directed into the network of internal roadways and overland flow paths. Once the Omokoroa Road upgrade has been completed and kerb and channel has been installed accordingly, these channels will likely no longer be required.

4.3 Proposed Stormwater Infrastructure Works

The internal stormwater infrastructure will be designed and constructed in accordance with The Code, and an indicative layout is depicted in the appended drawing. All runoff from hardstand areas in the 10-year primary storm event is to be collected and reticulated by way of piped gravity main into the adjacent watercourse gully, and ultimately to the pond as noted above.

The discharge point (or points) to the watercourse will be protected from surface erosion using rock riprap or similar. Further, the gully floor itself is likely to require protection from erosion along its entire length from discharge point to where it enters the manmade waterways downstream.

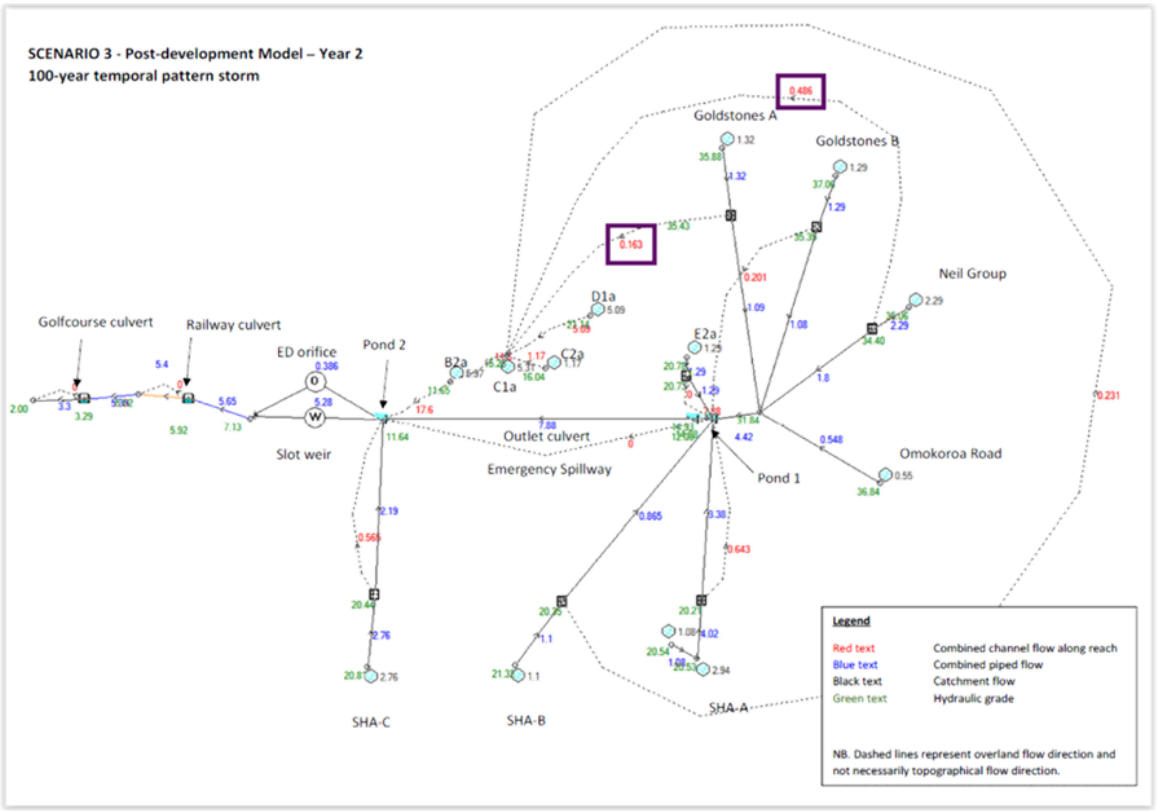


Figure 2: Excerpt from Kaimai Views Pond design report, showing the peak secondary flow rates entering the site from upstream (refer purple boxes)

Secondary flow (in events greater than the 10-year primary storm) is to be sent overland to the stream, primarily via the road corridors. An indicative overland flowpath route is shown in the appended drawing.

4.4 Omokoroa Structure Plan Compliance

The stormwater reticulation and disposal design for the site is in compliance with the Omokoroa Peninsula Stormwater Management Plan (June 2002). As discussed above, the site is part of the design catchment for the already constructed downstream pond, and therefore the discharge is considered to be suitably treated and attenuated to comply with the plan.

5.0 WASTEWATER

5.1 Existing Wastewater Infrastructure

The only existing wastewater infrastructure in the vicinity is in Omokoroa Road to the east of site, and in the Kaimai Views residential development to the north. The Kaimai Views wastewater network drains to a pump station sized only for that development, leaving only the infrastructure in Omokoroa Road available for connection. The most logical connection point is the existing wastewater manhole at the intersection of Flounder Drive and Omokoroa Road (WWMH 4050 according to WBOPDC GIS, refer to figure below), with an invert level of approximately IL 32.17m.



Figure 3: Proposed receiving manhole for wastewater rising main (WBOPDC Object ID: WWMH 4050).

5.2 Discharge Rate Assessment

High level calculations have been carried out as per The Code to assess the discharge rate from the site, as summarised in the table below. Note that the discharge rate per hectare has been adopted from table 6.1 of section 6.1.2 of The Code, which is in reference to medium density industrial development, making it conservative. Further, the peak flow rate generated by the site is what will drain to the new pump station, and not the peak flow rate that the pump station will discharge when the pumps are active. That figure will depend on the detailed design of the pump station itself.

WASTEWATER DISCHARGE RATE CALCULATION	
PARAMETER	**VALUE**
SITE AREA	7.9 Ha
DISCHARGE RATE PER Ha	0.7 l/s (As per table 6.1 for Medium Density, 6.1.2 of The Code)
TOTAL DISCHARGE RATE	5.5 l/s (Peak hourly flow)

5.3 Proposed Wastewater Pump Station and Rising Main

Given that the proposed receiving manhole above is considerably higher than the subject site, a pump station and rising main will be required. Logically the pump station will be located at the lowest part of the site, near the stream, as shown on the appended drawing. A PE rising main will connect that pump station to the proposed receiving manhole. The pump station and rising main are to be designed and constructed in accordance with The Code.

5.4 Proposed Internal Wastewater Infrastructure

The internal wastewater gravity main network will be designed and constructed in accordance with The Code, and an indicative layout is depicted in the appended drawing. As per the calculations table above, the maximum flow rate discharged from the site will be approximately 5.5 l/s, which does not necessitate pipework larger than 150mm in diameter.

6.0 WATER SUPPLY

6.1 Existing Water Supply Infrastructure

Existing infrastructure is located within the Omokoroa Road reserve, and within the Kaimai Views development in Sentinel Avenue. It is proposed to connect the network within the site to both of those locations as per the appended plans.

6.2 Water Demand Assessment

High level calculations have been carried out in accordance with The Code, and are summarised below, confirming the estimated water supply demand at the site once fully developed. Note that the figures below are based on the conservative assumption that the entire site is to be developed as commercial. In reality there is a small portion or residential development within the site, which has been included in the overall calculation as if it were commercial.

WATER SUPPLY DEMAND CALCULATION	
PARAMETER	**VALUE**
SITE AREA	7.9 Ha
DEMAND PER Ha	1.5 l/s (As per table 7.1, 7.4.1 of The Code)
TOTAL DISCHARGE RATE	11.9 l/s (Peak hourly flow)

6.3 Proposed Watermain Upgrades in Omokoroa Road

The existing watermain in Omokoroa is unfortunately on the eastern side of the road, meaning that a new main of sufficient size to service the demand described above will need to be laid along the western side. The appended drawing and the figure below depict the proposed new 200mm watermain. Additionally, the existing 50mm ridermain road crossing south of the Flounder Drive intersection will be upgraded to 200mm to complete the loop.

6.4 Proposed Internal Water Supply Infrastructure

The internal watermain network will be designed and constructed in accordance with The Code, and an indicative layout is depicted in the appended drawing. Note that the detailed design of the watermain layout may require amendment to the proposed pipe diameters.



Figure 4: Proposed 200mm PE watermain in Omokoroa Road.

6.5 Firefighting Considerations

A network of fire hydrants is proposed for the development in accordance with The Code and SNZ PAS:4509-2008 (Fire Fighting Code of Practice), as per the appended drawing. Further, many of the larger buildings will fall within greater Fire Hazard Categories (as defined by the NZBC) and Fire Water Classifications (as defined by PAS:4509), and will require further detailed assessment by a suitably experienced fire engineer at a later date.

7.0 POWER AND TELECOMMUNICATIONS

Electricity and Telecommunication networks are present in both Omokoroa Road and Kaimai Views. The necessary network upgrades and extensions will be designed by the respective providers during the detailed design phase of the development.

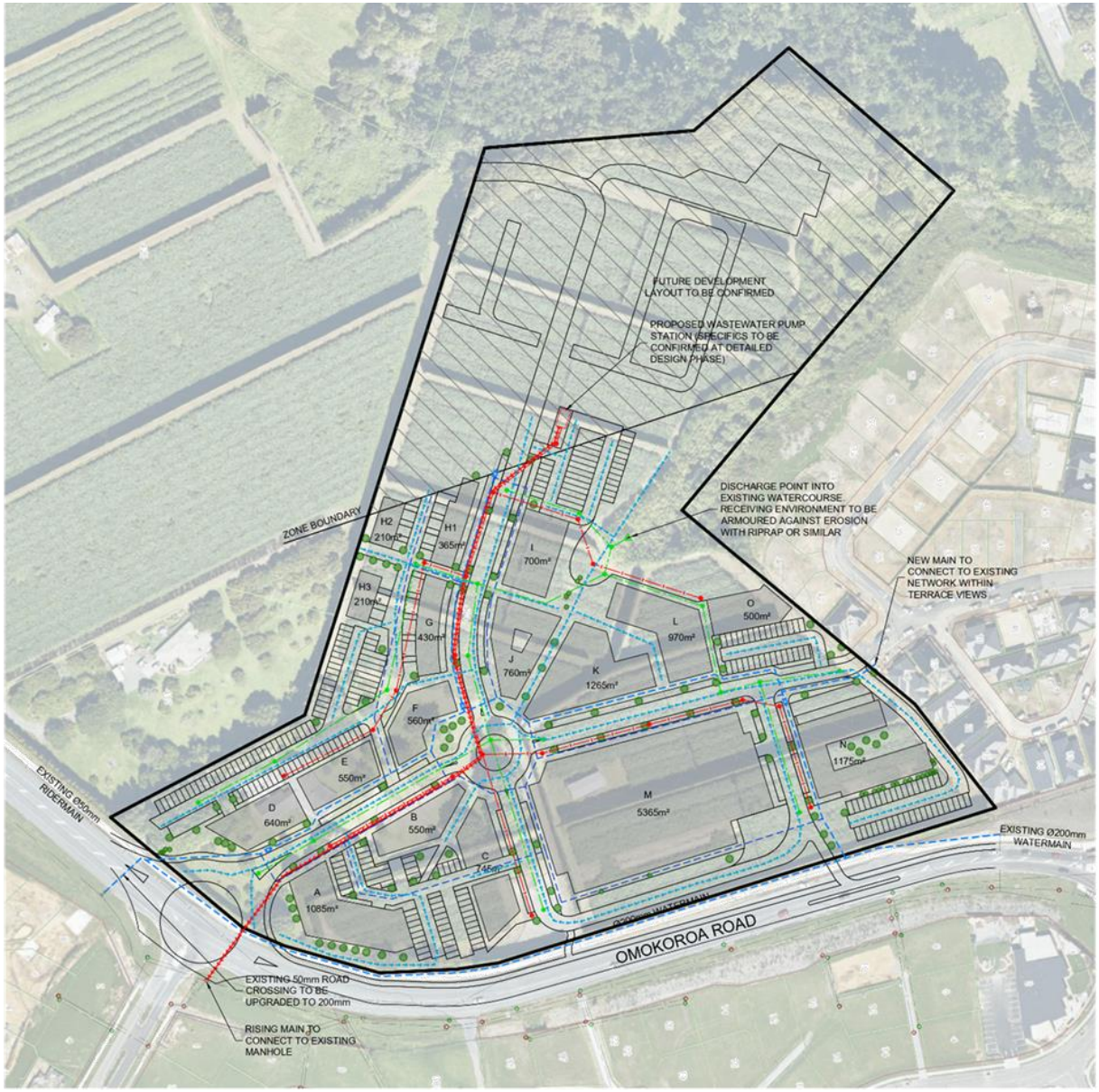
APPENDIX 1 – ENGINEERING GENERAL ARRANGEMENT DRAWING

LEGEND

- PROPOSED SITE EXTENTS
- EXISTING LOT BOUNDARIES
- EXISTING STORMWATER
- EXISTING WASTEWATER
- EXISTING SW MANHOLE
- EXISTING WW MANHOLE
- PROPOSED BOUNDARIES
- PROPOSED STORMWATER
- PROPOSED WASTEWATER
- PROPOSED WASTEWATER RISING MAIN
- PROPOSED WATER MAIN
- PROPOSED WATER RIDER MAIN
- PROPOSED OVERLAND FLOW PATH
- PROPOSED SW MANHOLE
- PROPOSED WW MANHOLE
- PROPOSED HEADWALL OUTLET
- PROPOSED BUILDING
- PROPOSED FUTURE DEVELOPMENT

OTES:

ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
SURVEY UNDERTAKEN BY OTHERS USING GPS & TOTAL STATION
EXISTING TITLE - LOT 1 DP307535
BOUNDARIES AND AREAS ARE APPROXIMATE ONLY AND ARE SUBJECT TO CHANGE. FINAL BOUNDARIES WILL BE IN ACCORDANCE WITH CITY PLAN AND LINZ REQUIREMENTS.
BOUNDARIES NOT FOR BUILDING DESIGN PURPOSES.
EXISTING SERVICE POSITIONS AND ALIGNMENTS MAY HAVE BEEN OBTAINED FROM THIRD PARTY RECORDS AND SHOULD BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS. LYSAGHT CONSULTANTS DOES NOT IN ANY WAY GUARANTEE THE ACCURACY OF ANY UNDERGROUND SERVICE SHOWN ON THIS PLAN.
AERIAL PHOTO INDICATIVE ONLY.
CONCEPT SERVICING IS INDICATIVE ONLY AND IS SUBJECT TO DETAILED DESIGN AND ENGINEERING APPROVAL. DEVELOPMENT STAGING ARRANGEMENT WILL ALSO IMPACT ON DETAILED DESIGN.



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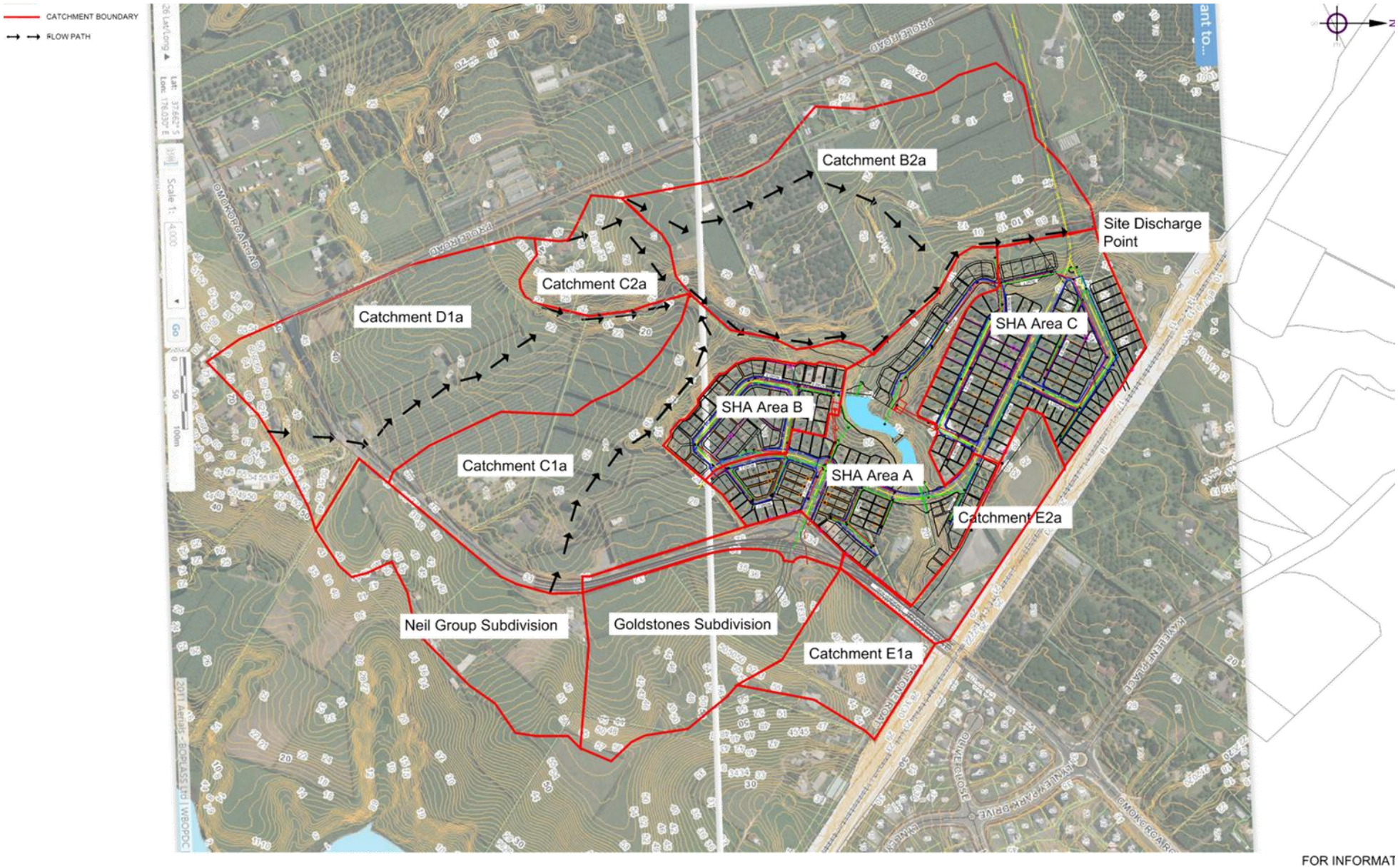
TF	-	07/05/20		JACE INVESTMENTS LTD	OMOKOROA TOWN CENTRE GENERAL SERVICES ARRANGEMENT	PROJECT NO.	204
ORIGINAL DRAWN	SIGNED	DATE				DRG NO.	204509-0100-
TF	-	07/05/20					
ORIGINAL CHECKED	SIGNED	DATE					
JC	-	07/05/20					

APPENDIX 2 – KAIMAI VIEWS POND CALCULATIONS AND CATCHMENT DRAWING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FLOW PATH
Catchment B2a
Site Discharge Point
Catchment C2a
Catchment D1a
SHA Area C
SHA Area B
Catchment C1a
SHA Area A
Catchment E2a
Neil Group Subdivision
Goldstones Subdivision
Catchment E1a
FOR INFORMAT
Drawn JTC
Date 12/10/16
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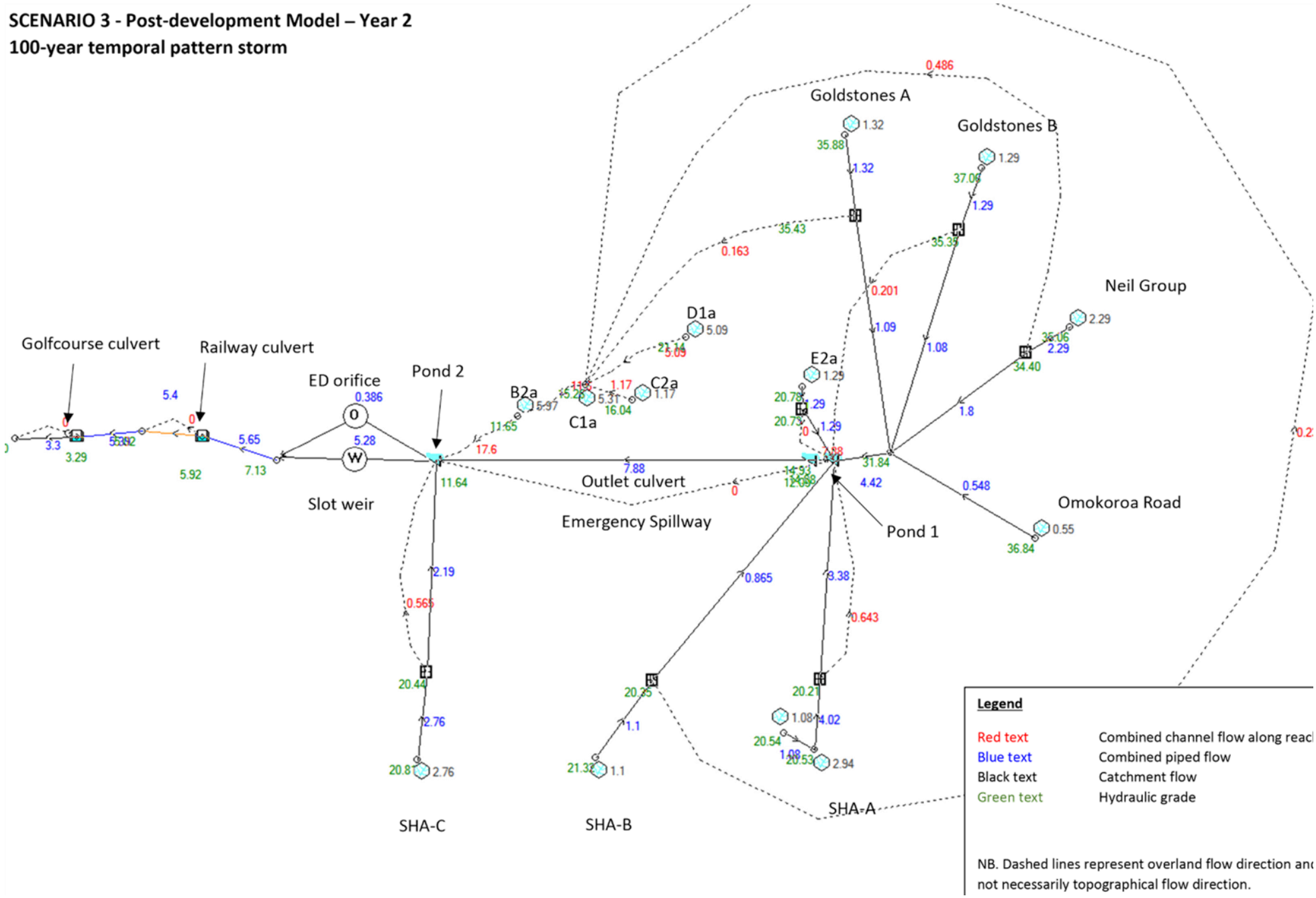
Project:
WESTERN BAY OF PLENTY DISTRICT COUNCIL
SPECIAL HOUSING AREA
POND 1 AND POND 2
Drawing Title:
POST-DEVELOPMENT CATCHMENT AREAS
Project No.
Scale (A3)
Drawing No.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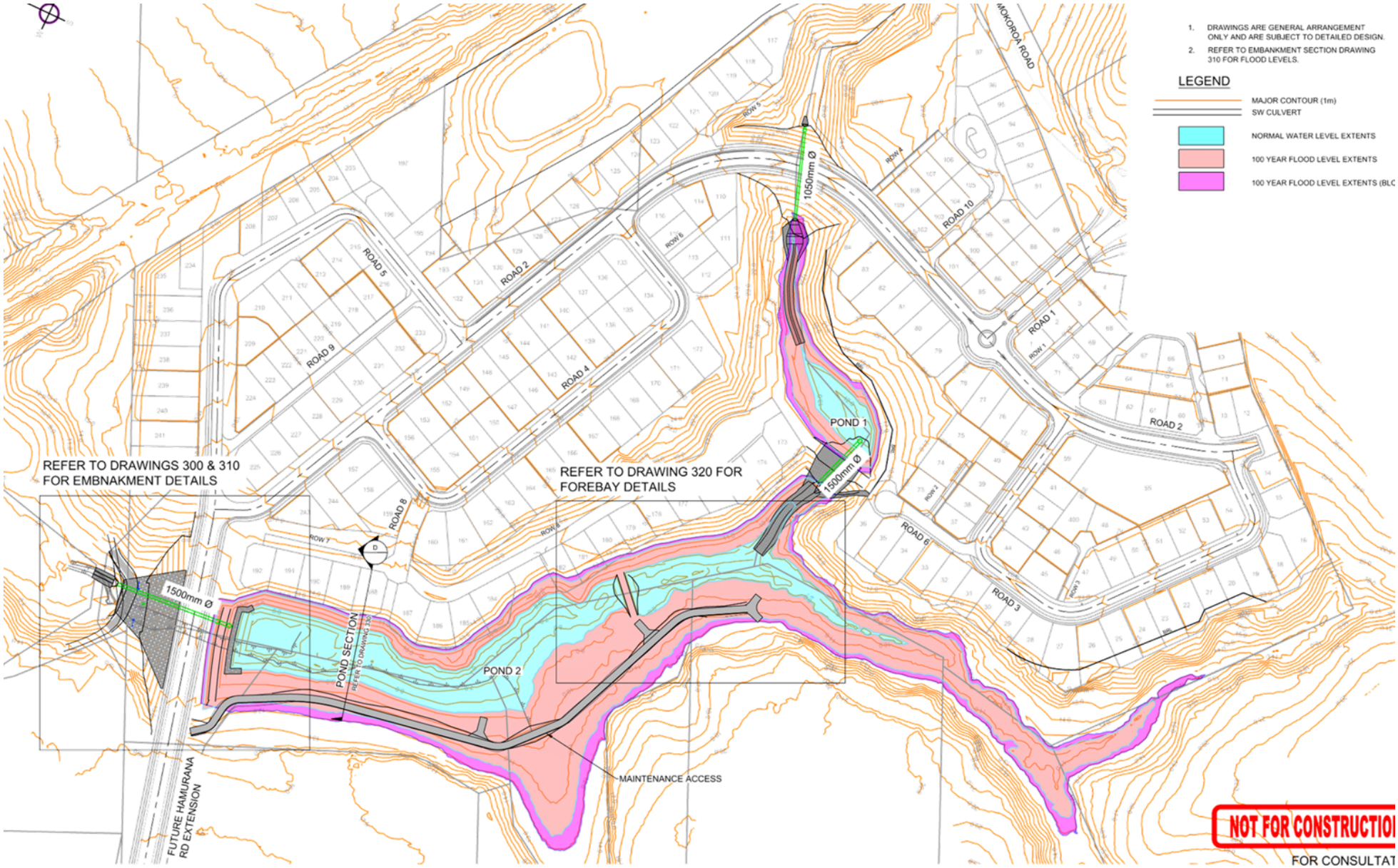
100-year temporal pattern storm
Goldstones A
Goldstones B
Neil Group
Golfcourse culvert
Railway culvert
ED orifice
Pond 2
B2a
C1a
C2a
D1a
E2a
Outlet culvert
Emergency Spillway
Slot weir
Pond 1
Omokoroa Road
SHA-C
SHA-B
SHA-A
Legend
Red text Combined channel flow along reac
Blue text Combined piped flow
Black text Catchment flow
Green text Hydraulic grade
NB. Dashed lines represent overland flow direction an
not necessarily topographical flow direction.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2. REFER TO EMBANKMENT SECTION DRAWING 310 FOR FLOOD LEVELS.
LEGEND
MAJOR CONTOUR (1m)
SW CULVERT
NORMAL WATER LEVEL EXTENTS
100 YEAR FLOOD LEVEL EXTENTS
100 YEAR FLOOD LEVEL EXTENTS (BLC
MOKOROA ROAD
ROAD 1
ROAD 2
ROAD 3
ROAD 4
ROAD 5
ROAD 6
ROAD 8
ROAD 9
ROAD 10
1050mm Ø
1500mm Ø
1500mm Ø
POND 1
POND 2
REFER TO DRAWINGS 300 & 310 FOR EMBNAKMENT DETAILS
REFER TO DRAWING 320 FOR FOREBAY DETAILS
POND SECTION
MAINTENANCE ACCESS
FUTURE HAMURANA RD EXTENSION
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EARTH DAM AND ANCILLARY WORKS
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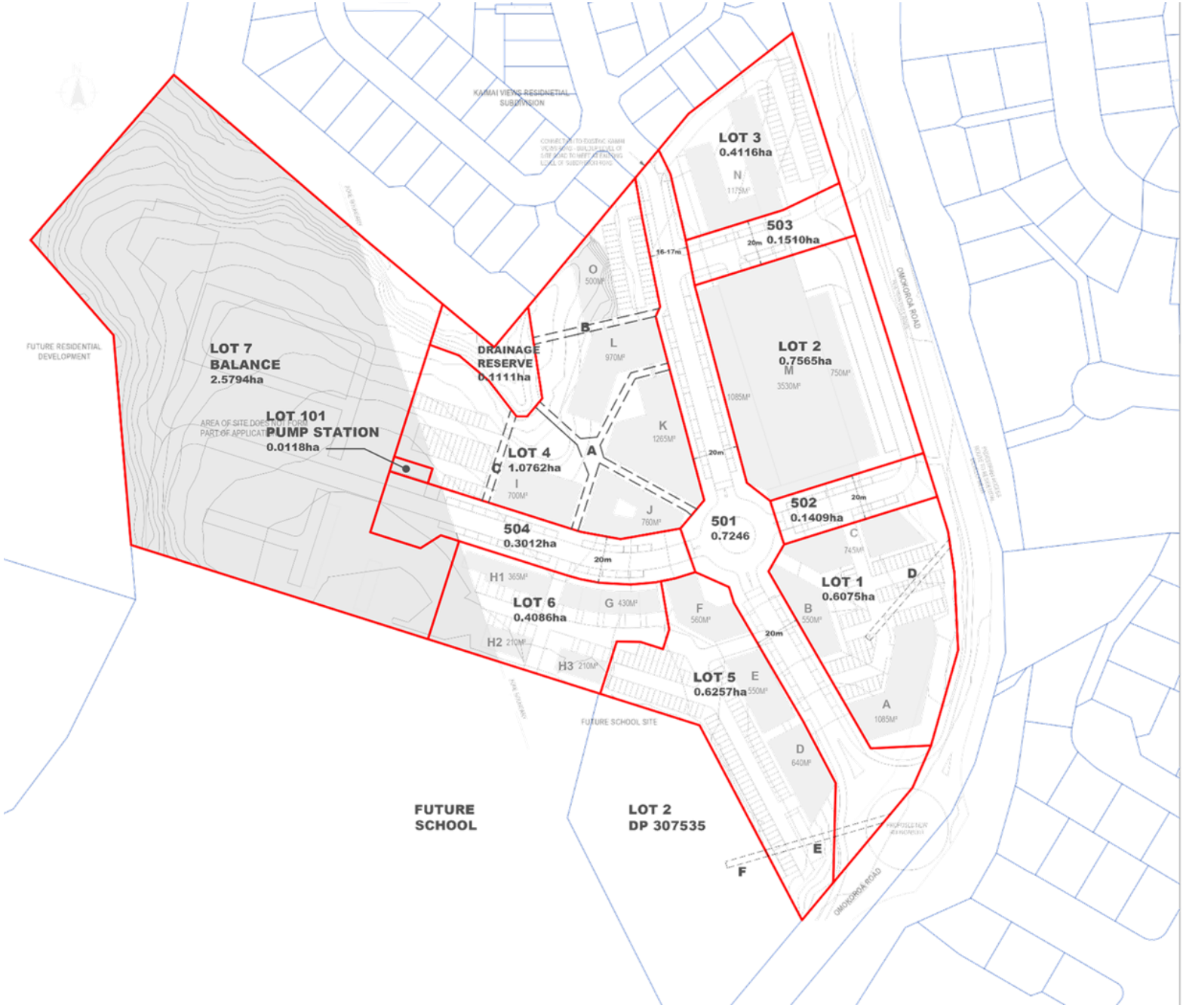
POND P-02
GENERAL ARRANGEMENT
Project No.
Scale (A3)
Drawing No.

APPENDIX 3 –OMOKOROA TOWN CENTRE MASTERPLAN AND SUPER-LOT SUBDIVISION DESIGN



LEGAL DESCRIPTION
LOT 1 Deposited Plan 307535
AREA:7.9099 HA

PROPOSAL
SUBDIVIDE SUBJECT SITE INTO SUPER LOT
PUBLIC ROAD TO FACILITATE TOWN CENTR
DEVELOPMENT:

LOT 1 (0.6075ha)
LOT 2 (0.7565ha)
LOT 3 (0.4116ha)
LOT 4 (1.0762ha)
LOT 5 (0.6257ha)
LOT 6 (0.4086ha)
DRAINGAE RESERVE (0.1111ha)
BALANCE LOT 7 (2.5794ha)
LOT 101, PUMP STATION (0.0118ha)

SERVICES

REFER TO LYSAGHT SERVICES REPORT

THE CORRECT INSTALLATION OF WATER, WASTEWATER, STORMWATER SERVICE CONNECTIONS TO COUNCIL'S INFRASTRUCTURE DEVELOPMENT CODE

EXISTING EASEMENTS

PURPOSE	SHOWN	SERV	DO
DRAINAGE	D	LOT 1	WBC
DRAINAGE	E	LOT 1 DP 307535	WBC
DRAINAGE	F	LOT 2 DP 307535	WBC

PROPOSED EASEMENTS

PURPOSE	SHOWN	SERV	DOM
STORMWATER	A	LOT 4	501 &
STORMWATER	B	LOT 4	501
STORMWATER	C	LOT 4	504

Drawing Details
Date: May 2020 Designer: TW
Scale: refer scale bar Checked: RC
File Name: Omokoroa Town Centre, Subdivision Plan.dwg

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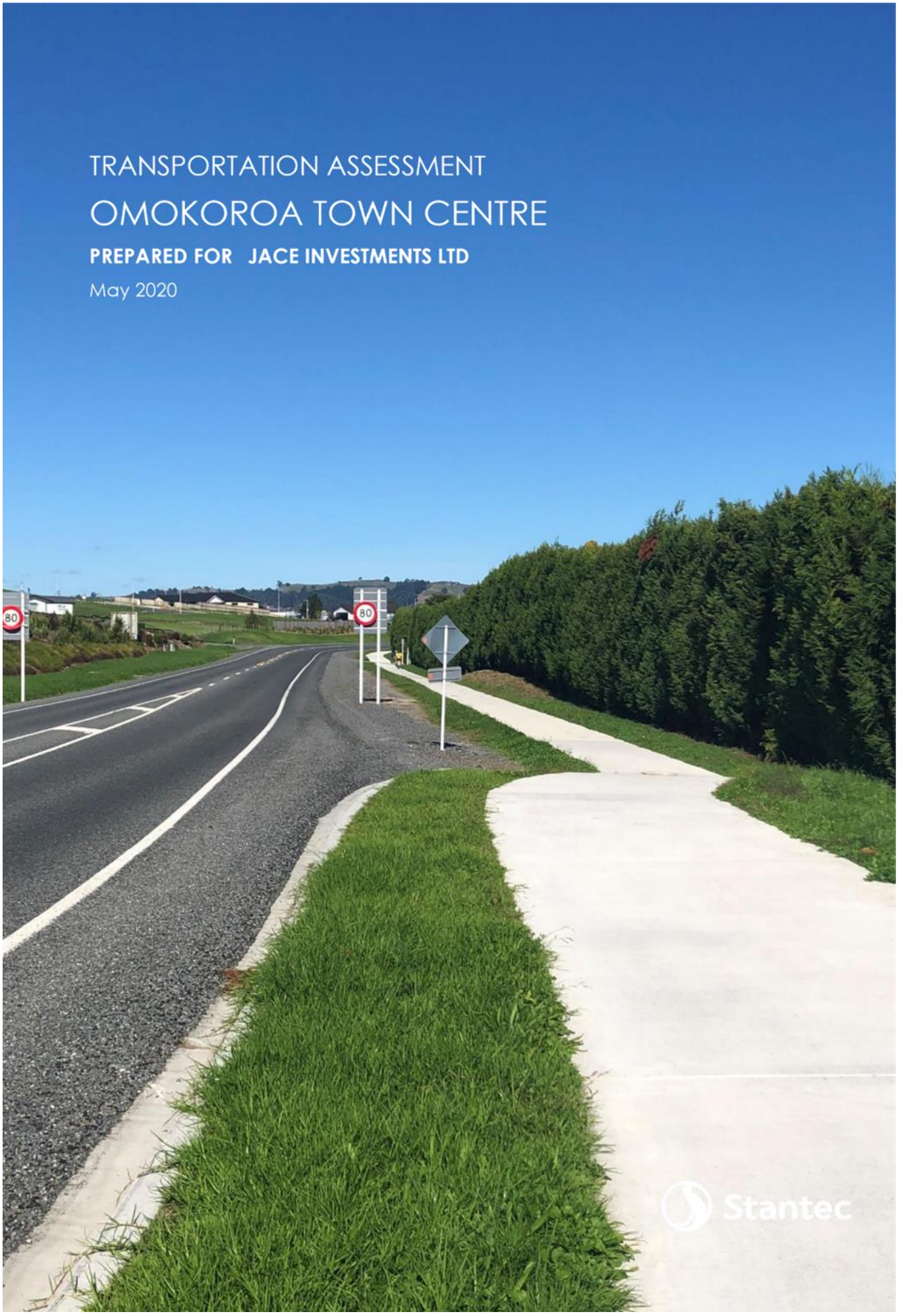
TRANSPORTATION ASSESSMENT
OMOKOROA TOWN CENTRE
PREPARED FOR JACE INVESTMENTS LTD
May 2020
80
80
Stantec

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QUALITY STATEMENT

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REVIEWED BY		
Ian Carlisle	.....	14 May 2020
APPROVED FOR ISSUE BY		
Ian Carlisle	.....	14 May 2020

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Abbreviations

AADT	Annual Average Daily Traffic
CAS	Crash Analysis System
Council	Western Bay of Plenty District Council
ODP	WBOPDC Operative District Plan
FTE	Full Time Equivalent
HGV	Heavy Goods Vehicle
ITA	Integrated Transportation Assessment
km/h	Kilometre per hour
LOS	Level of Service
Transport Agency	Waka Kotahi NZ Transport Agency
ODP	Operative District Plan
RR453	NZ Transport Agency Research Report Trips and Parking Related to Land Use (RR453) "*Trips and Parking Related to Land Use*"
SH	State Highway
veh/d	Vehicles per day
veh/h	Vehicles per hour

Jace Investments Ltd

Omokoroa Town Centre

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APPENDICES

Appendix A Master Plans

Appendix B Vehicle Tracking Paths

1. Introduction

Stantec NZ has been commissioned by Jace Investments Ltd to assess the transportation effects of a proposed Master Plan for development of the Omokoroa Town Centre on a 7.9 ha block of land at 404 Omokoroa Road, on the Omokoroa peninsula. The assessment is at a level appropriate to the Master Plan stage of development.

The development is proposed within the currently Commercial zoned portion of the site (the "site"). Jace Investments Ltd is applying for resource consent for the development and establishment of a Town Centre Plan.

The site lies within the Omokoroa Structure Plan area and as such the location and wider area transport movement has previously been confirmed as appropriate for commercial activity through District Plan zoning and associated designations.

The key transportation issues associated with the proposal and covered by the scope of this report are:

- The level of traffic that is likely to be generated, its demand and distribution by the proposed subdivision and the effects of this traffic at the proposed access locations onto the existing road network;
- Access and egress arrangements;
- Integration of the site within the planned transportation environment;
- Internal multi-modal circulation and movement at a hight level appropriate to a master plan stage of development;
- On-site parking; and
- District Plan transportation provisions.

These and other transport matters are considered in the detail of this assessment.

2. Existing Transport Environment

2.1 Site Location & Description

The site is located at 404 Omokoroa Road, Omokoroa immediately to the south-east of the existing developed area and north of SH2 as depicted in Figure 2-1. Omokoroa is a rapidly growing satellite town which is approximately 18 km to the north-west of Tauranga.

The site is the portion of the property of around 5.3 ha that is zoned Commercial in the ODP as part of the Omokoroa Stage 2-1A area, and the balance of the property of approximately 2.6 ha is zoned Future Urban. The site compromises approximately half of the Stage 2 Commercial Zone allocated to the Omokoroa urban growth area. The remaining balance of the Stage 2 Commercial Zone has been consented for a Special Housing Area containing 242 dwellings north of the site and land recently purchased by the Ministry of Education at 412 Omokoroa Road, immediately south of the site.

The site is currently used for horticultural activities with a residential dwelling to the south of the site adjacent Omokoroa Road.

The site is surrounded by residential development at varying stages of completion including the Kaimai Views, Harbour Ridge and Te Awanui Waters. The existing land to the south and west is zoned predominantly Future Urban with some industrial employment zones and it is anticipated this land will be progressively developed in the coming decades. The site location with respect to the immediately surrounding land use is depicted in Figure 2-1.



Figure 2-1: Site Location within Omokoroa Peninsula

The existing zoning for the site, as defined in the ODP, is predominantly Commercial with a small area of Future Urban at the south-eastern end of the site which is subject to a road designation in the ODP (D233) as depicted in Figure 2-2. As noted above, while the land to the north has been zoned for commercial and industrial use, the commercial area has been developed for residential purposes under the Special Housing Areas legislation and the industrial area is yet to commence. The application site includes all the remaining Commercial zoned land.

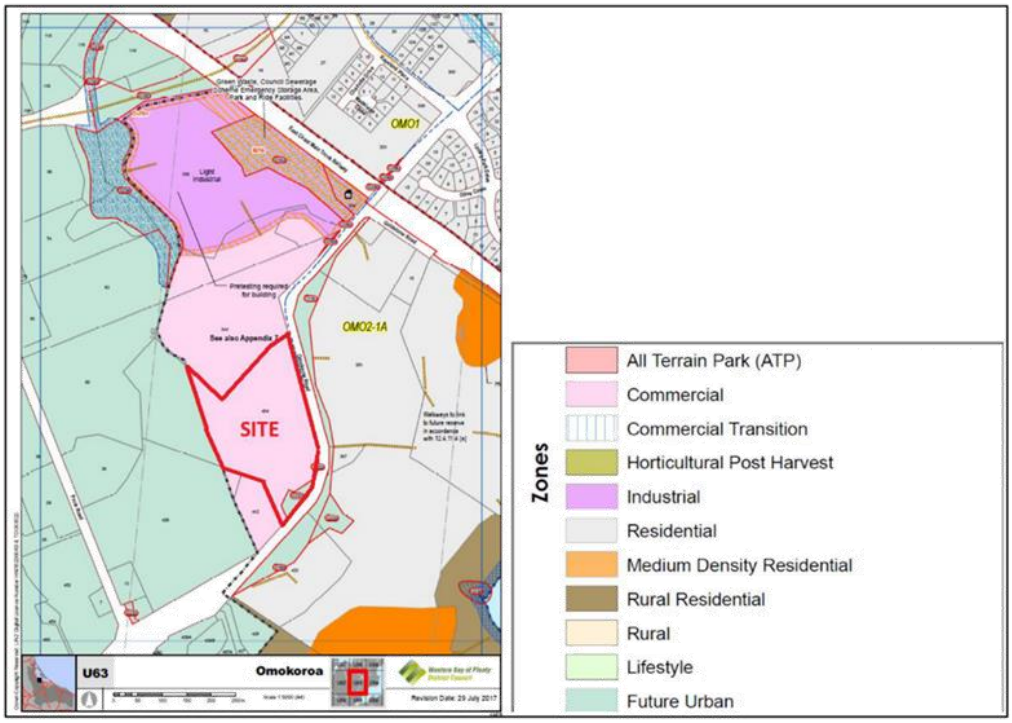

Figure 2-2: Site Location and District Plan Zoning (Source: Western Bay of Plenty District Plan)

2.2 Surrounding Road Environment

2.2.1 Road Hierarchy

The site is located on the western side of Omokoroa Road, which is classified as a Secondary Arterial in the District Plan and provides the only linkage between SH2 and the peninsula, as shown in the Road Hierarchy plan in Figure 2-3. As a Secondary Arterial, Omokoroa Road forms part of the Strategic road network in the WBOP District Council.

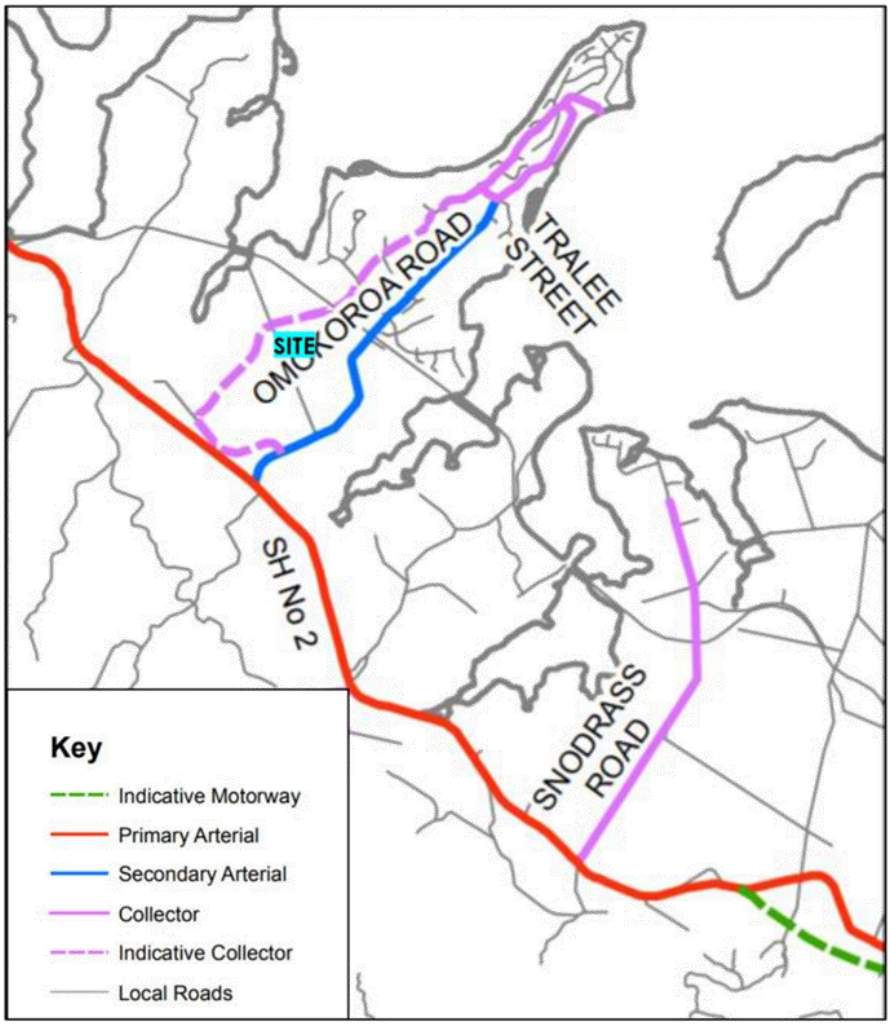

Figure 2-3: Western Bay Of Plenty Road Hierarchy (Source: WBOPDC ODP)

A local road network has been formed to service the new residential subdivisions adjacent to Omokoroa Road. On the eastern side of the road opposite the site the residential areas are accessed by Flounder Drive at the south, and Ridge Drive at the north. On the western side, north of the site, the subdivision is accessed by Settler Avenue, which has a roundabout with Omokoroa Road and Ridge Drive.

2.2.2 Omokoroa Road

Omokoroa Road is a two-way single carriageway, Secondary Arterial route, with an 80km/h speed limit adjacent the site. The speed limit change from 80 km/h to 60 km/h for northbound traffic is located near the northern boundary of the site on the south approach to the roundabout intersection with Settler Avenue and Ridge Drive.

Omokoroa Road was upgraded and widened between SH2 and the railway line, approximately 2 years ago. This included the construction of a shared cycle and pedestrian path (about 2.5 m wide) on the west side of the road. With a rural formation, the road is unlit except at intersections. Adjacent to the site in the vicinity of the existing speed threshold, Omokoroa Road has sealed carriageway width of nominally 10 m.

A recently completed roundabout on Omokoroa Road was constructed, just to the north of the proposed site in 2018, providing access to new residential developments on Settlers Avenue (on the western side), and Ridge Drive (on the eastern side). The single lane roundabout layout is shown in Figure 2-4 below, with the central island being approximately 22 m in diameter and an inscribed diameter of nominally 38 m. Boundaries have been positioned to maximise sightlines, and bus stops are marked on the north side of the roundabout.



Figure 2-4 Existing roundabout on Omokoroa Road providing access to Settler Avenue to north of site

Flounder Drive intersects Omokoroa Road at a give-way priority-T intersection, opposite the southern end of the proposed site. It includes a right turn bay on Omokoroa Road for vehicles turning into Flounder Drive as depicted in Figure 2-5 and Figure 2-6. Subdivision lots on the eastern side have been set back from Omokoroa Road due to the change in levels between the road and residential areas. This is consistent with the designation for this intersection and its stage 2 upgrade to a roundabout[1] as is the road designation within the site as shown on the ODP.

The site currently has two vehicle crossings on Omokoroa Road: one serving the existing dwelling adjacent the south-west boundary and one serving the existing orchard located approximately 180 north of Flounder Drive (see Figure 2-7). An existing pedestrian way which connects to the residential are via Anglers Way also adjoins Omokoroa Road in the vicinity of this access although there is no facility on Omokoroa Road for it to link with (see also Figure 2-7).

[1] See capital works item O -7.1.



Figure 2-5: Aerial Photo of Omokoroa Road / Flounder Drive Intersection (opposite the site)



Figure 2-6: Omokoroa / Flounder Drive Intersection (showing right turn bay and shared path beyond)



Figure 2-7: Omokoroa Road facing north towards speed threshold. Existing access on left and pedestrian path on right.

Further south, the no-exit road of Prole Road intersects with Omokoroa Road at a T-intersection which also has a right turn bay, and a left turn lane from Omokoroa Road.

2.2.3 Settler Avenue/ Sentinel Avenue

On the northern boundary of the site a local street has been constructed to the boundary with the intention of linking into the site's commercial zone as depicted in Figure 2-8. Sentinel Avenue in turn intersects with Settler Avenue providing the connection to the roundabout on Omokoroa Road.

Sentinel Avenue has been constructed to a nominal carriageway width of 8 m (Figure 2-9) while Settler Ave is 11 m which is consistent with the Council road width for a road serving 200 lots and 300 lots respectively.



Figure 2-8: Sentinel Ave facing site



Figure 2-9: Sentinel Ave facing north

2.3 Existing Traffic Data

Traffic volumes within the Omokoroa peninsula have been rapidly increasing in recent years corresponding to development growth within the peninsula. Recent traffic counts for Omokoroa Road have been provided by Council and summarised in Table 2-1, for sections of Omokoroa Road.

The current 7-day average daily traffic (ADT) volume on the SH2 to Prole Road section of Omokoroa Road is 7,066 veh/d, which compares with 4,946 veh/d in 2014, i.e. an increase of 43% in 5 years. For the section of Omokoroa Road between Goldstone Road and Kayelene Place, the 7-day ADT volume in 2019 is 5,803 veh/d which compares with 4,550 veh/d in 2014. This provides an increase of 28% in the last 5 years. From this data, peak hour volumes have also been estimated.

Table 2-1: Omokoroa Road Traffic Volumes (South to North)

Location on Omokoroa Road	2014 ADT (veh/d)	2019 ADT (veh/d)	Estimated Peak Flow (veh/h)	Percentage Heavy
SH2 to Prole Road Intersection	4,946	7,066	727	6%
Prole Road to Flounder Drive	5,273	6,214 (Taken from Mobileroad.org)	527	3%
Flounder Drive to Ridge Rd/ Settlers Avenue	Data not available as new intersection after 2014	6,005	634	4%
Ridge Rd/ Settlers Avenue to Goldstone Road	Data not available as new intersection after 2014	5,619	583	4%
Goldstone Road to Kayelene Place	4,550	5,803	594	4%
Kayelene Place to Western Avenue	4,248	5,382	560	4%
Western Avenue to Anderley Avenue	3,907	5,819	562	6%

2.4 Alternative Travel Modes

2.4.1 Bus Services

Omokoroa is served by one local bus service, managed by the Bay of Plenty Regional Council. The No. 81 route operates between Tauranga and Omokoroa. The route for the bus services in Omokoroa can be seen in Figure 2-10.

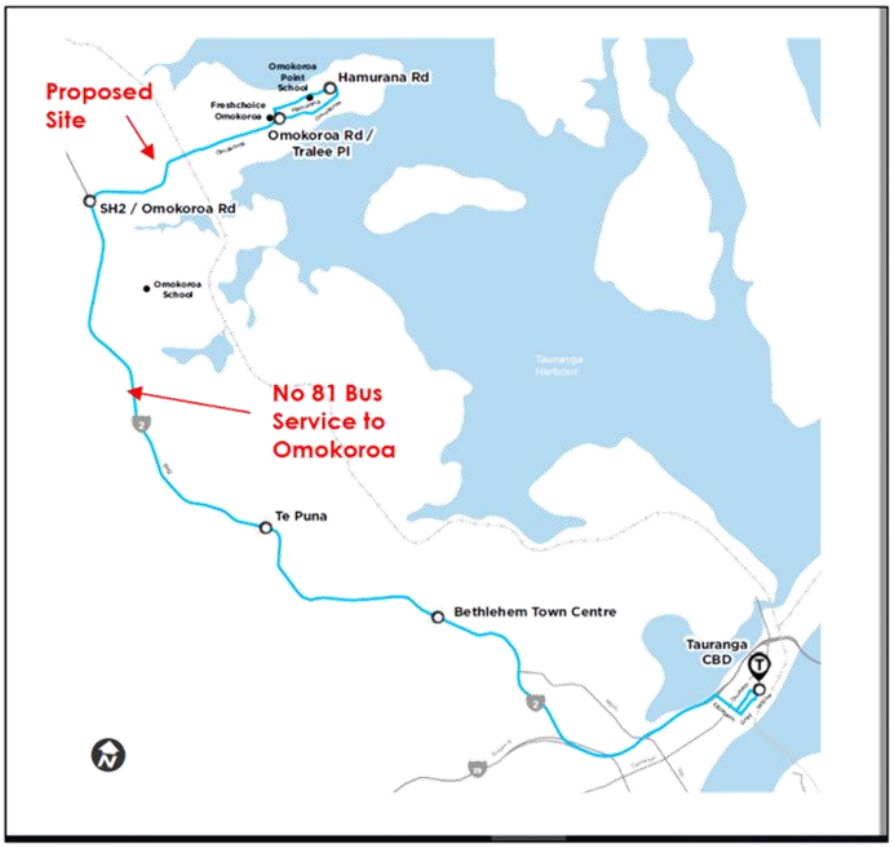

Figure 2-10: Bus Route 81 between Tauranga City to Omokoroa

The service operates during peak times with six buses between 7am and 10am in the morning (City bound) and six buses between 2pm and 6pm (Omokoroa bound).

Existing north and south bound bus stops, closest to the proposed site are located just to the north of the Settlers Avenue roundabout intersection. This is within easy walking distance to the town centre site.

An existing bus stop is also located on Omokoroa Road to the east of the Prole Road intersection, where approximately 24 parking spaces have been constructed for a Park and Ride service. Another Park and Ride facility is currently to the north east of the Omokoroa Road/ SH2 intersection which is understood will cease to operate as a Park and Ride site when the SH2 intersection is upgraded in the future.

2.4.2 Walking & Cycling Infrastructure

A shared path has been constructed on Omokoroa Road from approximately 200 metres south west of the Prole Road intersection to Goldstone Road on the north-west side of the road, as part of the recent road upgrading project. On the north side of the railway bridge the shared path recommences and provides a linkage to the older Omokoroa urban area. It is understood that the shared path is eventually planned to continue to the south-west as far as SH2.

In the wider area, a 19 km Omokoroa to Tauranga Cycle route is under nearing completion and will provide an alternative transport route to the busy State Highway 2 corridor for connecting the peninsula to Tauranga City. The project should provide a much safer alternative to the existing state highway corridor, where heavy and high-volume traffic could be suppressing demand for cycling. This scenic new route may encourage more walking and cycling between the urban communities in the area and is likely to increase the number of children cycling to school. It will also become a key part of a tourist trail from Waihi to

Maketu. The route is understood to be expected to attract 130-200 commuter cyclists a day, with a higher estimate for recreational users.

Many of the cycle path sections have been completed with the final connection between Omokoroa and Bethlehem left to complete.

2.5 Road Safety

A search of the NZ Transport Agency crash database has been undertaken for the five-year period between 2015 and 2019, for the road network within the vicinity of the site as depicted in Figure 2-11.

In that period, there has been two recorded crashes, one minor injury crash and the other non-injury. The minor injury crash occurred in October 2015 on Omokoroa Road, 200 m south of the intersection with Goldstone Road where a motorcycle lost control when entering a corner. The non-injury accident occurred in October 2019 140 m north of the intersection with Flounder Drive. This involved a south bound car losing control on Omokoroa Road when entering a corner.

Noting that the road has had a recent major upgrade, the crash record for this section of road does not exhibit any trend in crash type or frequency that indicates that further safety assessment is warranted.



Figure 2-11: Crash History area for road network surrounding the site locations

3. Omokoroa Structure Plan

3.1 Existing Omokoroa Structure Plan

The District Plan (Appendix 7) contains a Structure Plan for Omokoroa, which sets out infrastructure proposals to service the zoned development land in Omokoroa, which was last updated in 2016. The structure plan and underlying zoning is shown in Figure 3-1.

The proposed site is located within the Stage 2 area of development, at the southern end of the Omokoroa peninsula. The first stage of the development (north of the railway) is effectively completely developed. Stage 2 is also well progressed with a significant portion of the 3 large subdivisions south of the railway having titles issued and many houses built or under construction.

The Omokoroa Structure Plan has identified transport upgrading projects in the area required to meet the transport demands of the growth in traffic anticipated in the area. Many of the projects included have already been completed to support recent developments. Key future projects include:

- O-01, O-02 and O-04-1 Omokoroa Road/SH2 intersection and four-laning from Prole Road to SH2;
- O-07-2 Roundabout construction to Commercial Zone (at Flounder Drive and into the subject site).
- X-01 Pedestrian Bridge Lynley Park lane to the Stage 2 development area.

- Walkways/ Cycleways for stage 2 development to be determined.
- O-08-1 Roundabout construction to Special Housing Area. This roundabout has been completed;
- O-05-1: Right turn bay installation at the intersection of Prole Road and Omokoroa Road (this has already been installed). It is noted that previous iterations of the structure plan included a future roundabout at this intersection, but this was removed at some stage prior to the current publication; and
- P-01 and P-02 Upgrade of Prole Road. It is understood the design for this project has been recently commissioned.

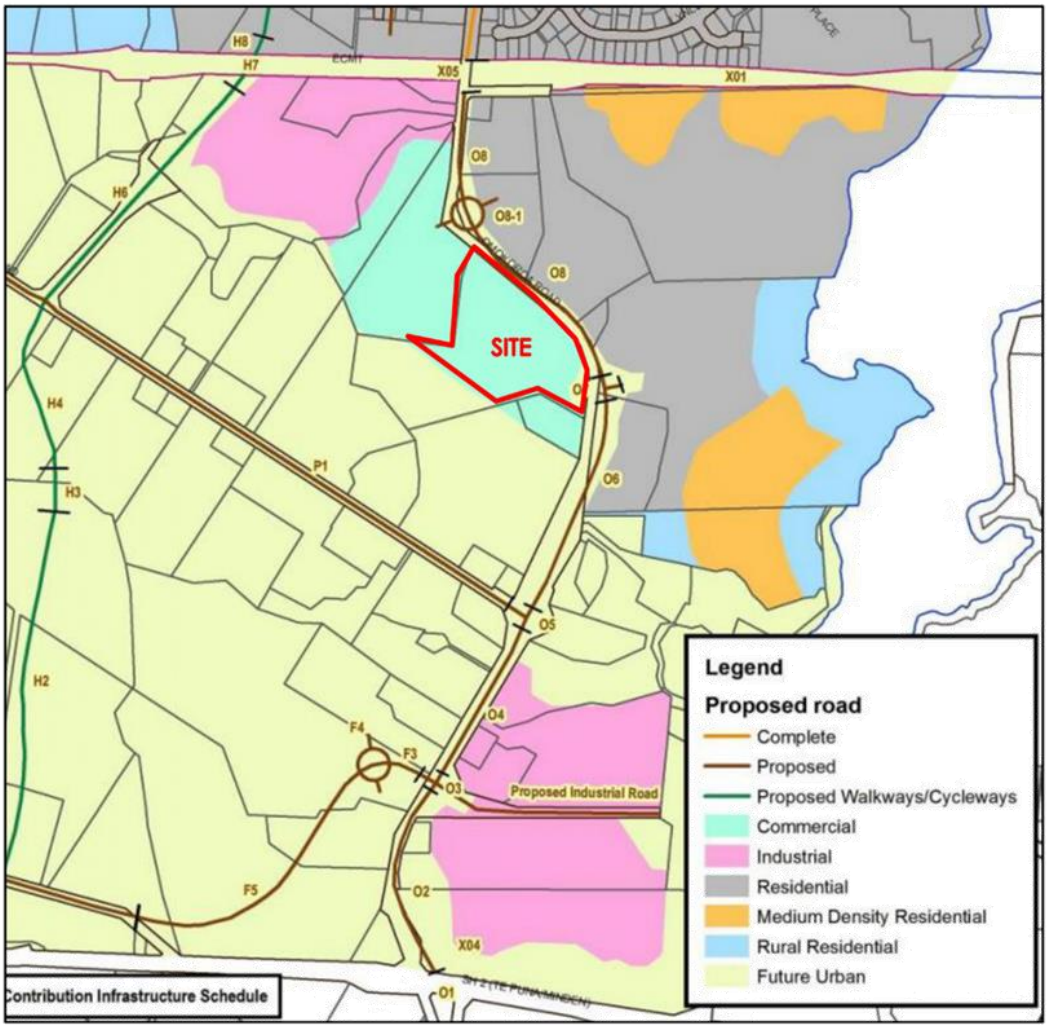

Figure 3-1: Omokoroa Structure Plan Extract annotated with Site Location (District Plan Appendix 7)

It is highlighted that a previously proposed link road, as an extension of Hamurana Road to Francis Road, as shown on the Road Hierarchy Plan, has been removed from the structure plan and link items H02-H07 are now cycle connections, solely with no vehicle connection proposed. This means that Prole Road is currently intended to remain as a no-exit road following the expected development growth.

4. Future Traffic Patterns

Further traffic data taken from the Western Bay of Plenty Tauranga Transport Model (TTM), provided by the Western Bay of Plenty District Council[2], shows predicted traffic growth on Omokoroa Road for future

[2] With the caveat that the model is currently being updated

scenarios in the peak hours for 2031 and 2063. The modelling data is available for various sections of Omokoroa Road and shown in Tables 4-1 (AM Peak), 4-2 (Inter Peak) and 4-3 (PM Peak).

Table 4-1: AM Peak Predicted 2-way Traffic flows for Omokoroa Road

Road Section	AM Peak Hour Two-Way (veh/h) 2031	AM Peak Hour Two-Way (veh/h) 2063	Percentage Increase in predicted Traffic Flow
Lynley Park Dr to Anderley Ave	920	1,320	44%
Lynley Park Dr to Prole Rd	1,060	1,450	37%
SH2 to Prole Rd	1,200	1,590	33%

Table 4-2: Inter Peak Predicted 2-way Traffic flows for Omokoroa Road

Road Section	Inter Peak Hour Two-Way (veh/h) 2031	Inter Peak Hour Two-Way (veh/h) 2063	Percentage Increase in predicted Traffic Flow
Lynley Park Dr to Anderley Ave	660	1,020	55%
Lynley Park Dr to Prole Rd	740	1,100	49%
SH2 to Prole Rd	860	1,240	44%

Table 4-3: PM Peak Predicted 2-way Traffic flows for Omokoroa Road

Road Section	PM Peak Hour Two-Way (veh/h) 2031	PM Peak Hour Two-Way (veh/h) 2063	Percentage Increase in predicted Traffic Flow
Lynley Park Dr to Anderley Ave	960	1,390	45%
Lynley Park Dr to Prole Rd	1,100	1,520	38%
SH2 to Prole Rd	1,230	1,690	37%

The modelling outputs show the average percentage increase in traffic growth, between the future year scenarios of 2031 and 2036, across all the peak hours, is 42%, with the greatest increases seen in the inter peak time period.

The link with the highest traffic flows, during all peak hour periods, is between Prole Road and the SH2. Peak volumes are up to 1,230 veh/h in the foreseeable future, potentially increasing to 1,700 veh/h in the long term.

Moreover, adjacent to the site the forecast peak hour traffic flow is 1,520 veh/h which is noted to be well within the capacity of a two-lane road.

5. Proposed Master Plan

5.1 Overview

The proposal is for the development of the commercially zoned land to establish a mixed-use commercial town centre to service the growing Omokoroa community and nearby rural catchment. The town centre will comprise retail spaces, including a supermarket, shops, cafes/restaurants, bars, office space, with medium density residential units, childcare and visitor accommodation adding living quarters in close proximity to employment and services.

A total of some 25,700 m² GFA of mixed-use activity is proposed to be developed including retail, office, residential and childcare. Over 670 car parking spaces are to be available to service the development located both on- and off-street. The development can be constructed in stages.

The town centre will be accessed via the designated roundabout on Omokoroa Road. The roads have been designed to be sympathetic to the existing urban form both adjacent to the site and also opposite

the site. The development will also connect with Sentinel Avenue on the northern side and the carriageway will narrow as it approaches Kaimai Views subdivision to assist with traffic calming. The proposed layout and access connections with respect to the existing road network are depicted in Figure 5-1.



Figure 5-1 Proposed Site Area and Surrounds

An internal roundabout of appropriate size and formation will be established within the town centre to manage traffic at an appropriate speed through the commercial area. The roundabout will be designed to be mountable so delivery trucks can travel to the supermarket service yard. The circulation route for trucks is circular to ensure that they travel back up to the roundabout on Omokoroa Road recognising that most will delivery vehicles will exit towards the State Highway.

To the west of the internal roundabout will be another local road servicing the commercial area and ultimately provide a connection through to the future urban area. The is an opportunity to provide a road connection through to Prole Road on the western boundary of the MoE site, which would provide active edges on all 4 school boundaries.

To the east of the internal roundabout will be a public road that will provide access to car parking for Buildings A to C. A 6 m wide lane will connect this road to another road linking through from Sentinel Avenue to Omokoroa Road. This lane will serve the convenience retail facing Omokoroa Road that sleeves the supermarket building before looping back to the central spine road and supermarket carpark access.

A Master Plan has been prepared for the Town Centre to a level of detail appropriate to this stage of development on the understanding that the developed and detailed design phases will follow the consenting process. This will likely result in further refinement of intersection layouts, pedestrian connections, and carpark layouts in the detailed design phase. The concept Master Plan (Parking) which includes a schedule of building and parking areas is shown in Figure 5-2 and to a larger scale in the appendices.

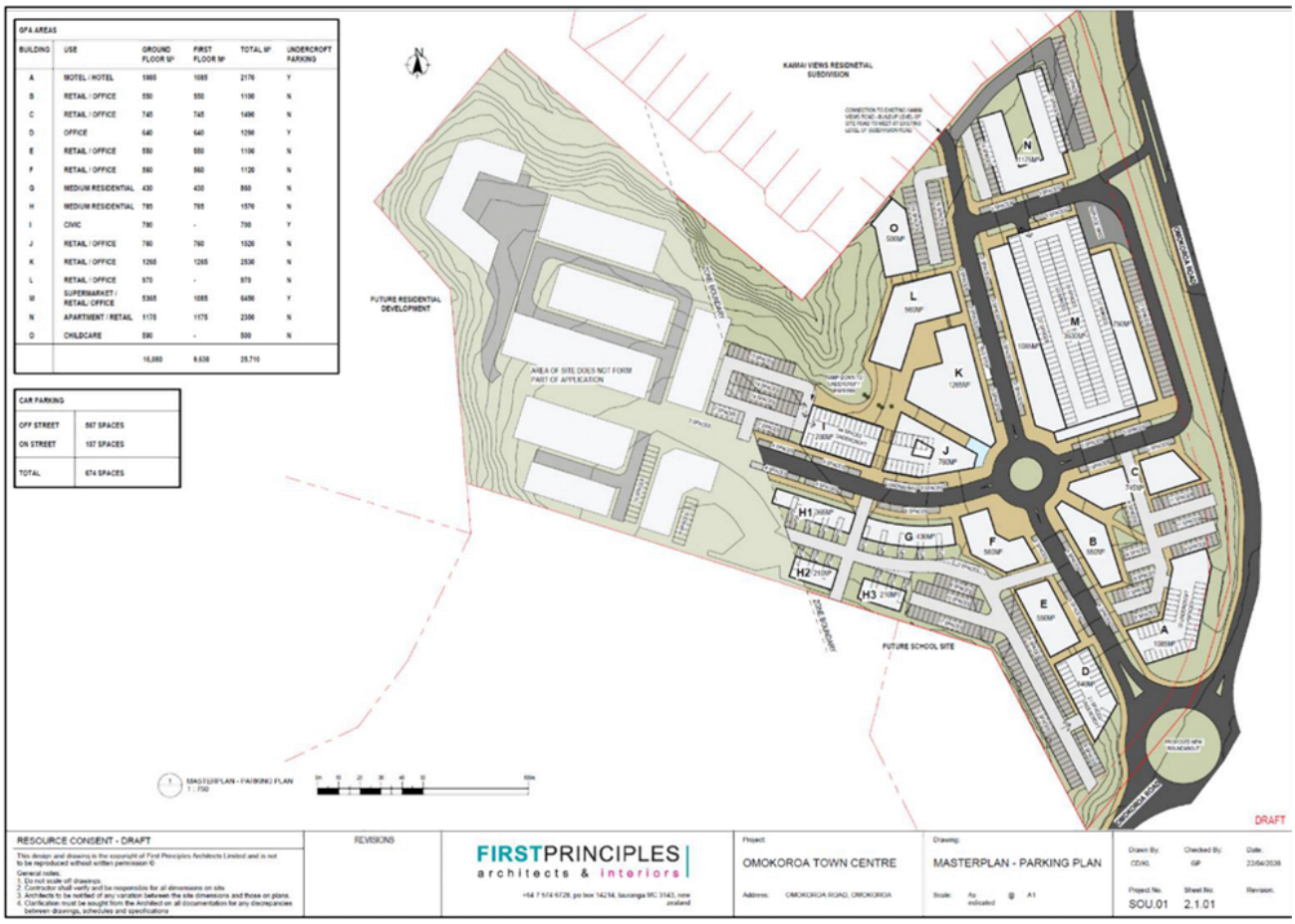

Figure 5-2: Proposed Master Plan - Parking

5.2 Subdivision

A subdivision plan is proposed for the site that allows for it to be developed in large lots, in accordance with the Master Plan. The proposed subdivision plan is shown in Figure 5-4. A vested roading network is proposed, supported by private internal circulation roads.

As can be seen 501 to 504 are intended to be vested roads. Six development lots are proposed, allowing for staged development, and a large balance lot (Lot 7) is provided for that is not subject to the land use consent.

Road 501 will provide a through connection between Omokoroa Road and the residential road, Sentinel Avenue. Road 503 provides for property access, and allows for a direct access to Omokoroa Road, intended to be left turn out only, and Road 502 will be a no exit road, connected to Omokoroa Road for pedestrian/cycle access, but otherwise with a property access function and to provide access to the convenience retail. Road 504 provides a property access, and allows for connectivity to potential future growth areas to the west, and south, including the future school development.

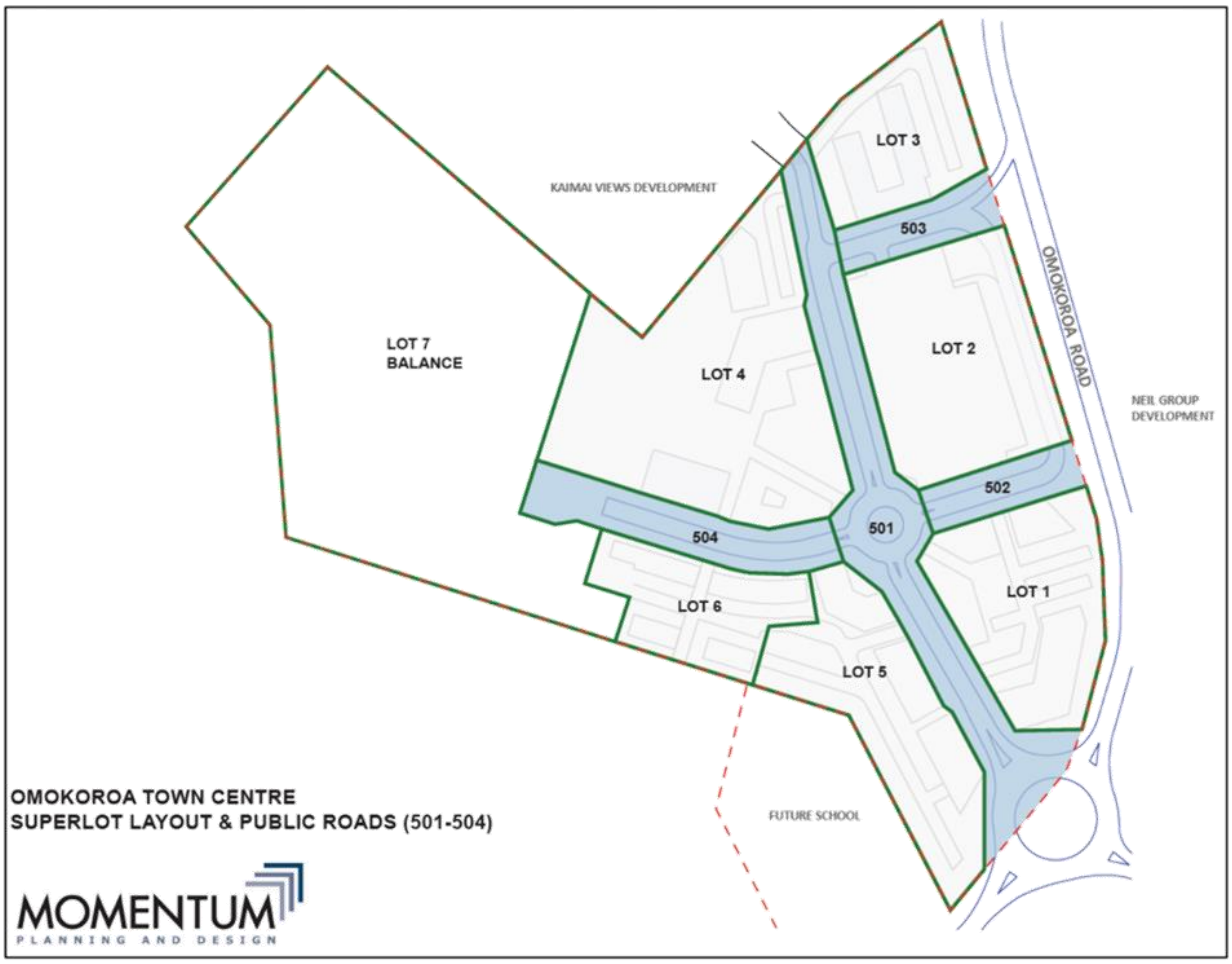

Figure 5-3: Subdivision Layout Plan

5.3 Roads

Each of the roads is proposed with a minimum of a 20 m road reserve. The Master Plan provides for a standard road carriageway of 8 m, and parking/footpaths of 6m each side. The widths allow for movement by the larger service vehicles, whilst maintaining a walkable town centre environment.

The 8 m carriageway provides a single traffic lane in each direction, with clearance to opening car doors at on-street parking spaces. On-street parking spaces provide convenience for small businesses, and also assist with calming of the street. Parking is to be designed to meet Council Development Code standards.

By providing the tree landscaping between groups of kerbside parking spaces, the streetscape can be balanced between the road requirements and other movement functions, supportive of a low speed environment conducive to travel by a range of modes of transport.

5.4 Intersections

5.4.1 Omokoroa Road Roundabout

The primary through road (Road 501) links onto Omokoroa Road. It is located opposite the Founder Drive intersection, and as part of development will need to be upgraded to a roundabout intersection to safely cater for the access movements. It is expected that the intersection will be designed in accordance with "*Austroads Guide to Road Design Part 4B Roundabouts*" to ensure a safe system intersection consistent with providing safe and efficient access to the site. As noted in the Structure Plan, a roundabout intersection has been anticipated at this location and included in the forward infrastructure schedule for the area.

The masterplan has indicatively shown a roundabout in concept with a central island diameter of 36 m and an inscribed diameter of 56 m. This meets the minimum Austroads recommendation for central island

for a two-lane roundabout for a 70 km/h design speed. However, it is likely that this island may be reduced in size if, as is expected, the 60 km/h posted speed on Omokoroa Road is relocated south of Flounder Drive following construction of this roundabout An for a 60 km/h speed the minimum central island is recommended to be 20 m - 28 m diameter for a single and double lane arrangement respectively). This indicates that there is a high degree of flexibility retained for the proposed intersection design at detailed design, to respond to the location specific design requirements for approach geometry, and agreed design speeds which are likely to be lowered if development proceeds.

The angle of the approaches to the roundabout indicate that those waiting from the side roads will have good visibility to the right, which will be to higher speed approaching traffic on Omokoroa Road. Traffic waiting at the Omokoroa Road limit lines has a shorter sight line to those approaching from the side roads, but speeds are also slower. It is considered that sight lines will be able to be achieved through detailed design. There will also be flexibility to change the lot boundaries slightly to achieve the desired design criteria for the roundabout at the detailed design stage.

5.4.2 Internal Roundabout

An internal intersection is proposed to be constructed with a roundabout to ensure safe movement at the cross-roads. It has been shown in the Master Plan with a 16 m diameter central island and 32 m inscribed diameter. That provides flexibility to develop a roundabout layout that satisfies AUSTROADS requirements of the design speed, which is expected to be a low speed environment i.e. 40 km/h.

The roundabout is shown with limited approach curvature reflective of the desire for a slow speed roundabout in the heart of the centre. Pedestrian crossings will be developed in a manner that provides for short crossing distances. Again, it is considered suitable flexibility is available to achieve a safe intersections design consistent with the town centre environment. This can be confirmed through the subdivision process to ensure the land boundaries proposed match the requirements for a roundabout intersection developed to Austroads guidance.

5.4.3 Left Turn Exit Lane to Omokoroa Road

The Master Plan has included a left turn lane to Omokoroa Road approximately 110 m south of the Settler Avenue roundabout, and approximately 15 m north of where the existing speed limit change occurs (noting that it is likely and recommended, that the 60 km/h speed threshold is relocated south following the new roundabout construction as above).

The intersection is proposed so that vehicles heading back into Omokoroa have a convenient additional route that minimises the likelihood of travelling back through the residential road network. As shown in Figure 5-4, the road has been formed with a painted median from that location, and kerb and channel. A sight line of approximately 190 m is available under existing conditions where a hedge is against the road, suitable for a speed environment of at least 80 km/h (Austroads SISD for 80 km/h is 181 m). Given the proposed location between roundabouts, and potential for the speed limit of 60km/h past the town centre, it is considered a standard tee intersection is suitable at this location.

The design of the intersection can be confirmed through detailed design processes, as it can be integrated into the design of the adjacent Master Plan land. The cycleway can be deviated slightly to ensure that any waiting cars do not detract from the safe use of the cycleway.

It is recommended that a physical island to prevent right turns from this exit is included on Omokoroa Road. Such a median treatment has been shown on the Master Plan and can be constructed with only minor widening of the road carriageway.

The performance of this left-turn out facility has been modelled below.

It is also acknowledged that a right turn in facility may be feasible subject to confirmation of future traffic volumes from the TTM update which would provide a better access for traffic from the northern area without the need to use the local residential street network. It is recommended this option is explored in consultation with the Council at the detailed design stage.



Figure 5-4: Omokoroa Road at Existing Speed Change – Approximate location of proposed left turn exit

5.5 Sentinel Avenue Connection

The Special Housing Area subdivision to the north of the site provides a residential road network. Sentinel Avenue has an 8 m wide road carriageway within a 16 m wide road reserve. It will be necessary to transition the wider Road 501 into the road. Although the Structure Plan anticipated commercial development north of the site, and Sentinel Avenue has allowed for this connection at the boundary, the existing carriageway width does not readily accommodate high volumes of traffic with roadside parking on each side. It is therefore recommended that this connection is designed in a way that discourages traffic from the commercial area to use the road as a through route. The following measures will assist:

- Having a narrow carriageway width on Road 501 between the site boundary and Road 503, and implementing traffic calming devices at a safe location over that short length of road;
- Monitoring through traffic and implementing traffic calming along Sentinel Avenue if necessary.

5.6 Western Connection

The land to the west and south of the site will be developed although the form of development is yet to be finalised. The Master Plan enable future connections from the town centre to the west or south or both as may be advantageous to future development.

Immediately to the south, it is understood that the MOE have purchased the site for a school. The town centre development affords the opportunity to provide integration between the site and school surround with either vehicle or pedestrian access (or both). This would assist in providing those making vehicle trips to undertake a complementary trip on a local road network. It also provides opportunity for pedestrian and cycle connectivity. In that regard, flexibility in design is recommended to be retained in Lots 5, 6 and 7 to provide opportunities to integrate the development with the school, whilst the school design and access arrangements are developed.

6. Site Layout

6.1 Lot Access and Circulation

The proposed super lots will be accessed from the new roads in the town centre. No direct development lot access is proposed onto existing public roads. A broad description and assessment of each access location is provided, and it is confirmed that the access provisions can be supported, subject to refinements at the time of concept design.

6.1.1 Lot 1

The access to Lot 1 is proposed on Road 502 approximately 27 m from the roundabout intersection of Road 501/Road 502/Road 504, satisfying District Plan requirements for 25 m separation in a commercial zone. All parking access enters and leaves via the same access, and a standard 6 m wide vehicle crossing is shown servicing 87 parking spaces at the rear of the street facing buildings. Based on AS/NZS2890.1-2004 a driveway width 6 m to 9 m would be expected, which is satisfied.

Queuing distance from the boundary of approximately 19 m is available to the first point of conflict with manoeuvring vehicles within the site. A 16 m separation is calculated as the desirable minimum queuing distance in AS/NZS2890.1-2004, which is satisfied.

6.1.2 Lot 2 Supermarket and Retail

The primary access to Lot 2 is 15 m from Road 501 / Road 503 intersection and services an underground parking area of some 140 parking spaces in a standard parking layout. This separation from an intersection is slightly less that the District Plan requirement but it is understood that movement further to the east is constrained by gradient. The vehicle crossing is shown 6 m wide.

A parking area of this scale would generally warrant consideration of generous queuing space of approximately 23 m from the road boundary but in this case Road 503 will have very low levels of traffic passing such that queuing to the adjacent street from the parking area will be minimal and have minimal impact on the operation of the road network. Nevertheless, some internal design modifications can be considered through detailed design to improve the availability of the on-site queuing and possible inclusion of a wider access.

As the access is from under the building, any parking spaces need to be clear of ramps, and good inter-visibility needs to be provided between pedestrians on the footpath and exiting vehicles. As a high trip generating activity the positioning of landscaping and car parking on street needs to be managed, and as indicated on the Master Plan no parking is proposed on Road 503 between the access and Road 501 intersection.

An additional 27 parking spaces are shown along the eastern side of the building accessed via an internal access lane. These will service sleeved convenience retail and are connected via a circulation aisle between Road 502 and Road 503. The key consideration is the sight line from the access turning right to those exiting the development to Omokoroa Road via the left turn lane intersection. It is recommended the access is controlled with a Give Way or Stop control to ensure those on Road 503 have clear priority over those exiting the site.

6.1.3 Lot 3

The Lot 3 access to Road 501 is located at the northern end of the site close to the existing residential area, and approximately 30 m north if the Road 501/ Road 503 intersection. It will serve two parking areas totalling approximately 52 spaces. A standard vehicle crossing is appropriate at this location, as generally indicated on the Master Plan.

Being located close to the boundary with residential development, it has been recommended that the connection of Road 501 to the residential area is traffic calmed. The vehicle crossing will need to be considered in that context. Within the residential area the nearest road intersection (Sentinel Avenue / Traverse Lane) is 20 m from the site boundary. This intersection on the opposite side of the road may fall within the 25 m separation requirement for intersections set out in the District Plan. However, Traverse Lane is a low volume residential street, and the position of the access is optimised on the outside of the bend in Road 501.

6.1.4 Lot 4

Northern Access

A northern car park serving 30 car parking spaces is located approximately 14 m from the Lot 501 / 503 intersection, on the opposite side of the road. As the vehicle crossing is on the opposite side of the road, and in a position where through traffic will be low, it is considered the separation is acceptable and will not adversely impact the operation of the new road.

The access is also close to the residential development boundary, and the sight line around the corner may be constrained to approximately 30 m based on boundary constraints. With the recommended traffic calming, traffic speeds can be managed suitably to ensure the speed is appropriate for the achievable sight line. This should be subject to review of a concept plan for the road and access at

concept design, against the requirements for visibility at an access set out in the NZ Transport Agency RTS Guidelines for Visibility at Driveways.

Southern Access

The southern access is located on Road 504 over 100 m west of the internal roundabout. It serves a car parking area of approximately 99 spaces. The access can function with a standard vehicle crossing (6 m width shown). During concept design, queuing space should be maximised, potentially by locating the access in line with a north south circulation aisle, which would be a standard layout for a car park of this type. As the car park is at the western extent of the proposed road network subject to this consent, no concerns with efficiency at the access exist.

6.1.5 Lot 5

Lot 5 is accessed directly from Road 501, with a parking area of approximately 127 spaces located behind and under the main street buildings. The access is approximately 65 m from the Omokoroa Road roundabout, and 25 m from the internal roundabout. Most vehicles will undertake left turns into the access, and exiting vehicles have the option to turn right, or left and then around the roundabout. A footpath is shown along the edge of the access, and a queuing distance of about 24 m is available, matching AS/NZS2890.1-2004 requirements.

It is considered the access can operate safely, and provision for pedestrian / vehicle sightlines at crossing points can be achieved through concept design. The parking area joins up with the residential parking aisle associated with Lot 6, providing an option for access to Road 504, and future development to the south.

6.1.6 Lot 6

Lot 6 is accessed from Road 504 some 55 m from the internal roundabout, on the outside of a gentle radius curve. It will primarily service the residential development, which has parking for 32 vehicles. A connection is also available through to Lot 5, providing additional connectivity. It is considered the access provision shown can support the expected traffic generated.

6.2 Car Parking

Indicative car parking layouts have been shown on the Master Plan. These will need to be refined through the concept design process as each development lot is designed in further detail. It is recommended that the parking standards set out in AS/NZS2890.1-2004 are adhered to, considering the intended users of each development block. As the indicative layout has generally applied parking dimensions of 2.5 m wide spaces, there may be some reduction in spaces if provision is made for short stay parking (2.6m wide), but also mobility parking, landscaping, pedestrian routes and trolley bays.

Where a long dead-end aisle is provided (greater than 6 spaces), a space for vehicles to turnaround is to be provided, in general accordance with NZS2890.1-2004. Where service vehicles need to use the turn-around area, a specific design addressing the manoeuvring requirements of the design vehicle will need to be demonstrated.

6.3 Loading

6.3.1 Supermarket Servicing

The supermarket site will need to be serviced by an articulated truck (or equivalent long vehicle). To test the feasibility of the design, a design sized articulated truck (as specified in NZTA RTS18) has been simulated driving through the site. The proposed route for the vehicle movement is entry from the Omokoroa Road roundabout, a right turn at the internal roundabout, anticlockwise around the supermarket building to the external loading area, and left turn from road 503 to 501 before travelling straight out to the Omokoroa Roundabout to depart.

The vehicle paths are shown in the drawings in **Appendix B.** The plans demonstrate that the articulated truck can readily access the supermarket site via the proposed internal road network and development lot circulation roads. The left turns onto Road 503 and Road 501 require the truck to cross the centreline, which is considered acceptable on the local roads.

Refinements to the on-street car parking adjacent to the intersections will be required at the time of detailed design to ensure the full swept path of the articulated truck is accommodated clear of parking

and while currently feasible, the loading area could be re-orientated to improve ease of access and egress to the area.

6.3.2 Other Loading Areas

Loading provisions will be developed based on future tenant requirements. However, the Master Plan has been developed on the basis that the loading requirements of the individual tenancies can be serviced by medium rigid trucks or light vehicles, which would generally occur at off-peak times within the parking areas.

The parking areas and access are developed with the flexibility to accommodate such movements at times when the centre is not busy. Particularly consideration will be needed for any activity that has a frequent service demand such as the hotel.

Swept paths are included in **Appendix B** indicating the access movements to and from parking areas for a design sized medium rigid truck (8m long as specified by NZTA RTS18 document). To ensure that the design is suitably developed to accommodate the site specific loading requirements, it is recommended a condition of consent is included requiring review of the suitably of the site layout and access to accommodate the off-peak loading provisions as part of detailed development works approval.

6.4 Pedestrian and Cycle Connectivity

Omokoroa is in a unique position having an established network of walkways and cycleways in which to connect the town centre. The dual-purpose cycle way and walk along the Western side of Omokoroa Road will provide excellent connectivity to the town centre. The pedestrian and road network through the town centre will be able to create key connection points as identified on the urban design plan. Roads through the town centre will be designed as a low speed environment (30km/h maximum) suitable for sharing the road with bicycles. Dedicated pedestrian crossings will assist in promoting a pedestrian priority to the town centre. Connections will also be possible through to the Future urban area to the West that will further enhance the town centres locational attributes.

Footpaths are to be provided on each side of the new roads, with some of the buildings having active frontages to the footpaths. Where a building is setback from the road, a direct footpath to the building is achievable. This will provide a high level of connectivity in the site.

The internal roundabout will have pedestrian crossing facilities on each approach leg, designed in a manner that minimises crossing distances.

Car park aisles are generally quite short, and internal pedestrian routes can be considered further at the time of concept design of each lot.

Overall, it is considered the Master Plan provides for a walkable layout, with a focus on walking routes along the road supported by internal paths.

Within the town centre environment, the choice to adopt a slow speed and narrow road carriageway will require cyclists accessing the site to share the road carriageway with vehicles. As the site is a destination, this is considered appropriate.

Convenient linkages to the existing off-road path alongside Omokoroa Road are available. In this respect there appears to be an excellent opportunity to provide a mid-block cycle and pedestrian connection to the town centre and associated recommended cycle spaces located approximately 180 m north of Flounder Drive opposite the existing pedestrian connection on the east side of Omokoroa Road.

Given the proximity to the cycleways, and location in the wider area, it is considered appropriate to ensure cycle parking is provided in the public road reserve for general short stay use, and within development lots for longer stay users. Long stay cycle parking should ideally have secure parking facilities. The Austroads design guide provides some guidance on the number of cycle spaces to be provided.

6.5 Public Transport Provision

The site is located adjacent to an existing public transport route and it is recommended integration with the route is achieved. The following options exist:

Provision of bus stops on Omokoroa Road north of the roundabout. This is most convenient for the through route nature of the existing service, avoiding additional time entering and exiting the development. It also provides for existing residential catchments on the eastern side of Omokoroa Road. It is likely this would be the most practical initial stage of public transport provision. The downside is that pedestrians have to cross

Omokoroa Road at the roundabout, which will become more challenging as traffic volumes increase over time (although noting a mid-block crossing may be appropriate to serve the existing residential connection described above).

Integration of bus stops within the town centre, to more directly service the site. This is considered more appropriate as a longer-term solution and could provide a local hub for services to future growth areas. This could be achieved either as a through route using Sentinel Avenue or as a one-way circulation around the site as proposed for service vehicles and as described above (to avoid using a local residential street). The Master Plan shows a potential bus stop location adjacent Building K for this purpose.

7. Traffic Generation

The site will be developed as a staged, mixed use development. It is strategically located near the centre of the Omokoroa growth area and a high level of passing traffic or short diversions can be attracted as part of other trips on the road network. It can also support the capturing of local business-related trips, rather than such trips having to be made to areas some distance from Omokoroa. This allows for significant improvements to efficiency in the overall transport network. In addition, the proximity to residential areas allows for cycling trips to be a viable option, and some residential catchment also allows for walking trips.

At a wider level, the provision of commercial area has already been provided for through the land zoning and Structure Plan infrastructure provisions. For that reason, the traffic generation assessment is solely intended to guide the local access and internal road provisions, and effects.

A broad assessment has been undertaken by assessing key activities as part of a large centre consideration, including the retail, commercial, civic, childcare and ground floor offices. The RR453 research suggests rates of approximately 7.1 (50th percentile) to 9.9 vehicles movements (85th percentile) per hour per 100m² GFA in the peak hour of the site. Given the location of the site, and mix of activities likely for a town centre (rather than a shopping mall), and expected long term to have a full residential catchment to generate the full and typical trip generation, the 50th percentile trip generation rate has been applied (slightly higher in the case of businesses)for assessment and a comparison made with the 85%ile rate. In addition, the other activities have had standard peak hour trip rates applied at the 50th percentile rate. The PM peak summary is set out below.

Retail / Commercial / Civic / Childcare/Office	*13,780m² GFA at 7.7 trips per 100m²*	*1,061 veh/h*
Office (first floor)	*6,155m² GFA @ 1.6 trips / 100m²*	*98 veh/h*
Residential	*27 units @ 1.1 trip per unit*	*30 veh/h*
Motel	*40 units @ 0.8 trips per unit*	*32 veh/h*
Total trip generation (peak hour aggregate)		***1,221 veh/h***

For comparison the 85%ile peak hour trip rates would have generated a total peak demand of 1606 veh/h.

It is generally recognised that retail developments generate a large portion of weekday evening peak hour movements from passing traffic. Based on research undertaken in Auckland and presented at the 2012 ARRB Conference[3], primary or new trips on the road network comprise approximately 35% of weekday peak hour retail trips. Approximately 25% are passing by, and 40% are diverted from other roads nearby. These proportions are generally consistent with other data sources such as the ITE (USA). In this case, it is considered likely that as Omokoroa Road is a commuter arterial road providing the single point of access into Omokoroa, an even higher number of movements will be directly passing the site.

In that respect, of the 1,061 veh/h trips related to business, it is anticipated that 371 veh/h (35%) will be new to the surrounding road network, 424 veh/h (40%) will be passing the site (on Omokoroa Road), and 266 veh/h (25%) will be diverted from other roads including SH2 and trips within Omokoroa township to the north. Of the new trips, it is likely that some of those trips may have otherwise been made beyond Omokoroa, leading to transport network efficiencies.

Table 7-1 below provides a summary of the expected traffic generation and distribution.

[3] "Trip generation characteristics of large-format retail development sites in Auckland"

Table 7-1: Trip Generation by Activity and Direction

Activity		Trip Rate	% Entering	In	Out	Total
Town Centre	13780 m^2 GFA	7.7 per 100m^2 GFA	50%	531	531	1061
Office	6155 m^2 GFA	1.6 per 100m^2 GFA	20%	20	79	98
Residential	27 units	1.1 per unit	65%	19	10	30
Motel	40 units	0.8 per unit	65%	21	11	32
Total				590	631	1221

The following directionality assumptions have been made:

- 75% of primary (new trips) are to or from the north, the remainder from the wider area to the south
- 75% of pass-by trips are northbound on Omokoroa Road, the reminder are southbound
- 50% of diverted trips are from SH2, the remainder are from the Omokoroa urban network

The resultant PM peak vehicle movements at to and from the centre by activity are set out in the table below:

Table 7-2: PM Peak Hour Movements from the Site

Direction	Town Centre				Office	Residential	Motel		Total	
	Primary	Pass-by	Diverted	Sub Total				SubTotal	Turning	Through
From South	46	159	66	272	10	14	16	40	312	-159
From North	139	53	66	259	10	5	5	20	279	-53
To South	46	53	66	166	39	8	8	56	221	
To North	139	159	66	365	39	3	3	45	410	

This in turn provides for the following movements to and from the centre in the PM peak hour:

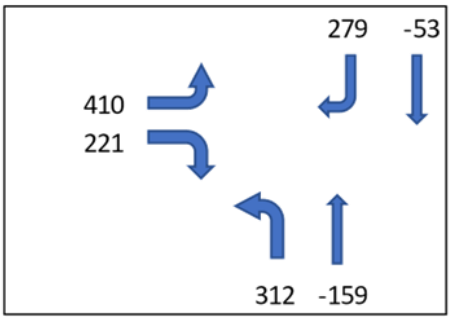

Figure 7-1: PM Peak Hour Turning Movements Generated by the Fully Developed Site

With the proposed left turn intersection from Road 503 onto Omokoroa Road, the left turn to the north (410vph will be split across the roundabout and that new intersection. With the existing network configuration, it is likely that most of the other movements will be via the new roundabout on Omokoroa Road.

It is acknowledged that the above described distribution has been adopted to examine the worst case of movements to or from the north and sensitivity testing of other potentially distribution mixes is recommended in the detailed development phase acknowledging that the key affect will be on lane layout at the Omokoroa Road roundabout.

8. Intersection Performance

In order to test the performance of the town centre access to the strategic road network, a preliminary SIDRA Intersection analysis has been undertaken. Traffic volumes have been based on the traffic volumes assessed at full development, and assuming that the modelled forecast long term volume on Omokoroa Road eventuates (and that the town centre traffic is included in the forecast).

Initially the following two scenarios have been tested:

- All traffic through a single lane roundabout on Omokoroa Road (Scenario 1A)

- Half of traffic to the north uses the separate left turn lane intersection (Scenario 1B)

A 24 m central island diameter has been conservatively assumed in the roundabout, and default SIDRA Intersection parameters adopted. In addition to the above movements it is acknowledged that a small catchment of the residential area to the north may also use the town centre roundabout for access to Omokoroa Road.

The results are shown in the following figures and show that the under Scenario 1A a low level of service and high delays could result. By including the additional left turn intersection, the delays are substantially reduced from the town centre, although moderate delays are still exhibited on the southern approach to the intersection.

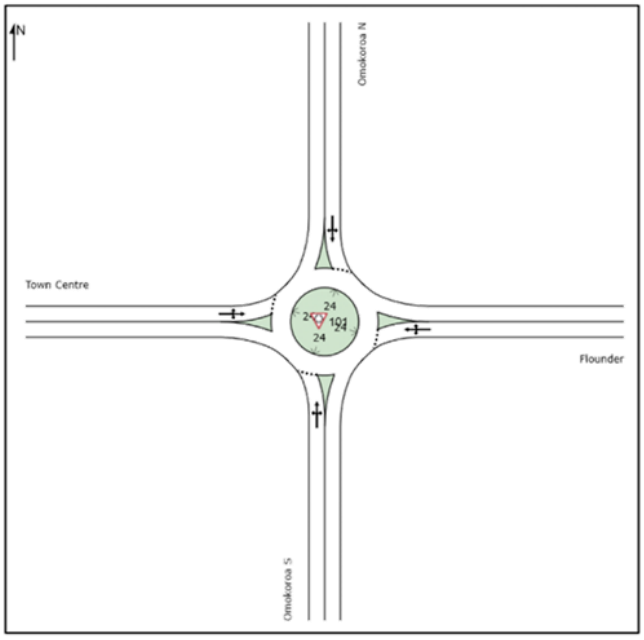

Figure 8-1: Scenario 1A Layout

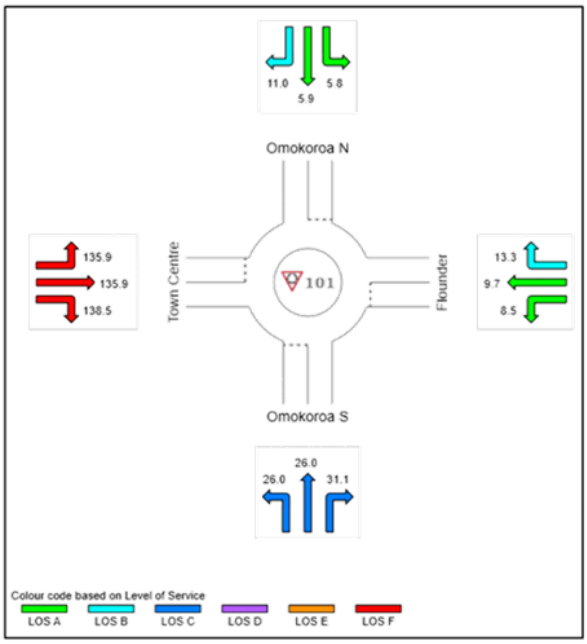

Figure 8-2: Scenario 1A Average Delay

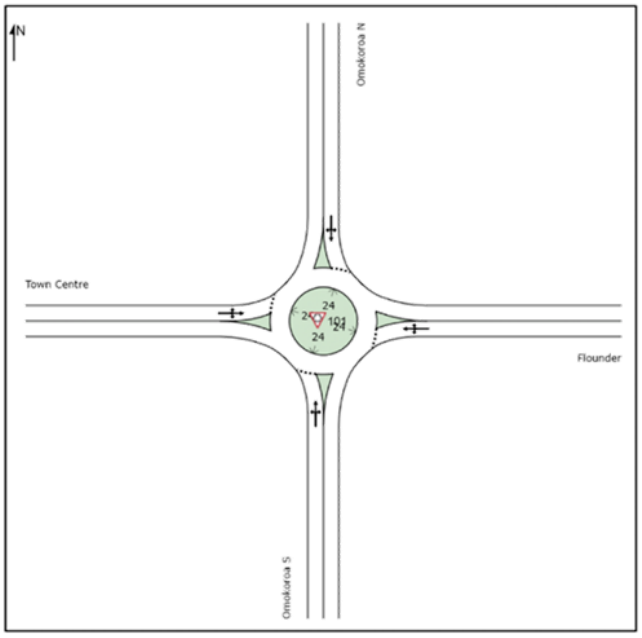

Figure 8-3: Scenario 1B Layout

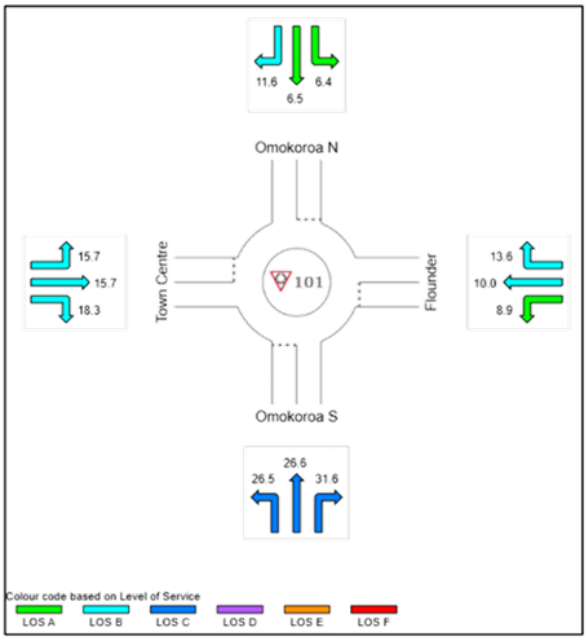

Figure 8-4: Scenario 1B Average Delay

A further single lane roundabout scenario has been added to Scenario 1B by providing a left turn lane from the south into the development. The modelled results indicate this has a positive impact on intersection performance, and low delays and good level of service A and B can be achieved across the intersection (where LOS A is best, and LOS F is worst).

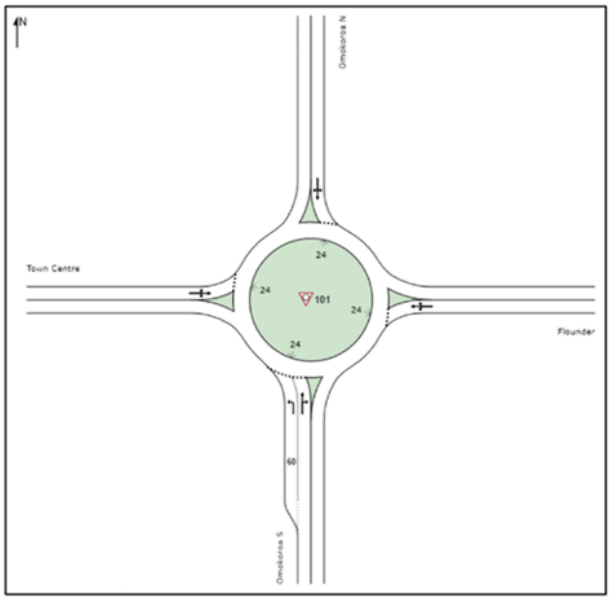

Figure 8-5: Scenario 1C Layout

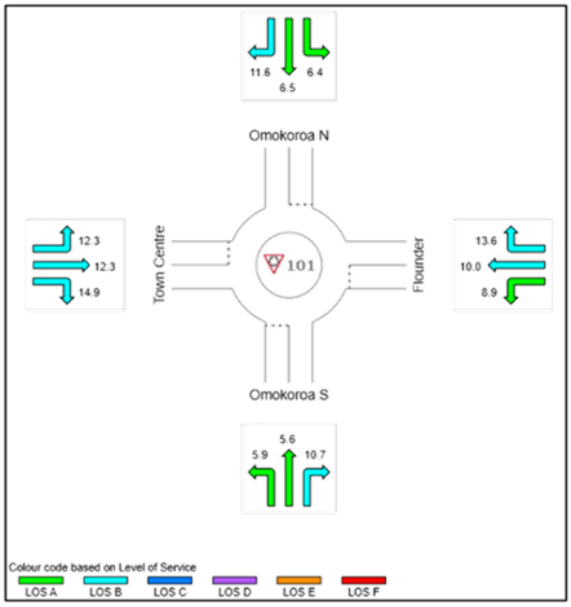

Figure 8-6: Scenario 1C Average Delay

In order to test whether a multi lane roundabout would alter performance, two approach lanes and two circulating lanes have been added to the Omokoroa Road approaches, and the roundabout diameter increased to 35m. Whilst the performance of the intersection increases slightly, the change is negligible.

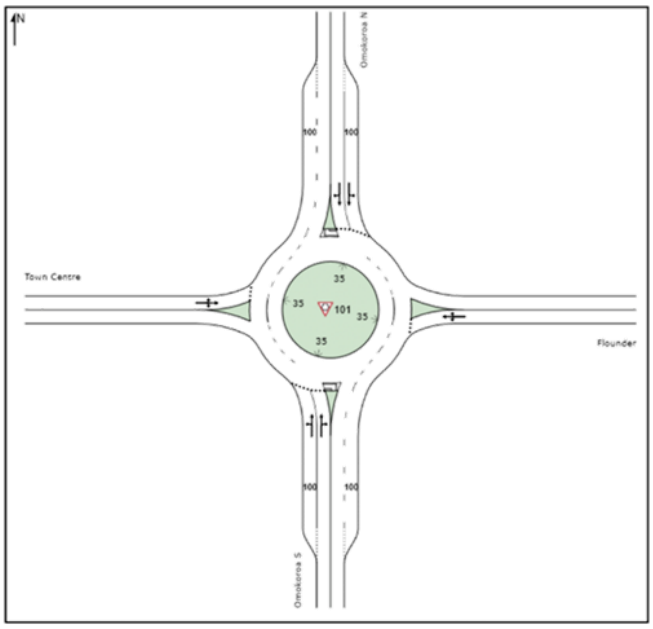

Figure 8-7: Scenario 2 Layout

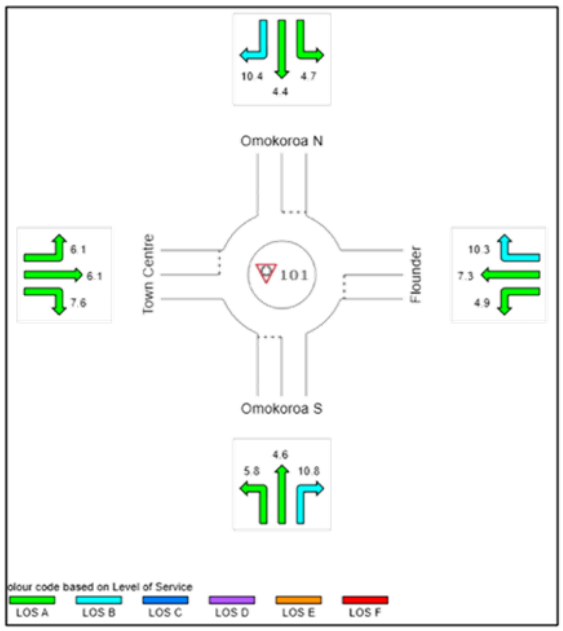

Figure 8-8: Scenario 2 Average Delay

As a multi-lane roundabout creates other severance issues for access from the community by foot and cycle, it is considered the provisioning for a single lane roundabout with allowance for additional approach lane from the south will be sufficient (Scenario 1C). In addition, there are clear benefits in providing the additional left turn intersection from Road 503 onto Omokoroa Road.

In summary, the proposed Omokoroa Road roundabout has been included in the Master Plan as a dual lane roundabout reflective of the expected size envisaged at the time of the original site zoning. However the modelling results above indicate that a single lane roundabout may be adequate and indeed more desirable to cater for traffic at the intersection and it is suggested that the modelling is refined once the updated traffic volumes for Omokoroa Road are available from Council.

To confirm the suitability of the left turn lane intersection onto Omokoroa Road, the proposed intersection has also been tested in SIDRA Intersection. Half the left turn volume towards the north from the town centre has been applied, and the long-term future traffic volume on Omokoroa Road has been conservative with approximately 900 veh/h northbound assumed. A conservative gap acceptance for the left turn has been set at 5 seconds, with follow-up headway of 3 seconds, noting program calculated gap acceptance would be lower. The results are summarised below.

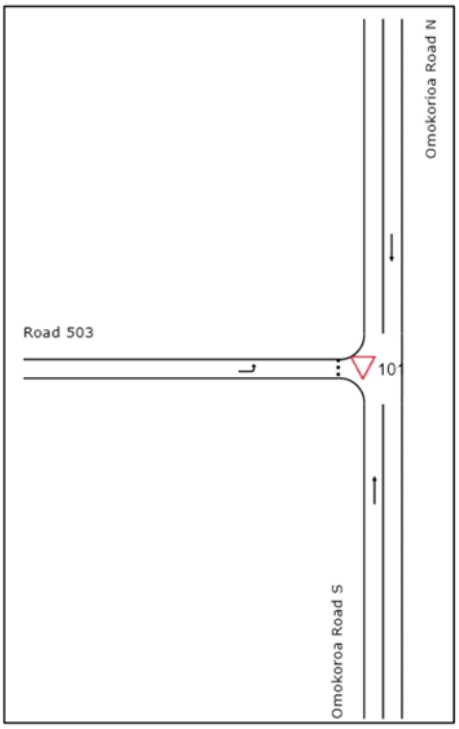

Figure 8-9: Road 503 Layout

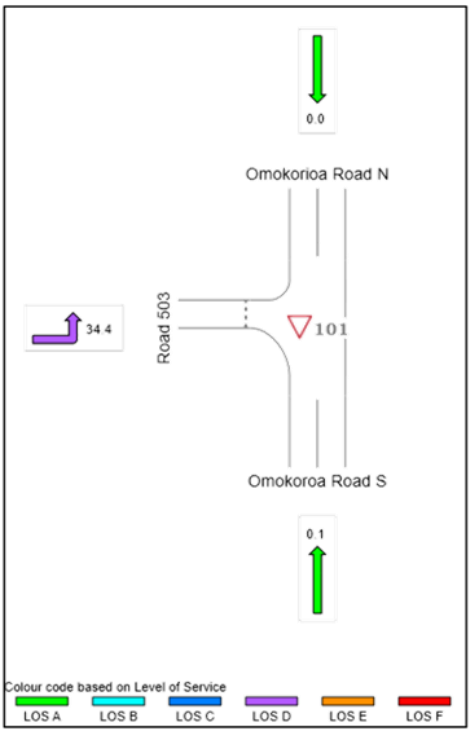

Figure 8-10: Road 503 PM Peak Delay

It can be seen in the above Figure 8-10 that the left turn delay under the scenario is no worse than a LOS D (with a peak queue length of 5 vehicles) which is considered adequate. Given the conservative nature of the assessment, and ability for left turning traffic to utilise the roundabout to equalise delays, it is considered the proposed intersection can add to network efficiency and minimise traffic on the town centre roads into the long term.

9. District Plan Assessment

9.1 Consistency with Structure Plan

The proposal is largely consistent with the current Omokoroa Structure Plan in terms of location and access provisions. The land is zoned for commercial purposes, which is the predominant landuse proposed. The Structure Plan includes provision for a future roundabout at the location proposed for the major site access. Cycle and pedestrian access is already provided alongside Omokoroa Road, providing convenient access to the site.

The Structure Plan did not originally anticipate the residential development to the north, with a second access anticipated from the commercial area through the Settler Avenue roundabout. The proposal to install a left turn lane intersection to exit the site, which is not included in the Structure Plan, will reduce the potential for through traffic to utilise the residential development to the Settler Avenue roundabout. Critical design criteria can be satisfied for the intersection, and the intersection performance analysis confirms the intersection can operate at an acceptable level of delay well into the long term.

9.2 Subdivision Rules

District Plan Rule 12.4.4.2 sets out the minimum urban road requirements at Table 1. Local roads in a commercial zone are to have the following minimum widths:

Table 9-1: District Plan Road Requirements

Traffic Volume	Road Reserve	Carriageway (include parking bays)	Max Grade %	Function
Local Road (Commercial) - Less than 1000 pce	20	11	5%	Local and cul-de-sac
Local Road (commercial) - More than 1000 pce	26	13	5%	Access through industrial and commercial areas
Service Lane	7	6	5%	Loading of goods – no road frontage

The proposed carriageway widths for the most part meet or exceed the District Plan requirements of a carriageway width of 13 m including parking. Where parking is not to be provided (on two side roads) a narrower carriageway width is adequate. The proposed roads will have a road reserve width of 20 m which is acknowledged to be less than the 26 m required in a commercial zone. However, the trafficable road width has been assessed as adequate and the berms have been designed to accommodate all road users meeting the design objective of a desirable "place". Placement of utilities within the road corridor will require specific consideration in the detailed design.

The layout of the site has been considered for the town centre environment, and whilst not entirely consistent with the higher volume local road provision, it is considered it will operate satisfactorily. A key consideration is that the roads are short and designed for slow speed usage, ease of pedestrian movement, and higher turnover kerbside parking.

9.3 Transport Rules

District Plan Standard 4B.4.2 does not permit direct access to a Strategic Roads (Omokoroa Road). – two new intersections proposed as part of subdivision. No direct lot access is proposed, and instead two roads will form new intersections through the subdivision process, as described earlier. The main roundabout proposed is anticipated in the Omokoroa Structure Plan and is programmed for construction in 2031.

District Plan Standard 4B.4.4 for access to Urban Roads in the town centre requires vehicle crossing no closer than 25 m to road intersection. This rule has been considered in the discussion earlier about access. Vehicle access has been minimised, which will contribute to the streetscape, and only minor non-compliances are identified on the access to Lot 2 on Road 503. It is expected that all accesses can achieved the maximum gradient requirements of 1 in 4.5. There is adequate space on site to address this during detailed design.

District Plan Standard 4B.4.5 discusses Loading Path and Space Dimensions and this has been considered earlier in this report. It is considered suitable access can be achieved for heavy vehicles, and detailed loading arrangements can be addressed in the concept design stage for each lot. Given the nature of activities, it is considered informal loading may be appropriate in most cases if undertaken outside of peak operational hours.

District Plan Standard 4B.4.6 On-site Manoeuvring can also be met, as standard parking modules will be provided, and refined through future design phases to achieve compliance with AS/NZS 2890.1-2004. No reverse manoeuvring onto a road will be necessary.

The parking provision set out in Rule 4B.4.9 Location of Parking and Loading areas will not be met as there will be reliance on on-street parking as part of the wider town centre development, and some loading may occur in parking areas at off-peak times. This aspect has been assessed below.

9.4 Parking Assessment

9.4.1 District Plan Requirements

An assessment has been carried out against the District Plan parking rules under Rule 4B.4.7, on an individual lot basis. The site development includes a range of activities, and these have been assessed on an activity basis to generate an assessed parking requirement of 898 parking spaces as set out in Table 9-2 based on some estimated capacities. It is noted that the precise requirement may vary, depending on developed areas and assumptions[4] of use where the parking rate is determined by metrics other than floor area.

Table 9-2: District Plan Parking Requirement

Building	Use	Ground GFA	First Floor GFA	Ground Car Parks	First Floor Car Parks	Provision
A	Motel	1085	1085	22	22	
B	Retail/Office 1st Floor	550	550	28	14	
C	Retail/Office 1st Floor	745	745	37	19	
LOT 1		2380	2380	87	54	87
M	Supermarket/Retail/Office	5365	1085	268	27	
LOT 2		5365	1085	268	27	167
N	Retail/Apartment	1175	1175	59	24	
LOT 3		1175	1175	59	24	52
I	Civic	700		24		
J	Retail	760	760	38		
K	Retail/Office	1265	1265	63	32	
L	Retail/Office	970		49	0	
O	Childcare	500		28		
LOT 4		4195	2025	202	32	129
D	Office	640	640	16	16	
E	Retail/Office	550	550	28	14	
F	Retail/Office	560	560	28	14	
LOT 5		1750	1750	72	44	127
G	Residential Terrace	430	430	10		
H	Residential Terrace	785	785	20		
LOT 6		1215	1215	30	0	32
	Subtotal	16080	9630	717	181	
TOTAL		**25710**		**898**		**594**

With the overall site having a range of activities, parking demand through the course of the day across the site will not hit the peak level. For example:

- Supermarket parking generally peaks late afternoon, on a Saturday when offices will not be occupied, freeing up shared parking resource for use.

[4] Assumptions:
- Where there are combined activities, Office and residential are on the first floor
- Building A – 20 motel units each floor
- Building N – 12 apartments
- Building I – 120 people
- Building O - 100 children Childcare 12-14 FTE staff
- Building G - 5 dwellings
- Building H - 10 dwellings

- Typical retail peaks around midday, whereas food and beverage type activities that may be tenants would peak early evening.
- Office parking peaks mid-morning, and has very low weekend demand, which does not coincide with retail parking

9.4.2 Assessed Parking Demand

A parking assessment based on individual activities will over-estimate true parking demand when considering a mixed use town centre.

An assessment of expected (but still conservative) parking demand has been undertaken using the NZ Transport Agency Research Report Trips and Parking Related to Land Use (RR453) rates for shopping centres (which includes the retail and café/ restaurant, civic activities), offices, and childcare. For a retail centre of this size, RR453 indicates that large shopping centre (greater than 10,000 m² would have a parking demand of 2.7 (average) to 3.7 (85th percentile) spaces per 100 m² of GFA. Residential activities have conservatively been assessed at 2 spaces per unit although small units in a town centre are expected to have lower demands and are typically self-managing to match supply

On this basis the assessed parking demand for the town centre is set out below:

Retail / Commercial/ Civic	*12,640 m² GFA at 3.7 per 100m²*	*468 spaces*
Childcare	*100 pupils*	*24 spaces* [5]
Office (first floor)	*6,795m² GFA @ 2.5 spaces / 100m²*	*170 spaces*
Residential	*27 units @ 2 spaces*	*54 spaces*
Motel	*40 units*	*43 spaces*[6]
Total Expected Parking Demand		***759 spaces at peak***

It is further acknowledged that many of the activities will not have concurrent peak periods and it is likely that there will be further sharing of spaces between the above activity groups depending however on how the parking space allocation is manged on site.

9.4.3 Proposed Parking Supply

The available off-street provision shown on the Master Plan is some 594 parking spaces which distributed as schedule in Table 9-2. On-street parking is also available, with approximately 107 spaces available. As a comprehensive town centre development, the combined parking provision is some 701 spaces, or 92% of the expected parking requirement.

As indicated by the analysis of District Plan parking requirement, parking shortfalls may eventuate in some areas more than others, in particular with Lots 2 and 4 where a large amount of retail area is proposed. If the development is to be staged as is understood to be most likely, then further consideration will need to be given to the staged supply of parking to match the stage of development. Additionally, as the assessment has been undertaken on the understanding retail parking will be shared between tenants within each development lot, to ensure efficiency in use at peak times and across periods of the day, if parking is to instead be allocated on a tenant basis, parking demands will need to be satisfied for each activity.

The mix of allocated and public car parking spaces will be determined at time of detailed building design. However, there are 4 main car parking areas including car park adjacent to the MoE site, car parking for Buildings A – C , undercroft supermarket car parking that will also service the main street retail, and the Car Parking adjacent to the Civic building. In addition to this car parking some activities have their own car parking such as the childcare, residential apartments (Building N) and terrace units (Buildings H and G), and underground car parking for the civic building.

Whilst the District Plan provision will not be satisfied, as the wider site is expected to provide up to 701 spaces, it is considered peak parking demand will practically be met once shared use and time of day considerations are made such that overflow parking to surrounding areas is not likely to occur.

In the event that parking demands are higher than supply in the town centre as a whole, there is ample additional space within the broader site to the northwest to accommodate additional parking. With

[5] Based on 0.24 spaces per pupil form surveys
[6] Based on one space per unit plus 3 for staff (RTA guide)

cognisance to the environmental context of this centre, the parking supply is of an appropriate order but recognising the possibility of actual demands varying form those forecast, it is recommended that a monitoring condition is imposed that requires the actual parking demands to be reviewed on completion of the development. In the event that monitoring shows there was an ongoing shortfall of car parks, additional car parks could be established by extending the at-grade car park next to the civic centre into the balance Future Urban land.

10. Design Recommendations

The site layout is developed to a Master Plan level of detail, and further traffic engineering design is required to ensure the site layout provides a functional design for all users. The focus will be on refinement of the layout to achieve compliance and consistency with recognised standards and guidelines. Whilst the feasibility of the provisions is considered acceptable for the town centre development, the following matters for design have been identified which may be included as conditions of resource consent.

Internal Road design

- Refine cross-sections within the road reserve to ensure suitable balance between carriageway width, parking lanes and footpaths, considering Development Code, NZS4404:2010, and AS2890.1 on-street parking standards. It is considered this can be achieved through detailed design.

Road Intersections

- At the intersection of Omokoroa Road and the Town Centre access road construct a dual lane roundabout or such other reduced size as agreed with the Manager Transportation at the time of detailed design.
- Internal roundabout intersection at Road 501/502/504 shall be designed to ensure it is consistent with the guidance in Austroads Guide to Road Design Part 4B Roundabouts;
- Undertake concept design safety audits of each road intersection as part of subdivision, so that any safety concerns are identified and considered for design amendment.

Road Connections

- The connection to Sentinel Road is to be traffic calmed in a manner that minimises the likelihood of through traffic between the development, Kaimai Views subdivision and Omokoroa Road.

Vehicle Crossings

- Review design of vehicle crossings at time of development works approval to confirm sufficient manoeuvring for loading vehicles.
- Consider refining the queuing space and vehicle crossing design accessing the major under-croft parking for the supermarket.
- Ensure sight lines between exiting vehicles and pedestrians on the footpath is in accordance with AS/NZS2890.1-2004 provisions.

Car Parking

- The car parking layout shall be designed to satisfy AS/NZS 2890.1-2004 parking module requirements, based on the expected user type for each activity.
- Mobility parking to be provided in each development block in accordance with NZS4121.
- Loading areas within individual lots should be considered as plans are refined, to ensure practical provision is achieved to meet the requirements of the specific activity.

Alternative Transport Modes

- On consultation with Council, the site should allow for provision of bus stops on Omokoroa Road in the short term, with the potential for a bus stop on the west side of Road 501 between the two roundabouts to service longer term demands.
- Provide convenient linkages to the existing off-road shared path alongside Omokoroa Road and consider a mid-block cycle and pedestrian connection to the town centre located approximately 180 m north of Flounder Drive.

11. Summary / Conclusion

The proposal is for the development of the commercially zoned land to establish a mixed-use commercial town centre to predominantly serve the growing Omokoroa community. The town centre will comprise retail spaces, including a supermarket, shops, cafes/restaurants, bars, office space, with medium density residential units, childcare and visitor accommodation adding living quarters in close proximity to employment and services. A total of some 25,700 m² GFA of mixed-use activity is proposed to be developed.

The site is located within the 5.3 ha portion of the property that is zoned Commercial in the ODP as part of the Omokoroa Stage 2 area. The site compromises approximately half of the Stage 2 Commercial Zone allocated to the Omokoroa urban growth area while the balance of the Stage 2 Commercial Zone has been consented for a Special Housing Area containing 242 dwellings north of the site and a smaller area of land has been recently purchased by the Ministry of Education at 412 Omokoroa Road, immediately south of the site.

The proposed Omokoroa Town Centre Master Plan has been assessed from a transportation perspective at a level appropriate to a Master Plan stage of development. The nature and form of the proposed development is largely consistent with the transport provisions of the Omokoroa Structure Plan included in the District Plan. In particular the principal access to the Town Centre is proposed by way of a roundabout located at the intersection of Founder Drive and Omokoroa Road in accordance with the Omokoroa Structure Plan.

The proposed Omokoroa Road roundabout has been included in the Master Plan as a dual lane roundabout reflective of the expected size envisaged at the time of the original site zoning and demonstrates the feasibility of its inclusion. However, the assessment results herein indicate that a single lane roundabout may be adequate and indeed more desirable to cater for traffic at the intersection. It is recommended that the roundabout layout is refined once the updated traffic volumes for Omokoroa Road are available from Council.

An additional left-turn out only egress onto Omokoroa Road is proposed towards the northern end of the site. This additional access has been modelled and demonstrated that it can be readily accommodated on Omokoroa Road and indeed is seen as a benefit to the network as a whole. Additionally, it is acknowledged that a right turn in facility may be feasible at the same location subject to confirmation of future traffic volumes from the TTM update which would provide a better access for traffic from Omokoroa north.

The MasterPlan roading network is expected to support the expected levels of traffic generated by the development, with slower speed town centre roads supportive of pedestrian activity. Safe and efficient connections to the wider network can be achieved that are consistent with the classification of the roads. Recommendations have been included to achieve satisfactory outcomes through future design processes.

The lot layout and activities included in the Master Plan have been assessed and confirmed as suitable for further refinement and development. The Master Plan includes around 701 parking spaces distributed both on- and off-street which meets 92% of the expected parking demand. In the event that parking demands are higher than supply in the town centre as a whole, there is ample additional space within the broader site to the northwest to accommodate additional parking. It is recommended that a monitoring condition is imposed that requires the actual parking demands to be reviewed on completion of the development.

An existing shared path on Omokoroa Road provides good pedestrian and cycle connectivity to the wider network and convenient linkages to the path are recommended to be included in detailed design.

Overall, it is concluded that the proposed site designation, together the recommendations described in this report, is a suitable use for the site within the context of the Council's Structure Plan and any potential for adverse traffic related effects are able to be satisfactorily managed within the existing and proposed road network.


Appendices

Appendix A Master Plans

GFA AREAS					
BUILDING	USE	GROUND FLOOR M²	FIRST FLOOR M²	TOTAL M²	UNDERCROFT PARKING
A	MOTEL / HOTEL	1085	1085	2170	Y
B	RETAIL / OFFICE	550	550	1100	N
C	RETAIL / OFFICE	745	745	1490	N
D	OFFICE	640	640	1280	Y
E	RETAIL / OFFICE	550	550	1100	N
F	RETAIL / OFFICE	560	560	1120	N
G	MEDIUM RESIDENTIAL	430	430	860	N
H	MEDIUM RESIDENTIAL	785	785	1570	N
I	CIVIC	700	-	700	Y
J	RETAIL / OFFICE	760	760	1520	N
K	RETAIL / OFFICE	1265	1265	2530	N
L	RETAIL / OFFICE	970	-	970	N
M	SUPERMARKET / RETAIL/ OFFICE	5365	1085	6450	Y
N	APARTMENT / RETAIL	1175	1175	2350	N
O	CHILDCARE	500	-	500	N
		16,080	9,630	25,710	

CAR PARKING	
OFF STREET	567 SPACES
ON STREET	107 SPACES
TOTAL	674 SPACES



1 MASTERPLAN - PARKING PLAN
1 : 750

DRAFT

RESOURCE CONSENT - DRAFT

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General notes:
1. Do not scale off drawings.
2. Contractor shall verify and be responsible for all dimensions on site.
3. Architects to be notified of any variation between the site dimensions and those on plans.
4. Clarification must be sought from the Architect on all documentation for any discrepancies between drawings, schedules and specifications

REVISIONS

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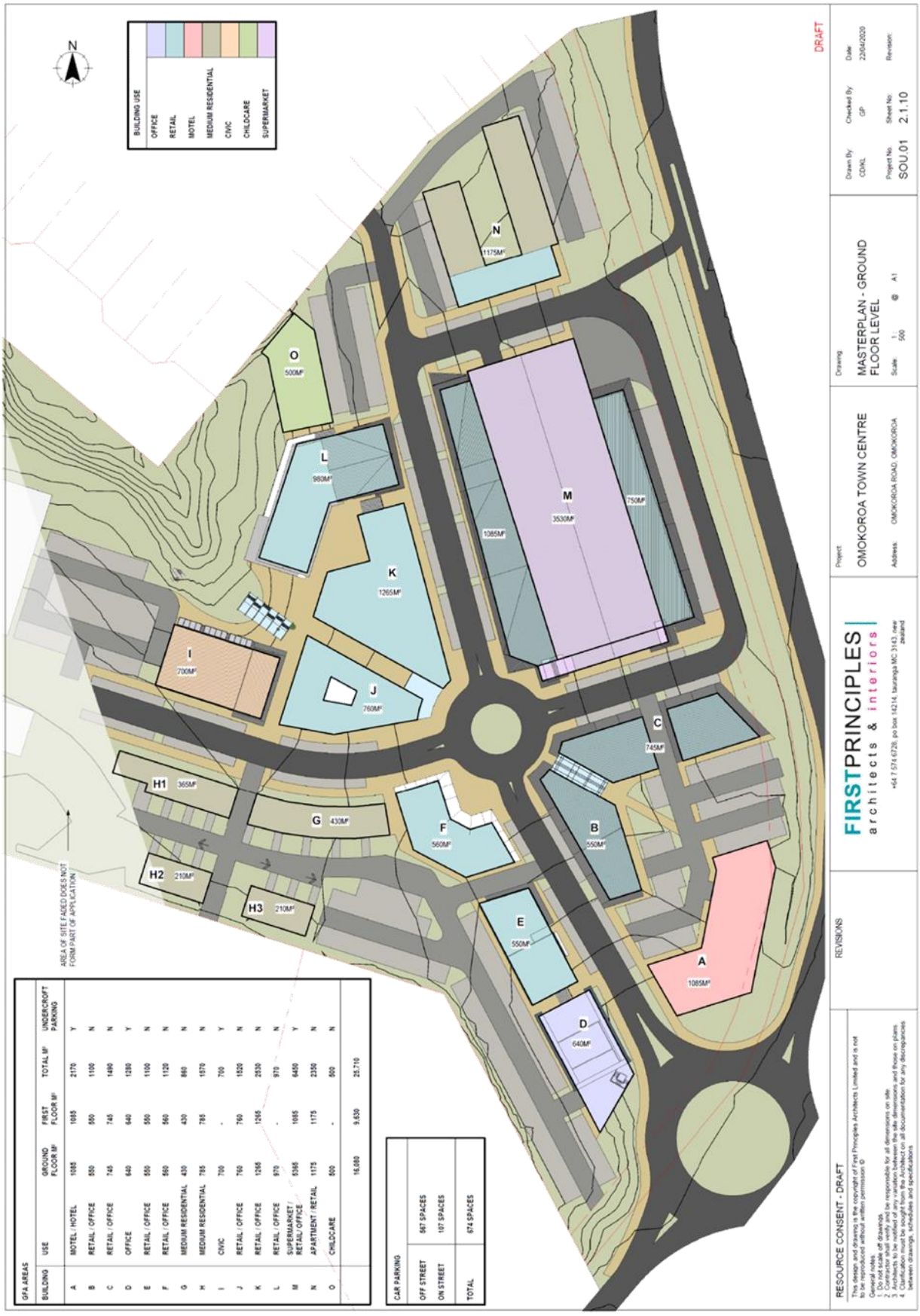
Project: OMOKOROA TOWN CENTRE
Address: OMOKOROA ROAD, OMOKOROA

Drawing: MASTERPLAN - PARKING PLAN
Scale: As indicated @ A1

Drawn By:	Checked By:	Date:
CD/KL	GP	22/04/2020
Project No.	Sheet No:	Revision:
SOU.01	2.1.01	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BUILDING USE
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RETAIL
MOTEL
MEDIUM RESIDENTIAL
CIVIC
CHILDCARE
SUPERMARKET
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B 550MF
C 745MF
D 640MF
E 550MF
F 560MF
G 430MF
H1 365MF
H2 210MF
H3 210MF
I 700MF
J 760MF
K 1265MF
L 980MF
M 3530MF
1085MF
750MF
N 1175MF
O 500MF
AREA OF SITE FADED DOES NOT FORM PART OF APPLICATION
GFA AREAS
BUILDING USE GROUND FLOOR M² FIRST FLOOR M² TOTAL M² UNDERCROFT PARKING
A MOTEL / HOTEL 1085 1085 2170 Y
B RETAIL / OFFICE 550 550 1100 N
C RETAIL / OFFICE 745 745 1490 N
D OFFICE 640 640 1280 Y
E RETAIL / OFFICE 550 550 1100 N
F RETAIL / OFFICE 560 560 1120 N
G MEDIUM RESIDENTIAL 430 430 860 N
H MEDIUM RESIDENTIAL 785 785 1570 N
I CIVIC 700 - 700 Y
J RETAIL / OFFICE 760 760 1520 N
K RETAIL / OFFICE 1265 1265 2530 N
L RETAIL / OFFICE 970 - 970 N
M SUPERMARKET / RETAIL / OFFICE 5365 1085 6450 Y
N APARTMENT / RETAIL 1175 1175 2350 N
O CHILDCARE 500 - 500 N
16,080 9,630 25,710
CAR PARKING
OFF STREET 567 SPACES
ON STREET 107 SPACES
TOTAL 674 SPACES
RESOURCE CONSENT - DRAFT
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Project
OMOKOROA TOWN CENTRE
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MASTERPLAN - GROUND FLOOR LEVEL
Scale: 1:500 @ A1
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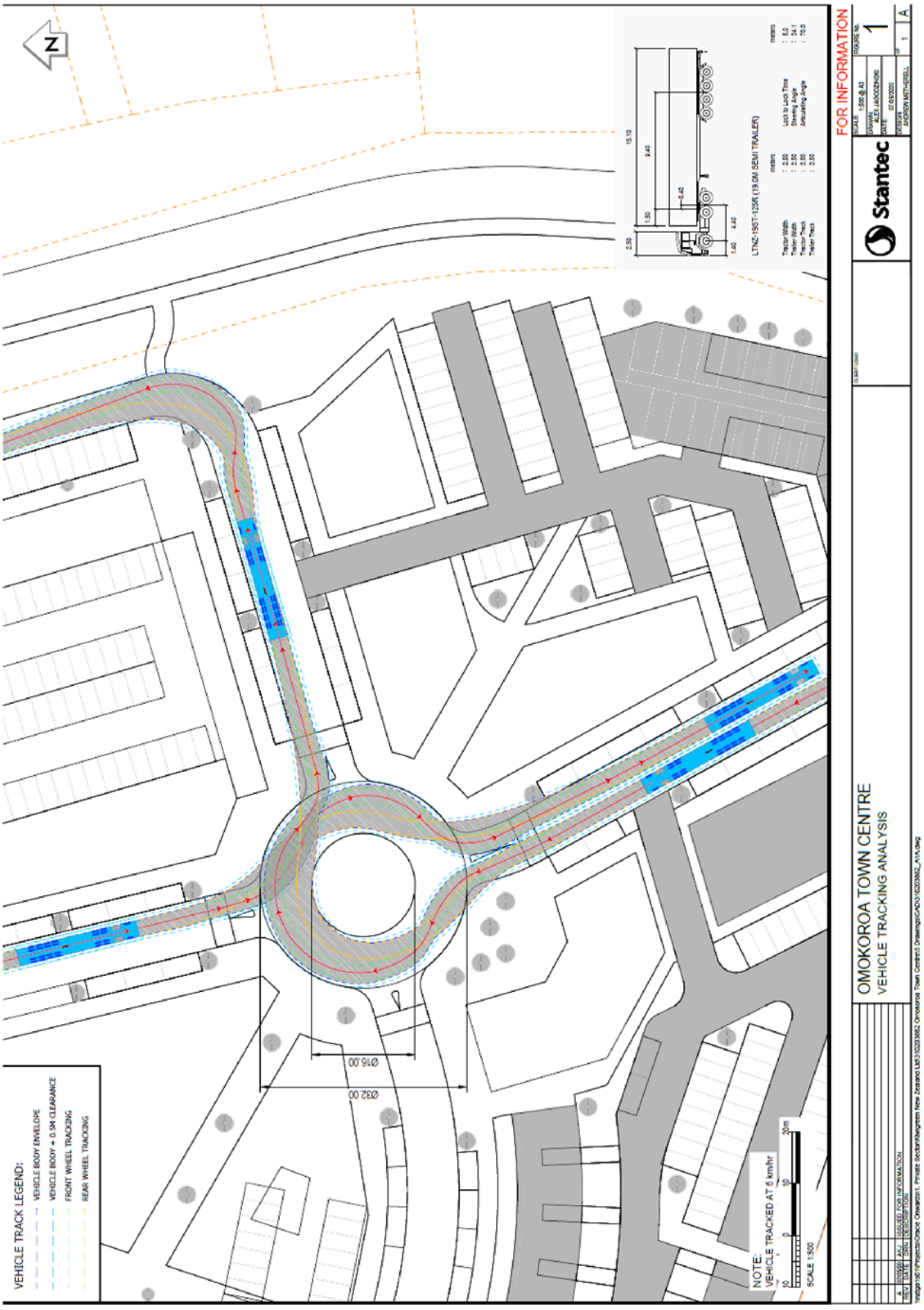
Checked By: GP
Date: 22/04/2020
Project No: SOU.01
Sheet No: 2.1.10
Revision:

Appendix B Vehicle Tracking Paths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VEHICLE TRACK LEGEND:
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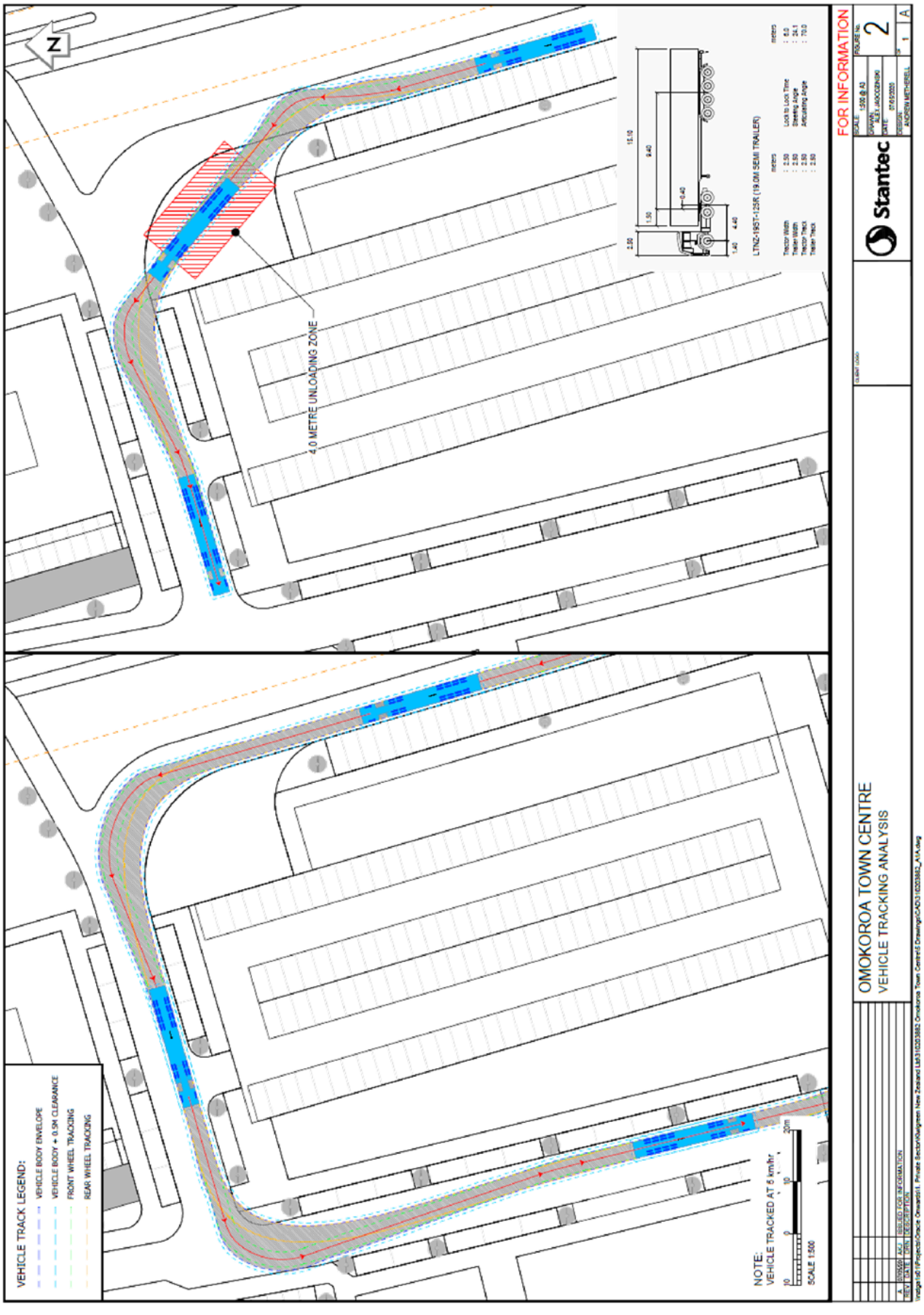
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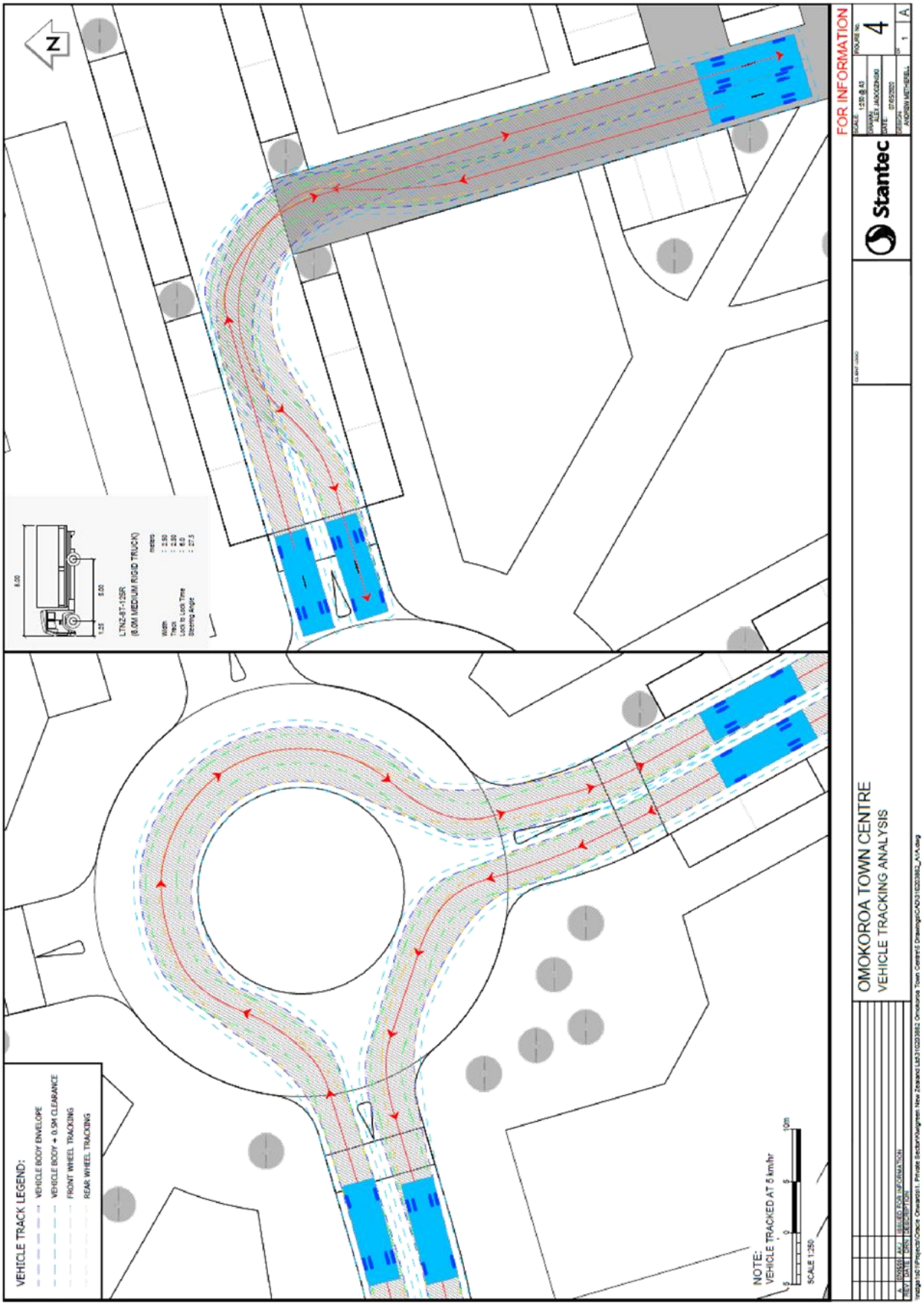
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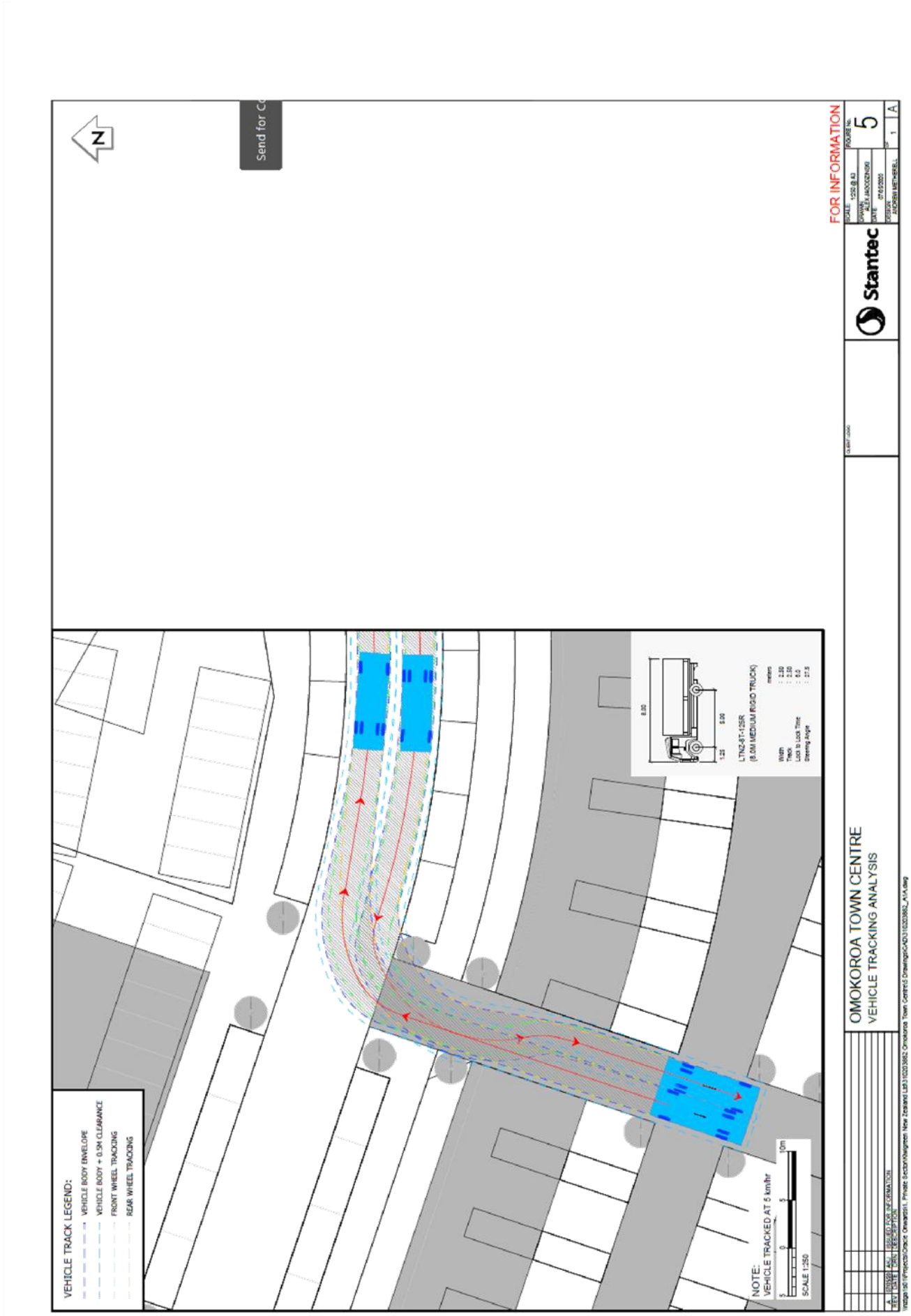
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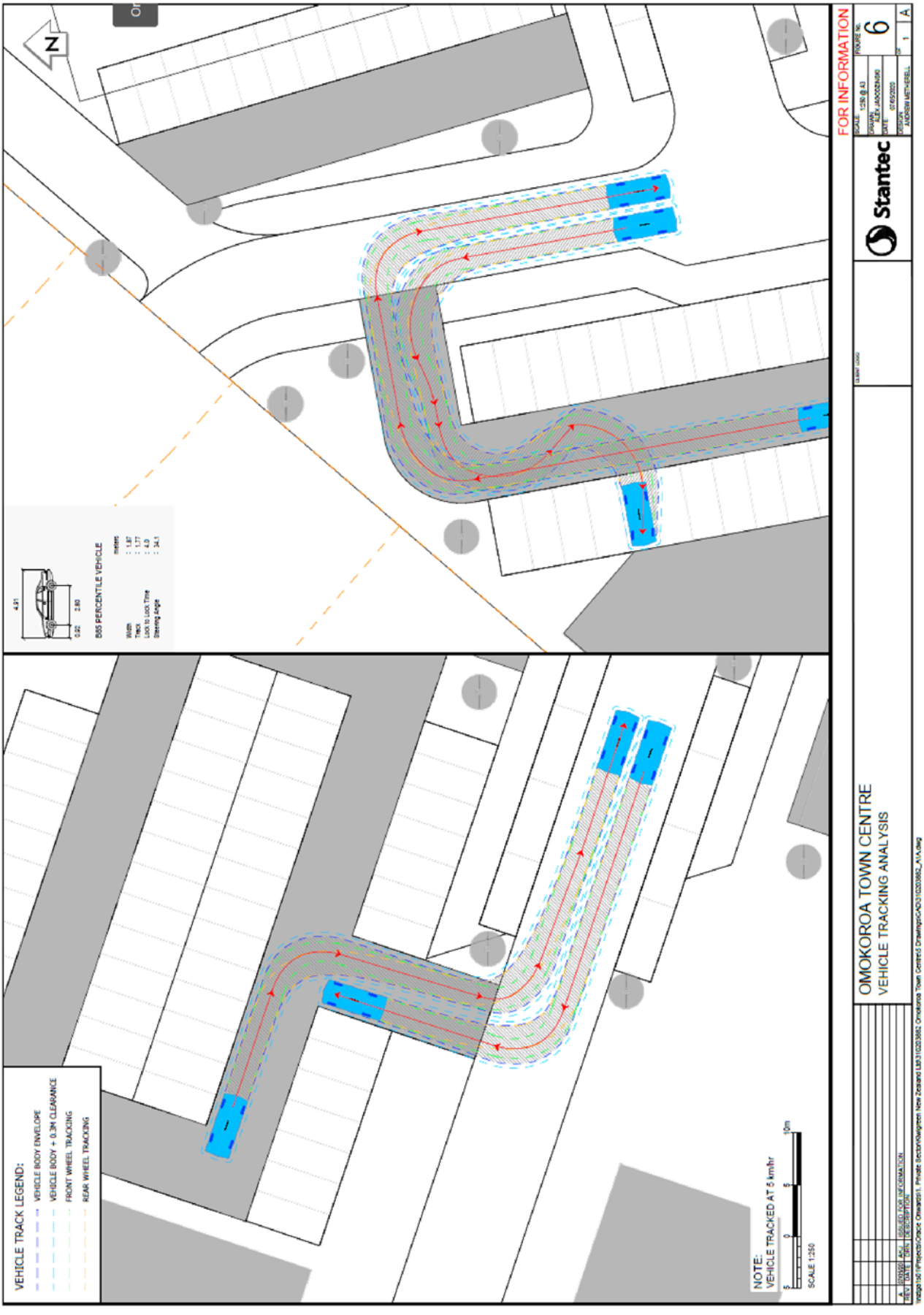
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3 March 2020

PROPOSED TOWN CENTRE DEVELOPMENT
404 OMOKOROA ROAD, OMOKOROA

GEOTECHNICAL INVESTIGATION REPORT

Kiwi Green New Zealand Ltd

TGA2020-0011AB Rev0

TGA2020-0011AB		
Date	**Revision**	**Comments**
24 February 2020	A	Initial draft for internal review
26 February 2020	B	Second draft for internal review
3 March 2020	0	Final issue to support Resource Consent Application

	Name	**Signature**	**Position**
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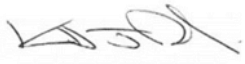
Authorised by	Ken Read		Principal Geotechnical Engineer, CMEngNZ, CPEng

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Appendix E: Selected Liquefaction Analyses
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1 INTRODUCTION

1.1 Project Brief

CMW Geosciences (CMW) was engaged by Kiwi Green New Zealand Ltd to carry out geotechnical investigation of a site located at 404 Omokoroa Road, which is being considered for the construction of a proposed commercial and urban development at 404 Omokoroa Road.

The scope of work and associated terms and conditions of our engagement were detailed in our services proposal referenced TGA2020-0011AA, Rev0 dated 20 January 2020.

This report is considered suitable to support a resource consent application to Western Bay of Plenty District Council (WBoPDC) for the above property.

1.2 Scope of Work

As detailed in our proposal, the instructed scope of work to be conducted by CMW was defined as follows:

- Arrange and execute a geotechnical site investigation (SI);
- Evaluate and develop an appropriate geological and geotechnical model;
- Identify any geohazards to the proposed development, including liquefaction, static settlements, sensitive soils, groundwater issues and provide strategies to mitigate these where necessary;
- Recommendations for earthworks requirements;
- Provide appropriate geotechnical parameters for the design of proposed building foundations, retaining walls and subgrade conditions for roading;
- Compile all of the above detail into a geotechnical investigation report, incorporating relevant plans, field investigation data and calculations.

2 SITE DESCRIPTION

2.1 Site Location

The site comprises an area of approximately 7 Ha and is located at 404 Omokoroa Road with the general site location shown on Figure 1 below.

The site is bound to the east by Omokoroa Road, Kaimai Views residential subdivision to the north, and kiwifruit orchards to the west and south. The site is currently an operational kiwifruit orchard.

A singular dwelling is present in the south eastern corner of the property, an existing barn and an approximately 20m by 30m hardstand area accessed off Omokoroa Road.

A number of landscaping (less than 1.0m high) retaining walls support the southern and western portion of a level hardstand area adjacent to Omokoroa Road in the east. The walls comprise approximately 150mm diameter timber poles at approximately 1.0m centres, and are lagged with corrugated iron sheets. A half round timber post forms the lagging at top of the wall above the corrugated sheets.



Figure 1: Site Location Plan (base image obtained from openstreetmap.org)

2.2 Landform

The site is situated within the Omokoroa Peninsula, a broad north east trending peninsula extending into the Tauranga Harbour basin. The eastern foreshore of the peninsula is located approximately 450m east of the site.

The current general setting, together with associated features located within and adjacent to the site is presented on the attached Geotechnical Investigation Plan, ***Drawing 01***.

The site comprises a gently graded (typically between 5 to 15 degrees) terrace landform with the heads of two gully features present on the western and northern boundaries.

The terrace landform generally falls towards the north-west with existing ground levels ranging from RL 32m (Moturiki Datum) adjacent to Omokoroa Road to RL 20m at the north western boundary.

The gully slopes forming the western and northern site boundaries are typically graded at approximately 27 degrees (1V:2H), falling over vertical heights of approximately 5 metres to the base of the gully below. An overland drain has been cut into the base of the northern gully associated with the construction of a public walkway on neighbouring property.

Historical aerial imagery from Retrolens[1] shows that the gully along the northern boundary once continued through the centre of the site towards the eastern boundary but was infilled sometime between 1953 and 1976. The inferred former gully location has been presented on **Drawing 01**.

3 PROPOSED DEVELOPMENT

The current proposal is to create a town-centre development within Omokoroa comprising mixed-use retail, commercial and residential buildings.

A conceptual plan, labelled draft Omokoroa Town Centre Masterplan, has been provided by Momentum Planning and Design (Momentum) which shows the development of a supermarket, motel, retail, bar/dining

[1] http://retrolens.nz/

areas, civic centre, dual story office/commercial, medium density residential, childcare and retirement facilities and associated roading network and carparking.

The proposed development will extend to the crest of the existing slopes around the site and does not encroach onto the gully slopes.

The conceptual plan as provided by Momentum is presented in ***Appendix A***.

From the preliminary plans and information supplied in the Geotechnical Engineering Brief (dated 13/01/2020) provided by Momentum, we understand that the buildings are to range in height from one to two storeys above ground. No preliminary floor plans have been provided to date.

Based on the provided plans and site contours, we anticipate earthworks will include cuts and fills supported by engineered designed retaining walls to form level building platforms and associated areas. We anticipate permanent retention of large cuts across the site will be provided by basement walls.

The development includes a roading network and associated carparking, with the main access provided in two locations from Omokoroa Road to the south-east and east and a further access provided from the Kaimai Views subdivision to the north.

4 INVESTIGATION SCOPE

4.1 Field Investigation

Following a dial before you dig search, and onsite service location, the field investigation was carried out between 4 February and 12 February 2020. All fieldwork was carried out under the direction of CMW Geosciences in general accordance with the NZGS guidance[2].

- A walkover survey of the site to assess the general landform and site conditions;
- Nine Cone Penetrometer Tests (CPT's), denoted CPT01 to CPT08 and CPT10, were pushed to depths of up to 20m to help us define the ground conditions beneath the proposed development and to provide parameters for retaining wall and foundation design. Results of the CPT's, presented as traces of tip resistance (qc), friction resistance (fs) and friction ratio are presented in ***Appendix B***;
- Ten hand auger boreholes, denoted HA01 to HA10, were drilled using a 50mm diameter auger to target depths of up to 5.0m below existing ground levels to visually observe the near surface soil profile and to facilitate in-situ vane shear strength testing. Engineering logs of the hand auger boreholes were prepared by a CMW Engineering Geologist in general accordance with NZGS guidelines[3] and together with the results of peak and remoulded vane shear strengths are presented in ***Appendix C***;

The approximate locations of the respective CPTs and augers referred to above are shown on the Geotechnical Investigation Plan, ***Drawing 01***.

5 GROUND MODEL

5.1 Published Geology

The published geological map[4] for the area shows the regional geology for the area as comprising Pliocene aged Waiteariki Ignimbrite (wt) comprising *"grey to dark brown, non-welded to densely welded and lenticulitic, crystal rich ignimbrite, with dark grey lenticular pumice and lithics or rhyolite and andesite"* as illustrated in Figure 2 below.

[2] NZ Geotechnical Society et al. New Zealand Ground Investigation Specification, Vol 1, April 2017.
[3] NZ Geotechnical Society (2005), Field Description of Soil and Rock, Guideline for the field classification and description of soil and rock for engineering purposes.
[4] Briggs, R.M. et al, 1996, Geology of the Tauranga Area, Institute of Geological and Nuclear Sciences Limited, Sheet U14, 1:50,000.

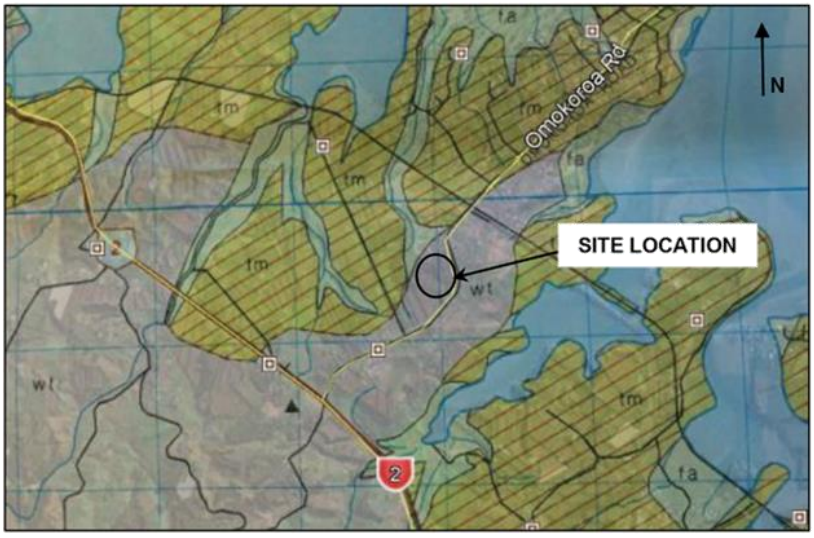


Figure 2: Regional Geology (Briggs et al. 1996)

Within the elevated topography surrounding the Tauranga Harbour, the Waitea riki Ignimbrite is typically overlain by Pleistocene aged fluvially reworked volcanic sediments of sands, silts and clays of the Matua Subgroup (tm) and recent volcanic ash deposits comprised of interbedded silts, sands and clays, including, from oldest to youngest, the Hamilton Ash, Rotoehu Ash and post-Rotoehu Ash (Younger Ash).

Based on the known history of the site and surrounding land levels, some superficial depths of fill could be anticipated as a result of recontouring during orchard preparation works and levelling of the building platform beneath the dwelling. The historic photographs indicate an infilled gully beneath part of the site.

5.2 Stratigraphic Units

The ground conditions encountered and inferred from the investigation are considered to be generally consistent with the anticipated geology given the historic land use, except for the absence of the Rotoehu Ash and Hamilton Ash at some borehole locations.

The distribution of the various units encountered is presented in the appended Geological Sections A-A (***Drawing 02***) and B-B (***Drawing 03)*** and presented below in Table 1.

The following comments can be made following review of the available information:

- The landform has been subject to reshaping, assumed to be associated with the orchard use;
- The northern gully feature appears to have previously extended through the centre of the site and has been infilled. Uncontrolled fill was encountered along the assumed alignment to depths of 2.6m. The depth of fill deepens towards the north-west. 100mm to 300mm of topsoil was encountered beneath the fill;
- The infilled gully appears to be a historic erosional feature with the more recent volcanic ashes (Younger Ash) not encountered beneath the fill in the boreholes along the inferred alignment. The soils of the Hamilton Ash were encountered directly beneath the uncontrolled fill / topsoil to the north of the infilled gully (HA07), and the Matua Subgroup directly beneath the fill/topsoil at the head of the current gully (HA03). The Matua Subgroup soils were also encountered directly beneath the topsoil within the existing gully feature (HA09);
- The volcanic ashes generally mantle the terrace landform north and south of the infilled gully. Depths proven in the boreholes and CPTs vary from 1.1m to greater than 5.0m, however they are generally of the order of 3.0m;
- Rotoehu ash was only encountered in HA01;

- The Hamilton ash is absent in HA04, this combined with the easing of contours across the gully escarpment in this area suggests that the landform may have been subject to instability in the past.

Table 1: Summary of Strata Encountered

Unit	Top of Unit (mbgl)		Thickness* (m)	
	Min	Max	Min	Max
Topsoil – organic silt	Surface Unit		0.1	0.5
Non-engineered Fill* – organic silts, stiff to very stiff clays silts and medium dense fine to coarse sands (HA02, HA03, HA07, HA08)	0.0	0.3	0.3	2.5
Topsoil (Buried) – organic silt (HA02, HA03)	1.2	2.5	0.1	0.2
Younger Ash – stiff to very stiff silts/clayey silts Basal 400mm loose fine to coarse sand (HA01, HA05, HA06).	0.1	0.3	0.8	2.6
Rotoehu Ash – loose fine to medium sand (HA01)	2.5	2.5	0.2	0.2
Hamilton Ash – very stiff clayey silt	1.1	2.9	0.8	2.3
Matua Subgroup – firm to very stiff silts/sandy silts	0.5	5.5	11.3	>15.5
Inferred Ignimbrite – medium dense to dense sands	13.8	> 20	> 1.0	
Notes: *Thickness only recorded were base of strata has been confirmed.				

5.3 Groundwater

During the ground investigation, which was carried out during dry summer conditions (February 2020), groundwater was encountered within the CPTs and boreholes between 2.8 to 8.0m below ground level.

The groundwater observations indicate the hydrostatic surface generally follows the ground surface profile approximately 5m to 8 m below current ground level (RL 16 to 24m) across the terrace feature, dipping to align with the base of the gully features (RL 13 to 14 m).

Given the presence of a variable soil profile, it is possible that perched and/or elevated groundwater levels may develop within specific layers during and following periods of intense or prolonged rainfall.

5.4 Potential for Soil Contamination

No soil contamination testing has been undertaken as part of our commission. However due to the current land-use as a kiwifruit orchard there is a potential for surface contamination within the topsoil.

We recommend an assessment be undertaken by a specialist environmental consultant to assess the site for residential and commercial development under the National Environmental Standard for Assessing and Managing Contaminants in Soils (NES 2012).

6 GEOHAZARDS ASSESSMENT

6.1 Context

Section 106 of the Resource Management Act (RMA) requires an assessment of the risks from natural hazards to be carried out when considering the granting of a subdivision consent. S106 RMA specifically states that the assessment must consider the combined effect of the natural hazard likelihood and material damage to land or structures (consequence).

The following sections of this report provide an assessment of the geohazards relevant to this site and provide the basis for the Natural Hazards Risk Assessment presented in ***Appendix D***.

6.2 WBOPDC Hazard Assessment

A review of the Western Bay of Plenty GIS data has indicated the subject site as prone to localised liquefaction, with the north western corner of the site identified as prone to widespread liquefaction. No other hazards were identified on the data base.

6.3 Seismicity

A seismic assessment has been carried out in general accordance with NZGS guidance[5] to calculate the peak horizontal ground acceleration (PGA) (a_{max}) as follows:

$$a_{max} = C_{0,1000} \frac{R}{1.3} x\ f\ x\ g$$

Where: $C_{0,1000}$ = unweighted PGA coefficient (for subsoil class D)

R = return period factor given in NZS1170.5, Table 3.5 (for importance level 2)

f = site response factor subject to subsoil class (for subsoil class D)

g = acceleration due to gravity

The serviceability limit state (SLS) and ultimate limit state (ULS) PGA was calculated based on a 50-year design life in accordance with the New Zealand Building Code and importance level (IL) 2 structures. The PGAs for the SLS and ULS earthquake scenarios is as follows:

Table 2: Design Peak Ground Acceleration (PGA) for Various Limit States

Limit State	AEP	R	PGA(g)	$Magnitude_{eff}$
SLS	25	0.25	0.07	5.9
ULS	500	1.0	0.26	5.9

Note: SLS = serviceability limit state; ULS = ultimate limit state; AEP = annual exceedance probability

6.4 Fault Rupture

The Institute of Geological and Nuclear Sciences (GNS) active faults database shows the nearest known active fault to the site is the Kerepehi Fault (Ref No. #2063) located approximately 25km west south west of the site on the western side of the Kaimai Ranges.

We therefore consider the risk of fault rupture affecting the site to be low.

[5] NZ Geotechnical Society publication "Earthquake geotechnical engineering practice, Module 1: Overview of the standards", (March 2016)

6.5 Liquefaction

6.5.1 General

Soil liquefaction is a process where typically saturated, granular soils develop excess pore water pressures during cyclic (earthquake) loading that exceed the effective stress of the soil. In loose soils, some dilation can occur during this process, which can lead to individual soil grains moving into suspension. Following the onset of liquefaction, the shear strength and stiffness of the liquefied soil is effectively lost causing excessive differential settlement of the ground surface, bearing capacity failure and collapse of structures and low-angle lateral spreading of slopes in liquefiable soils.

In accordance with NZGS guidance[6] the liquefaction susceptibility of the soils at this site has been considered with respect to geological age, soil fabric and soil consistency / density.

6.5.2 Geological Age

The vast majority, and nearly all, case history data compiled in empirical charts for liquefaction evaluation come from Holocene deposits or man-made fills (Seed and Idriss, 1971)[7]. Youd and Perkins[8] also state that young Holocene age (<15,000 years) sediments and man-made fills are susceptible to liquefaction.

Across the elevated terraces, the soils below the water table comprise silts and sandy silts of the Matua Subgroup. These soils are considered to be of Pleistocene geological age with a dated aged at 350k to 2.18Ma old. These deposits are therefore significantly older than what case history data would suggest as being susceptible to liquefaction[9].

Notwithstanding this, age alone is often debated as being of insufficient evidence to discount liquefaction potential due to its qualitative nature. Consideration can therefore be given to applying an ageing factor (K_{DR}) to site specific liquefaction analyses in accordance with methods described in Saftner et al[10] based on the following relationship (where t = time (years)):

$$K_{DR}=0.189\cdot\log(t)+0.878$$

6.5.3 Soil Fabric

Soils are also classified with respect to their grain size and plasticity to assess liquefaction susceptibility. Based on more recent case histories, there is general agreement that sands, non-plastic silts, gravels and their mixtures form soils that are susceptible to liquefaction. Clays, although they may significantly soften under cyclic loading, do not exhibit liquefaction features, and therefore are not considered liquefiable.

The soils beneath the site are generally stiff to very stiff clayey silts with some thin lenses of sands beds and therefore considered to be of low risk of liquefaction.

6.5.4 Specific Analyses

Specific liquefaction analyses were undertaken on the CPT's, using the software package CLiq by comparing the cyclic stress ratio (CSR), being a function of the earthquake magnitude for the design return period event, to the cyclic resistance ratio (CRR), being a function of the CPT cone resistance (qc) and friction ratio.

---

[6] Earthquake Geotechnical Engineering Practice, Module 3: Identification, assessment and mitigation of liquefaction hazards", (May 2016)
[7] Seed, H. B., and Idriss, I. M. (1971). "Simplified procedure for evaluating soil liquefaction potential," J. Soil Mechanics and Foundations Div., ASCE, 97:SM9, 1249-1273.
[8] Youd, T. L., and Perkins, M., 1978. Mapping liquefaction-induced ground failure potential, J. Geotechnical Eng. Div., ASCE 104(GT4), 433–46.
[9] Boulanger, R. W., and Idriss, I. M. (2014). "CPT and SPT based liquefaction triggering procedures." Rep. No. UCD/CGM-14/01, Univ. of California, Davis, CA.
[10] Safter, D.A.; Green, R.A.; Hryciw, R.D. (2015). Use of explosives to investigate liquefaction resistance of aged sand deposits, *Engineering Geology*, Vol 199, p.140-147.

Ageing of the soils was applied to the CLiq models using an ageing factor of 1.92 for the Matua Subgroup soils based on the ages specified in Section 6.5.26.5.2 above.

The results of the liquefaction assessment estimated liquefaction induced settlements under the SLS and ULS seismic cases are negligible (i.e. < 5mm) for all CPT's.

Copies of our analyses results are presented in ***Appendix E.***

6.5.5 Liquefaction Assessment

The age, fabric and numerical assessment of the soils present indicate that the soils beneath the site are generally of low risk of liquefaction.

The presence of at least 8.0m of predominantly stiff to very stiff clayey silt above the shallowest significant sand deposit indicates at least a 8m non-liquefiable crust is present.

Reference is made to Ishihara (1985)[11] with respect to assessing the contribution of a non-liquefiable crust and the risk of surface manifestation. This assessment suggests the risk of unacceptable liquefaction induced damage due to surface manifestation to buildings located above a 5m thick non-liquefiable crust is very low for a ULS seismic event and an Importance Level 2 (IL2) building.

We therefore conclude that the overall risk of damage to structures caused by surface manifestation and unacceptable settlements due to liquefaction of soils beneath the site is low.

6.6 Slope Stability

6.6.1 Design Criteria

The stability of natural escarpments under a range of design conditions is expressed in terms of a factor of safety, which is defined as the ratio of forces resisting failure to the forces causing failure. The following performance standards are recommended for slope stability assessment:

Table 3: Slope Stability Factor of Safety Criteria

Condition	Required Minimum Factor of Safety
Static long term conditions (drained soil conditions, normal groundwater)	1.5
Transient short term conditions (elevated porewater pressure condition)	1.2
Ultimate Limit State (ULS) seismic condition	1.0*
Note*: Factor of safety < 1.0 acceptable where displacement-based approach is adopted.	

6.6.2 Shear Strength Parameters

Drained shear strength parameters for the various geological units that form the existing natural escarpments below the site were inferred from the field investigation, local experience and back analysis.

Back analysis of the natural terrace escarpments was carried out to assess the effective stress shear strength parameters of the Matua Subgroup unit, which occupies most of the slope profile and controls the stability of these slopes.

Analyses were based on an inferred high groundwater table and elevated porewater pressures were modelled using a porewater pressure ratio (r_u) of 0.3 in the Matua Subgroup silts to simulate wetting under intense rainfall.

The drained shear strength parameters used to model a factor of safety of 1 for existing escarpment gradients are summarised in Table 4 below.

[11] Ishihara, K., (1985) "Stability of Natural Deposits During Earthquakes," Proc. Of the Eleventh International Conference on Soil Mechanics and Foundation Engineering, San Francisco, 12-16th August 1985, Vol 1, Theme Lectures Conferences, pp321-376.

Undrained soil shear strengths (Su), used for assessing the stability of slopes during seismic loading, were taken from the hand-held shear vane results and inferred from the CPT data based on the following relationship:

$$Su = \frac{qc - \sigma}{Nk}$$

Where: qc = CPT cone resistance (kPa)

σ = total overburden pressure (kPa)

Nk = factor, typically between 10 and 20, 12 typically adopted for Tauranga soils.

Table 4: Summary of Shear Strength Parameters

Geological Unit	Unit Weight (kN/m^3)	c′ (kPa)	Ø′ (deg)	Su (kPa)
Non-engineered Fill – stiff to very stiff clayey silts	16	2	28	60
Younger Ash – stiff to very stiff silts/clayey silts	16	5	30	80
Hamilton Ash – very stiff clayey silt	17	10	25	100
Matua Subgroup – firm to very stiff silts/sandy silts	16	2	29	50
Inferred Ignimbrite – medium dense to dense sands	16	0	40	n/a
Note: Where c′ = effective cohesion, Ø' = effective friction angle, Su = undrained shear strength				

6.6.3 Slope Stability Analyses

Slope stability analyses were undertaken for the steepest gully profile the north of the site, which represents the critical section for our assessment. Analyses were undertaken using the Morgenstern-Price method of slices under circular failure mechanisms using the proprietary software SLIDE Version 8.

Selected stability printouts are attached in ***Appendix F*** and the results are summarised on Table 5:

Table 5: Slope Stability Analyses Results

Location	Slope Stability Factor of Safety		
	Prevailing	Transient	Seismic
Northern Gully Slope (Geological Section B-B)	1.4	1.0	1.1

Results show that the natural escarpment below the site currently provides slope stability factors of safety below the project design criteria. Final building setbacks are discussed in Section 7 below.

6.6.4 Temporary Cut Stability

The temporary stability of cuts will need to be assessed once the final scheme plans have been developed. Further considerations regarding temporary cuts are provided in Section 7 below.

It is expected that retention of deep cuts will be undertaken either as part of the building development or as discrete retaining walls

6.7 Load Induced Settlement

Future building loads may induce some settlement within the underlying subsoils. The magnitude of settlement will depend on the stiffness of the underlying soils within the zone of influence of the building foundations and loadings applied.

A preliminary static settlement estimate has been undertaken for light-weight commercial developments with widespread floor loads of 20kPa.

The settlement analysis has been undertaken using the CPT interpretation software CPeT-IT v.3.0.2.1, which estimates soil modulus values from tip and sleeve measurements and assumes a Boussineq load distribution beneath the foundation.

Total estimated settlements within the gully infill area (CPT07) were of the order of 80mm.

Total estimated settlements across the remainder of the elevated terraces range from 20mm to 50mm.

As no design levels have been provided, the above analysis does not take into account any additional fill placement or load compensation from cuts across the site. These may have a significant effect on the total settlements experienced and should be reviewed to ensure that total and differential settlements across the platforms do not exceed building code limits.

Further assessment of the static settlements should be undertaken following confirmation of finished floor levels, loads and building footprints.

6.8 Sensitive Soils

The Matua Subgroup strata that may be encountered within deeper earthworks cuts typically contains very high moisture contents, sometimes approaching the soil liquid limit and are highly sensitive.

Those characteristics may make the Matua Subgroup unit particularly challenging to earthwork, requiring specific consideration with respect to plant and vehicle movements and foundation construction.

Further recommendations are provided in Section 7 below.

7 GEOTECHNICAL RECOMMENDATIONS

7.1 Seismic Site Subsoil Category

The geological units encountered beneath the elevated terrace comprise soil strength materials, which with respect to the seismic site subsoil category defined in Section 3.1.3 of NZS1170.5, as having a UCS < 1MPa.

Based on those ground conditions and the results of a specific study completed across the Tauranga area by Pearse-Danker and Wotherspoon (NZ Geomechanics News, June 2016), the seismic site subsoil category is assessed as being Class D (deep soil site) in accordance with NZS1170.5.

7.2 Slope Stability Management

The natural gully slopes present along the northern and western site boundaries are generally steeper than 1:2.5 (V:H) which is generally considered stable. Therefore, an appropriate setback from the crest of those slopes to any future building will be required.

Slope stability analyses were carried out on the steepest section of the gully slopes and results confirm that the requisite factors of safety are met following a projection line gradient of 1:2.5 (vertical to horizontal) from the toe of the steep slope section.

Building Restriction Lines (BRLs) have been designated on ***Drawing 01*** based on the 1:2.5 projection line. All structures requiring building consent must be located entirely upslope of the BRL unless supported by further geotechnical investigation and/or assessment by a Chartered Professional Geotechnical Engineer.

Alternatively, an in-ground or palisade retaining wall may be constructed to protect some of the landform beyond the BRL and increase the land area available for building construction.

Fill placement downslope of the BRL is not recommended on account of land stability considerations.

7.3 Earthworks

7.3.1 General

All earthwork activities must be carried out in general accordance with the requirements of NZS 4431 and the requirements of the Western Bay of Plenty District Council 2009 Development Code under the guidance of a suitably qualified and Chartered Geo-professional.

7.3.2 Reuse of Cut Materials

Across the majority of the site, any earthworks within the upper 2-3m of the ground profile are expected to encounter typically friable volcanic ashes comprised of silts and clayey silts which are generally suitable for reuse as engineered fill. The ashes are typically close to optimum moisture contents during normal summer earthworks conditions and therefore shouldn't require much conditioning.

Within deeper cuts, soils of the underlying Matua Subgroup may be encountered, which typically contain much higher moisture contents, sometimes approaching the soil liquid limit and are highly sensitive, which can make them particularly challenging to earthwork. These materials can be used within engineered fills although the amount of drying, blending, and compaction effort required should not be underestimated.

7.3.3 Subgrade Preparation

In accordance with the investigation findings, topsoil thickness is expected to range between 200mm and 500mm across the site and up to 2.6m of non-engineered fill overlying topsoil is present across the historic gully feature bisecting the site.

Uncontrolled fill was also encountered in HA02 and is thought to be associated with recontouring of the orchard. Based on the previous land use and known recontouring suggests that other areas of uncontrolled fill are likely to be encountered. The uncontrolled fill across the site is not considered suitable for shallow foundations.

All topsoil, uncontrolled fill, organic or otherwise unsuitable soil must be stripped from site and removed prior to the placement of any engineer-certified fill or alternatively, where uncontrolled fill is to remain in place specific engineer designed foundations such as piles adopted across these areas.

Any stripped or undercut material can be either cut to waste or stockpiled for later use as landscape fill. Under no circumstances should soil be stockpiled beyond BRL's, or over gully slopes on account of potential slope instability.

Placing fill over slopes exceeding a gradient of 1:5 (vertical to horizontal) must be subject to benching to ensure that fills are keyed into the natural subgrade. The stripped surface should then be proof rolled under the guidance of a geotechnical engineer to identify any further soft-spots that may require further compaction or else removed from the fill area and replaced with more competent engineer-certified fill.

7.3.4 Earthfill Construction

Where required, fill may be placed, spread and compacted in controlled lifts under the supervision of a geotechnical engineer.

It is likely the majority of the fill will be won from excavations on site, and likely to comprise predominantly cohesive material.

Any imported fill must be free of any organic material and contaminants and having no particles greater than 100mm diameter. Careful management, conditioning and compaction control will be required to verify this during construction.

The source and/or type of material used for Engineer Certified Fill will dictate the type of quality control testing undertaken. The source of any imported fill should be discussed with and approved by the project geotechnical engineer to verify its appropriateness and quality control testing requirements.

For granular (sand and gravel) fill materials, testing following compaction should be principally in terms of 95% of the maximum dry density and within ±2.0% of Optimum Moisture Content as determined from a laboratory compaction curve test. This density may be calibrated with a dynamic cone (Scala) penetrometer test with the penetrometer then used as the primary testing measure. Where the source or quality of fill changes, re-calibration will be required.

Where cohesive silts and clays are used as fill (e.g. volcanic ash deposits), alternative test criteria using vane shear strength (minimum of 150kPa) and air voids (maximum 10%) should be adopted.

7.3.5 Cut and Fill Batters

To reduce the effects of ongoing minor slumping and scour, permanent cut or fill batters within the volcanic ash layers should be formed to no steeper than 1:2.5 (V:H) to a maximum height of 5 metres. Where proposed batters exceed this grade, they should be specifically designed or supported by engineer designed retaining walls.

Temporary engineered fill batters shall be formed no steeper than 1:1.5(V:H) to a maximum height of 5 metres provided they are provided with a stable foundation support. Where batters are proposed to exceed this height or grade during earthworks, they should be inspected by the project geotechnical engineer and may require specific design or be supported by engineer designed retaining walls.

All formed permanent batters, or where temporary batters are to remain for a period of at least several weeks, surface protection against erosion shall be considered. Surface protection may include topsoiling and grassing or the use of geofabrics.

7.4 Foundation Bearing Capacity

The uncontrolled engineered fill encountered across the site is not considered suitable for shallow foundations. Any areas of uncontrolled fill will be required to be undercut and replaced with engineer-certified fill or alternatively specific-design foundations such as piles will be required.

Once bulk earthworks are completed, including the undercut, removal and replacement of uncontrolled fill and any other soft/loose material in accordance with the recommendations provided in Section 7.3 above, a preliminary geotechnical ultimate bearing pressure of 300kPa should be available for shallow strip and pad foundations constructed within both the natural cut ground and engineered fill areas, subject to the short axis of those footings measuring no greater than 2.5m in plan.

There may be areas where localised variations in shear strength within the natural soils exposed at foundation level, particularly within the Matua Subgroup materials or where the depth of cut varies across the building platforms.

The above bearing pressures are applicable subject to any areas of localised soft or disturbed material, being undercut and replaced with suitably compacted engineered fill.

Further confirmation of available bearing pressures will be addressed once scheme levels are known and footing dimensions confirmed. Potential settlements for strip and pad footings should also be considered at this stage.

7.5 Geotechnical Strength Reduction Factor

As required by section B1/VM4 of the New Zealand Building Code Handbook, a strength reduction factor of 0.5 and 0.8 must be applied to all recommended geotechnical ultimate soil capacities in conjunction with their use in factored design load cases for static and earthquake overload conditions respectively.

7.6 Civil Works

7.6.1 Subgrade CBR

It is assumed the subdivision roading will be constructed in a combination of both cut and fill areas. Typical CBR values of between 6% and 8% should be available in engineered fill. In areas of cut natural ground, CBR values as low as 3% or 4% are likely.

The Matua Subgroup materials can be sensitive particularly when wet and heavily trafficked. CBR values within this unit can often be lower than 3%.

We recommend that a programme of Dynamic Cone Penetrometer (DCP) testing is carried out when the pavement areas are being formed to confirm actual CBR values.

7.6.2 Service Trenches

Construction of subdivision services and infrastructure is expected to be relatively straightforward within the natural subsoils at the site. However, the ash sequence and underlying Matua Subgroup may become sensitive to disturbance during the winter months when soil pore pressures are higher and water ponding occurs within service excavation areas.

Provided any organic matter or otherwise unsuitable material is cut to waste, the natural soils excavated for the trench may be used as backfill. The backfill should be compacted in thin lifts to a strength and consistency equal to the surrounding ground.

7.7 Stormwater Management

All post-development stormwater flows generated from roof and paved surfaces should be adequately collected and piped to the base of slopes where risk or erosion is minimal.

Under no circumstances should stormwater flows be allowed to discharge into soakpits or onto unprotected ground surfaces above the gully escarpments.

7.8 Contaminants

Due to the known land use of the site, an environmental assessment of the soils, including contaminants such as pesticides, as required by the NES 2012 for new land uses should be undertaken by a suitably qualified and experienced environmental consultant.

8 SUMMARY

In summary, and with respect to the specific conclusions and recommendations of this report, the proposed development is considered to be geotechnically acceptable, and will:

- Not worsen the instability of the site in question; and
- Not increase the risk of instability to other property; and
- Not be at risk for issues of instability arising from both on-site and off-site (for example, a landslip originating from an adjoining property).

9 PLAN REVIEW

The subdivision plans are provided to CMW are draft only, and therefore following review of the final Scheme plan, we will be in a position to provide a Statement of Professional Opinion as to the Geotechnical Suitability of the Land for Development in the form of a Western Bay of Plenty District Council's 2009 Development Code CERT 10b.

USE OF THIS REPORT

Site subsurface conditions cause more construction problems than any other factor and therefore are generally the largest technical risk to a project. These notes have been prepared to help you understand the limitations of your geotechnical report.

Your geotechnical report is based on project specific criteria

Your geotechnical report has been developed on the basis of our understanding of your project specific requirements and applies only to the site area investigated. Project requirements could include the general nature of the project; its size and configuration; the location of any structures on or around the site; and the presence of underground utilities. If there are any subsequent changes to your project you should seek geotechnical advice as to how such changes affect your report's recommendations. Your geotechnical report should not be applied to a different project given the inherent differences between projects and sites.

Subsurface conditions can change

Subsurface conditions are created by natural processes and the activity of man. For example, water levels can vary with time, fill may be placed on a site and pollutants may migrate with time. Because a report is based on conditions which existed at the time of subsurface investigation, the conditions may have changed, particularly when large periods of time have elapsed since the investigations were performed.

Interpretation of factual data

Site investigations identify actual subsurface conditions at points where samples are taken. Additional geotechnical information (e.g. literature and external data source review, laboratory testing on samples, etc) are interpreted by geologists, engineers or scientists to provide an opinion about overall site conditions, their likely impact on the proposed development and recommended actions. Actual conditions may differ from those inferred to exist, because no professional, no matter how qualified, can exactly predict what is hidden by earth, rock and time. The actual interface between materials may be far more gradual or abrupt than assumed based on the facts obtained. Nothing can be done to change the actual site conditions which exist, but steps can be taken to reduce the impact of unexpected conditions.

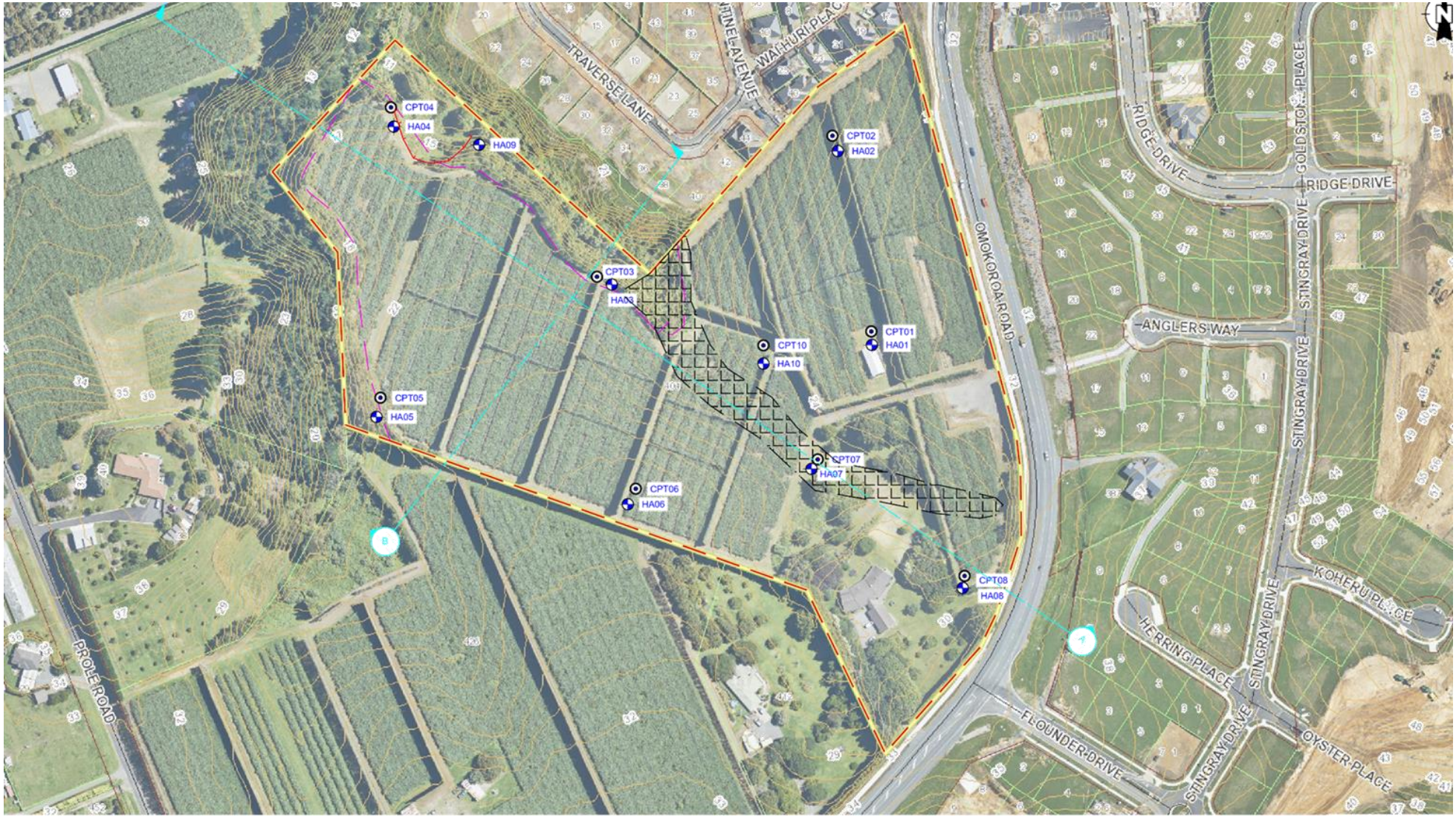
Your report's recommendations require confirmation during construction

Your report is based on the assumption that the site conditions as revealed through selective point sampling are indicative of actual conditions throughout an area. This assumption cannot be substantiated until project implementation has commenced. For this reason, you should retain geotechnical services throughout the construction stage, to identify variances, conduct additional tests if required, and recommend solutions to problems encountered on site. A geotechnical designer, who is fully familiar with the background information, is able to assess whether the report's recommendations are valid and whether changes should be considered as the project develops. An unfamiliar party using this report increases the risk that the report will be misinterpreted.

Interpretation by other design professionals

Costly problems can occur when other design professionals develop their plans based on misinterpretations of a geotechnical report. Read all geotechnical documents closely and do not hesitate to ask any questions you may have. To help avoid misinterpretations, retain the assistance of geotechnical professionals familiar with the contents of the geotechnical report to work with other project design professionals who need to take account of the contents of the report. Have the report implications explained to design professionals who need to take account of them, and then have the design plans and specifications produced reviewed by a competent Geotechnical Engineer.

Drawings



LEGEND:

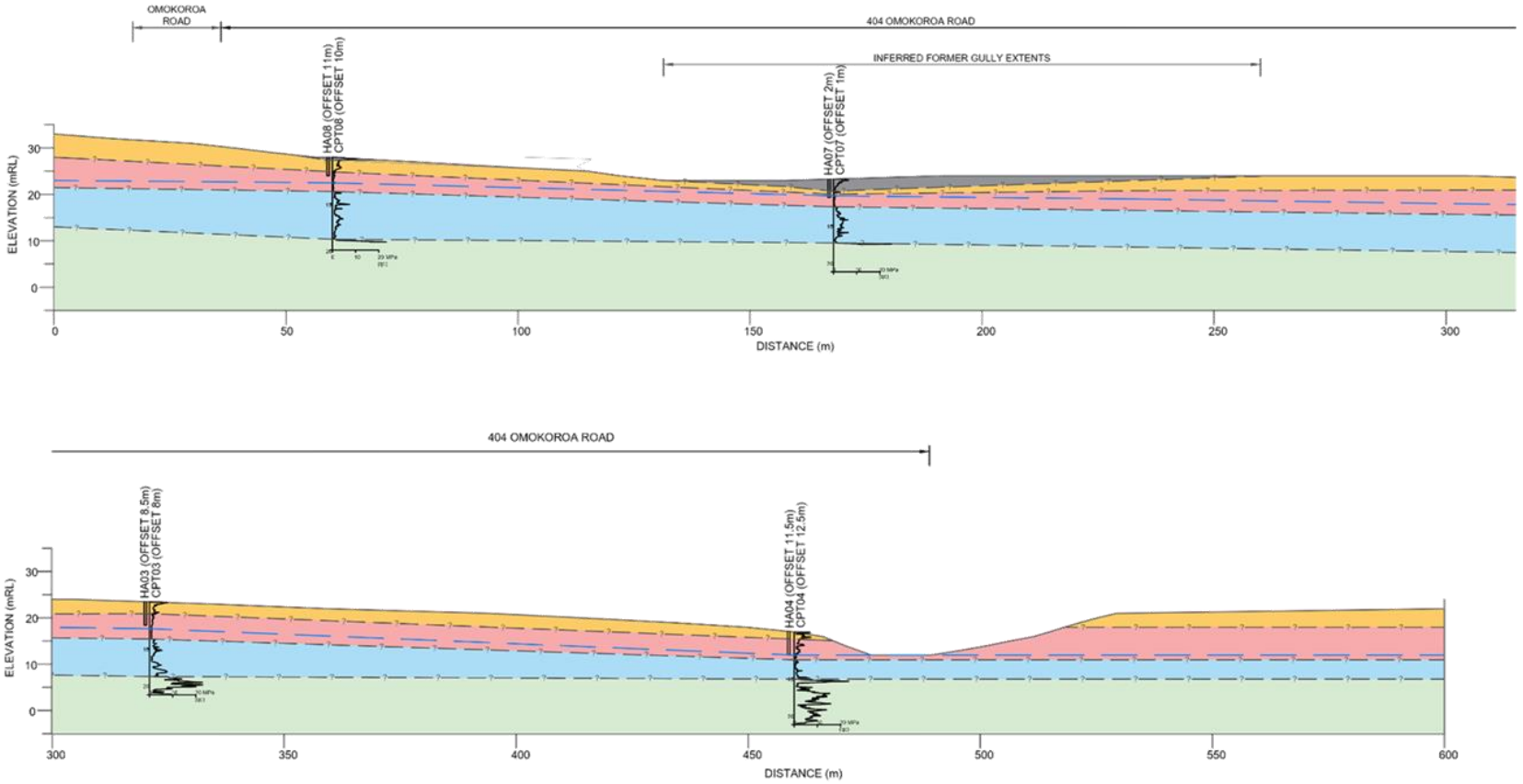
- HA01 HAND AUGER (HA) LOCATION
- CPT01 CONE PENETROMETER TEST (CPT) LOCATION
- CROSS SECTION TRACE
- SITE BOUNDARY
- INFERRED HISTORIC GULLY EXTENTS
- INFERRED INACTIVE HISTORIC SLIP FEATURE
- BUILDING RESTRICTION LINE (BRL)

NOTES:

1. BASE PLAN ADAPTED FROM WESTERN BAY OF PLENTY DISTRICT COUNCIL GIS VIEWER.
2. CONTOURS IN 1.0M INTERVALS (MOTURIKI DATUM)
3. TEST LOCATIONS APPROXIMATE ONLY

0 20 40 60 80 100 m

CLIENT: KIWI GREEN NEW ZEALAND LTD		DRAWN: WPJ	PROJECT No: TGA2020-0011
PROJECT: 404 OMOKOROA ROAD, OMOKOROA		CHECKED: DPM	DRAWING: 01
		REVISION: 0	SCALE: 1:2000



LEGEND:

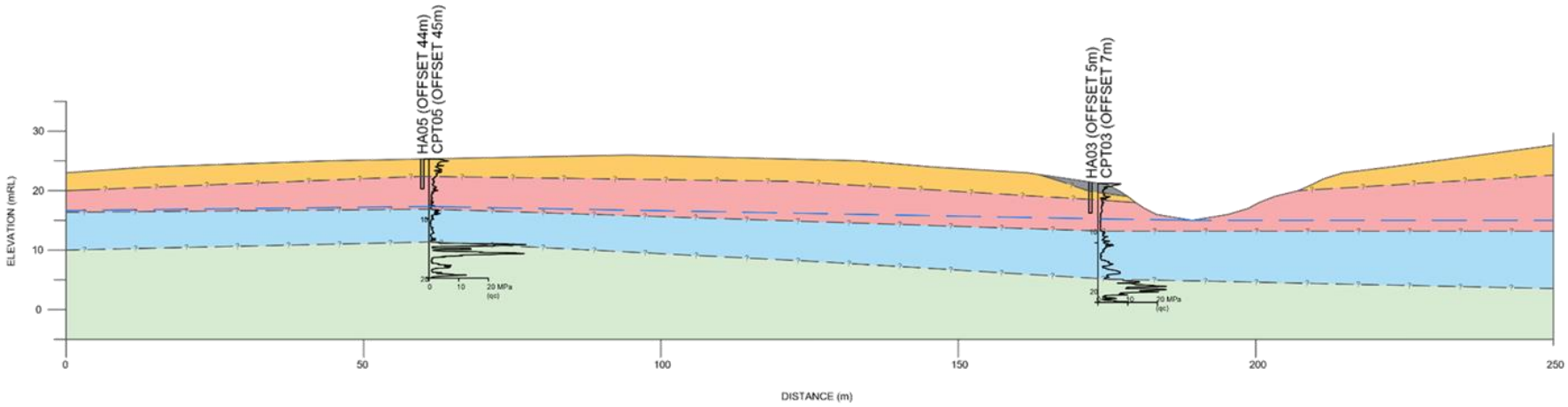
- STIFF TO VERY STIFF SILTS/CLAYEY SILTS (VOLCANIC ASHES)
- STIFF TO VERY STIFF CLAYEY SILTS (UNCONTROLLED FILL)
- FIRM TO STIFF SILT (UPPER MATUA SUBGROUP)
- STIFF TO VERY STIFF SILTS/SANDY SILTS (UPPER MATUA SUBGROUP)

NOTES:

1. BASE PLAN ADAPTED FROM WESTERN BAY OF PLENTY DISTRICT COUNCIL GIS VIEWER.
2. CONTOURS IN 1.0M INTERVALS (MOTURIKI DATUM)
3. TEST LOCATIONS APPROXIMATE ONLY

0 10 20 30 40 50 m

CLIENT: KIWI GREEN NEW ZEALAND LTD		DRAWN: DCH	PROJECT No: TGA2020-0011
PROJECT: 404 OMOKOROA ROAD, OMOKOROA		CHECKED: DPM	DRAWING: 02
		REVISION: 0	SCALE: 1:1000



LEGEND:

- STIFF TO VERY STIFF SILTS/CLAYEY SILTS (VOLCANIC ASHES)
- STIFF TO VERY STIFF CLAYEY SILTS (UNCONTROLLED FILL)
- FIRM TO STIFF SILT (UPPER MATUA SUBGROUP)
- STIFF TO VERY STIFF SILTS/SANDY SILTS (UPPER MATUA SUBGROUP)

NOTES:

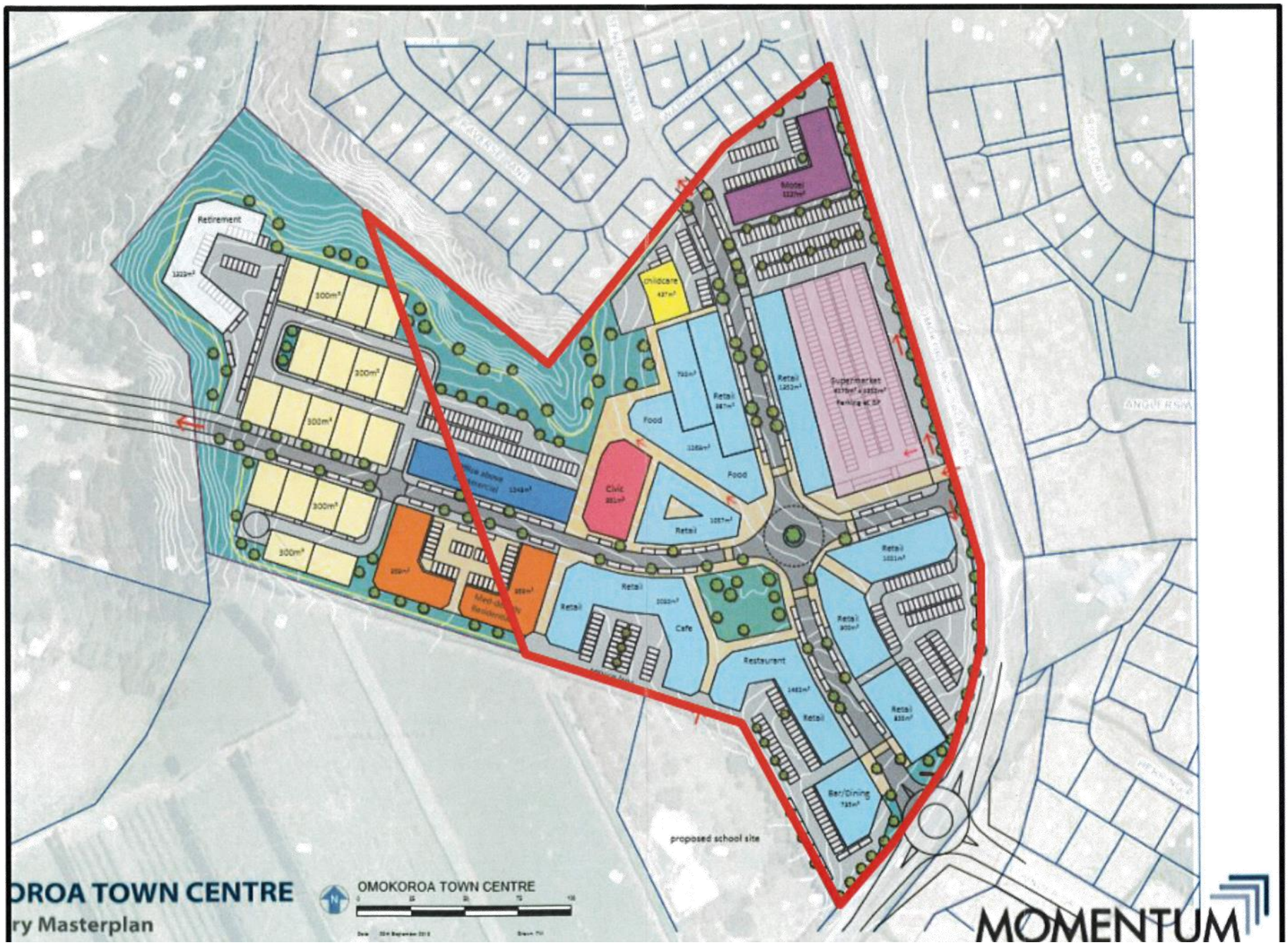
1. BASE PLAN ADAPTED FROM WESTERN BAY OF PLENTY DISTRICT COUNCIL GIS VIEWER.
2. CONTOURS IN 1.0M INTERVALS (MOTURIKI DATUM)
3. TEST LOCATIONS APPROXIMATE ONLY

0 7.5 15 22.5 30 37.5 m

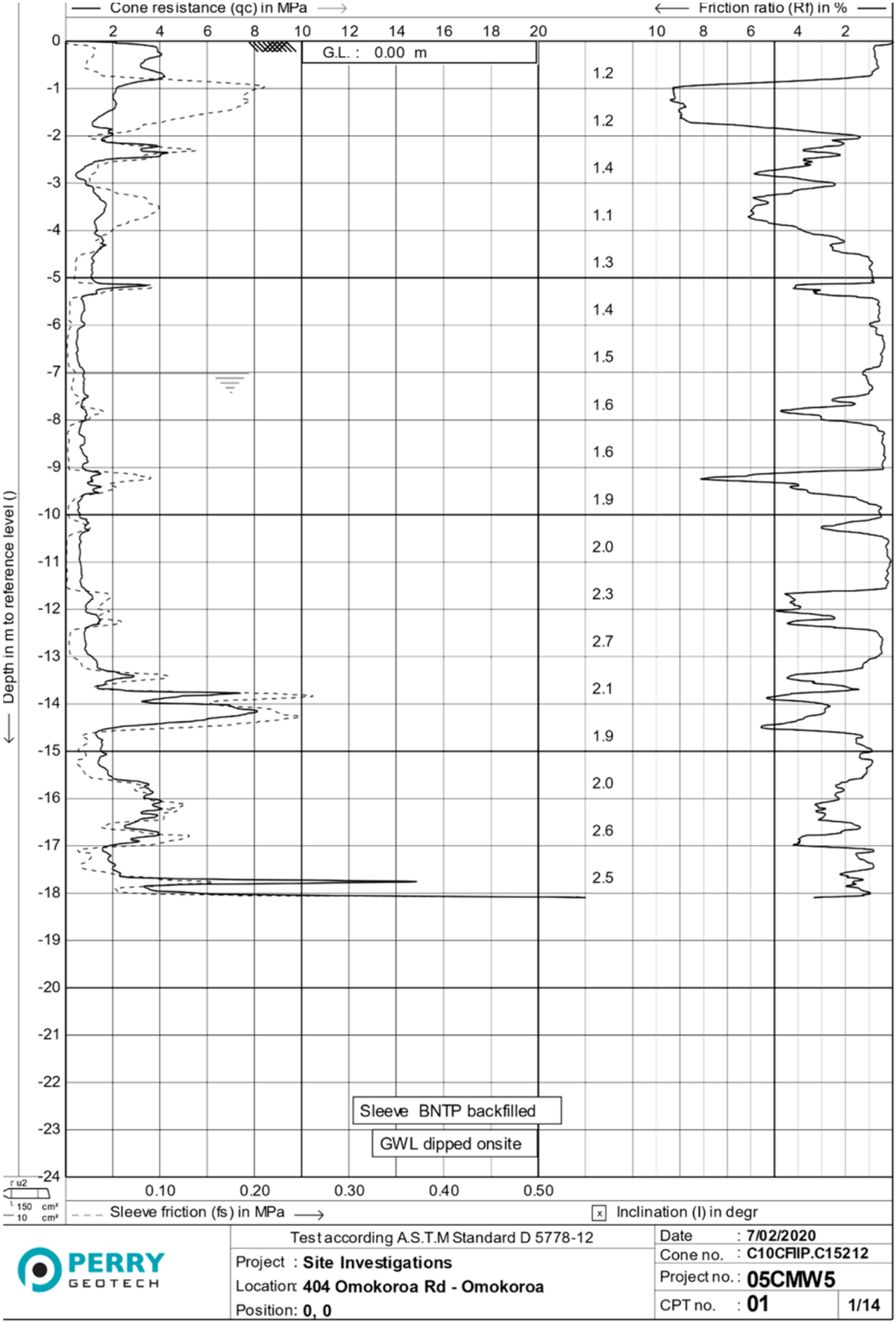
CMW

CLIENT: KIWI GREEN NEW ZEALAND LTD		DRAWN: DPM	PROJECT No: TGA2020-0011
PROJECT: 404 OMOKOROA ROAD, OMOKOROA		CHECKED: DCH	DRAWING: 03
		REVISION: 0	SCALE: 1:750

Appendix A: Momentum Development Plan


Retirement
Motel
Childcare
Retail
Supermarket
Food
Food
Civic
Retail
Retail
Retail
Retail
Retail
Cafe
Restaurant
Retail
Retail
Bar/Dining
proposed school site
OMOKOROA TOWN CENTRE
ry Masterplan
OMOKOROA TOWN CENTRE
MOMENTUM

Appendix B: CPT Investigation Records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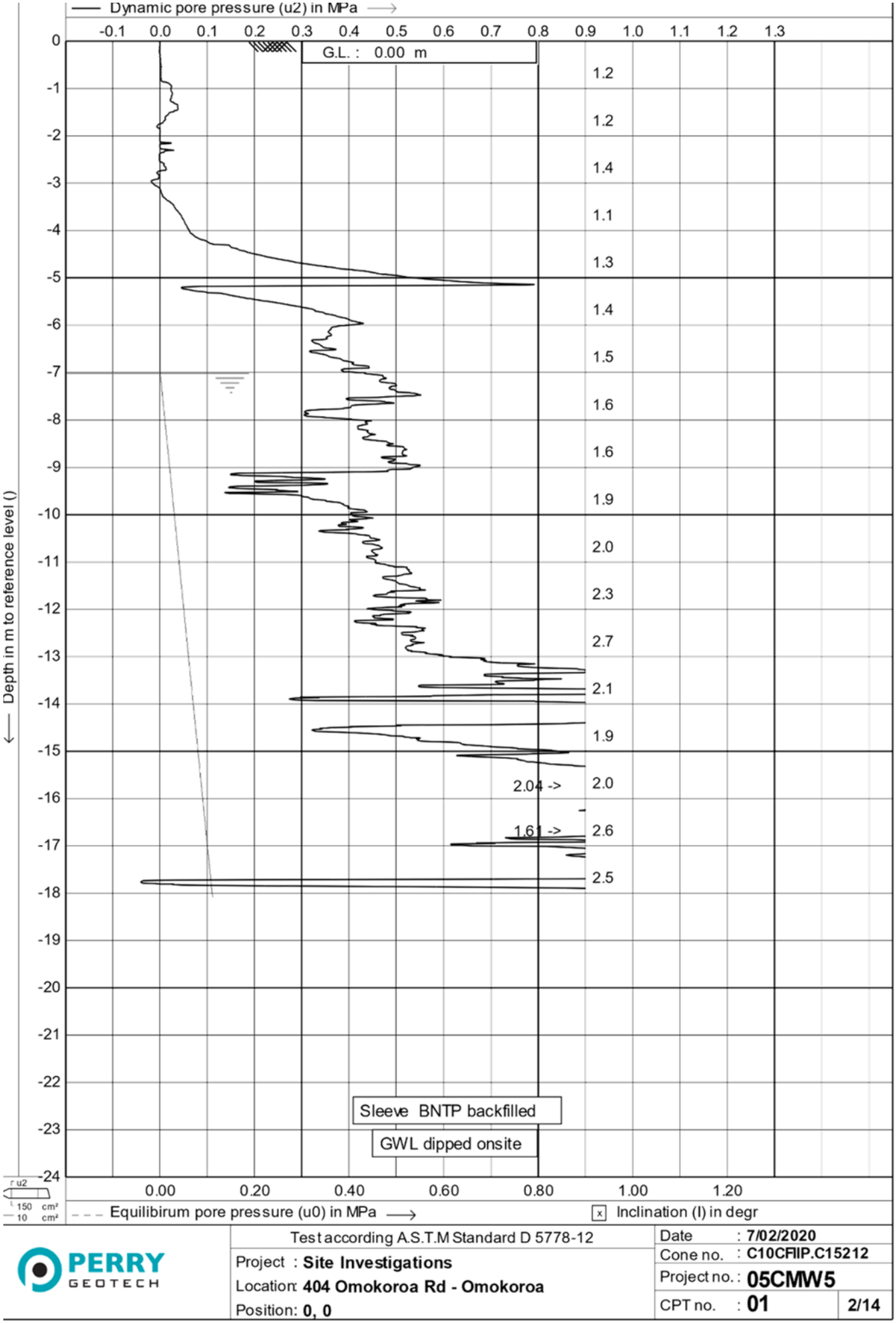
Friction ratio (Rf) in %
G.L. : 0.00 m
Depth in m to reference level ()
Sleeve BNTP backfilled
GWL dipped onsite
Sleeve friction (fs) in MPa
Inclination (I) in degr
Test according A.S.T.M Standard D 5778-12
PERRY GEOTECH
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 01
1/14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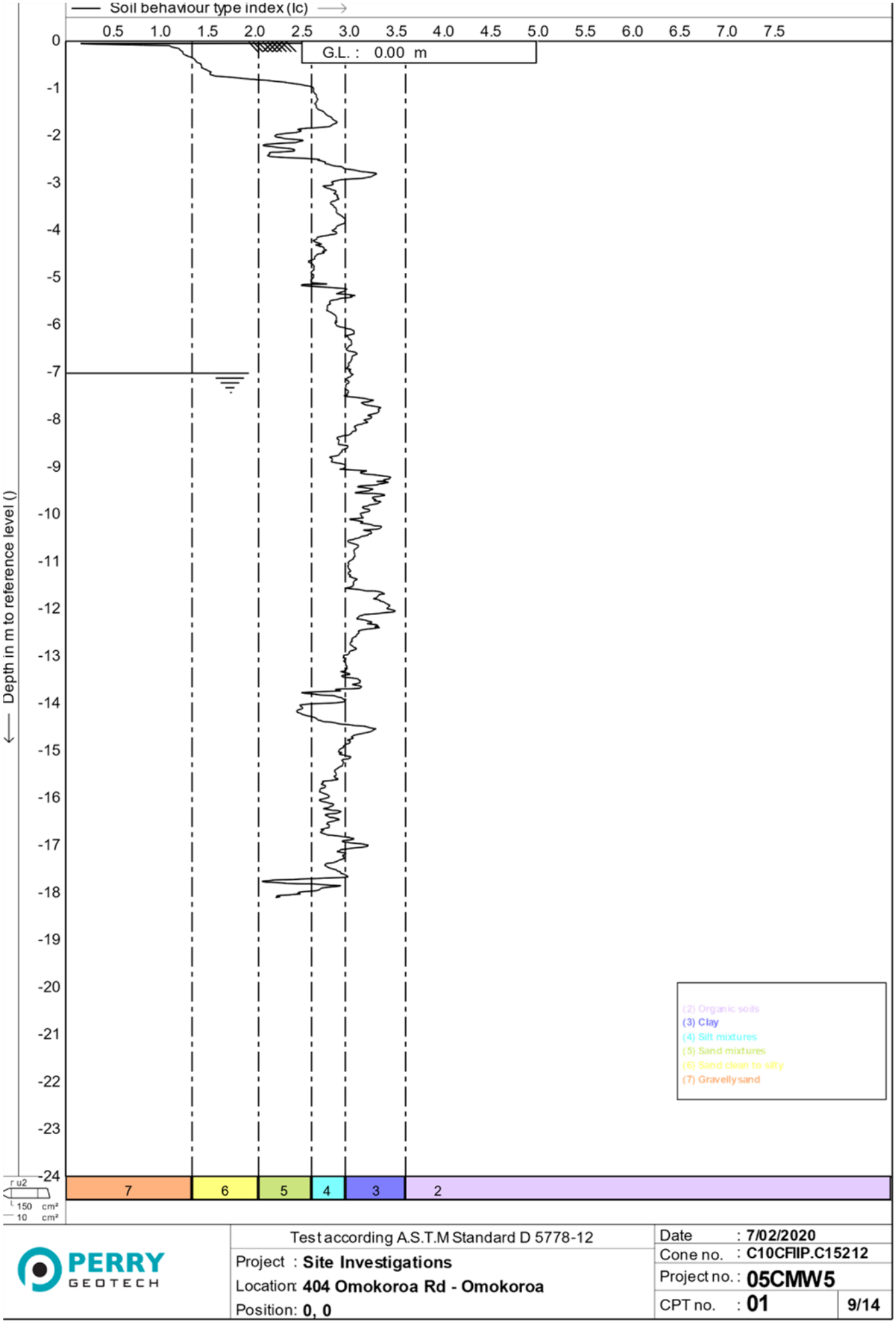
G.L. : 0.00 m
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13 -14 -15 -16 -17 -18 -19 -20 -21 -22 -23 -24
1.2 1.2 1.4 1.1 1.3 1.4 1.5 1.6 1.6 1.9 2.0 2.3 2.7 2.1 1.9 2.0 2.6 2.5
2.04 ->
1.61 ->
Depth in m to reference level ()
Sleeve BNTP backfilled
GWL dipped onsite
0.00 0.20 0.40 0.60 0.80 1.00 1.20
Equilibirum pore pressure (u0) in MPa
Inclination (I) in degr
Test according A.S.T.M Standard D 5778-12
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 01
2/14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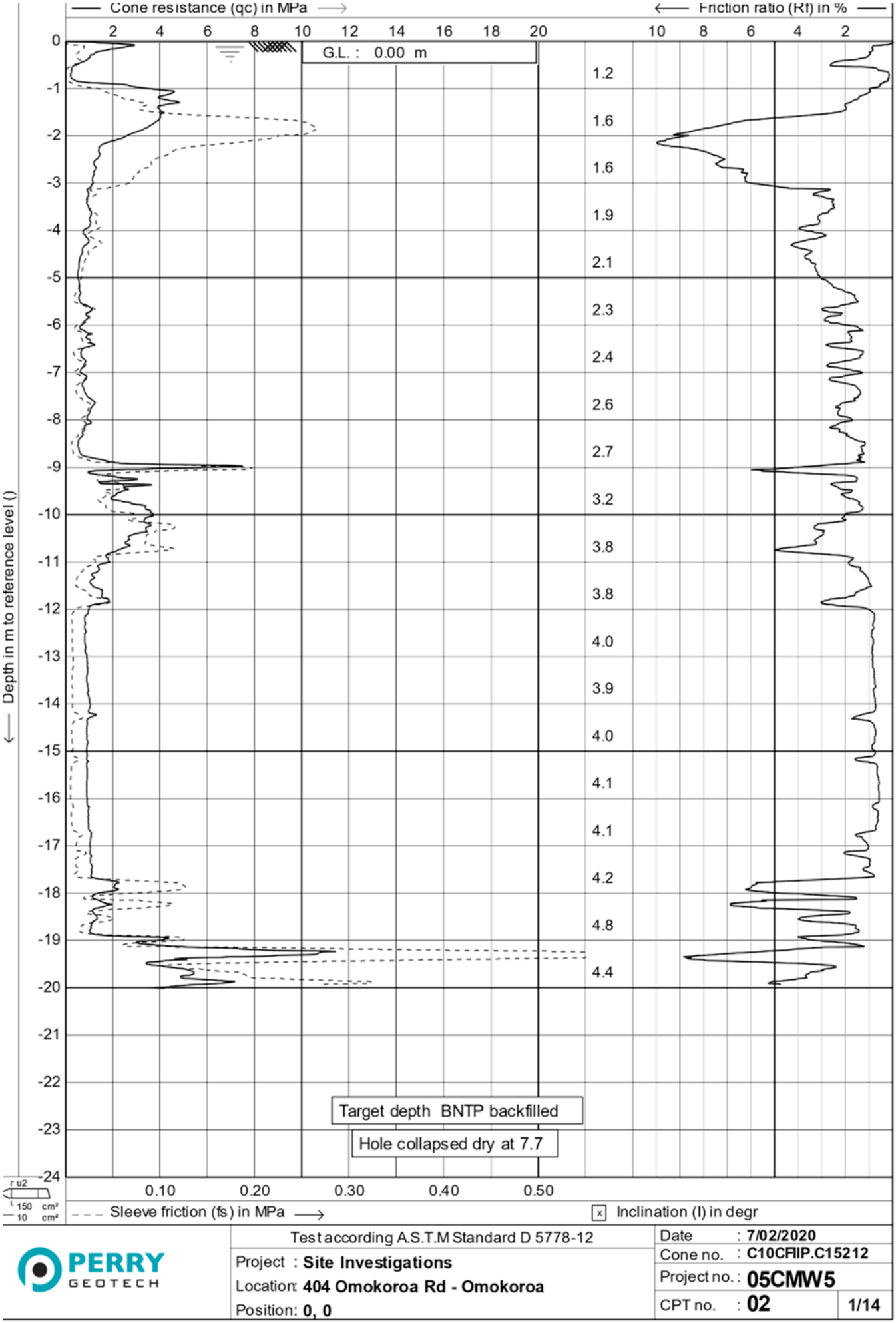
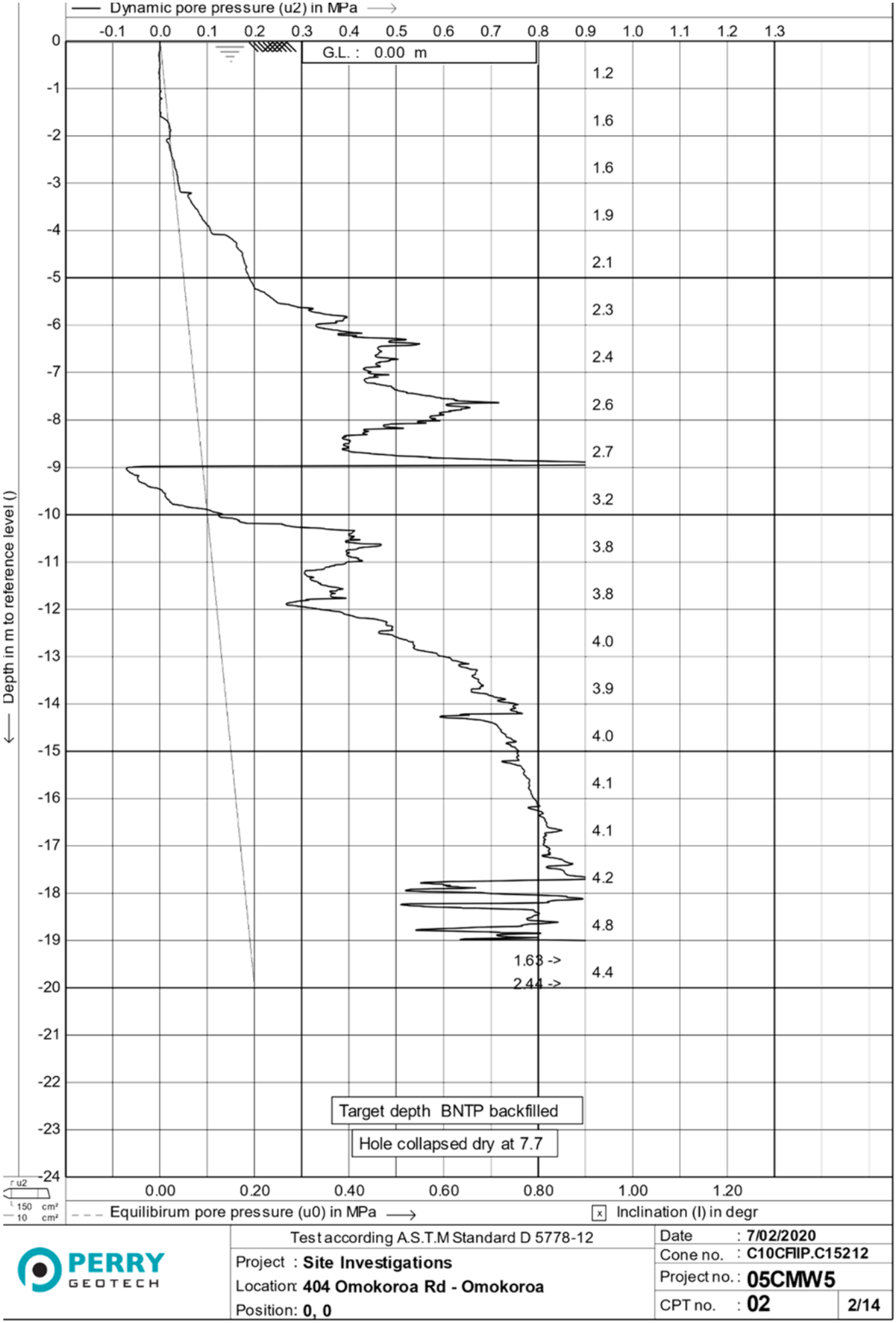
G.L. : 0.00 m
Depth in m to reference level ()
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13 -14 -15 -16 -17 -18 -19 -20 -21 -22 -23 -24
(2) Organic soils
(3) Clay
(4) Silt mixtures
(5) Sand mixtures
(6) Sand clean to silty
(7) Gravelly sand
7 6 5 4 3 2
r u2
150 cm²
10 cm²
PERRY GEOTECH
Test according A.S.T.M Standard D 5778-12
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 01
9/14


Cone resistance (qc) in MPa
Friction ratio (Rf) in %
G.L. : 0.00 m
Depth in m to reference level ()
Target depth BNTP backfilled
Hole collapsed dry at 7.7
Sleeve friction (fs) in MPa
Inclination (I) in degr
Test according A.S.T.M Standard D 5778-12
PERRY GEOTECH
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 02
1/14


Dynamic pore pressure (u2) in MPa
-0.1 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3
G.L. : 0.00 m
1.2
1.6
1.6
1.9
2.1
2.3
2.4
2.6
2.7
3.2
3.8
3.8
4.0
3.9
4.0
4.1
4.1
4.2
4.8
4.4
1.63 ->
2.44 ->
Depth in m to reference level ()
Target depth BNTP backfilled
Hole collapsed dry at 7.7
0.00 0.20 0.40 0.60 0.80 1.00 1.20
Equilibirum pore pressure (u0) in MPa
Inclination (I) in degr
Test according A.S.T.M Standard D 5778-12
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
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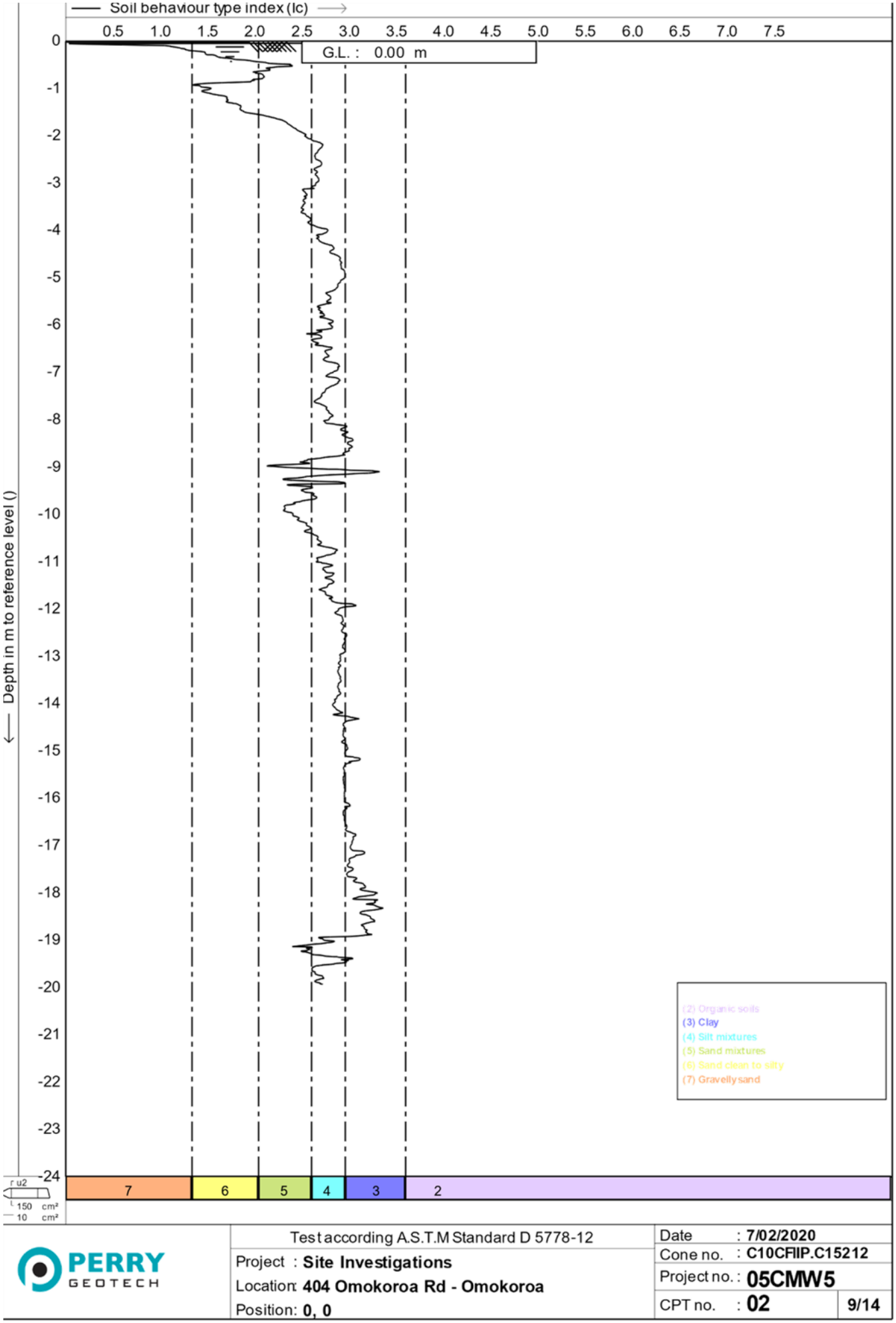
Project no. : 05CMW5
CPT no. : 02
2/14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0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5
G.L. : 0.00 m
Depth in m to reference level ()
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13 -14 -15 -16 -17 -18 -19 -20 -21 -22 -23 -24
(2) Organic soils
(3) Clay
(4) Silt mixtures
(5) Sand mixtures
(6) Sand clean to silty
(7) Gravelly sand
7 6 5 4 3 2
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150 cm²
10 cm²
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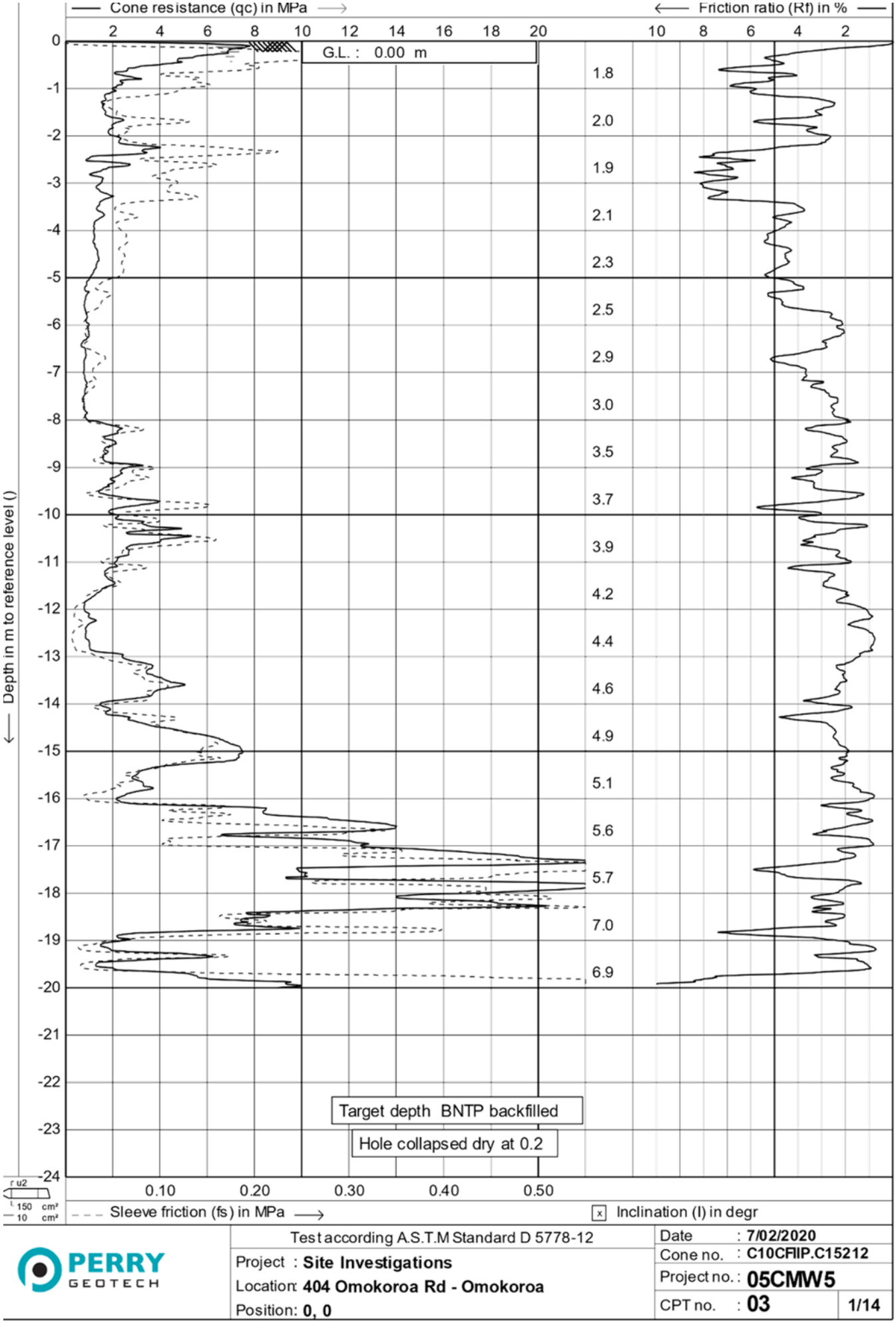
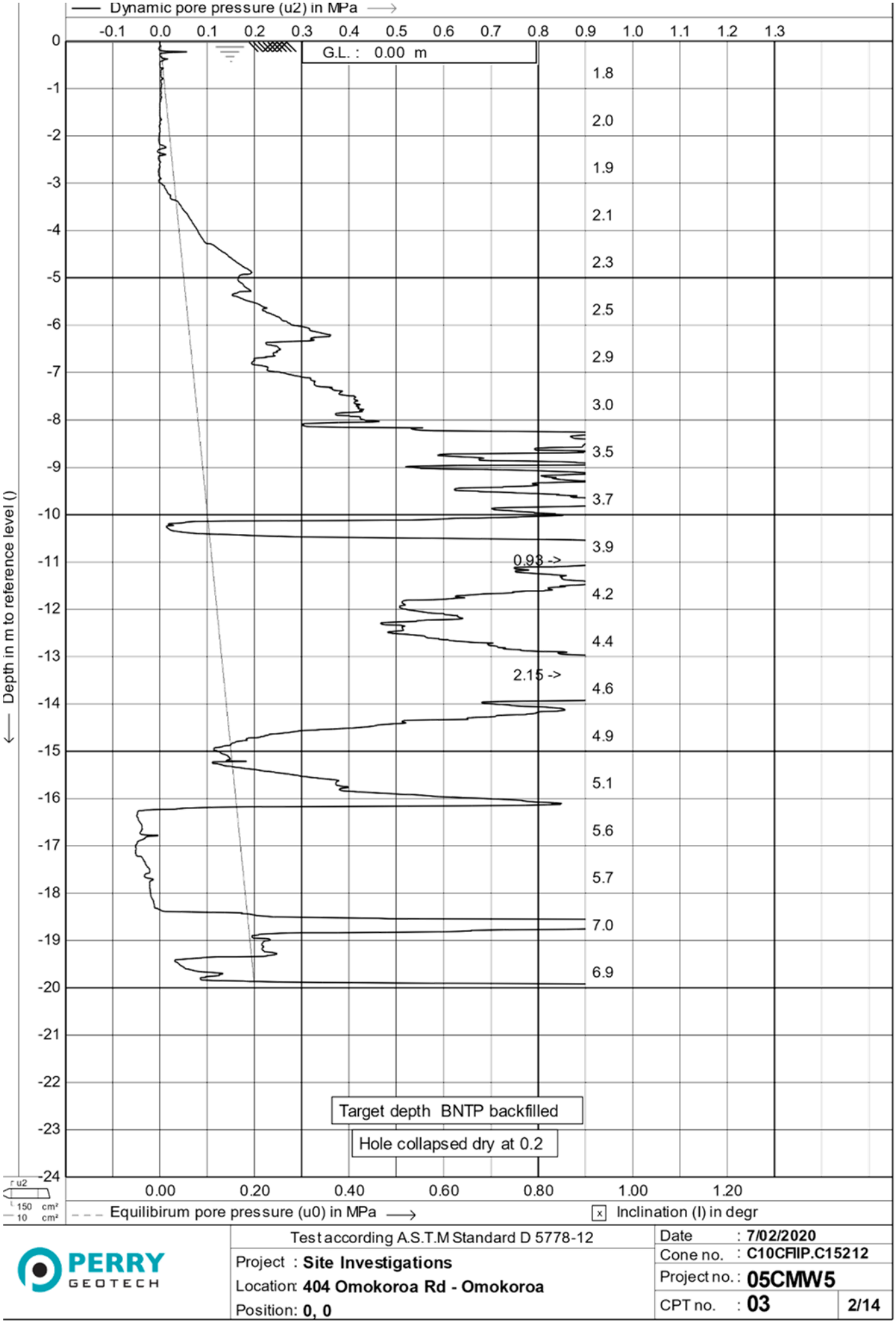
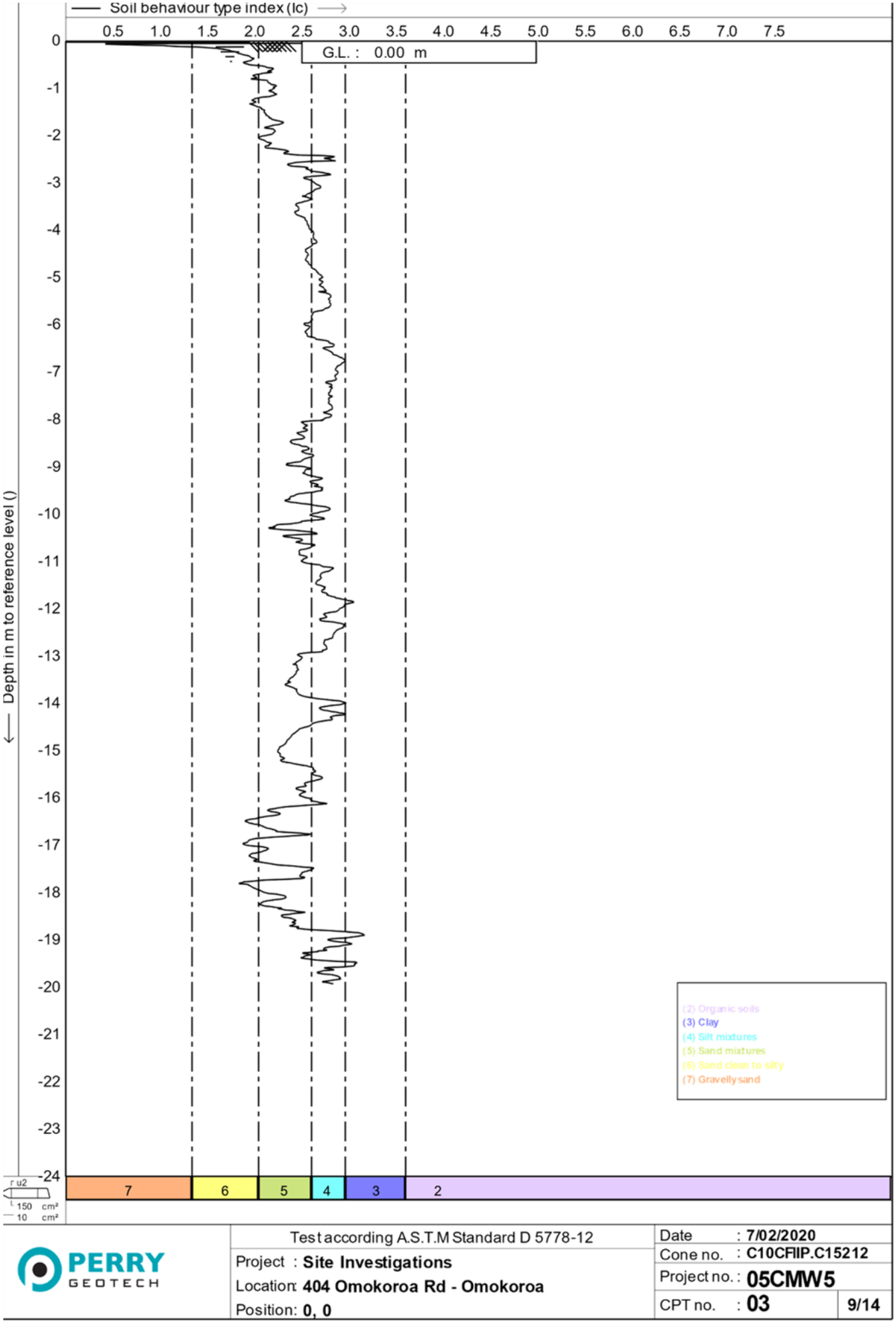
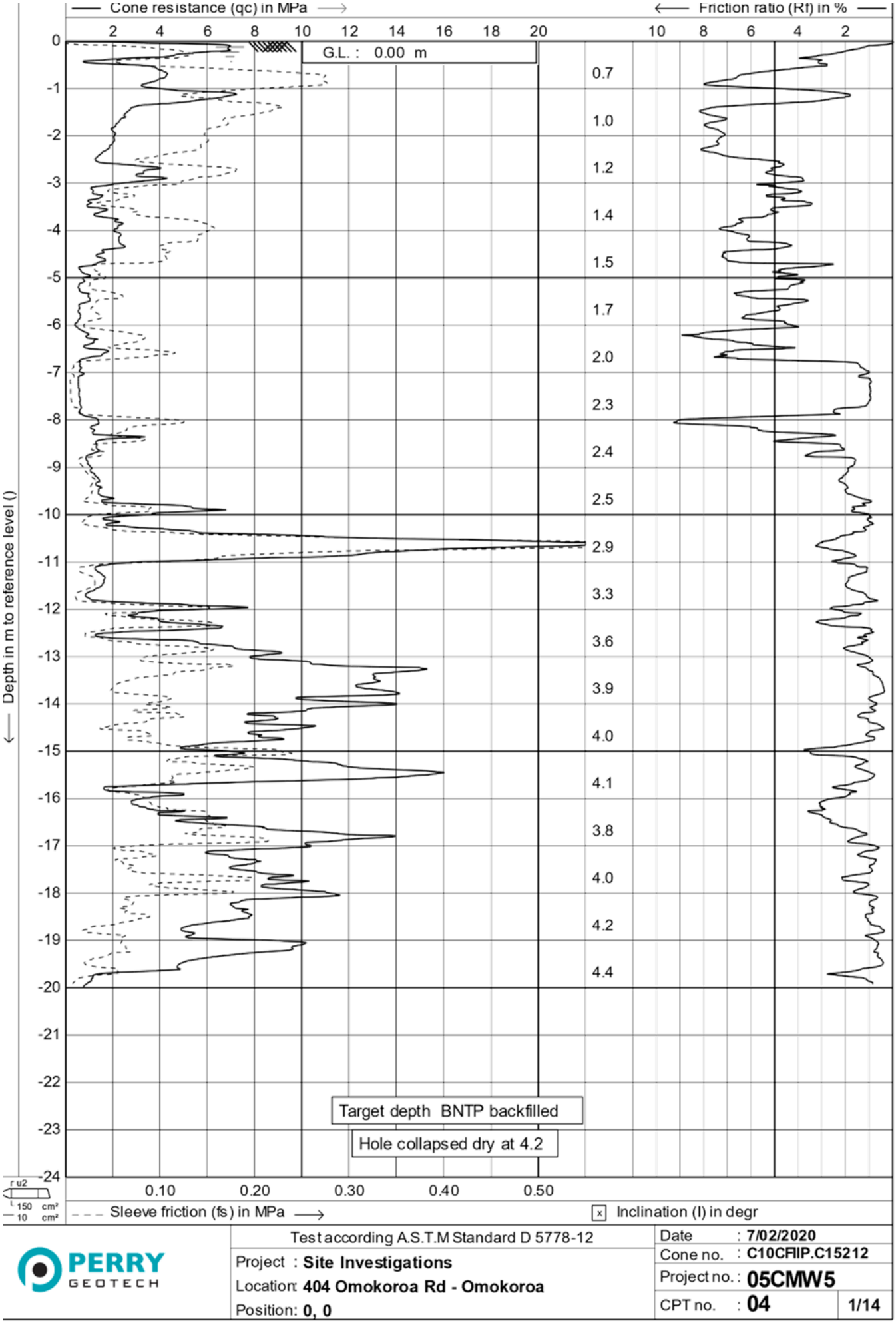
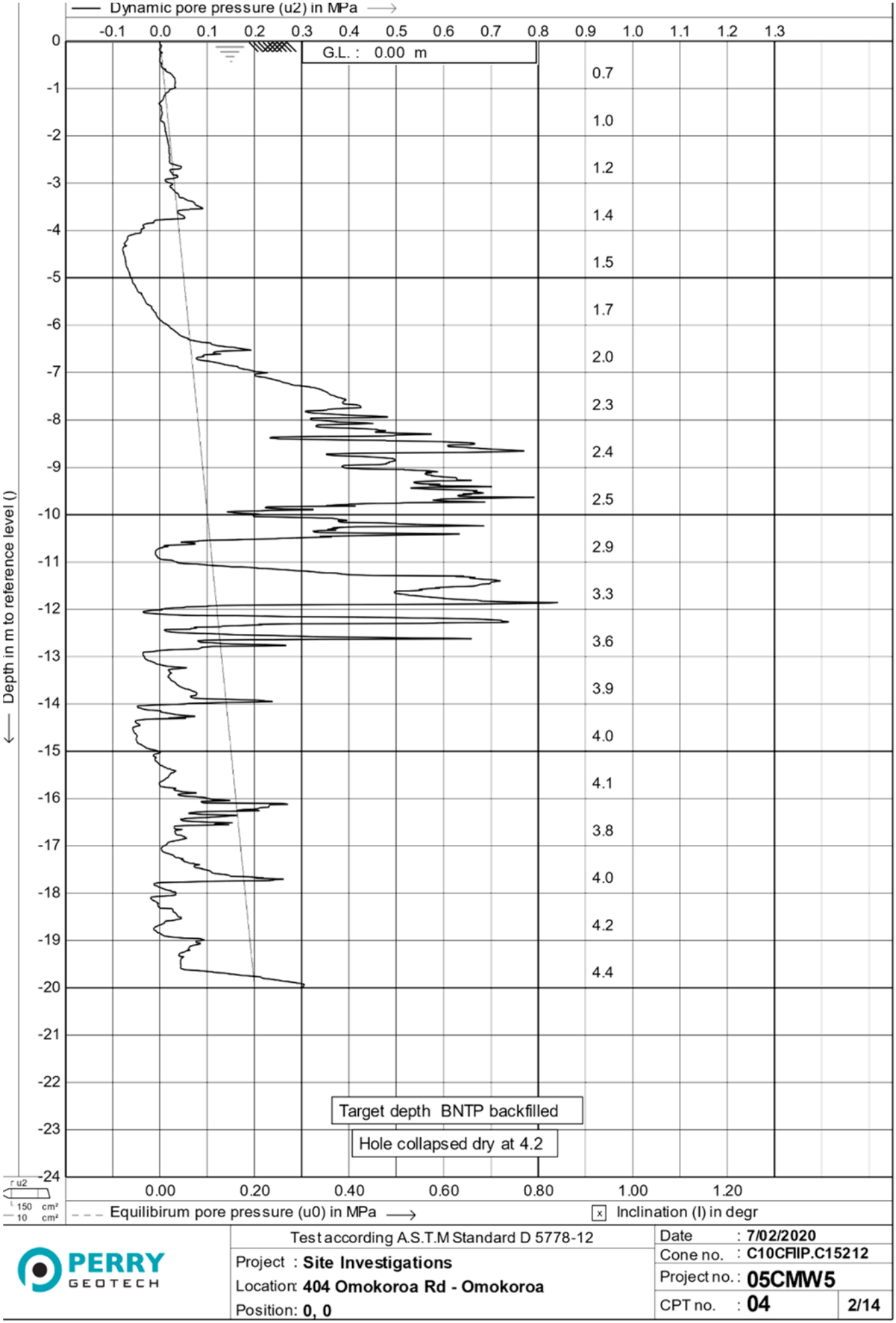
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 02
9/14

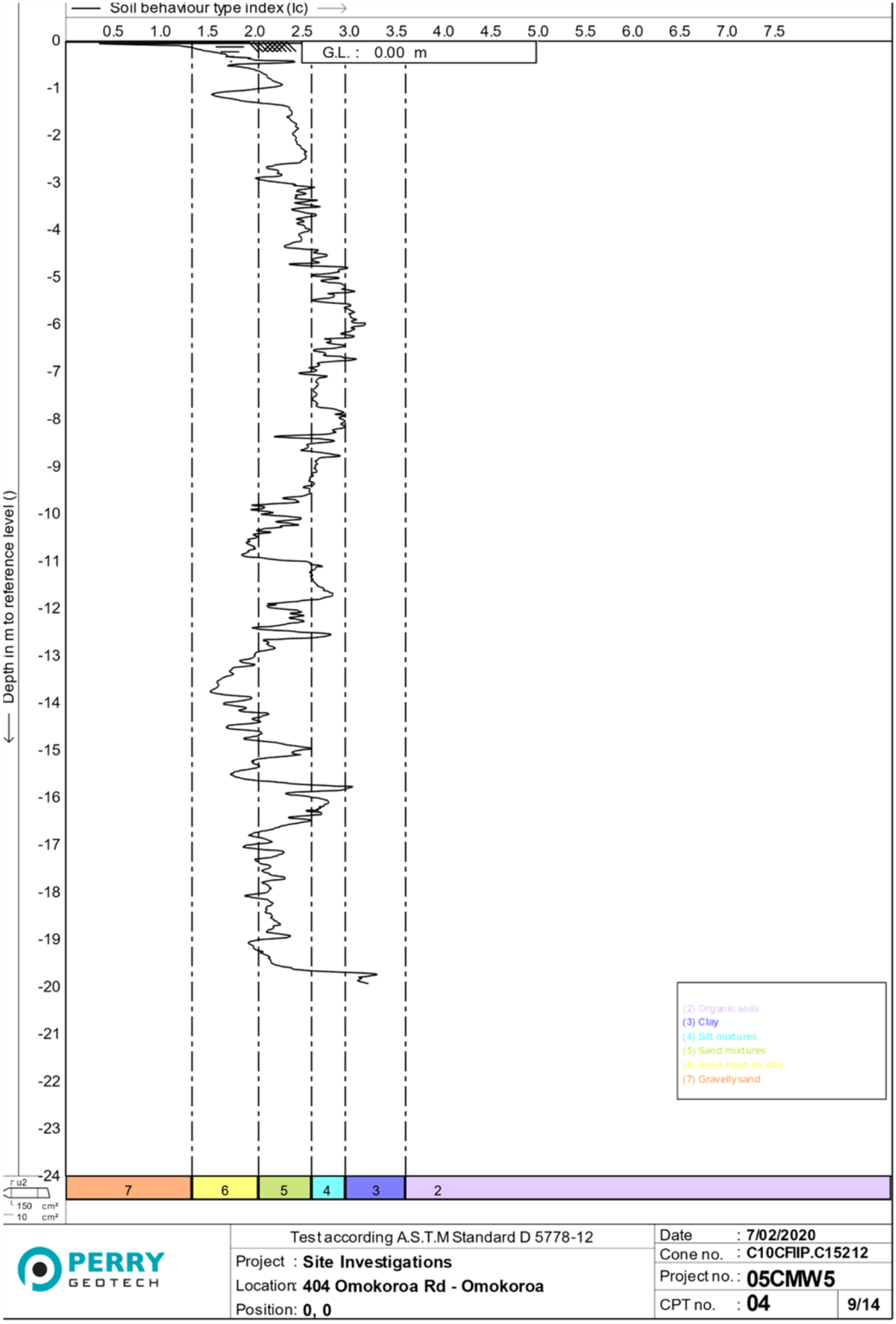

Cone resistance (qc) in MPa
Friction ratio (Rf) in %
G.L. : 0.00 m
Depth in m to reference level ()
Target depth BNTP backfilled
Hole collapsed dry at 0.2
Sleeve friction (fs) in MPa
Inclination (I) in degr
Test according A.S.T.M Standard D 5778-12
PERRY GEOTECH
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 03
1/14

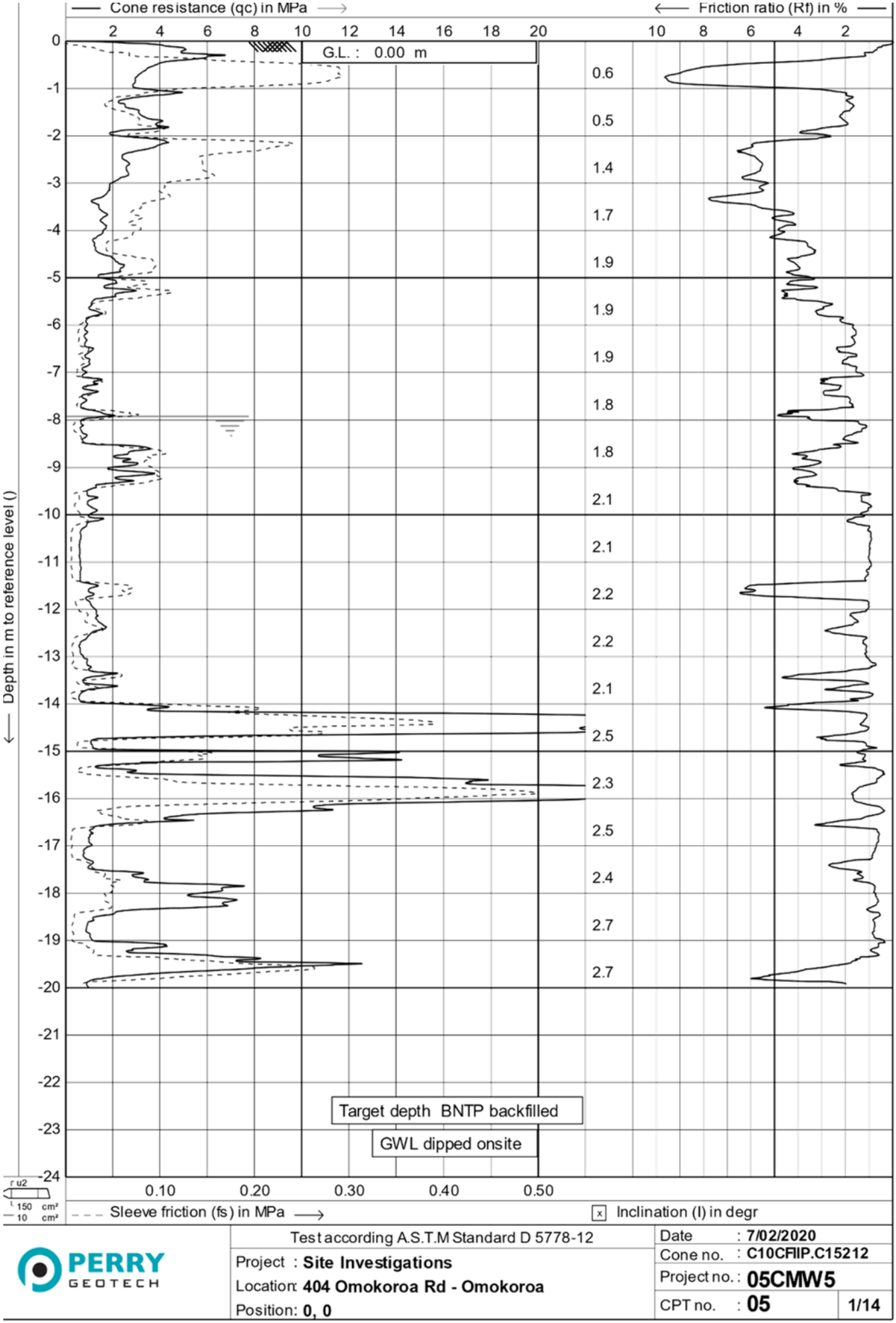

Dynamic pore pressure (u2) in MPa
-0.1 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3
G.L. : 0.00 m
1.8
2.0
1.9
2.1
2.3
2.5
2.9
3.0
3.5
3.7
3.9
0.93 ->
4.2
4.4
2.15 ->
4.6
4.9
5.1
5.6
5.7
7.0
6.9
Depth in m to reference level ()
Target depth BNTP backfilled
Hole collapsed dry at 0.2
0.00 0.20 0.40 0.60 0.80 1.00 1.20
Equilibirum pore pressure (u0) in MPa
Inclination (I) in degr
Test according A.S.T.M Standard D 5778-12
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 03
2/14

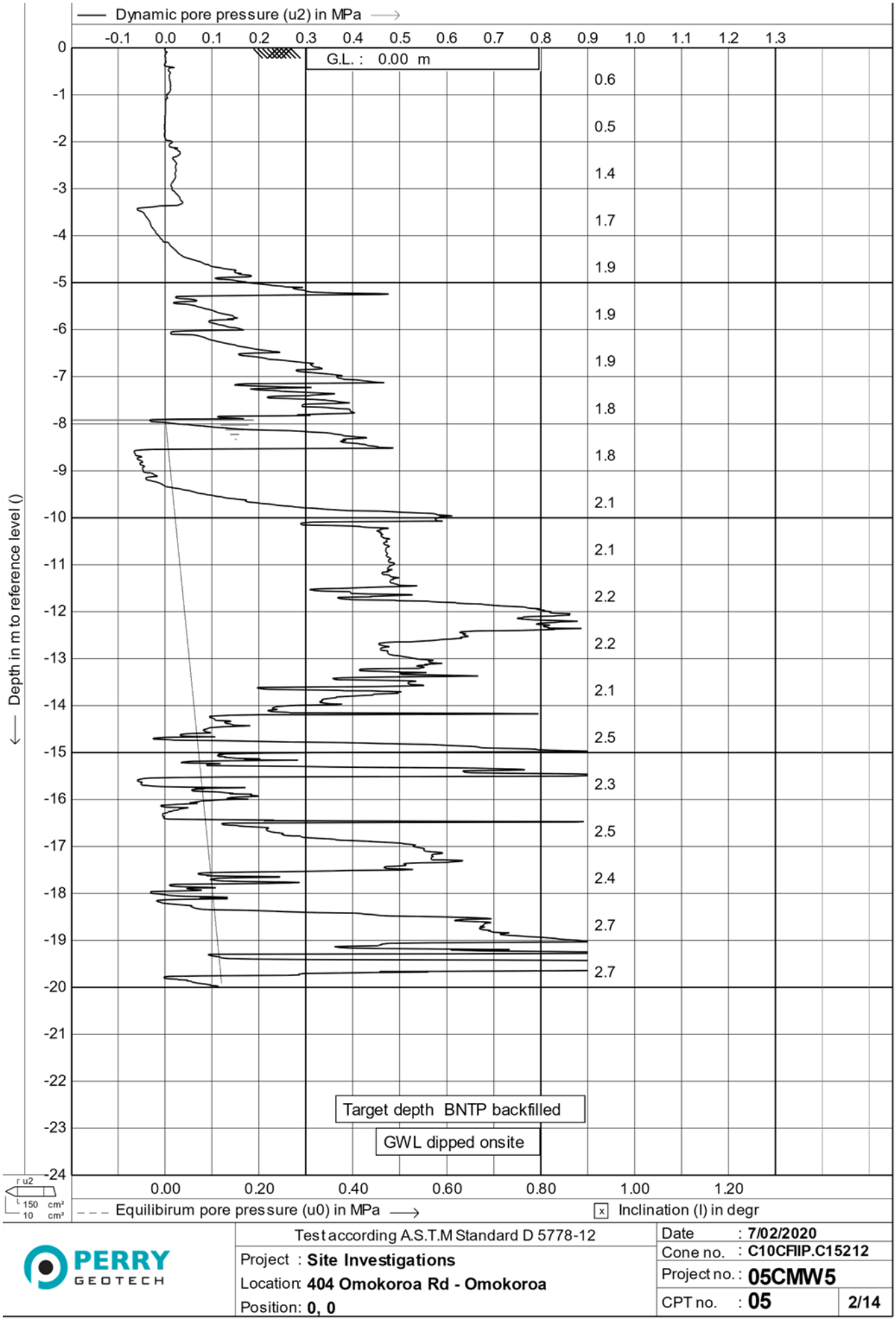

Soil behaviour type index (Ic)
0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5
G.L. : 0.00 m
Depth in m to reference level ()
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13 -14 -15 -16 -17 -18 -19 -20 -21 -22 -23 -24
(2) Organic soils
(3) Clay
(4) Silt mixtures
(5) Sand mixtures
(6) Sand clean to silty
(7) Gravelly sand
7 6 5 4 3 2
r u2
150 cm²
10 cm²
PERRY GEOTECH
Test according A.S.T.M Standard D 5778-12
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 03
9/14

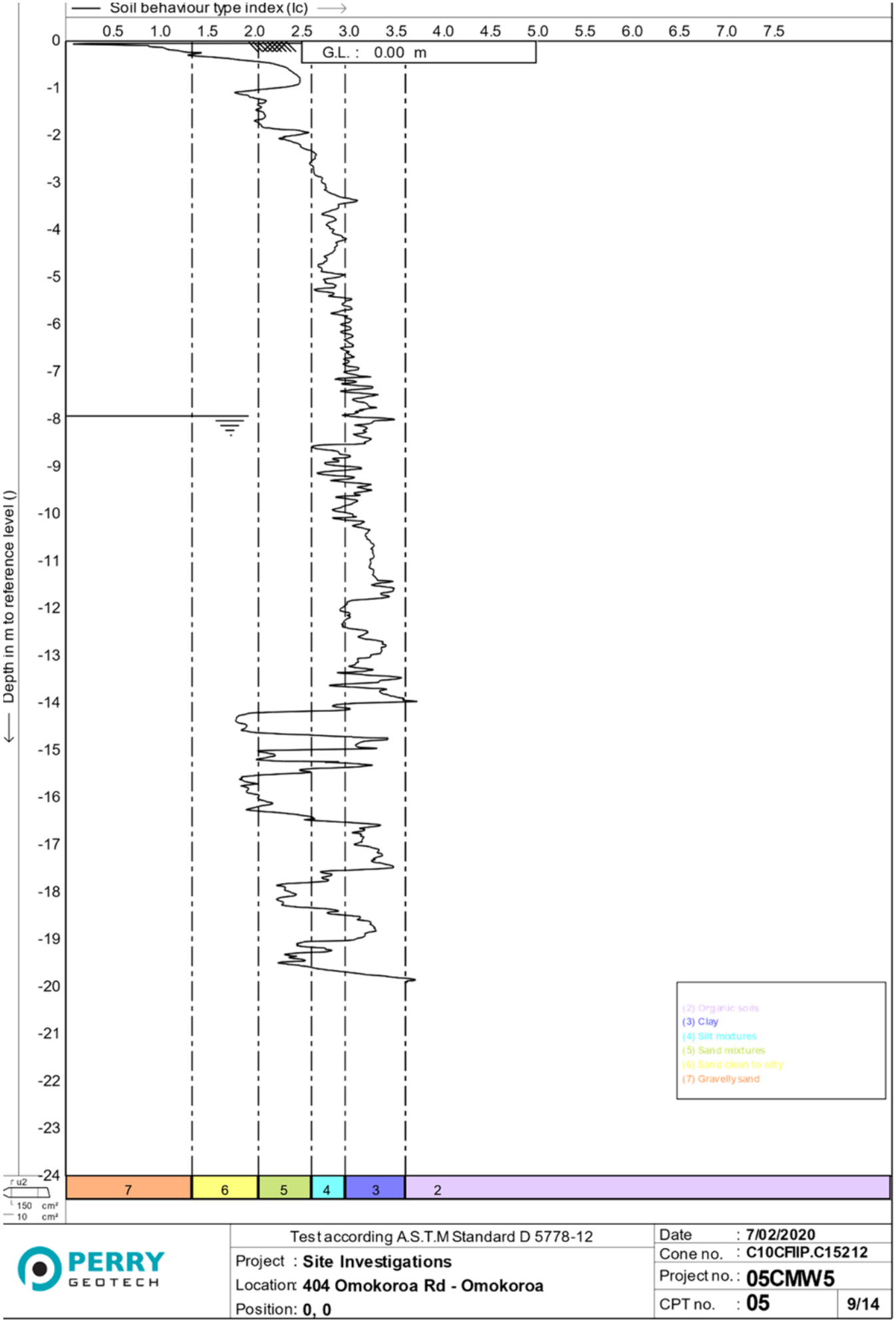

Cone resistance (qc) in MPa
Friction ratio (Rf) in %
G.L. : 0.00 m
Depth in m to reference level ()
Target depth BNTP backfilled
Hole collapsed dry at 4.2
Sleeve friction (fs) in MPa
Inclination (I) in degr
Test according A.S.T.M Standard D 5778-12
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 04
1/14

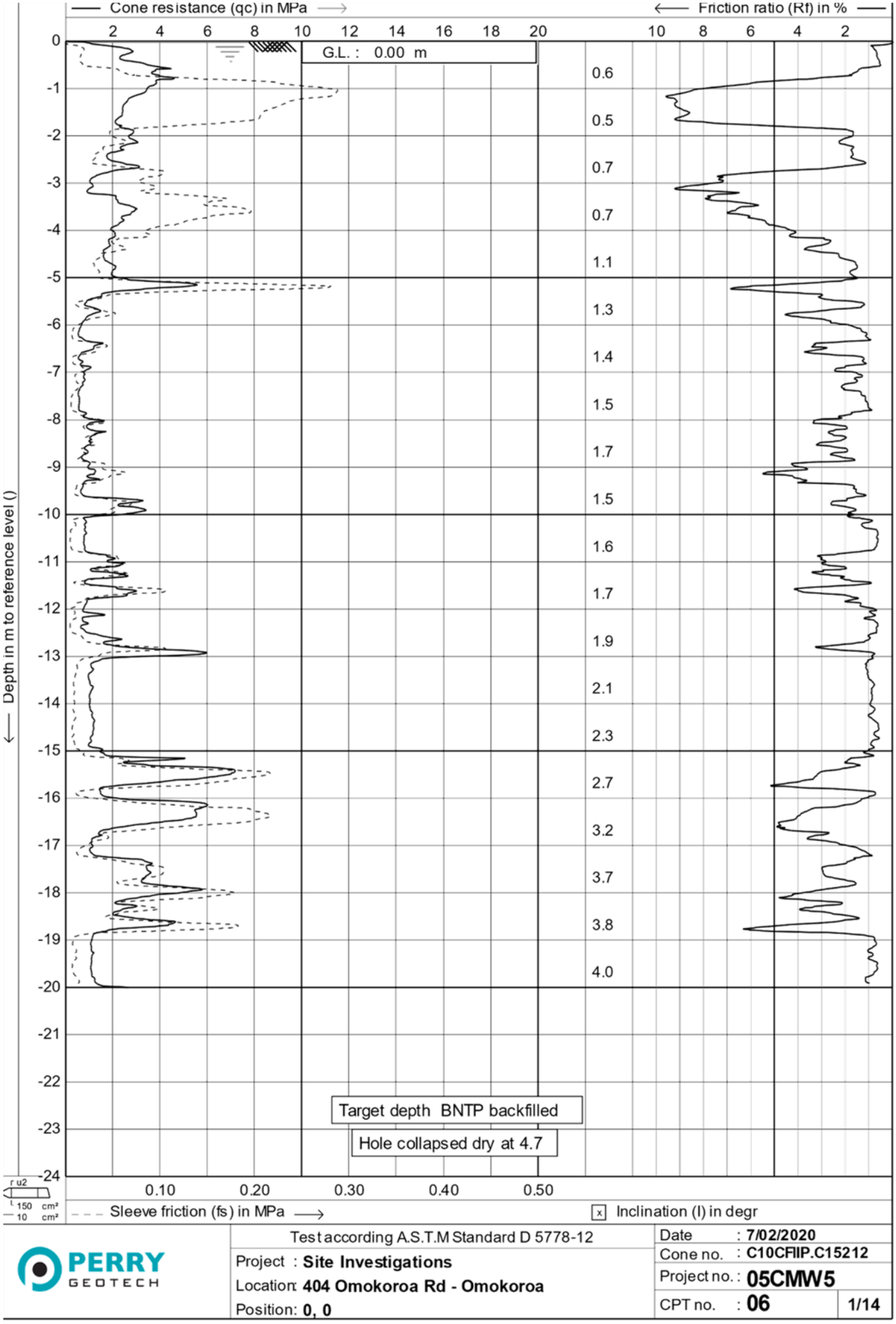

Dynamic pore pressure (u2) in MPa
-0.1 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3
G.L. : 0.00 m
0.7
1.0
1.2
1.4
1.5
1.7
2.0
2.3
2.4
2.5
2.9
3.3
3.6
3.9
4.0
4.1
3.8
4.0
4.2
4.4
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13 -14 -15 -16 -17 -18 -19 -20 -21 -22 -23 -24
Depth in m to reference level ()
Target depth BNTP backfilled
Hole collapsed dry at 4.2
u2
150 cm²
10 cm²
0.00 0.20 0.40 0.60 0.80 1.00 1.20
Equilibirum pore pressure (u0) in MPa
Inclination (I) in degr
PERRY GEOTECH
Test according A.S.T.M Standard D 5778-12
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 04
2/14

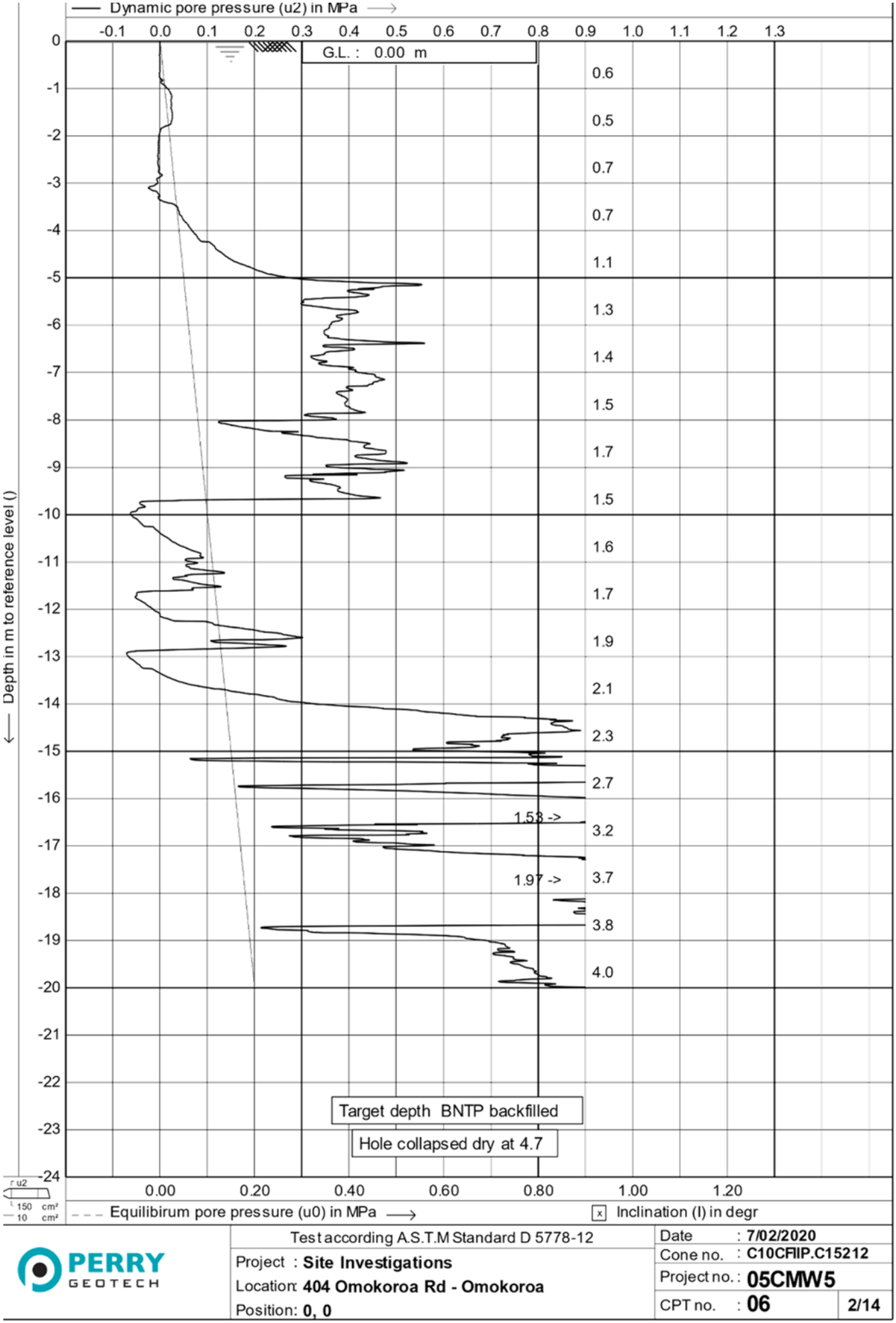

Soil behaviour type index (Ic)
0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5
G.L. : 0.00 m
Depth in m to reference level ()
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13 -14 -15 -16 -17 -18 -19 -20 -21 -22 -23 -24
(2) Organic soils
(3) Clay
(4) Silt mixtures
(5) Sand mixtures
(6) Sand clean to silty
(7) Gravelly sand
7 6 5 4 3 2
r u2
150 cm²
10 cm²
PERRY GEOTECH
Test according A.S.T.M Standard D 5778-12
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 04
9/14

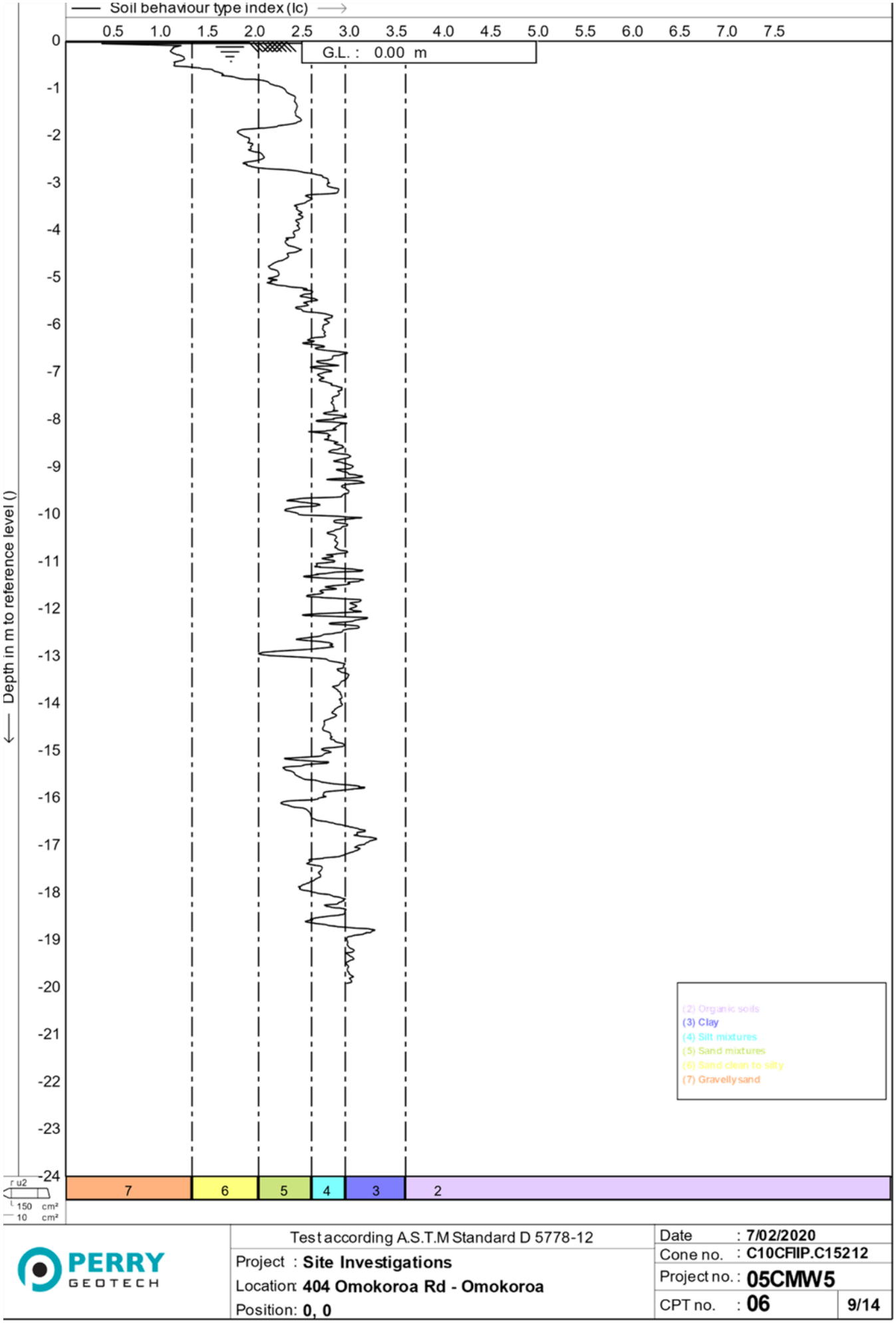

Cone resistance (qc) in MPa
Friction ratio (Rf) in %
G.L. : 0.00 m
Depth in m to reference level ()
Target depth BNTP backfilled
GWL dipped onsite
Sleeve friction (fs) in MPa
Inclination (I) in degr
Test according A.S.T.M Standard D 5778-12
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 05
1/14
PERRY GEOTECH

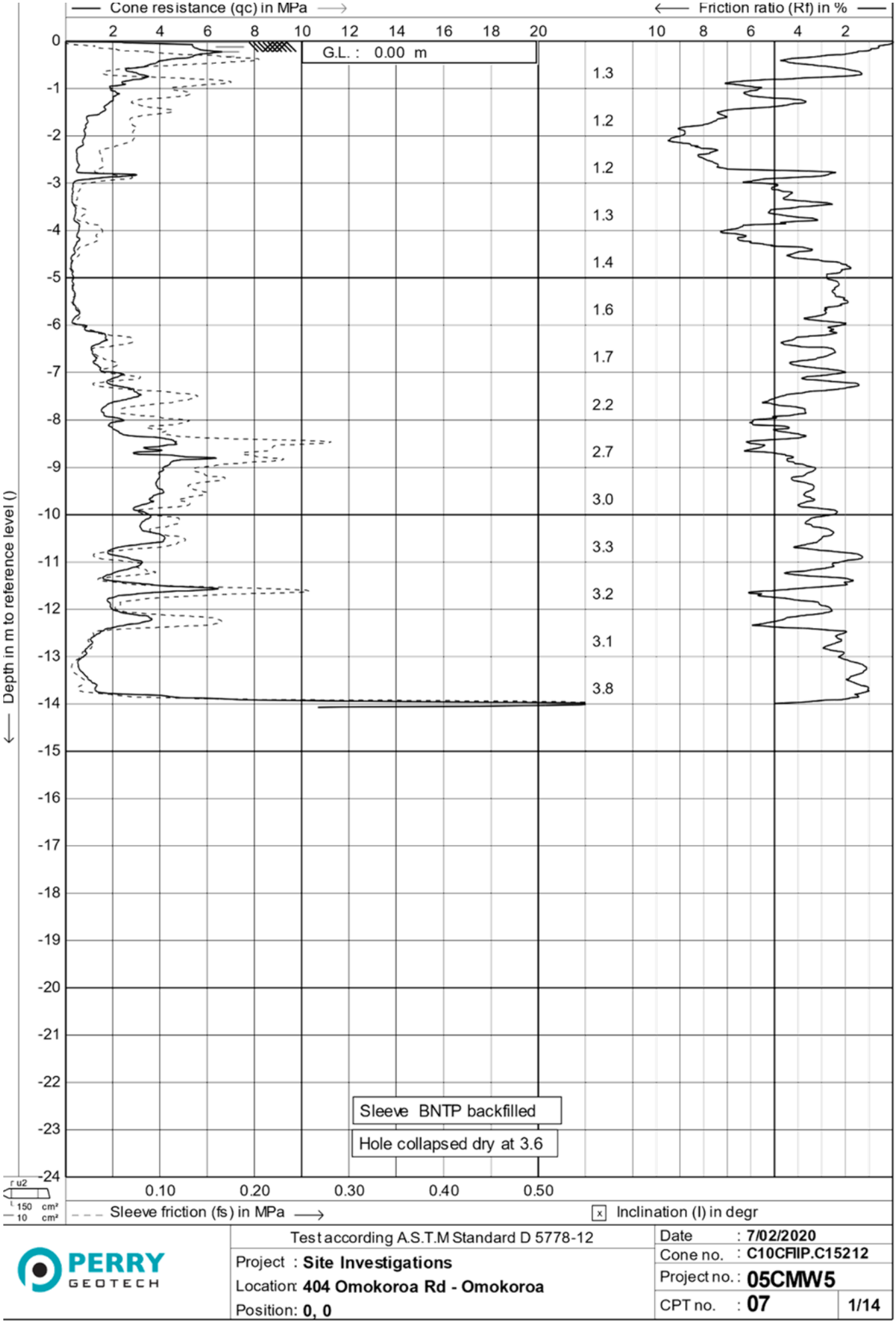

Dynamic pore pressure (u2) in MPa
-0.1 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3
G.L. : 0.00 m
0.6
0.5
1.4
1.7
1.9
1.9
1.9
1.8
1.8
2.1
2.1
2.2
2.2
2.1
2.5
2.3
2.5
2.4
2.7
2.7
Depth in m to reference level ()
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13 -14 -15 -16 -17 -18 -19 -20 -21 -22 -23 -24
Target depth BNTP backfilled
GWL dipped onsite
r u2
150 cm²
10 cm²
0.00 0.20 0.40 0.60 0.80 1.00 1.20
Equilibirum pore pressure (u0) in MPa
Inclination (I) in degr
Test according A.S.T.M Standard D 5778-12
PERRY GEOTECH
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 05
2/14

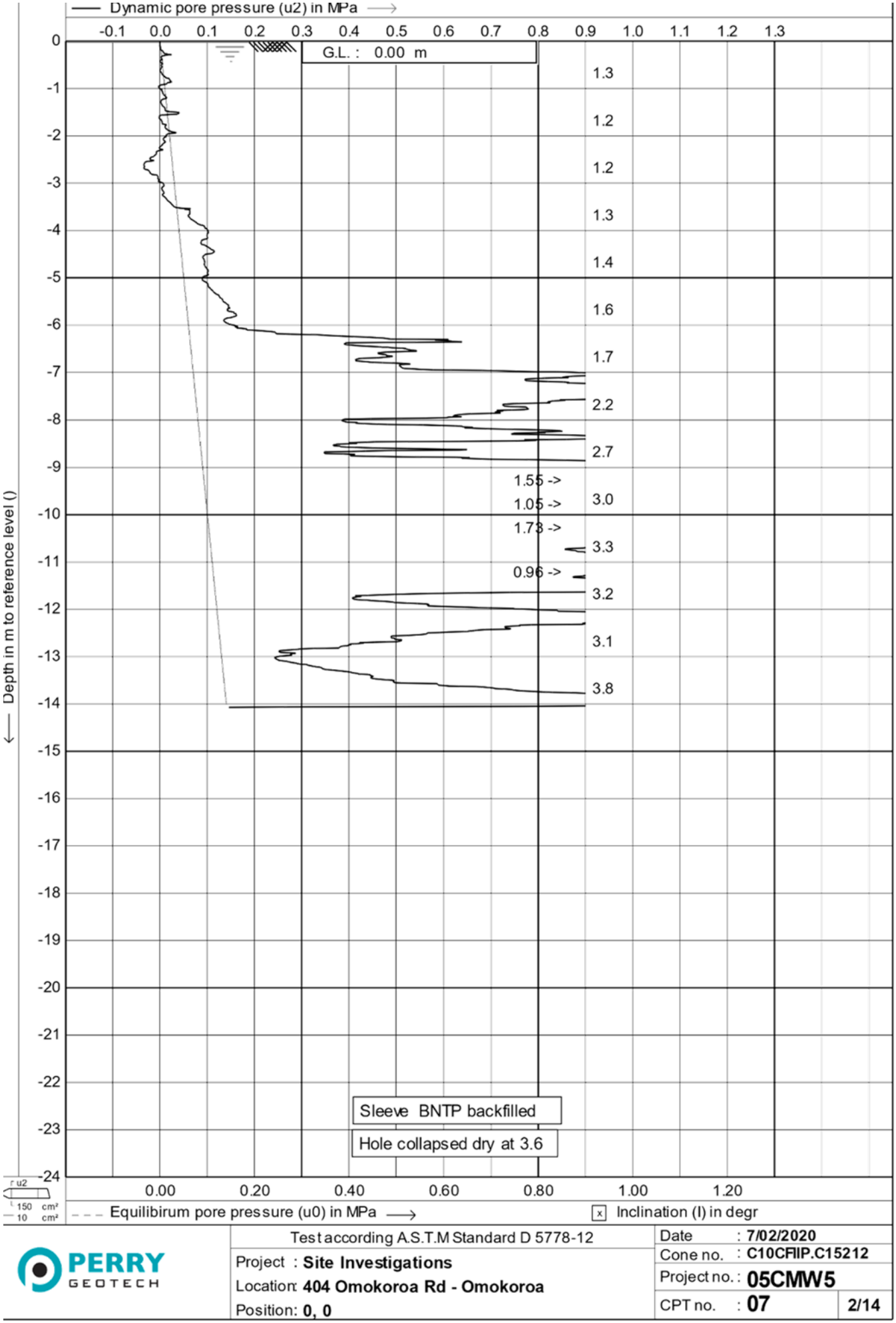

Soil behaviour type index (Ic)
0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5
G.L. : 0.00 m
Depth in m to reference level ()
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13 -14 -15 -16 -17 -18 -19 -20 -21 -22 -23 -24
(2) Organic soils
(3) Clay
(4) Silt mixtures
(5) Sand mixtures
(6) Sand clean to silty
(7) Gravelly sand
7 6 5 4 3 2
u2
150 cm²
10 cm²
PERRY GEOTECH
Test according A.S.T.M Standard D 5778-12
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 05
9/14

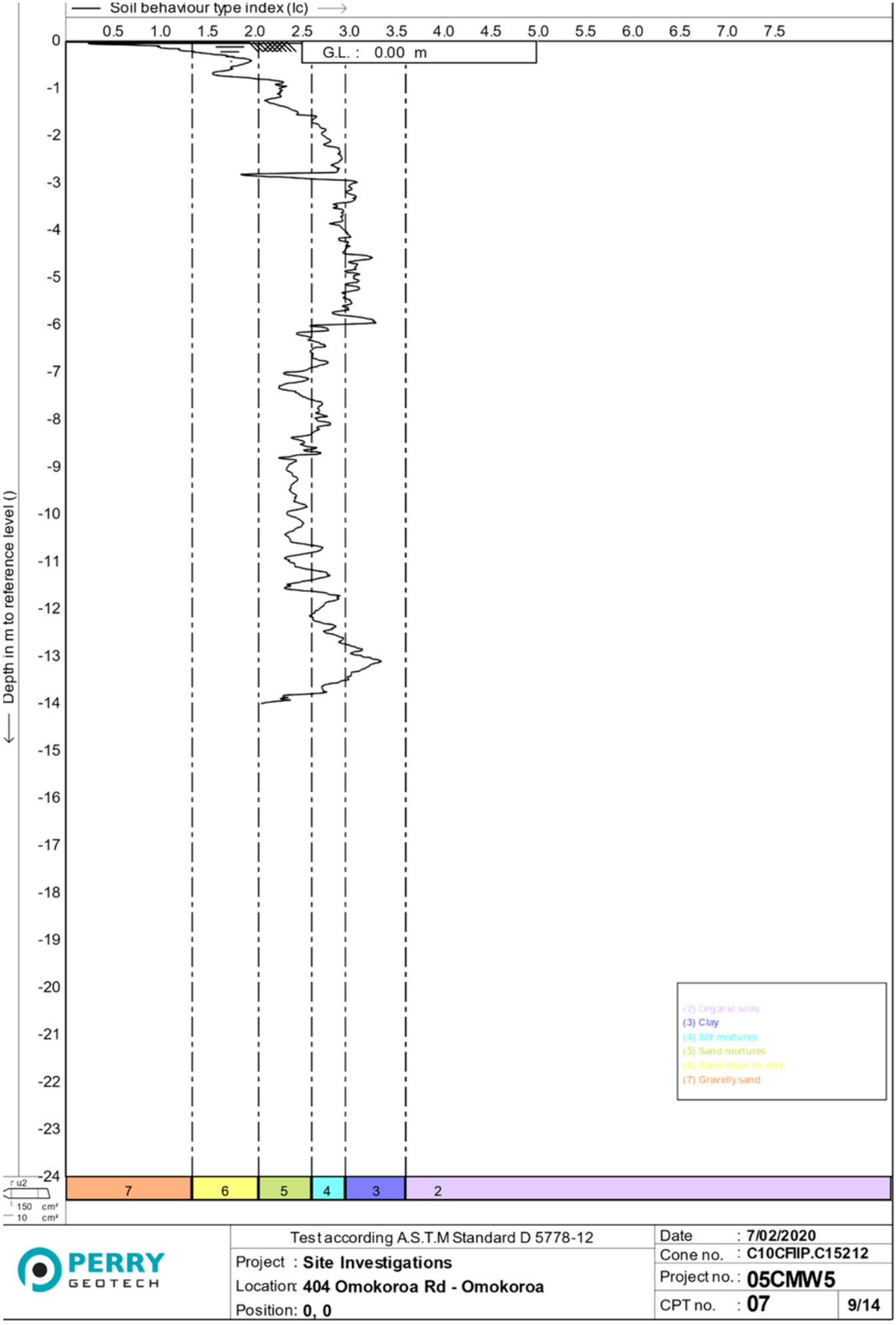

Cone resistance (qc) in MPa
Friction ratio (Rf) in %
G.L. : 0.00 m
Depth in m to reference level ()
Target depth BNTP backfilled
Hole collapsed dry at 4.7
Sleeve friction (fs) in MPa
Inclination (I) in degr
Test according A.S.T.M Standard D 5778-12
PERRY GEOTECH
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 06
1/14

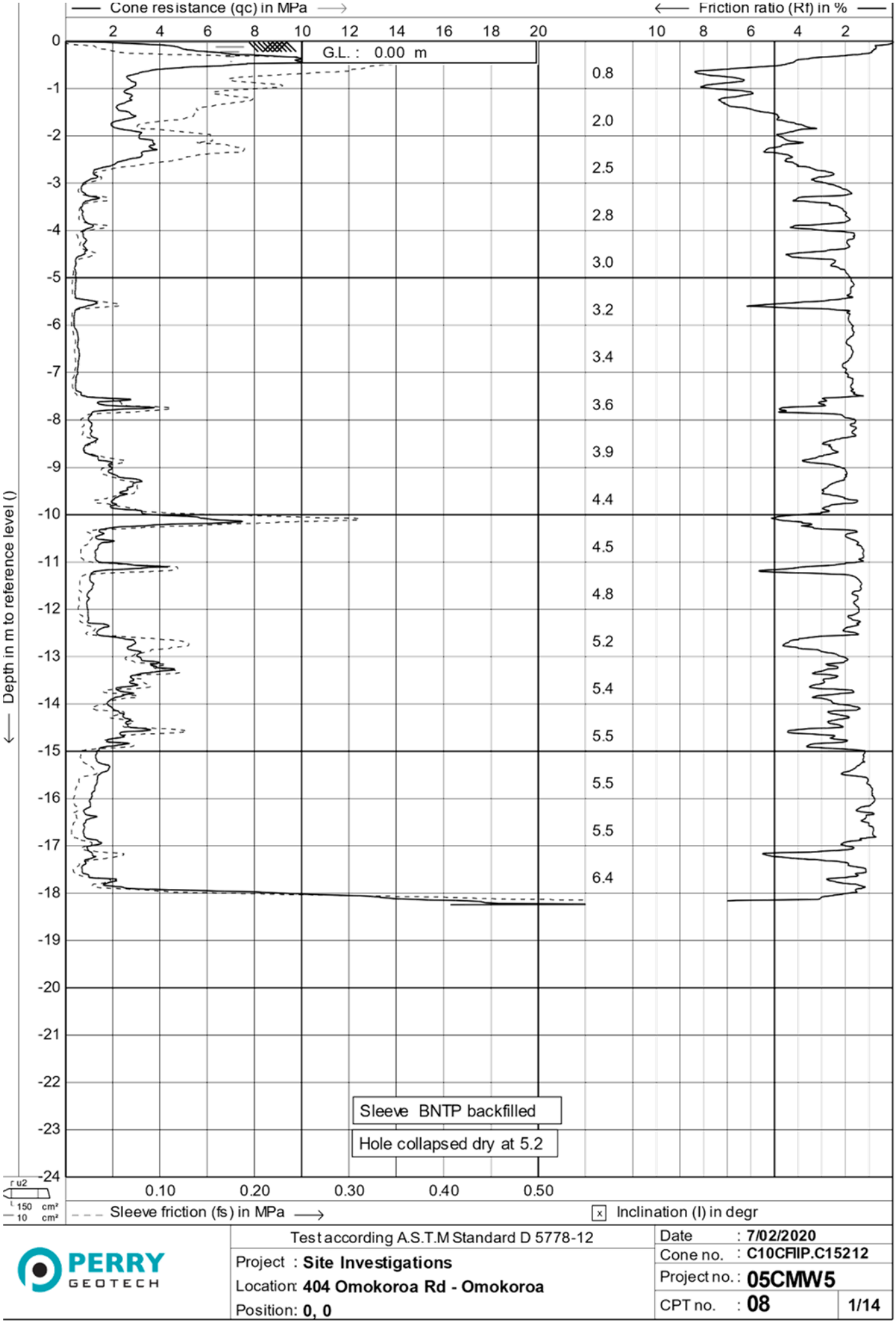

Dynamic pore pressure (u2) in MPa
-0.1 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3
G.L. : 0.00 m
0.6
0.5
0.7
0.7
1.1
1.3
1.4
1.5
1.7
1.5
1.6
1.7
1.9
2.1
2.3
2.7
1.53 ->
3.2
1.97 ->
3.7
3.8
4.0
Target depth BNTP backfilled
Hole collapsed dry at 4.7
Depth in m to reference level ()
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13 -14 -15 -16 -17 -18 -19 -20 -21 -22 -23 -24
u2
150 cm²
10 cm²
0.00 0.20 0.40 0.60 0.80 1.00 1.20
Equilibirum pore pressure (u0) in MPa
Inclination (I) in degr
Test according A.S.T.M Standard D 5778-12
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 06
2/14

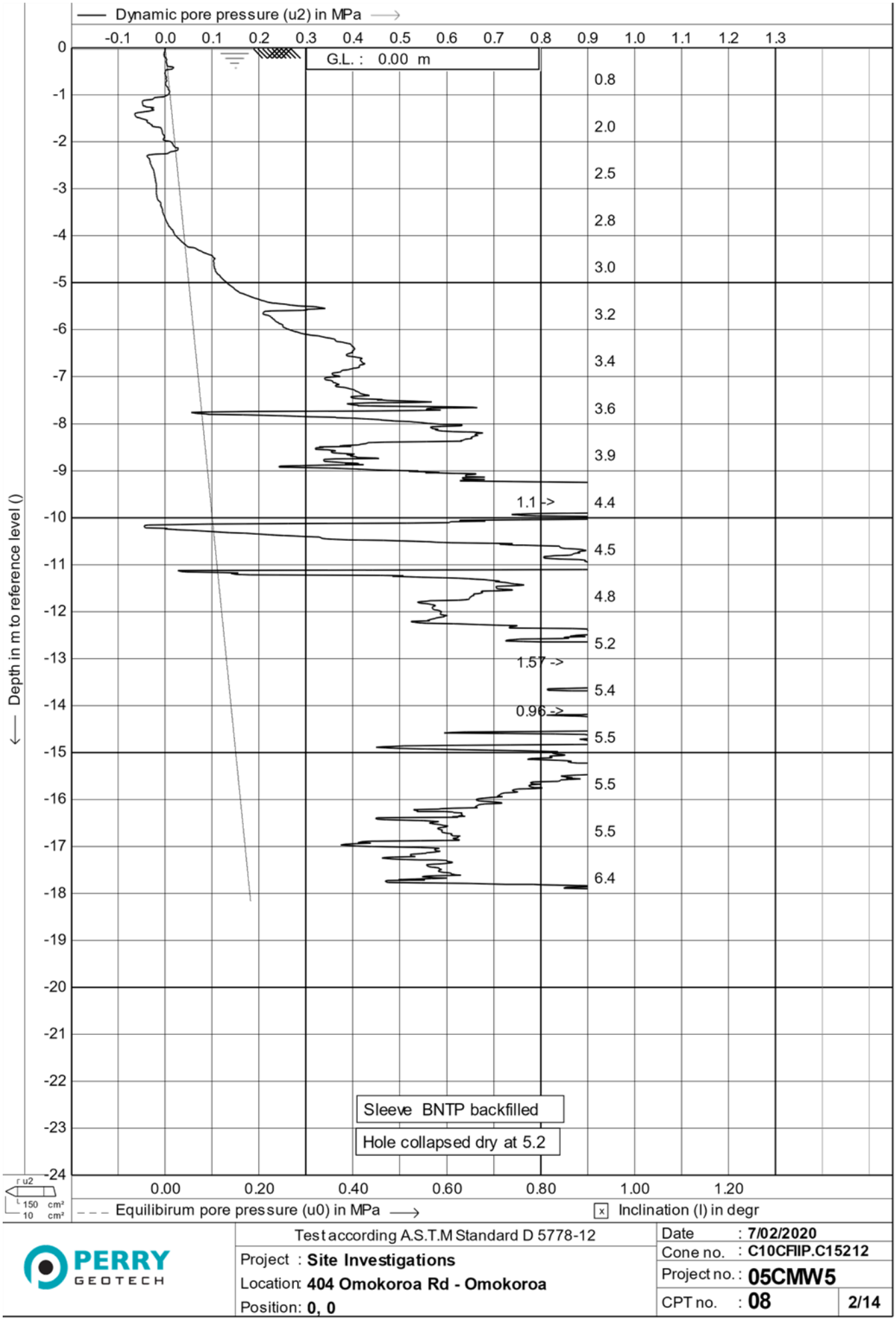

Soil behaviour type index (Ic)
0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5
G.L. : 0.00 m
Depth in m to reference level ()
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13 -14 -15 -16 -17 -18 -19 -20 -21 -22 -23 -24
(2) Organic soils
(3) Clay
(4) Silt mixtures
(5) Sand mixtures
(6) Sand clean to silty
(7) Gravelly sand
7 6 5 4 3 2
r u2
150 cm²
10 cm²
PERRY GEOTECH
Test according A.S.T.M Standard D 5778-12
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 06
9/14

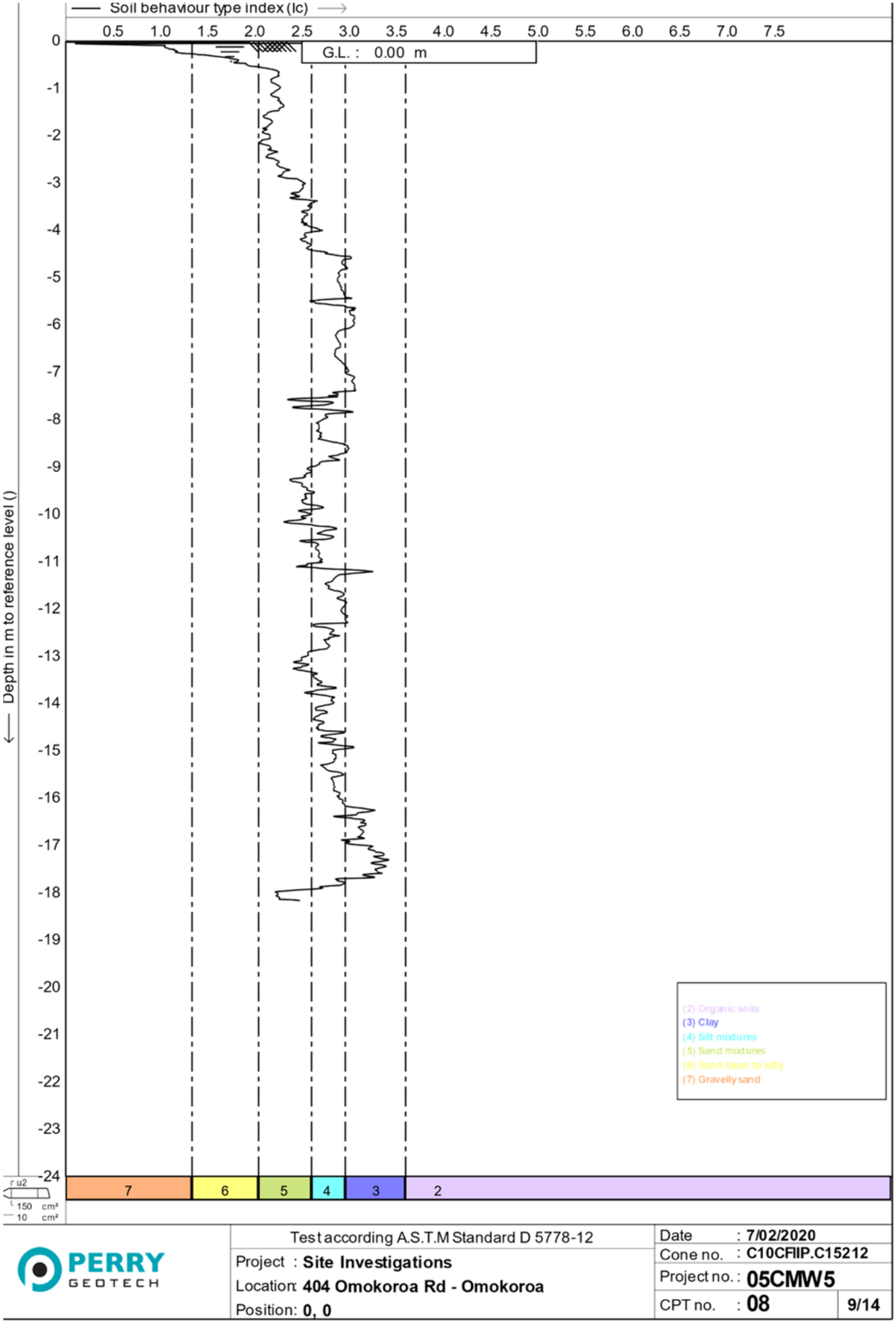

Cone resistance (qc) in MPa
Friction ratio (Rf) in %
G.L. : 0.00 m
Depth in m to reference level ()
Sleeve BNTP backfilled
Hole collapsed dry at 3.6
Sleeve friction (fs) in MPa
Inclination (I) in degr
Test according A.S.T.M Standard D 5778-12
PERRY GEOTECH
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 07
1/14

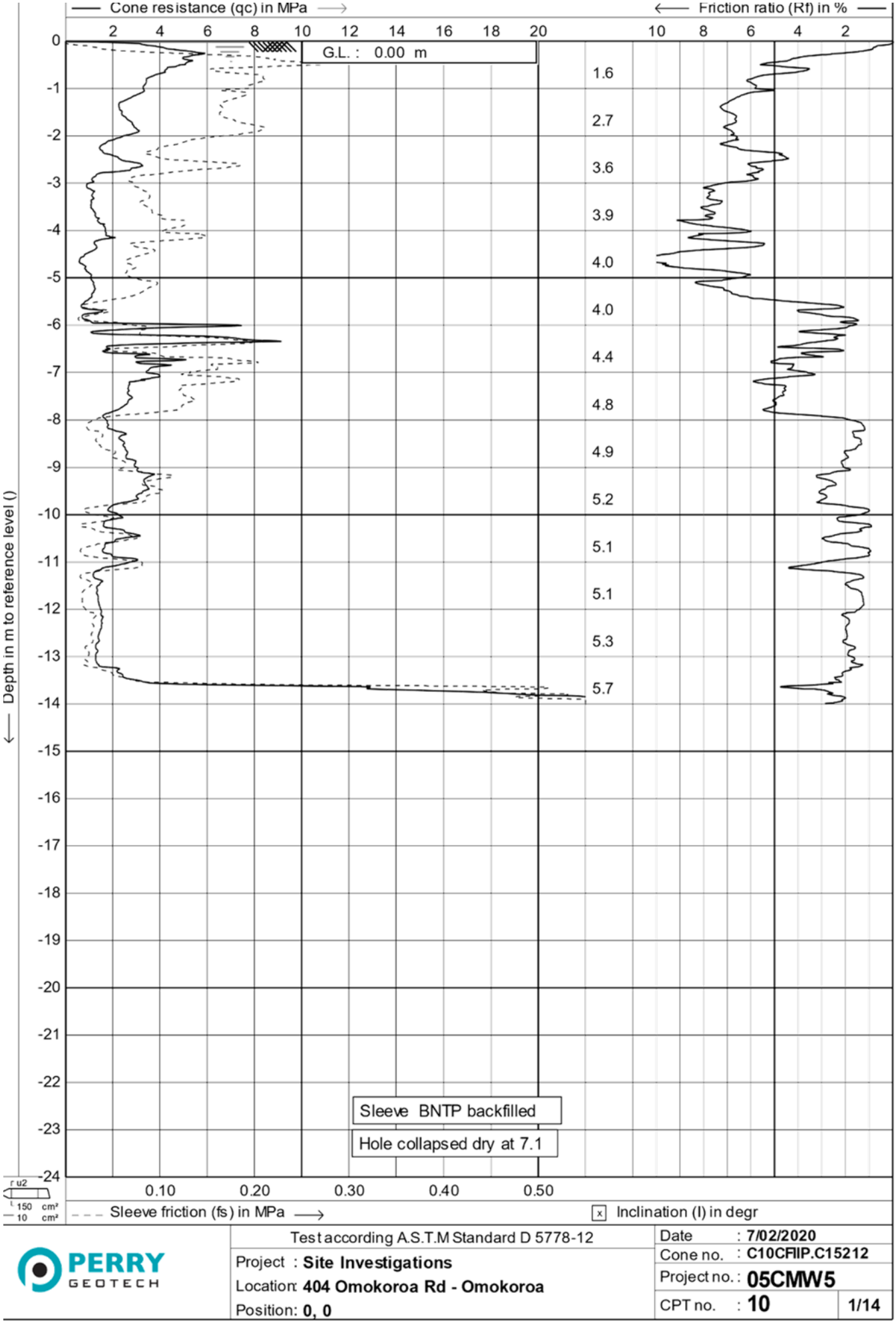

Dynamic pore pressure (u2) in MPa
-0.1 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3
G.L. : 0.00 m
1.3
1.2
1.2
1.3
1.4
1.6
1.7
2.2
2.7
1.55 ->
1.05 ->
3.0
1.73 ->
3.3
0.96 ->
3.2
3.1
3.8
Depth in m to reference level ()
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13 -14 -15 -16 -17 -18 -19 -20 -21 -22 -23 -24
Sleeve BNTP backfilled
Hole collapsed dry at 3.6
r u2
150 cm²
10 cm²
0.00 0.20 0.40 0.60 0.80 1.00 1.20
Equilibirum pore pressure (u0) in MPa
Inclination (I) in degr
PERRY GEOTECH
Test according A.S.T.M Standard D 5778-12
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 07
2/14

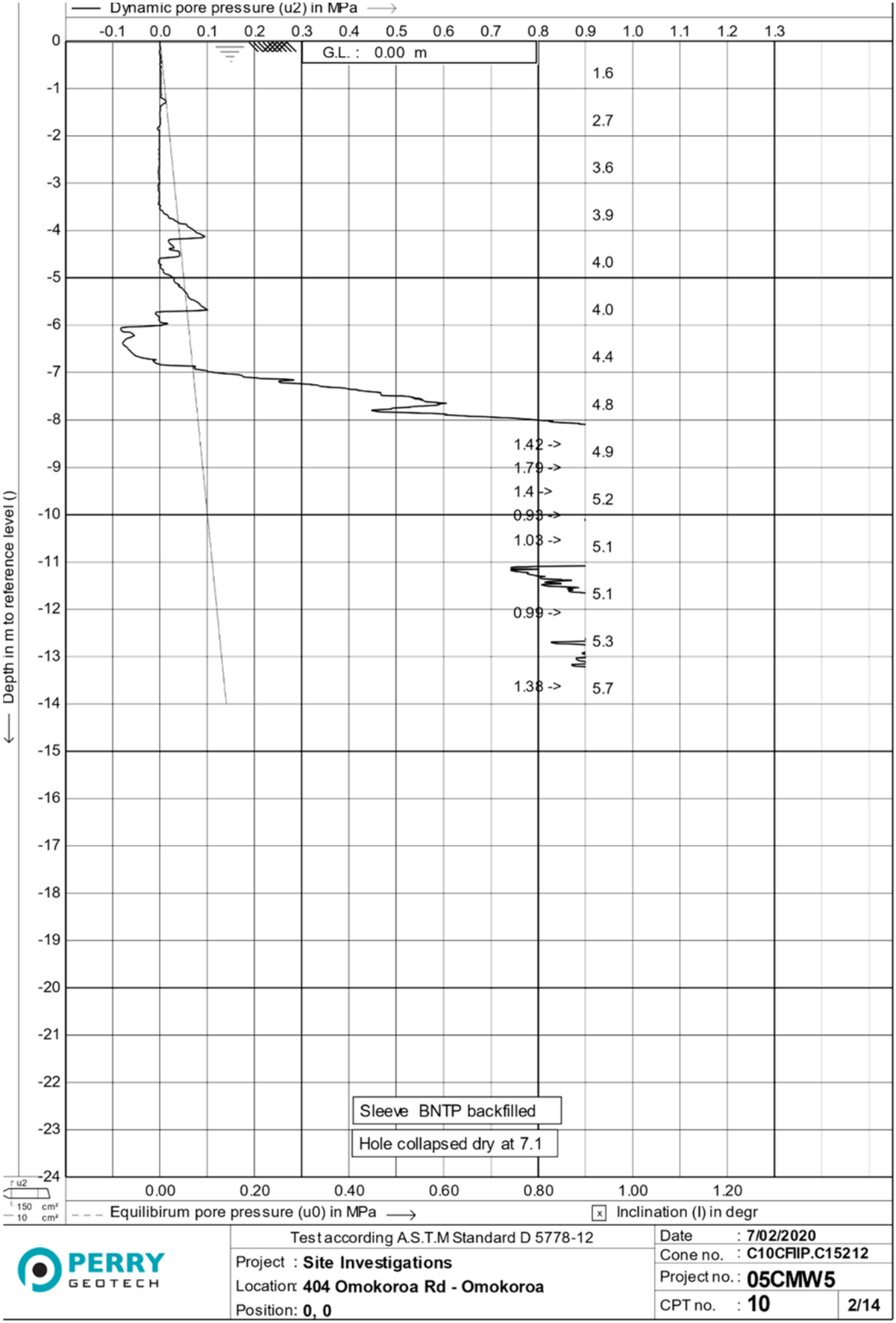

Soil behaviour type index (Ic)
0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5
G.L. : 0.00 m
Depth in m to reference level ()
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13 -14 -15 -16 -17 -18 -19 -20 -21 -22 -23 -24
(2) Organic soils
(3) Clay
(4) Silt mixtures
(5) Sand mixtures
(6) Sand clean to silty
(7) Gravelly sand
7 6 5 4 3 2
r u2
150 cm²
10 cm²
PERRY GEOTECH
Test according A.S.T.M Standard D 5778-12
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 07
9/14

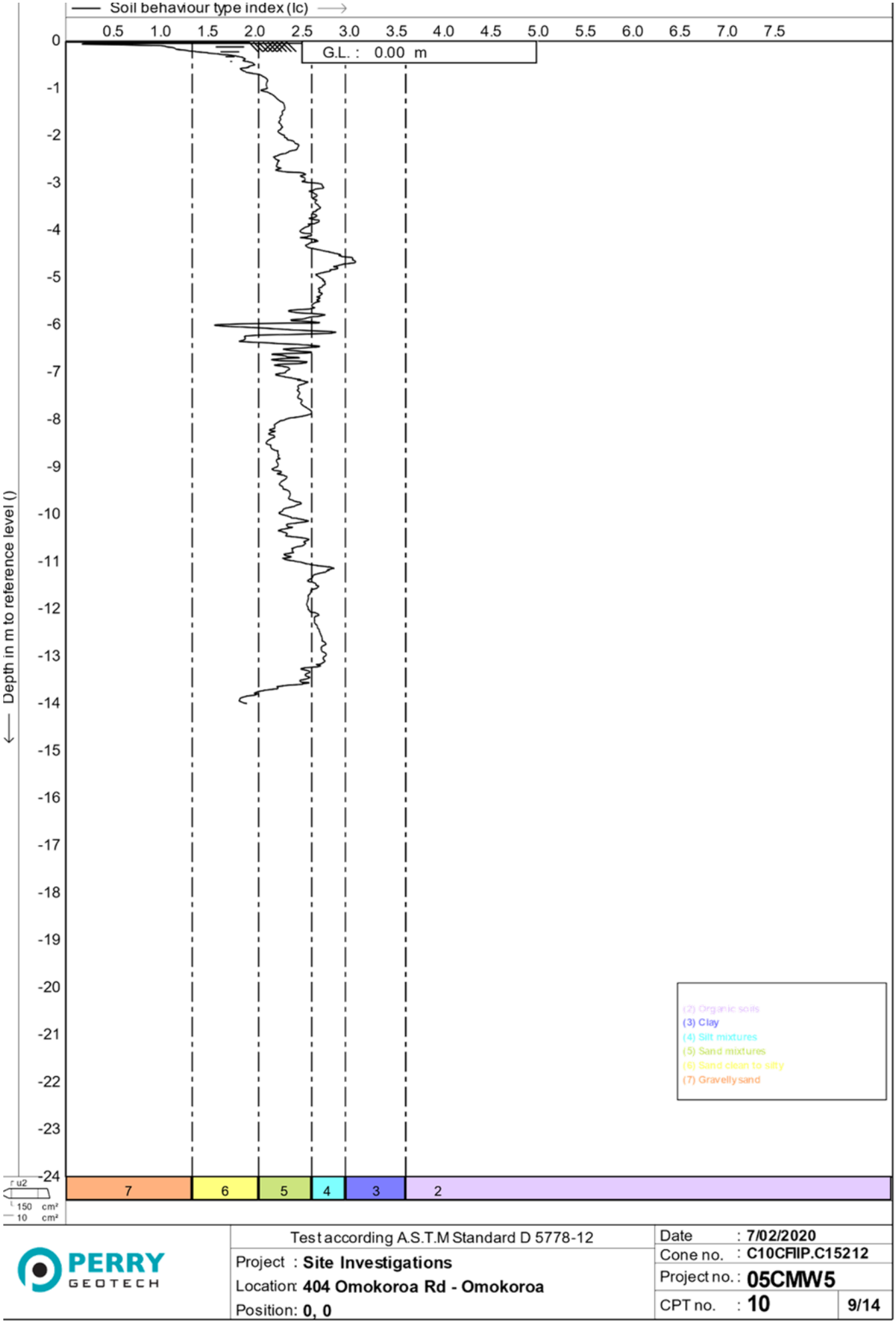

Cone resistance (qc) in MPa
Friction ratio (Rf) in %
G.L. : 0.00 m
Depth in m to reference level ()
Sleeve BNTP backfilled
Hole collapsed dry at 5.2
Sleeve friction (fs) in MPa
Inclination (I) in degr
PERRY GEOTECH
Test according A.S.T.M Standard D 5778-12
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 08
1/14


Dynamic pore pressure (u2) in MPa
-0.1 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3
G.L. : 0.00 m
0.8
2.0
2.5
2.8
3.0
3.2
3.4
3.6
3.9
1.1 ->
4.4
4.5
4.8
5.2
1.57 ->
5.4
0.96 ->
5.5
5.5
5.5
6.4
Depth in m to reference level ()
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13 -14 -15 -16 -17 -18 -19 -20 -21 -22 -23 -24
Sleeve BNTP backfilled
Hole collapsed dry at 5.2
r u2
150 cm²
10 cm²
0.00 0.20 0.40 0.60 0.80 1.00 1.20
Equilibirum pore pressure (u0) in MPa
Inclination (I) in degr
PERRY GEOTECH
Test according A.S.T.M Standard D 5778-12
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 08
2/14


Soil behaviour type index (Ic)
0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5
G.L. : 0.00 m
Depth in m to reference level ()
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13 -14 -15 -16 -17 -18 -19 -20 -21 -22 -23 -24
(2) Organic soils
(3) Clay
(4) Silt mixtures
(5) Sand mixtures
(6) Sand clean to silty
(7) Gravelly sand
7 6 5 4 3 2
r u2
150 cm²
10 cm²
PERRY GEOTECH
Test according A.S.T.M Standard D 5778-12
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 08
9/14


Cone resistance (qc) in MPa
Friction ratio (Rf) in %
G.L. : 0.00 m
Depth in m to reference level ()
Sleeve BNTP backfilled
Hole collapsed dry at 7.1
Sleeve friction (fs) in MPa
Inclination (I) in degr
Test according A.S.T.M Standard D 5778-12
PERRY GEOTECH
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 10
1/14


Dynamic pore pressure (u2) in MPa
-0.1 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3
G.L. : 0.00 m
1.6
2.7
3.6
3.9
4.0
4.0
4.4
4.8
1.42 ->
4.9
1.79 ->
1.4 ->
5.2
0.93 ->
1.03 ->
5.1
5.1
0.99 ->
5.3
1.38 ->
5.7
Depth in m to reference level ()
Sleeve BNTP backfilled
Hole collapsed dry at 7.1
0.00 0.20 0.40 0.60 0.80 1.00 1.20
Equilibirum pore pressure (u0) in MPa
Inclination (I) in degr
Test according A.S.T.M Standard D 5778-12
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 10
2/14


Soil behaviour type index (Ic)
0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5
G.L. : 0.00 m
Depth in m to reference level ()
0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13 -14 -15 -16 -17 -18 -19 -20 -21 -22 -23 -24
(2) Organic soils
(3) Clay
(4) Silt mixtures
(5) Sand mixtures
(6) Sand clean to silty
(7) Gravelly sand
7 6 5 4 3 2
u2
150 cm²
10 cm²
PERRY GEOTECH
Test according A.S.T.M Standard D 5778-12
Project : Site Investigations
Location: 404 Omokoroa Rd - Omokoroa
Position: 0, 0
Date : 7/02/2020
Cone no. : C10CFIIP.C15212
Project no. : 05CMW5
CPT no. : 10
9/14

Appendix C: Hand Auger Borehole Logs

HAND AUGER BOREHOLE LOG - HA01

Client: Kiwi Green NZ Limited
Project: 404 Omokoroa Road
Site Location: Omokoroa
Project No.: TGA2020-0011
Date: 07/02/2020
Borehole Location: Refer to Drawing 01 Logged by: MS Checked by: DCH Scale: 1:25 Sheet 1 of 1
Position: 361039.5mE; 811514.0mN Projection: BOP 2000
Elevation: 29.00m Datum: Moturiki Survey Source: Hand Held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)
			29.0			OL: Organic SILT: black. Non plastic. (Topsoil)			
			28.8			ML: Clayey SILT with minor sand: orange brown. Low plasticity; sand, fine to medium, pumiceous. (Younger Ash)			
	0.3	Peak = UTP							
	0.6	Peak = UTP				... at 0.60m, Becoming brown.			
	0.9	Peak = UTP							
				1				VSt to H	
	1.2	Peak = >181kPa					D		
	1.6	Peak = >181kPa							
			27.2			SW: Fine to coarse SAND: light yellowish brown. Well graded, Pumiceous. (Younger Ash)			
				2					
			26.7			SM: Silty Fine SAND: yellowish brown. Poorly graded. (Younger Ash)		LP	
			26.5			SP: Fine to medium SAND: grey. Poorly graded. (Rotoehu Ash)			
						... at 2.60m, Becoming yellowish brown.			
			26.3			ML: Clayey SILT: dark brown mottled black. Low plasticity, insensitive. (Hamilton Ash)			
	2.8	Peak = 129kPa Residual = 75kPa							
				3		... at 2.90m, Becoming orange brown, high plasticity.			
	3.2	Peak = 155kPa Residual = 93kPa							
						... at 3.40m, Contains trace fine to medium pumiceous sand.			
	3.6	Peak = 171kPa Residual = 80kPa					M to W	VSt	
	4.0	Peak = 142kPa Residual = 65kPa		4					
	4.4	Peak = 155kPa Residual = 65kPa							
	4.8	Peak = 168kPa Residual = 67kPa							
				5		Borehole terminated at 5.0 m			

Termination Reason: Target Depth
Shear Vane No: 2562 DCP No:
Remarks: Groundwater not encountered.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 3 - April 2018

HAND AUGER BOREHOLE LOG - HA02

Client: Kiwi Green NZ Limited
Project: 404 Omokoroa Road
Site Location: Omokoroa
Project No.: TGA2020-0011
Date: 07/02/2020
Borehole Location: Refer to Drawing 01 Logged by: MS Checked by: DCH Scale: 1:25 Sheet 1 of 1
Position: 361011.1mE; 811613.2mN Projection: BOP 2000
Elevation: 28.00m Datum: Moturiki Survey Source: Hand Held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description (Soil: Soil symbol; soil type; colour; structure; bedding; plasticity; sensitivity; additional comments. (origin/geological unit) Rock: Colour; fabric; rock name; additional comments. (origin/geological unit))	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)
			28.0			OL: Organic SILT: black. Non plastic. (Topsoil)			
	0.3	Peak = >181kPa	27.7			ML: Clayey SILT with minor sand: orange brown. Low plasticity; sand, fine to medium, pumiceous. (Fill)			
	0.6	Peak = UTP						VSt to H	
	0.9	Peak = UTP		1					
	1.2	Peak = 132kPa Residual = 28kPa	26.8			OL: Organic SILT: black. Non plastic. (Topsoil)	D		
			26.6			ML: Clayey SILT with minor sand: dark brown. Low plasticity, moderately sensitive; sand, fine to medium, pumiceous. (HA)			
	1.6	Peak = 116kPa Residual = 39kPa							
	2.0	Peak = UTP		2					
	2.4	Peak = 155kPa Residual = 60kPa				... at 2.30m, Becoming orange brown, high plasticity.		VSt to H	
	2.8	Peak = 135kPa Residual = 47kPa					M		
				3					
	3.2	Peak = 145kPa Residual = 52kPa				... at 3.20m, Becoming light brown.			
	3.6	Peak = 171kPa Residual = 65kPa	24.4			ML: Clayey SILT: orange brown mottled white. Low plasticity, moderately sensitive. (Matua Subgroup)			
	4.0	Peak = 116kPa Residual = 54kPa		4					
	4.4	Peak = 127kPa Residual = 62kPa					M to W	VSt	
	4.8	Peak = 104kPa Residual = 57kPa							
				5		Borehole terminated at 5.0 m			

Termination Reason: Target Depth
Shear Vane No: 2562 DCP No:
Remarks: Groundwater not encountered.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 3 - April 2018

HAND AUGER BOREHOLE LOG - HA03

Client: Kiwi Green NZ Limited
Project: 404 Omokoroa Road
Site Location: Omokoroa
Project No.: TGA2020-0011
Date: 07/02/2020
Borehole Location: Refer to Drawing 01 Logged by: MS Checked by: DCH Scale: 1:25 Sheet 1 of 1
Position: 360893.9mE; 811537.2mN Projection: BOP 2000
Elevation: 18.00m Datum: Moturiki Survey Source: Hand Held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)
			18.0			ML: Clayey SILT: orange brown mottled brown. Low plasticity. (Fill)			
	0.3	Peak = UTP	17.7			SW: Fine to coarse SAND with minor silt: orange brown mottled white. Well graded. (Fill)		MD	
	0.9	Peak = UTP	17.1	1		ML: Clayey SILT with minor sand: dark brown mottled black. Low plasticity; sand, fine to medium. (Fill)			
	1.2	Peak = 173kPa Residual = 26kPa	16.8			ML: Clayey SILT with minor sand: brown. Low plasticity, sensitive; sand, fine to medium, pumiceous. (Fill)	D		
	1.6	Peak = 155kPa Residual = 28kPa						VSt	
	2.0	Peak = 168kPa Residual = 28kPa		2					
	2.4	Peak = 129kPa Residual = 26kPa							
			15.5			OL: Organic SILT: black. Non plastic, fresh roots. (Topsoil)			
			15.4			ML: Clayey SILT with minor sand: orange brown streaked white. Low plasticity, moderately sensitive; sand, fine to coarse, pumiceous. (Matua Subgroup)			
	2.8	Peak = UTP		3					
	3.2	Peak = 145kPa Residual = 54kPa							
	3.6	Peak = >181kPa					M	VSt to H	
						... at 3.90m, Becoming light yellowish brown mottled white.			
	4.0	Peak = >181kPa		4					
	4.4	Peak = >181kPa							
	4.8	Peak = >181kPa							
				5		Borehole terminated at 5.0 m			

Termination Reason: Target Depth
Shear Vane No: 2562 DCP No: 8
Remarks: Groundwater not encountered.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 3 - April 2018

HAND AUGER BOREHOLE LOG - HA04

Client: Kiwi Green NZ Limited
Project: 404 Omokoroa Road
Site Location: Omokoroa
Project No.: TGA2020-0011
Date: 07/02/2020
Borehole Location: Refer to Drawing 01 Logged by: MS Checked by: DCH Scale: 1:25 Sheet 1 of 1
Position: 360767.3mE; 811628.8mN Projection: BOP 2000
Elevation: 14.00m Datum: Moturiki Survey Source: Hand Held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)
			14.0			OL: Organic SILT: black. Non plastic. (Topsoil)			
	0.3	Peak = UTP	13.7			ML: Clayey SILT with minor sand: orange brown. Low plasticity, sensitive; sand, fine to medium, pumiceous. (Younger Ash)			
	0.6	Peak = UTP				... *at 0.60m, Becoming greyish brown.*	D		
	0.9	Peak = 135kPa Residual = 26kPa		1					
			12.9			ML: Clayey SILT with trace sand: grey mottled white. Low plasticity; sand, fine. (Matua Subgroup)			
	1.2	Peak = >181kPa				... *at 1.40m, Contains orange mottling.*			
	1.6	Peak = >181kPa							
	2.0	Peak = >181kPa		2			M	VSt to H	
	2.4	Peak = >181kPa							
			11.5			SM: Sandy SILT: grey mottled white. Low plasticity; sand, fine to coarse, quartz. (Matua Subgroup)			
	2.8	Peak = >181kPa							
				3					
	3.2	Peak = >181kPa					M to W		
	3.6	Peak = >181kPa							
	4.0	Peak = >181kPa		4		Borehole terminated at 4.0 m	W	L to MD	
				5					

Termination Reason: Refusal, hole collapse
Shear Vane No: 2562 DCP No: 8
Remarks: Groundwater not encountered.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 3 - April 2018

HAND AUGER BOREHOLE LOG - HA05

Client: Kiwi Green NZ Limited
Project: 404 Omokoroa Road
Site Location: Omokoroa
Project No.: TGA2020-0011
Date: 12/02/2020
Borehole Location: Refer to Drawing 01 Logged by: MS Checked by: DCH Scale: 1:25 Sheet 1 of 1
Position: 360789.3mE; 811458.4mN Projection: BOP 2000
Elevation: 20.00m Datum: Moturiki Survey Source: Hand Held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)
			20.0			OL: Organic SILT: black. Non plastic. (Topsoil)			
			19.8			ML: Clayey SILT with minor sand: light brown. Low plasticity; sand, fine to medium, pumiceous. (Younger Ash)			
	0.3	Peak = >198kPa							
	0.6	Peak = UTP						VSt to H	
	0.9	Peak = >198kPa		1			D		
			18.9			SP: Fine to medium SAND: light yellowish brown. Poorly graded, pumiceous. (Younger Ash)		L to MD	
			18.0						
	2.0	Peak = >198kPa		2		ML: Clayey SILT: dark brown. High plasticity. (Hamilton Ash)			
						... at 2.20m, Becoming orange brown.			
	2.4	Peak = UTP							
	2.8	Peak = UTP							
			17.1			ML: Clayey SILT: orange brown mottled white. High plasticity, moderately sensitive. (Matua Subgroup)			
				3					
	3.2	Peak = >198kPa					M	VSt to H	
	3.6	Peak = 184kPa Residual = 71kPa				... at 3.70m, Becoming grey mottled red and brown.			
	4.0	Peak = >198kPa		4		... at 4.00m, Becoming light grey mottled orange.			
	4.4	Peak = >198kPa							
				5		Borehole terminated at 5.0 m			

Termination Reason: Target Depth
Shear Vane No: 2323 DCP No: 8
Remarks: Groundwater not encountered.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 3 - April 2018

HAND AUGER BOREHOLE LOG - HA06

Client: Kiwi Green NZ Limited
Project: 404 Omokoroa Road
Site Location: Omokoroa
Project No.: TGA2020-0011
Date: 12/02/2020
Borehole Location: Refer to Drawing 01 Logged by: MS Checked by: DCH Scale: 1:25 Sheet 1 of 1
Position: 360908.1mE; 811429.5mN Projection: BOP 2000
Elevation: 28.00m Datum: Moturiki Survey Source: Hand Held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)
			28.0			OL: Organic SILT: black. Non plastic. (Topsoil)			
	0.3	Peak = 159kPa Residual = 26kPa	27.7			ML: Clayey SILT with minor sand: light brown. Low plasticity, sensitive; sand, fine to medium, pumiceous. (Younger Ash)	D		
	0.6	Peak = UTP							
	0.9	Peak = UTP		1				VSt to H	
	1.6	Peak = >198kPa							
	2.0	Peak = 113kPa Residual = 48kPa		2					
			25.9			SP: Fine to medium SAND: light yellowish brown. Poorly graded, Pumiecious. (Younger Ash)		MD to D	
						... at 2.70m, Becoming dark brown.	M	L	
			25.1	3		ML: Clayey SILT: orange brown. High plasticity. (Hamilton Ash)			
	3.2	Peak = >198kPa							
	3.6	Peak = UTP							
			24.2			ML: Clayey SILT: orange brown mottled white. High plasticity, moderately sensitive. (Matua Subgroup)		VSt to H	
	4.0	Peak = >198kPa		4		... from 3.90m to 4.30m, Becoming orange brown.			
	4.4	Peak = 139kPa Residual = 68kPa							
	4.8	Peak = 145kPa Residual = 48kPa							
				5		Borehole terminated at 5.0 m			

Termination Reason: Target Depth
Shear Vane No: 2323 DCP No: 8
Remarks: Groundwater not encountered.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 3 - April 2018

HAND AUGER BOREHOLE LOG - HA07

Client: Kiwi Green NZ Limited
Project: 404 Omokoroa Road
Site Location: Omokoroa
Project No.: TGA2020-0011
Date: 12/02/2020
Borehole Location: Refer to Drawing 01 Logged by: MS Checked by: DCH Scale: 1:25 Sheet 1 of 1
Position: 361006.9mE; 811444.7mN Projection: BOP 2000
Elevation: 23.00m Datum: Moturiki Survey Source: Hand Held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density
			23.0			OL: Organic SILT: black. Non plastic. (Topsoil)		
			22.7			OL: Organic SILT with some sand: black mottled orange. Non plastic; sand, fine to coarse. (Fill)	D	
	0.9	Peak = >222kPa	22.1	1		ML: Clayey SILT with minor sand: orange brown mottled white. Low plasticity; sand, fine to coarse. (Fill)		
	1.2	Peak = UTP						
	1.6	Peak = 178kPa Residual = 63kPa					M	VSt to H
	2.0	Peak = 76kPa Residual = 29kPa		2				
	2.4	Peak = 124kPa Residual = 48kPa						
			20.4			ML: Clayey SILT: orange brown. High plasticity. (Hamilton Ash)		St
	2.8	Peak = 70kPa Residual = 32kPa		3				
			19.9			ML: Clayey SILT: orange brown mottled grey. Low plasticity. (Matua Subgroup)	W	
	3.2	Peak = 121kPa Residual = 41kPa	19.6			ML: Clayey SILT with minor organic silt and trace sand: dark grey streaked blue. Low plasticity; sand, fine to medium. (Matua Subgroup)		VSt
▼	3.6	Peak = 111kPa Residual = 32kPa				... from 3.70m to 4.00m, No recovery.	S	
	4.0	Peak = 194kPa Residual = 48kPa		4		Borehole terminated at 4.0 m		
				5				

Termination Reason: Equipment refusal
Shear Vane No: 1912 DCP No: 8
Remarks: Groundwater not encountered.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 3 - April 2018

HAND AUGER BOREHOLE LOG - HA08

Client: Kiwi Green NZ Limited
Project: 404 Omokoroa Road
Site Location: Omokoroa
Project No.: TGA2020-0011
Date: 12/02/2020
Borehole Location: Refer to Drawing 01 Logged by: MS Checked by: DCH Scale: 1:25 Sheet 1 of 1
Position: 361087.0mE; 811385.5mN Projection: BOP 2000
Elevation: 28.00m Datum: Moturiki Survey Source: Hand Held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)
			28.0			OL: Organic SILT: black. Non plastic. (Topsoil)			
	0.3	Peak = UTP	27.7			ML: Clayey SILT with some sand: brown streaked orange. Low plasticity; sand, fine to medium. (Fill)	D	H	
	0.6	Peak = 162kPa Residual = 41kPa	27.4			ML: Clayey SILT: dark brown mottled black. Low plasticity, moderately sensitive. (Hamilton Ash)			
	0.9	Peak = 184kPa Residual = 63kPa		1		... at 0.80m, Becoming orange brown.			
	1.2	Peak = 143kPa Residual = 70kPa				... at 1.40m, Contains red streaks - potentially matuas		VSt	
	1.6	Peak = UTP	26.4			MH: Clayey SILT: orange brown streaked red and black. High plasticity. (Matua Subgroup)	M		
	2.0	Peak = UTP		2		... at 1.90m, Becoming orange mottled light grey.		H	
	2.4	Peak = UTP							
	2.8	Peak = UTP	25.2			ML: Clayey SILT: light brownish grey mottled orange brown. Low plasticity, moderately sensitive. (Matua Subgroup)	M to W		
	3.2	Peak = 67kPa Residual = 22kPa		3			W	St	
	3.6	Peak = 73kPa Residual = 25kPa							
	4.0	Peak = 79kPa Residual = 32kPa		4		Borehole terminated at 4.0 m			
				5					

Termination Reason: Equipment refusal
Shear Vane No: 1912 DCP No:
Remarks: Groundwater not encounterd.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 3 - April 2018

HAND AUGER BOREHOLE LOG - HA09

Client: Kiwi Green NZ Limited
Project: 404 Omokoroa Road
Site Location: Omokoroa
Project No.: TGA2020-0011
Date: 12/02/2020
Borehole Location: Refer to Drawing 01 Logged by: MS Checked by: DCH Scale: 1:25 Sheet 1 of 1
Position: 360832.9mE; 811601.2mN Projection: BOP 2000
Elevation: 12.00m Datum: Moturiki Survey Source: Hand Held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)
			12.0			OL: Organic SILT: black. Non plastic. (Topsoil)			
	0.6	Peak = >198kPa	11.5			ML: Clayey SILT with minor sand: light brown. Low plasticity; sand, fine to medium, pumiceous. (Matua Subgroup)	D	VSt to H	
	0.9	Peak = 150kPa Residual = 68kPa	11.2	1		ML: Clayey SILT with trace sand: white streaked orange. Low plasticity, moderately sensitive; sand, fine. (Matua Subgroup)			
	1.2	Peak = 139kPa Residual = 60kPa				*... at 1.00m, Having a high plasticity.*			
	1.6	Peak = 145kPa Residual = 57kPa				*... from 1.60m to 2.00m, Becoming light brown yellow.*	M	VSt	
	2.0	Peak = 159kPa Residual = 40kPa		2					
	2.4	Peak = 147kPa Residual = 54kPa					W		
▼	2.8	Peak = 105kPa Residual = 51kPa				*... from 2.80m to 3.00m, No recovery.*	S		
				3		Borehole terminated at 3.0 m			
				4				L to MD	
				5					

Termination Reason: Refusal, hole collapse
Shear Vane No: 2323 DCP No: 09
Remarks: Groundwater not encountered.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 3 - April 2018

HAND AUGER BOREHOLE LOG - HA10

Client: Kiwi Green NZ Limited
Project: 404 Omokoroa Road
Site Location: Omokoroa
Project No.: TGA2020-0011
Date: 07/02/2020
Borehole Location: Refer to Drawing 01 Logged by: MS Checked by: DCH Scale: 1:25 Sheet 1 of 1
Position: 369822.1mE; 808006.1mN Projection: BOP 2000
Elevation: 24.00m Datum: Moturiki Survey Source: Hand Held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)
			24.0			OL: Organic SILT: black. Non plastic. (Topsoil)			
			23.9			ML: Clayey SILT with minor sand: orange brown. Low plasticity, moderately sensitive to sensitive; sand, fine to medium, pumiceous. (Younger Ash)			
	0.3	Peak = 111kPa Residual = 28kPa				... at 0.20m, Becoming brown.	D		
						... from 0.30m to 2.00m, Low recovery, cavities.			
	0.6	Peak = 72kPa Residual = 26kPa Peak = Cavities.							
	0.9	Peak = 158kPa Residual = 36kPa		1				VSt	
	1.2	Peak = 124kPa Residual = 42kPa	22.8			MH: Clayey SILT: orange brown. High plasticity, moderately sensitive to sensitive. (Hamilton Ash)			
						... at 1.20m, Having a high plasticity.			
	1.6	Peak = 106kPa Residual = 26kPa Peak = Cavities							
	2.0	Peak = 129kPa Residual = 60kPa	22.0	2		MH: Clayey SILT: light brown with white. High plasticity, moderately sensitive. (Matua Subgroup)			
						... at 2.00m, Contains trace fresh roots.			
	2.4	Peak = >181kPa							
			21.5			ML: Clayey SILT: light yellowish brown mottled white. Low plasticity. (Matua Subgroup)			
	2.8	Peak = >181kPa					M		
				3		... from 3.00m to 4.00m, Low recovery, cavities.			
								VSt to H	
			20.2			ML: Clayey SILT with trace sand: white streaked orange. Low plasticity; sand, fine. (Matua Subgroup)			
	4.0	Peak = >181kPa		4					
	4.4	Peak = >181kPa							
				5		Borehole terminated at 5.0 m			

Termination Reason: Target Depth
Shear Vane No: 2562 DCP No:
Remarks: Groundwater not encountered.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 3 - April 2018

Appendix D: Natural Hazards Risk Assessment

NATURAL HAZARDS RISK ASSESSMENT FOR LAND SUBDIVISION 404 OMOKOROA ROAD, OMOKOROA

A. CONTEXT

Section 106 of the Resource Management Act (RMA) requires an assessment of the risk from natural hazards to be carried out when considering the granting of a subdivision consent. S106 RMA specifically states that the assessment must consider the combined effect of the natural hazard likelihood and material damage to land, other land or structures (consequence).

Section 2 of the RMA defines natural hazards as 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.

This appendix to CMW report reference TGA2020-0011 Rev0 sets out the criteria for and presents the results of an assessment of the geotechnical-related natural hazards associated with this proposed subdivision development. The remaining hazards, i.e. tsunami, wind, drought, fire and flooding hazards are not covered by this assessment.

B. BASIS OF ASSESSMENT

B1. Risk Classification

The occurrence of natural hazards and their potential impacts on the proposed subdivision development is assessed in terms of risk significance, which is based on likelihood and consequence factors. A risk table is used to help assess the likelihood and consequence factors, the form of which used by CMW for this project is presented in Table B1.

Table B1: Natural Hazard Risk Classification

		Consequence				
		Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
Likelihood	Almost Certain 5	Medium 5	High 10	Very high 15	Extreme 20	Extreme 25
	Likely 4	Low 4	Medium 8	High 12	Very high 16	Extreme 20
	Moderate 3	Low 3	Medium 6	Medium 9	High 12	Very high 15
	Unlikely 2	Very low 2	Low 4	Medium 6	Medium 8	High 10
	Rare 1	Very low 1	Very low 2	Low 3	Low 4	Medium 5

DRAFT

B2. Likelihood

With respect to assessing the likelihood or chance of the risk occurring, the qualitative definitions used by CMW for this project are provided in Table B2 for each likelihood classification.

Table B2: Qualitative Natural Hazard Likelihood Definitions		
1	Rare	The natural hazard is not expected to occur during the design life of the project
2	Unlikely	The natural hazard is unlikely, but may occur during the design life
3	Moderate	The natural hazard will probably occur at some time during the life of the project
4	Likely	The natural hazard is expected to occur during the design life of the project
5	Almost Certain	The natural hazard will almost definitely occur during the design life of the project

B3. Consequence

In terms of determining the consequence or severity of the natural hazard occurring, the qualitative definitions used by CMW for this project are provided in Table B3 for each consequence classification.

Table B3: Qualitative Natural Hazard Consequence Definitions		
1	Insignificant	Very minor to no damage, not requiring any repair, no people at risk, no economic effect to landowners.
2	Minor	Minor damage to land only, any repairs can be considered normal property maintenance no people at risk, very minor economic effect.
3	Moderate	Some damage to land requiring repair to reinstate within few months, minor cosmetic damage to buildings being within relevant code tolerances, does not require immediate repair, no people at risk, minor economic effect.
4	Major	Significant damage to land requiring immediate repair, damage to buildings beyond serviceable limits requiring repair, no collapse of structures, perceptible effect to people, no risk to life, considerable economic effect.
5	Catastrophic	Major damage to land and buildings, possible structure collapse requiring replacement, risk to life, major economic effect or possible site abandonment.

B4. Risk Acceptance

It is recognised that the natural hazard risk assessment provided herein is qualitative and, due to the wide range of possible geohazards that could occur, is somewhat subjective. Other methods are available to quantitatively assess an acceptable level of geotechnical related natural hazard risk, such as defining an acceptable factor of safety with respect to slope stability or acceptable differential ground settlements with respect to recommended building code limits.

Therefore, to give this qualitative natural hazard risk assessment some relevance to more commonly adopted numerical or quantitative geotechnical assessment techniques, a residual risk rating of very low to medium (risk value = 1 to 9 inclusive) is considered an acceptable result for the proposed subdivision development.

A risk rating of high to extreme (risk value ≥ 10) is considered an unacceptable result for the proposed subdivision development.

C. RISK ASSESSMENT

The natural hazards relevant to this proposed subdivision development and adjacent, potentially affected land have been assessed with respect to the criteria outlined above.

Assessment is based on proposed post development ground conditions with and without any geotechnical controls. The latent risk was first assessed with the site in its proposed developed state to consider the risks to the development and surrounding land, including assessment of land modifications from the pre-existing natural state, without any implemented geotechnical controls. The specific geotechnical mitigation measures and engineering design solutions outlined in the table below and CMW report, where relevant, were then considered to determine the natural hazard residual risk remaining after the proposed controls have been implemented.

Results of this assessment are presented in Table C1 below.

Table C1: Natural Hazard Risk Assessment Results

RMA S2 Hazard	Description	Proposed Site Latent Risk of Damage to Land / Structures			Comments and Geotechnical Control	Proposed Site Residual Risk of Damage to Land / Structures OR Acceleration/ Worsening of Hazard with Geotechnical Controls Implemented		
		Likelihood	Consequence	Risk Rating		Likelihood	Consequence	Risk Rating
Earthquake	Fault Rupture	1	3	Low 4	Nearest active/major fault 27km southwest of site	1	3	Low 4
	Liquefaction Potential (annual exceedance probability of 500 years)	1	2	Very Low 2	2-3m mantle of cohesive volcanic ashes, overlying cohesive Matua Subgroup materials and groundwater table at least 5m below ground level	1	2	Very Low 2

Erosion	Cut Batters	3	3	Medium 9	Max 1:2.5 gradient (1:1.5 Temporary), surface water run off control	2	2	Low 4
	Fill Batters	3	3	Medium 9	Max 1:2.5 gradient, surface water run off control	2	2	Low 4
Landslip	Global Slope Instability	2	4	Medium 8	BRL at 1:2.5 projection line from toe of slope	1	3	Low 3
	Bearing Capacity Failure	2	2	Low 4	Undercut and replace localised areas of non-engineered fill, sensitive or soft soils where encountered	2	2	Low 4
	Cut & Fill Batter Instability	3	2	Medium 6	Temporary works to include, staging excavations, benching, surface water run off control, avoid surcharging, Max gradient 1:2.5, 1:1.5 temporary cut batters	2	2	Low 4
Subsidence	Soft Soils	2	2	Low 4	Undercut and remove areas of localised sensitive soils if encountered at building subgrade or within zone of influence of building foundations	2	2	Low 4
Sedimentation	Rockfall, Debris Inundation	1	1	Very Low 1	Not considered a hazard for this development	1	1	Very Low 1

Notes:

- Assessments include the impact of the proposed subdivision works on adjacent properties.
- The following reference(s) contain information on the hazards contained in this assessment and the non-geotechnical hazards that have not been included:
  - **Bay of Plenty** https://www.westernbay.govt.nz/property-rates-and-building/natural-hazards and http://geospatial.boprc.govt.nz/story-series/index.html?appid=351747f1ca8347c483371b822198bba8

Appendix E: Selected Liquefaction Analyses

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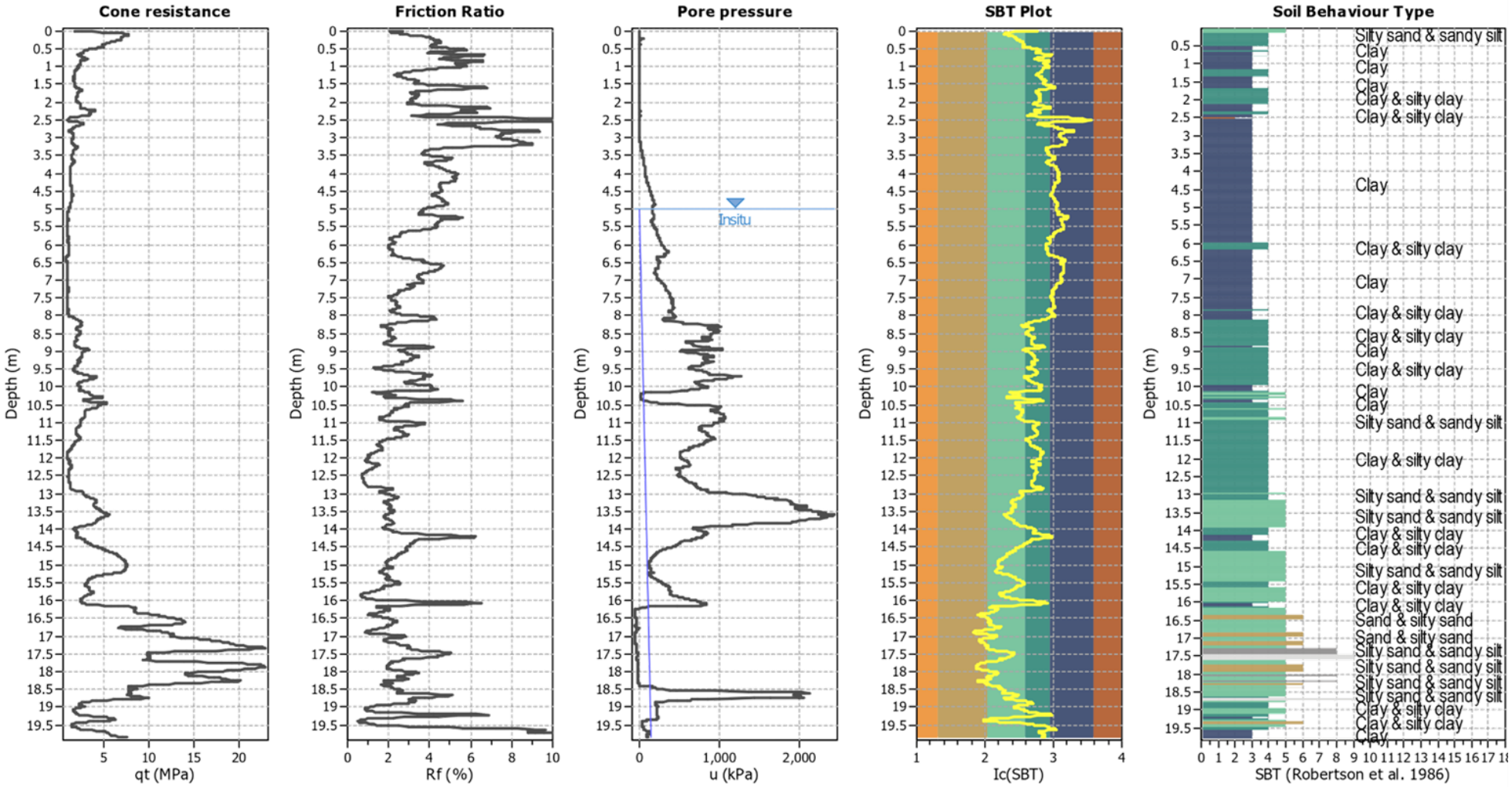
CPT basic interpretation plots



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Peak ground acceleration:	0.26	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	5.00 m	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

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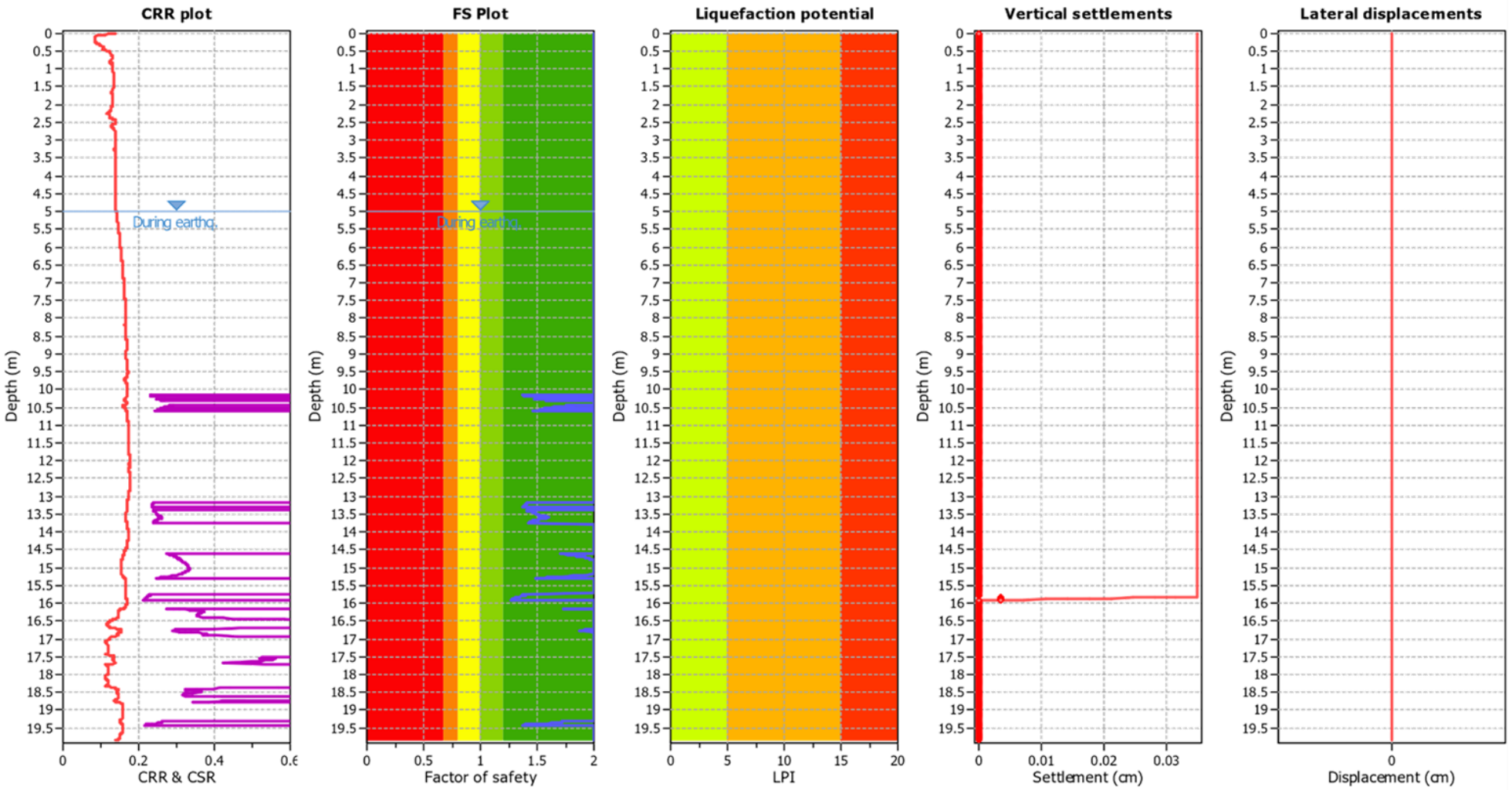
Liquefaction analysis overall plots



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Earthquake magnitude M_w:	5.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.26	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	5.00 m	Fill height:	N/A	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

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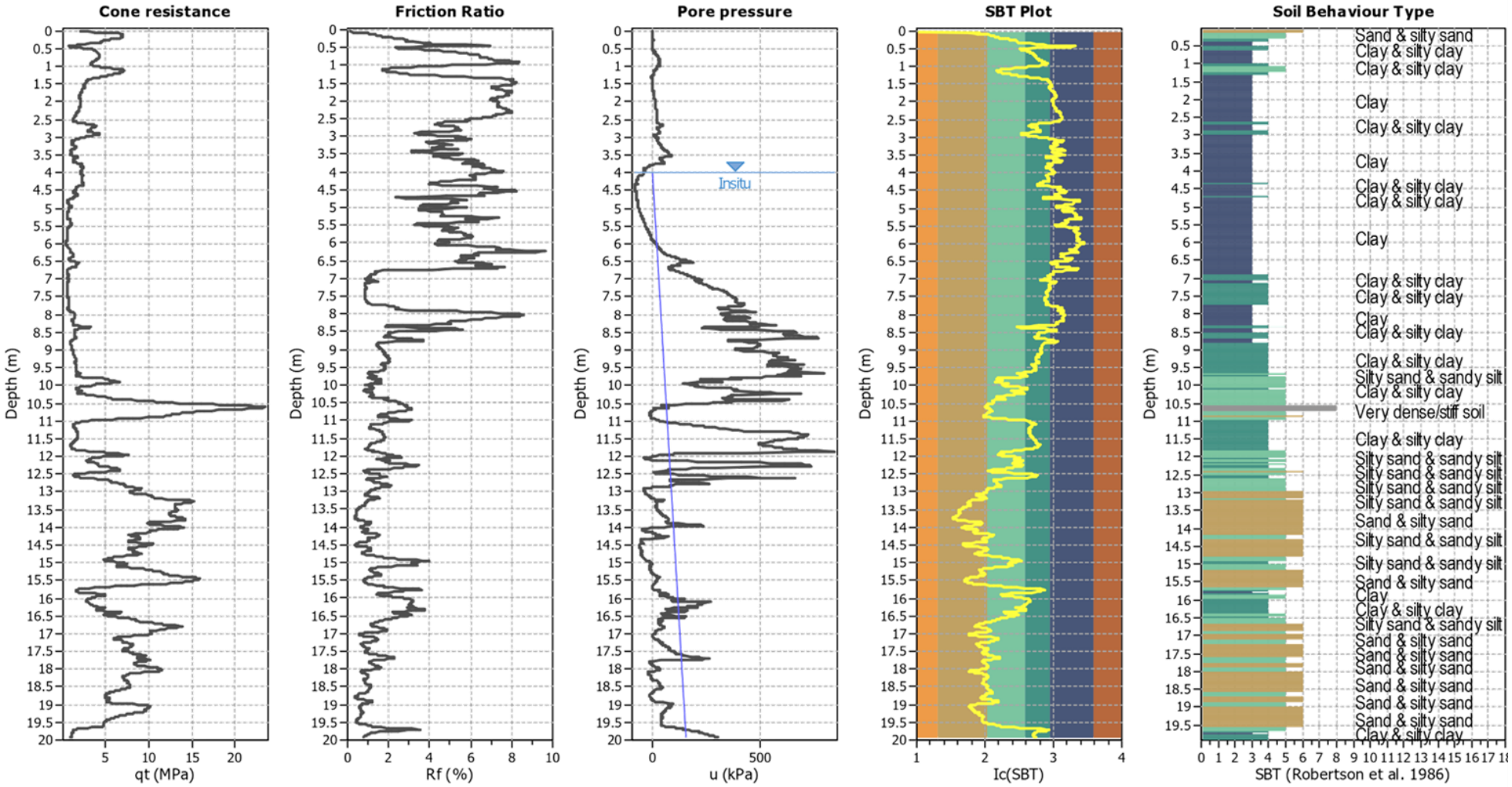
CPT basic interpretation plots



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Earthquake magnitude M_w:	5.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.26	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	4.00 m	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

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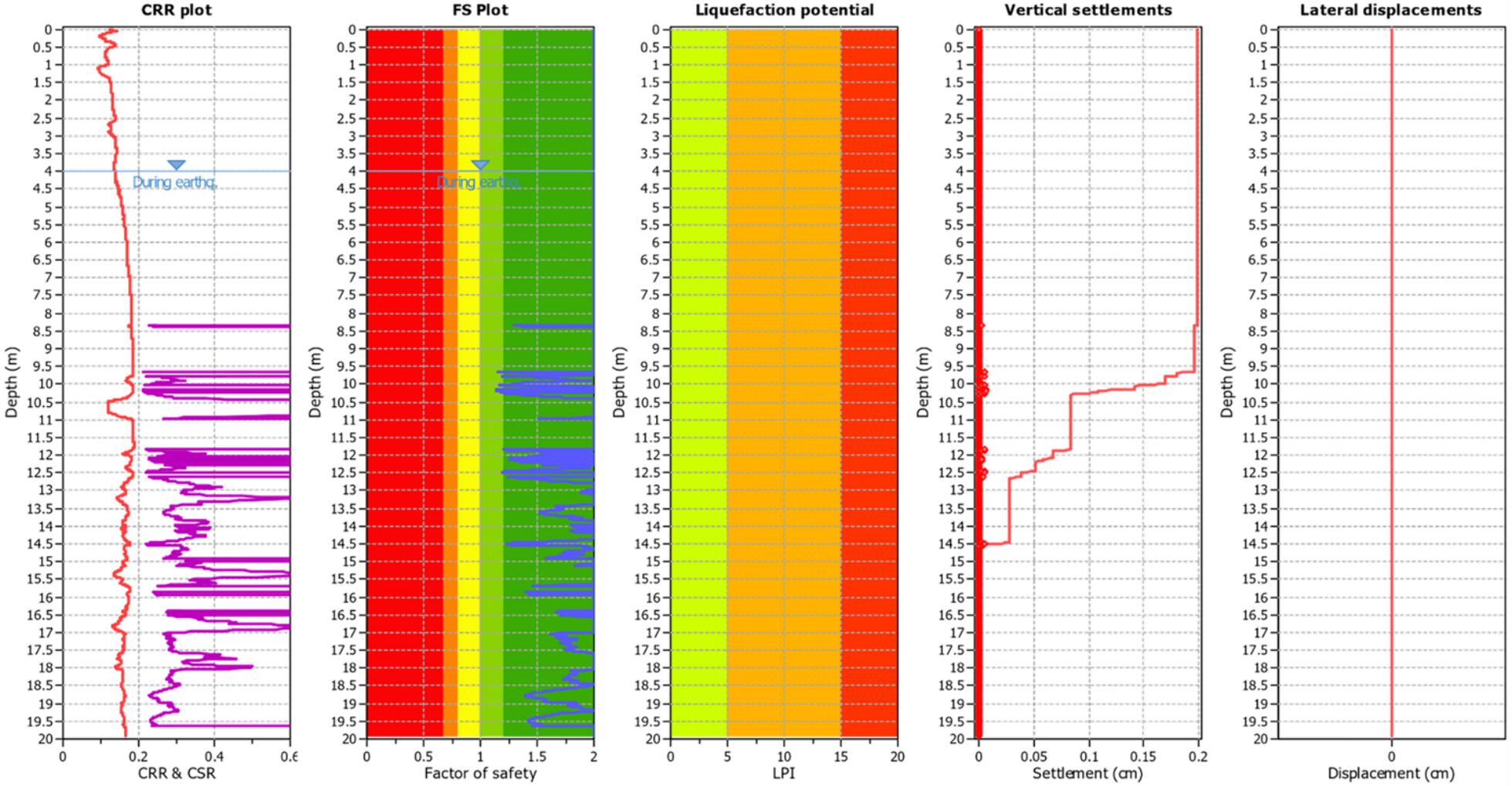
Liquefaction analysis overall plots



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Earthquake magnitude M_w:	5.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.26	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	4.00 m	Fill height:	N/A	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

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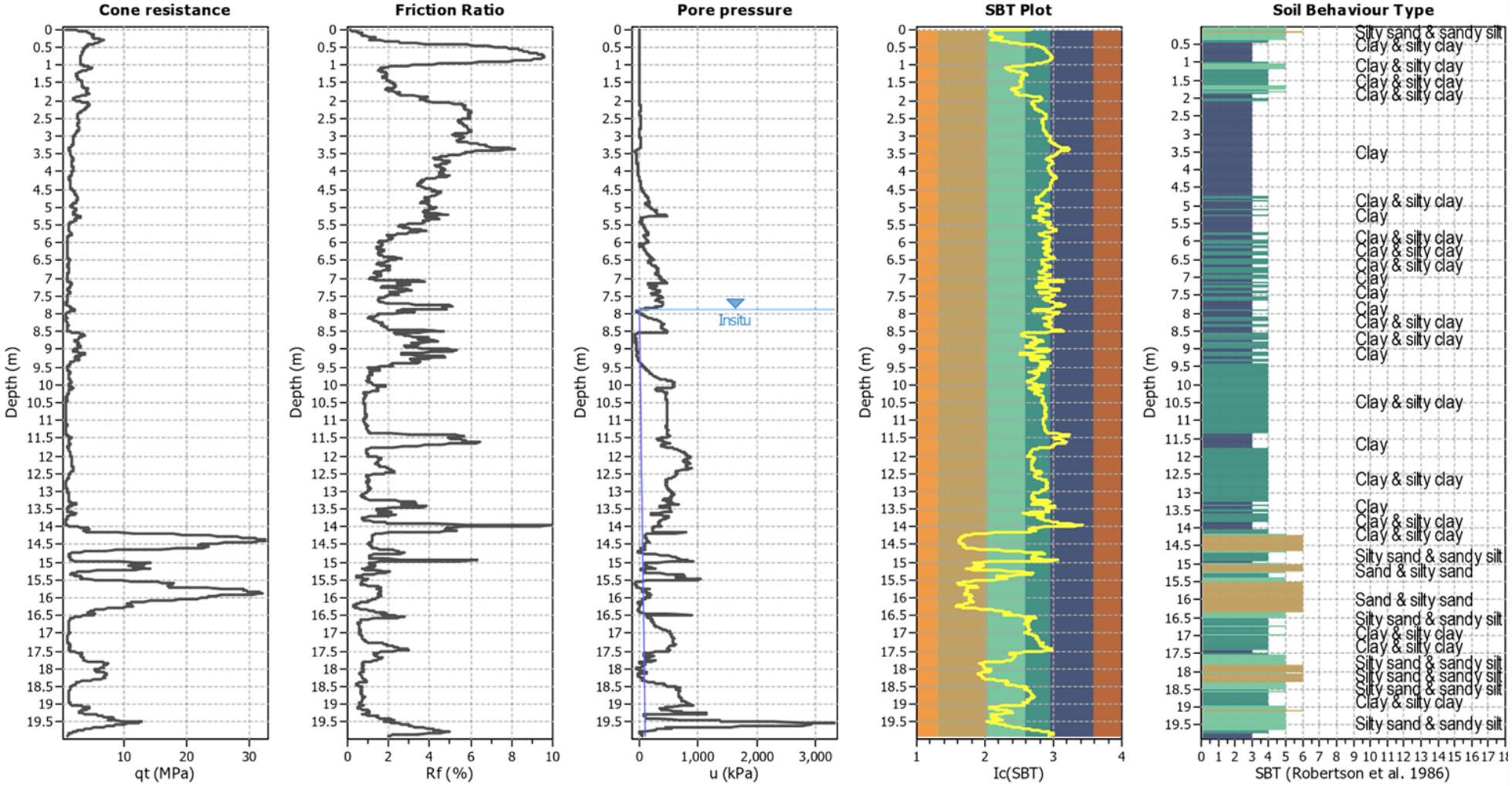
CPT basic interpretation plots



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Earthquake magnitude M_w:	5.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.26	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	7.90 m	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

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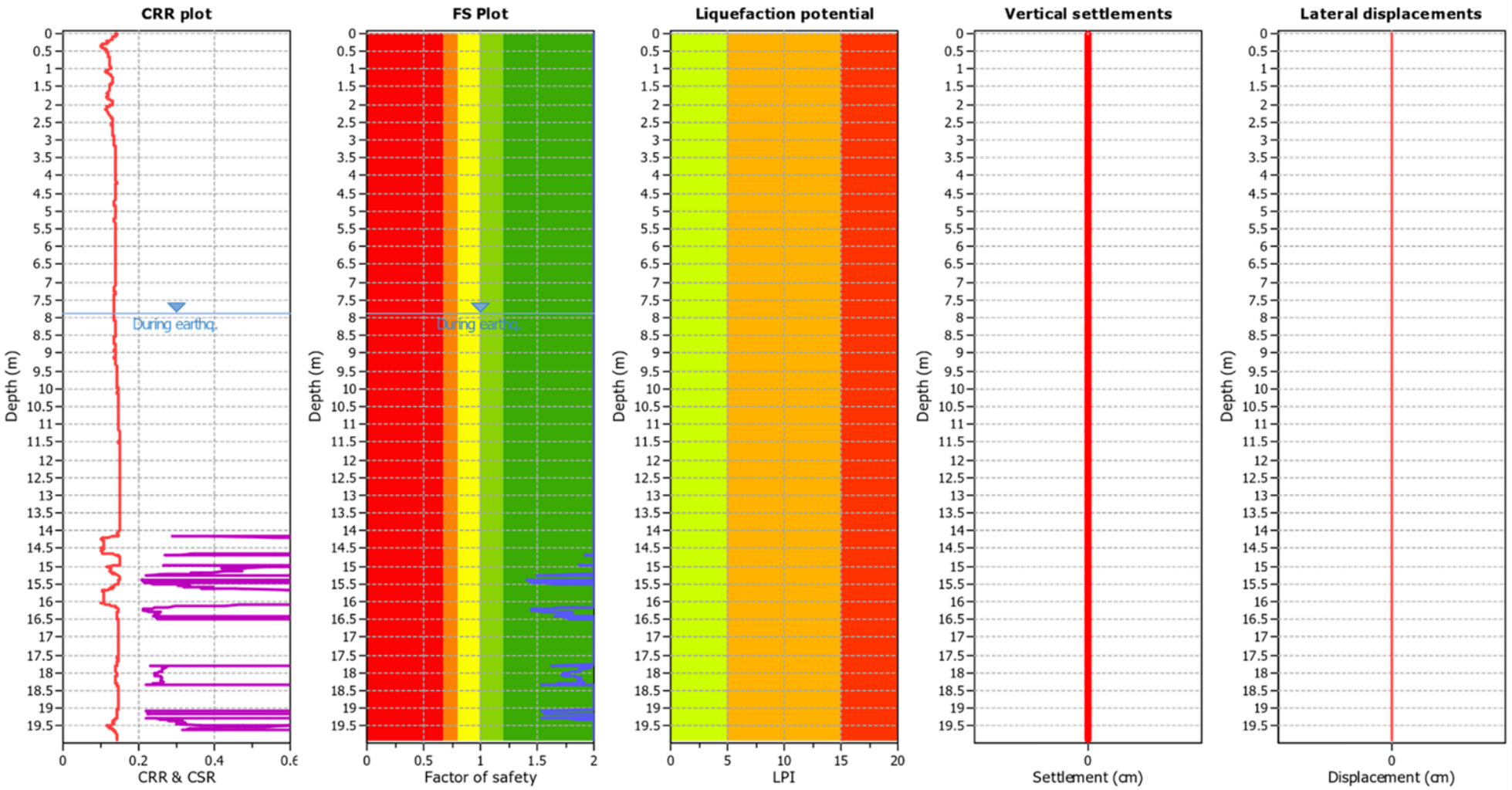
Liquefaction analysis overall plots



Input parameters and analysis data

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Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	5.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.26	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	7.90 m	Fill height:	N/A	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

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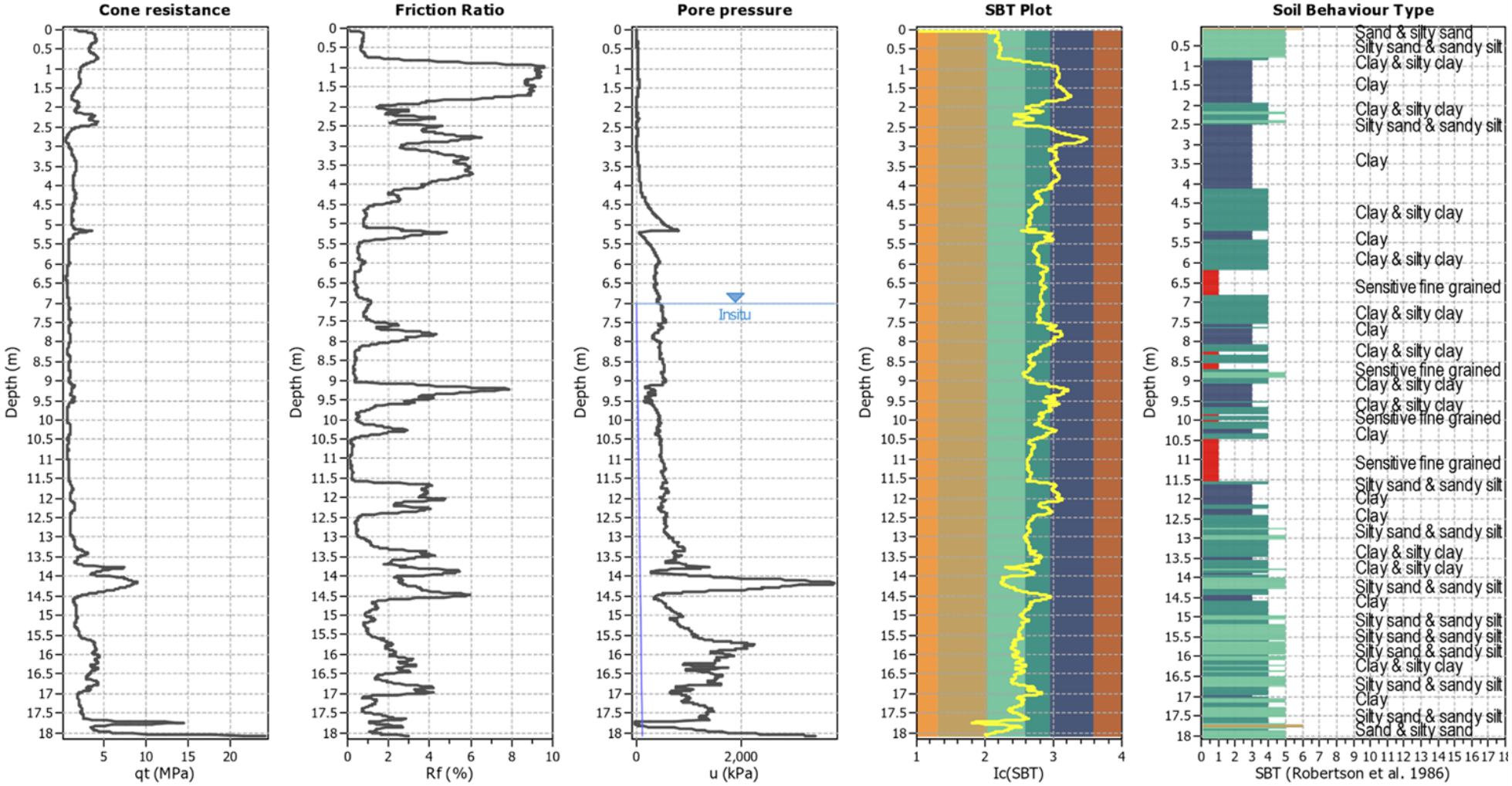
CPT basic interpretation plots



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Earthquake magnitude M_w:	5.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.26	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	7.00 m	Fill height:	N/A	Limit depth:	N/A

SBT legend

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3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

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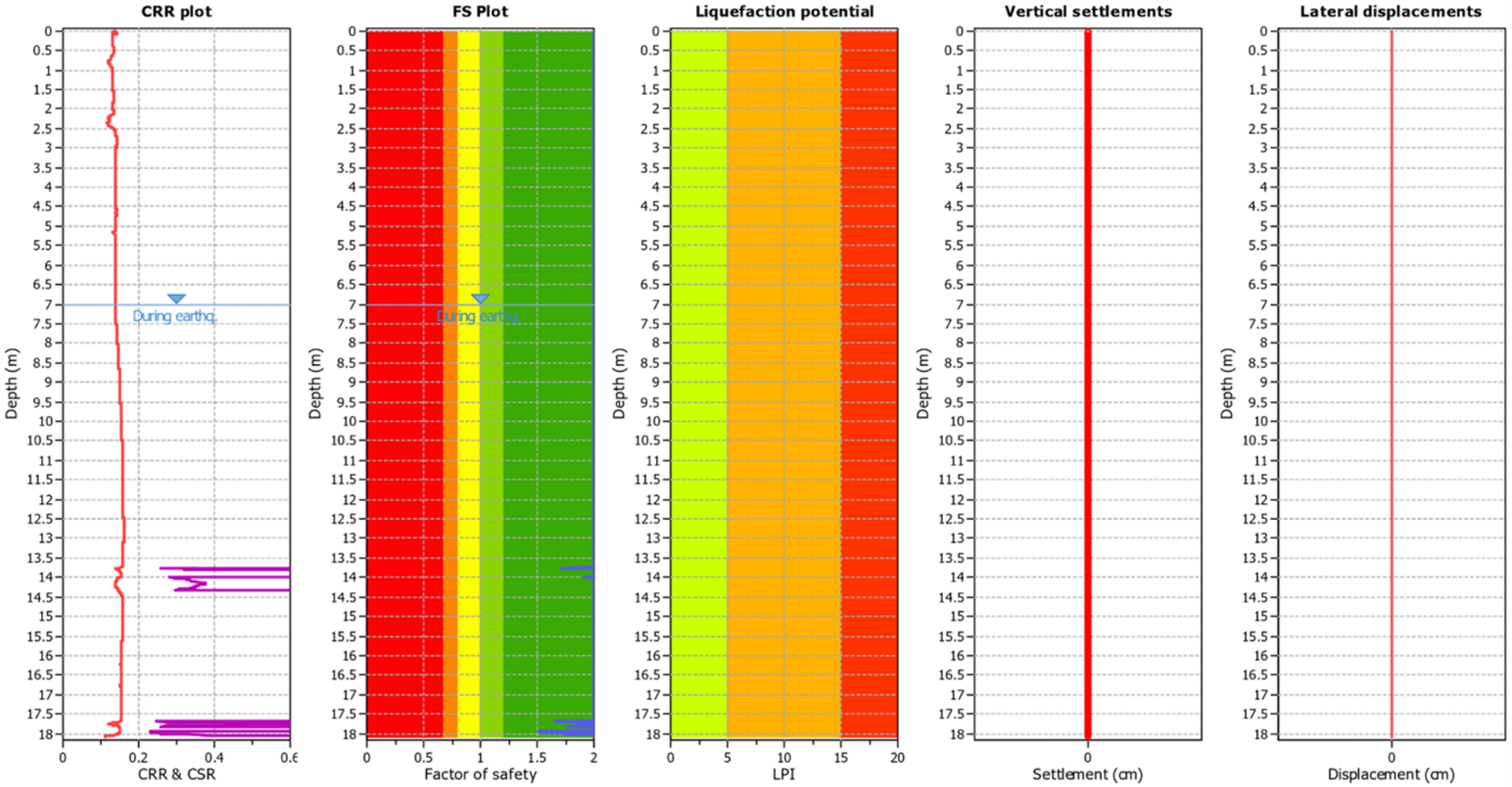
Liquefaction analysis overall plots



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Earthquake magnitude M_w:	5.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.26	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	7.00 m	Fill height:	N/A	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

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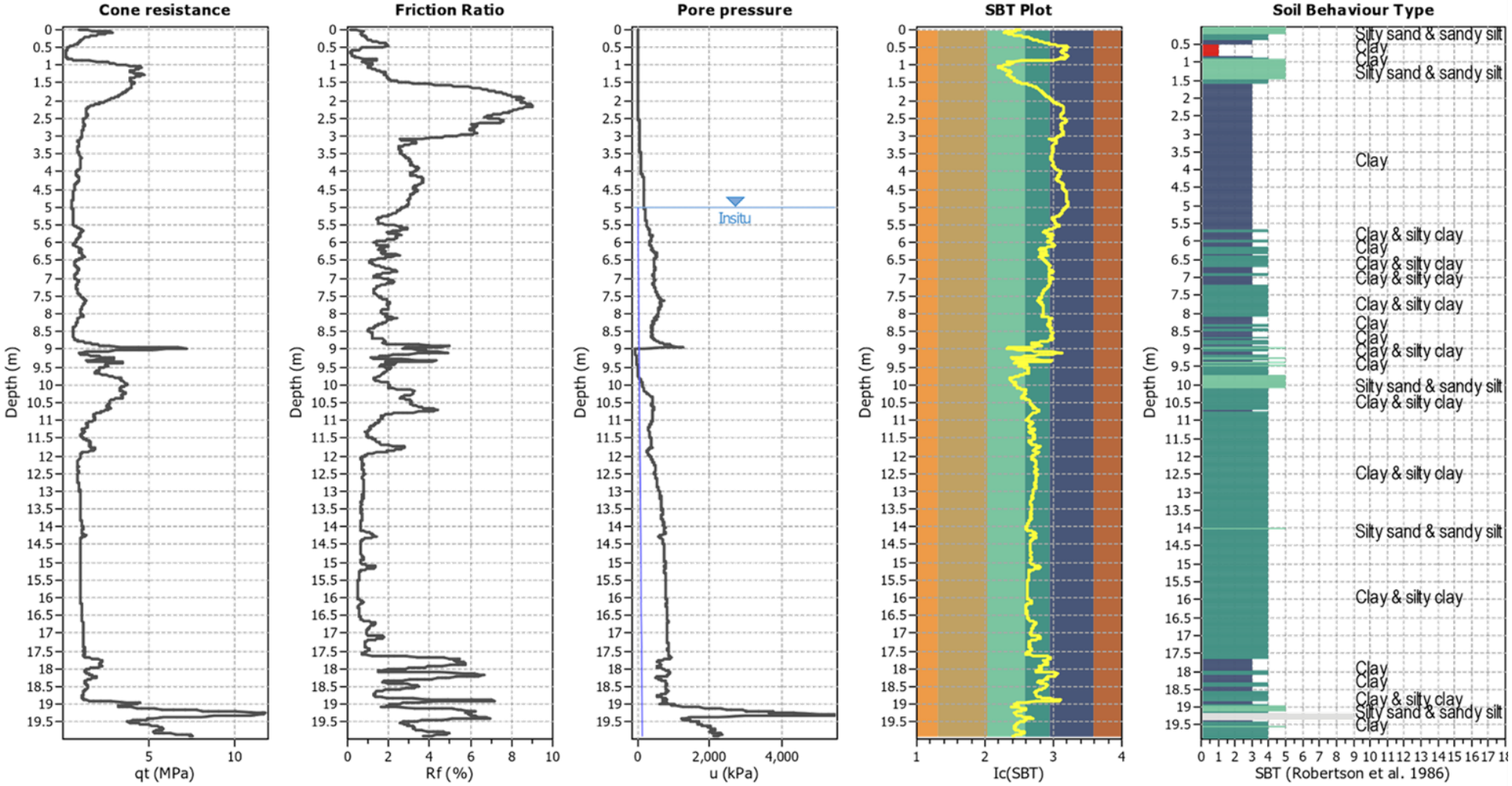
CPT basic interpretation plots



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Earthquake magnitude M_w:	5.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.26	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	5.00 m	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

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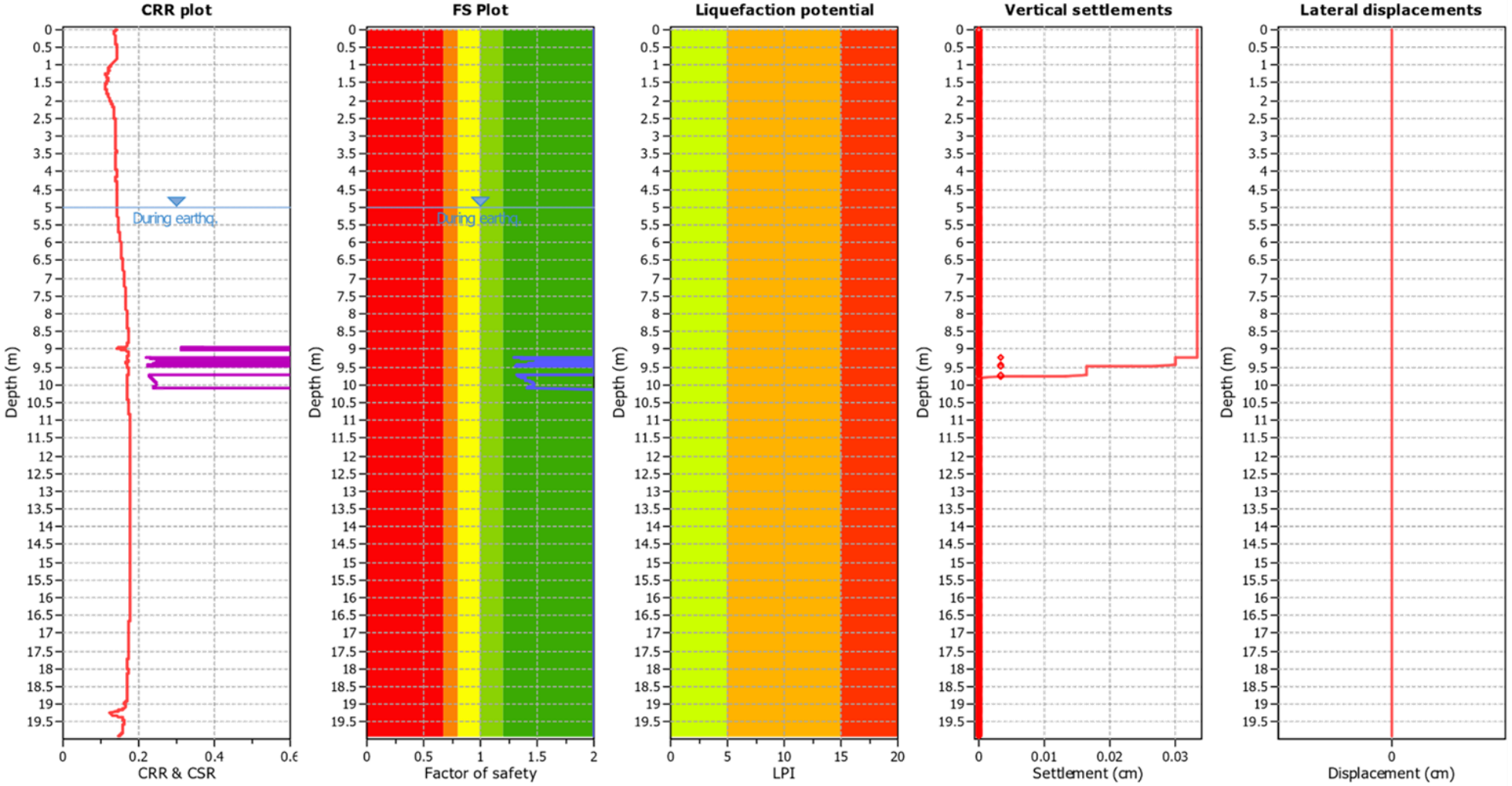
Liquefaction analysis overall plots



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Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	5.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.26	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	5.00 m	Fill height:	N/A	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

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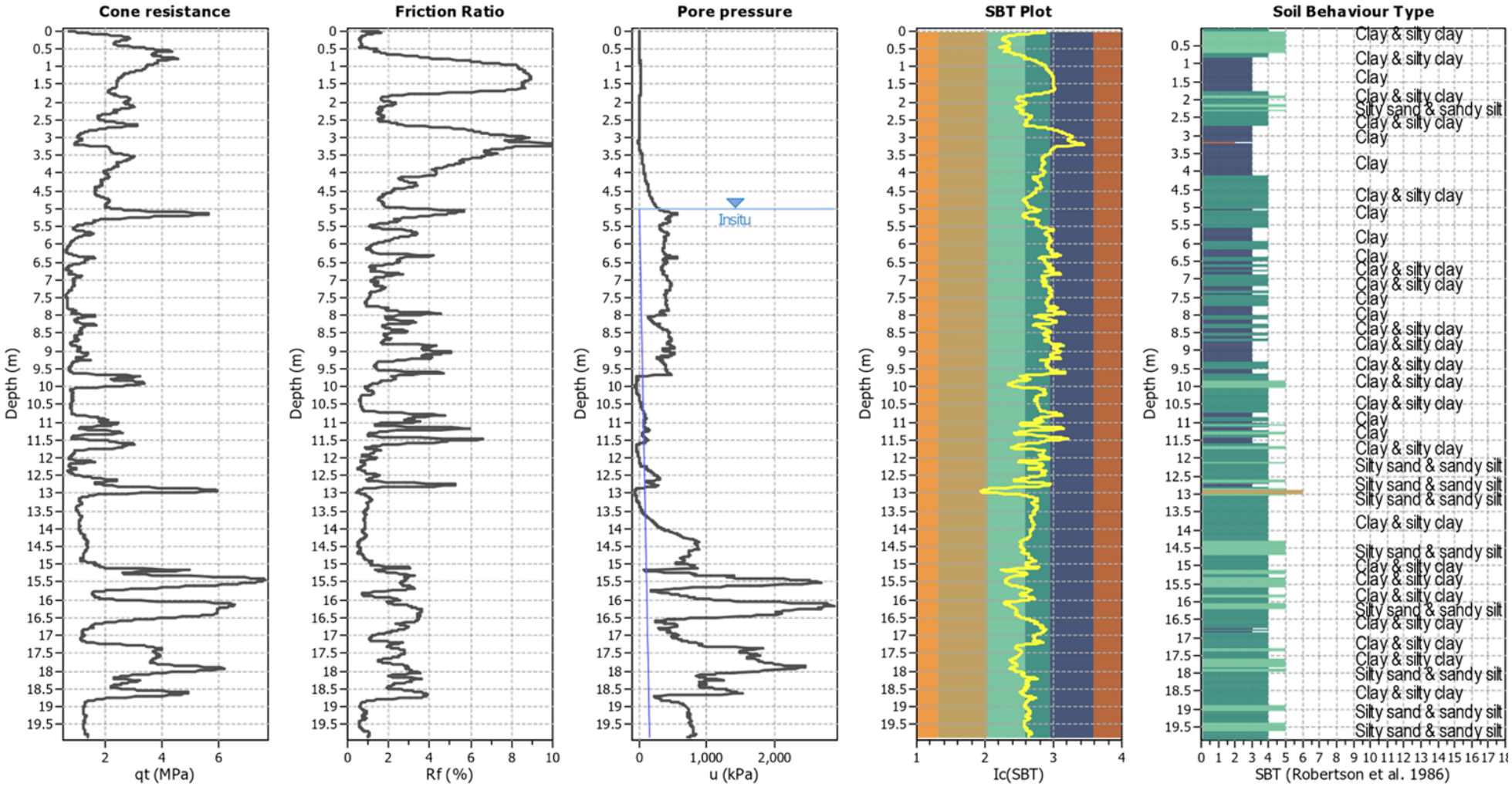
CPT basic interpretation plots



Input parameters and analysis data

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Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_o applied:	Yes
Earthquake magnitude M_w:	5.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.26	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	5.00 m	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

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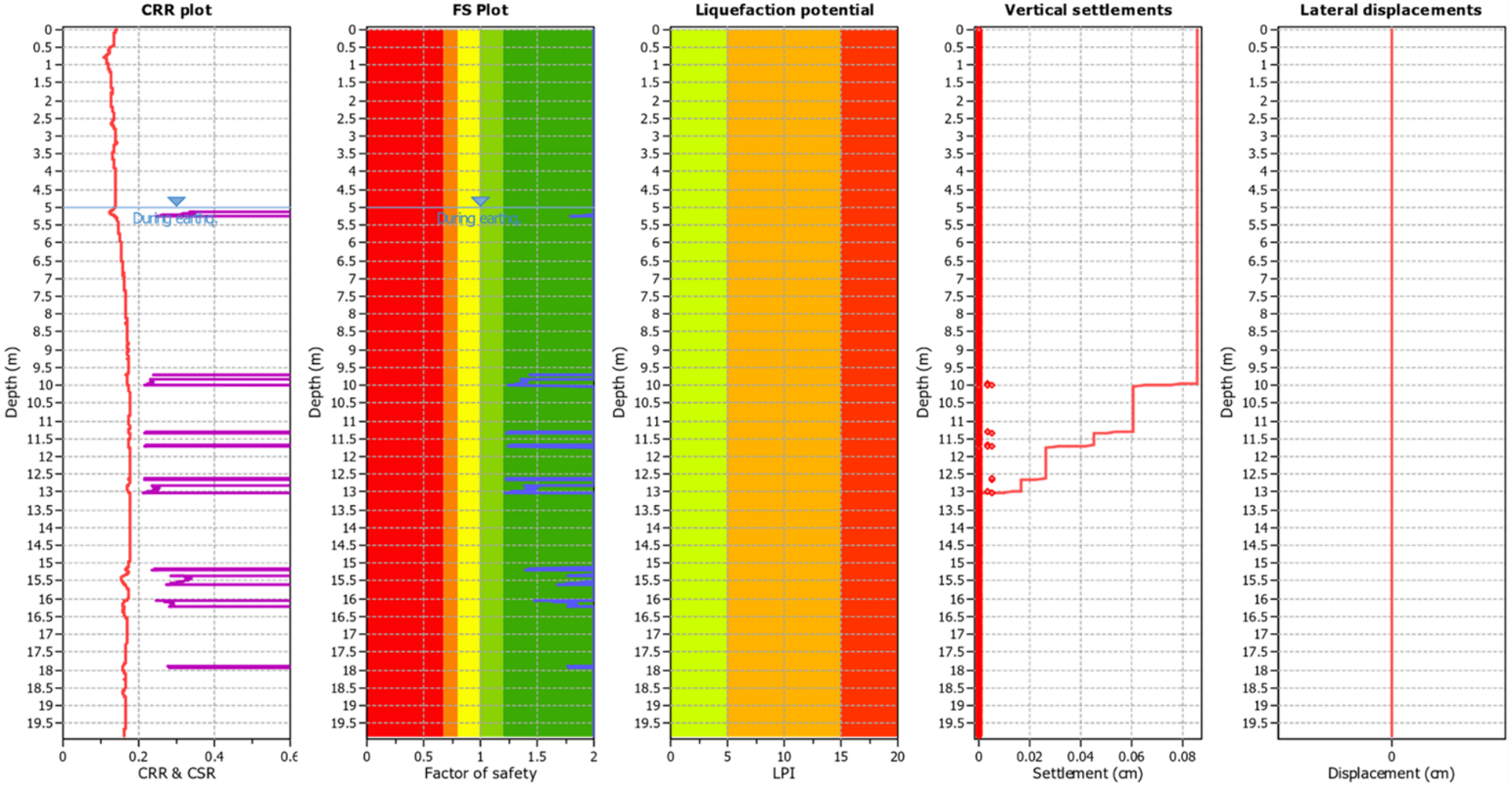
Liquefaction analysis overall plots



Input parameters and analysis data

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Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
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Peak ground acceleration:	0.26	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	5.00 m	Fill height:	N/A	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

CLiq v.3.0.2.1 - CPT Liquefaction Assessment Software - Report created on: 2/03/2020, 1:53:17 PM 1

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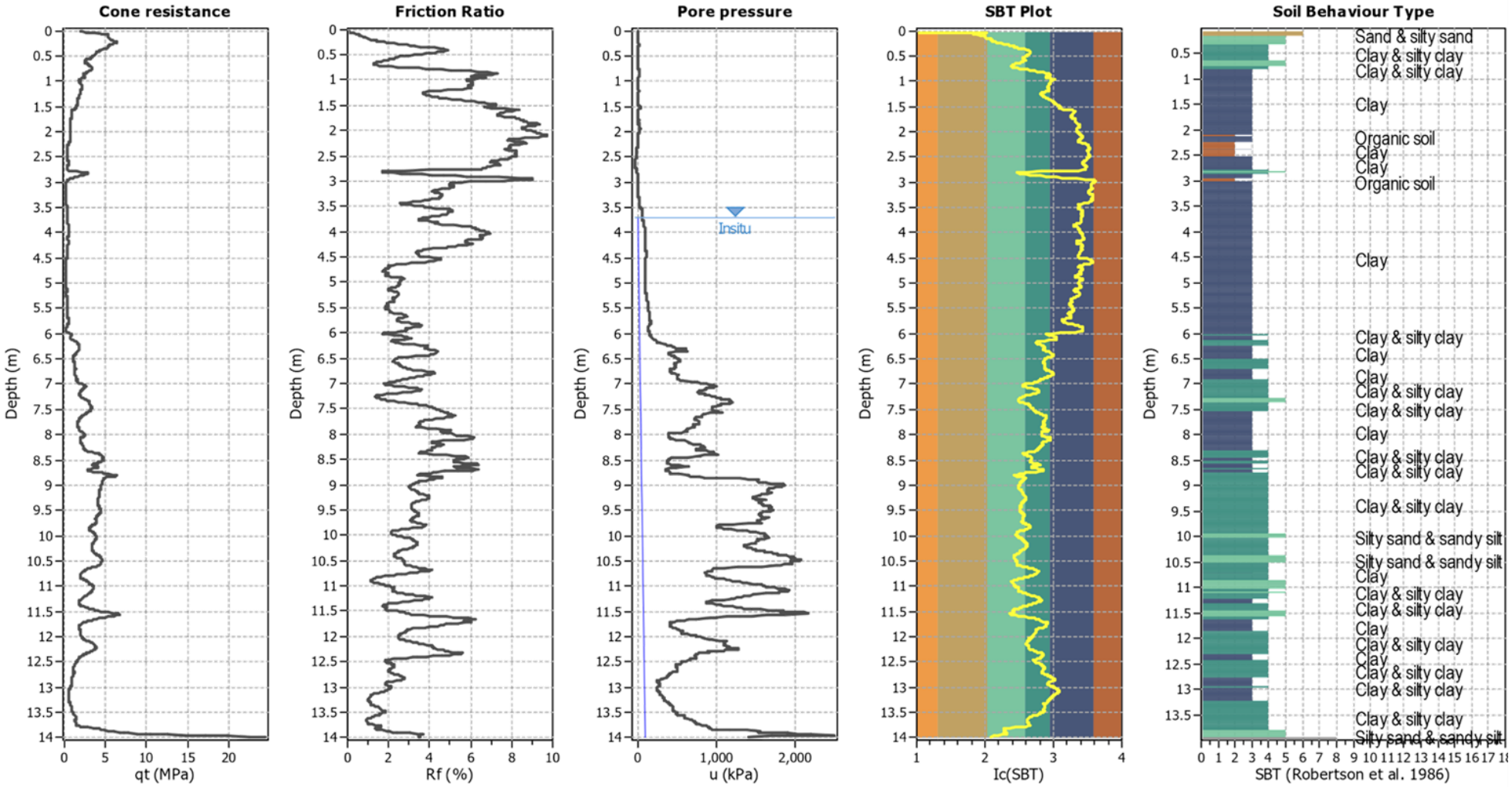
CPT basic interpretation plots



Input parameters and analysis data

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Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_o applied:	Yes
Earthquake magnitude M_w:	5.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.26	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	3.70 m	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CLiq v.3.0.2.1 - CPT Liquefaction Assessment Software - Report created on: 2/03/2020, 1:53:19 PM 1

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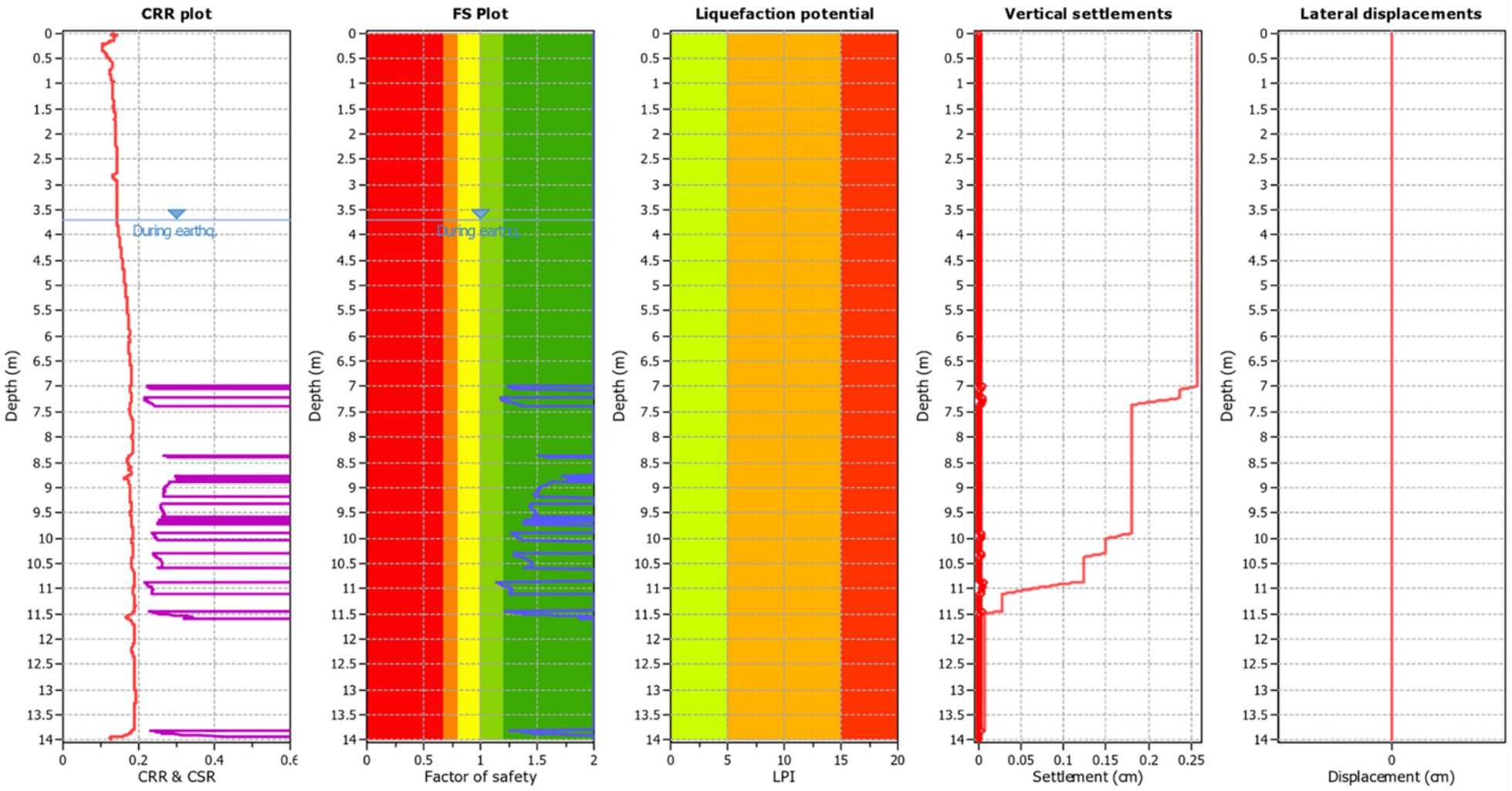
Liquefaction analysis overall plots



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Depth to water table (insitu):	3.70 m	Fill height:	N/A	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

CLiq v.3.0.2.1 - CPT Liquefaction Assessment Software - Report created on: 2/03/2020, 1:53:19 PM

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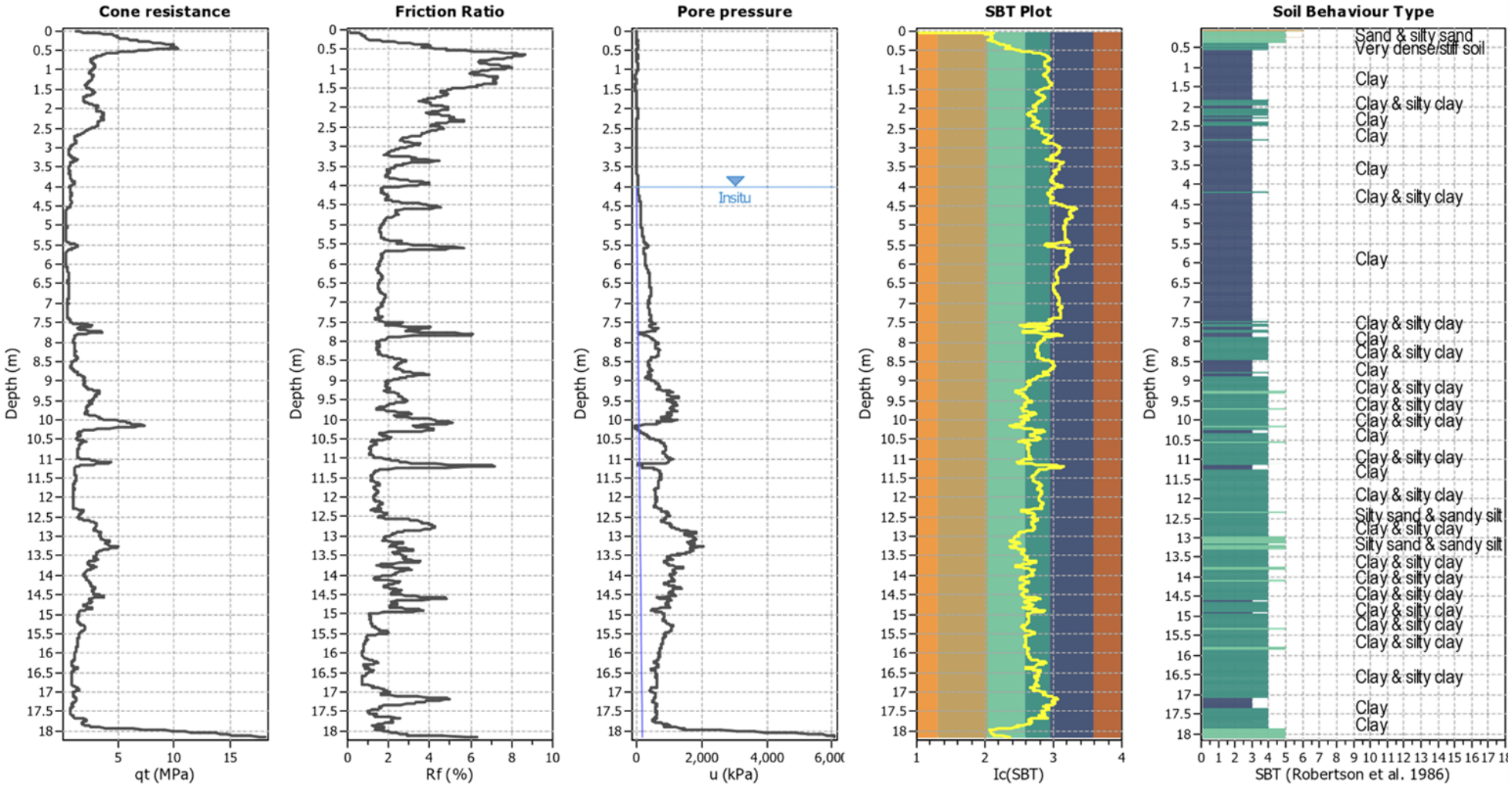
CPT basic interpretation plots



Input parameters and analysis data

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Earthquake magnitude M_w:	5.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.26	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	4.00 m	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

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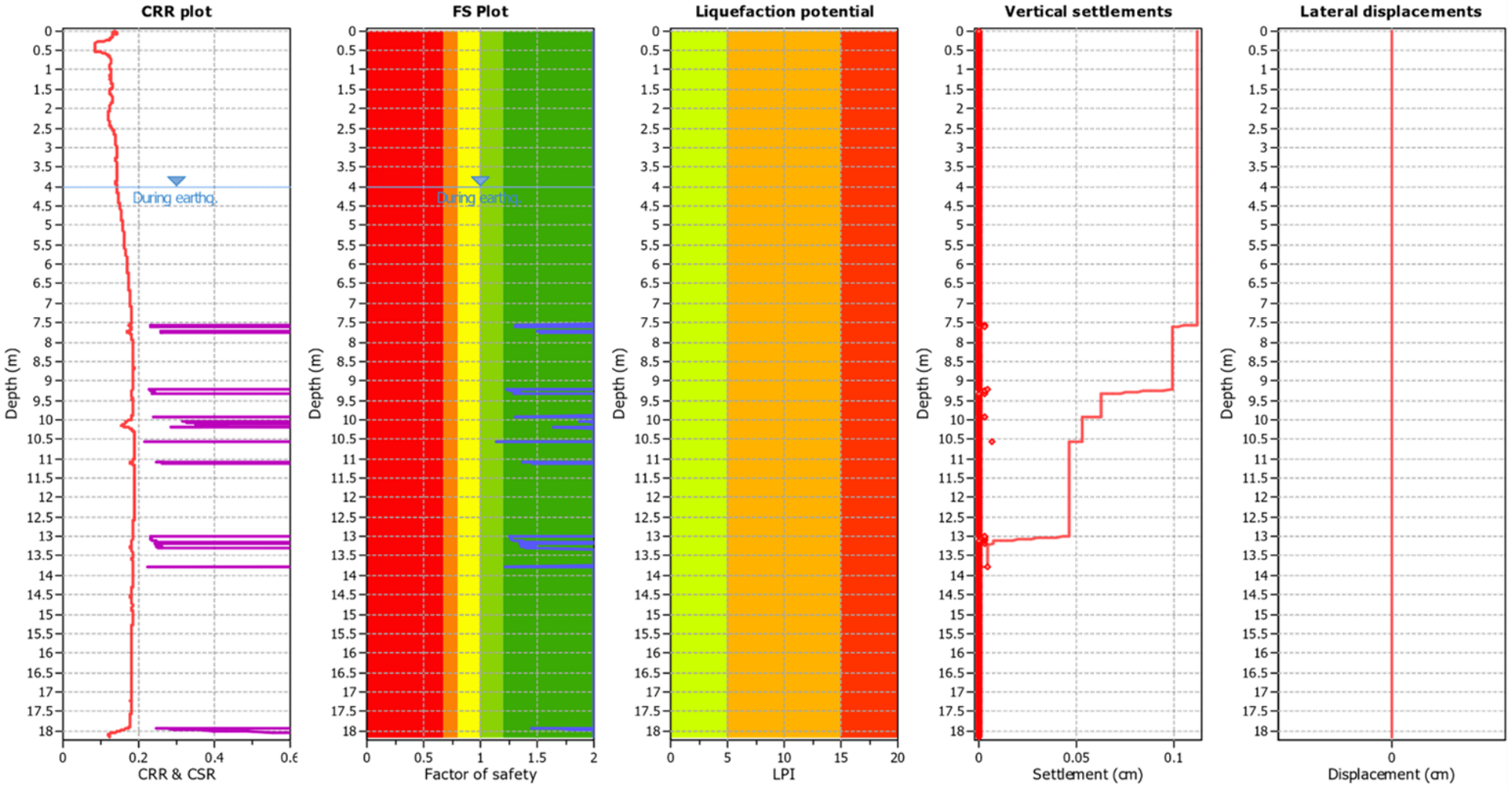
Liquefaction analysis overall plots



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Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	5.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.26	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	4.00 m	Fill height:	N/A	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
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LPI color scheme

- Very high risk
- High risk
- Low risk

CLiq v.3.0.2.1 - CPT Liquefaction Assessment Software - Report created on: 2/03/2020, 1:53:20 PM

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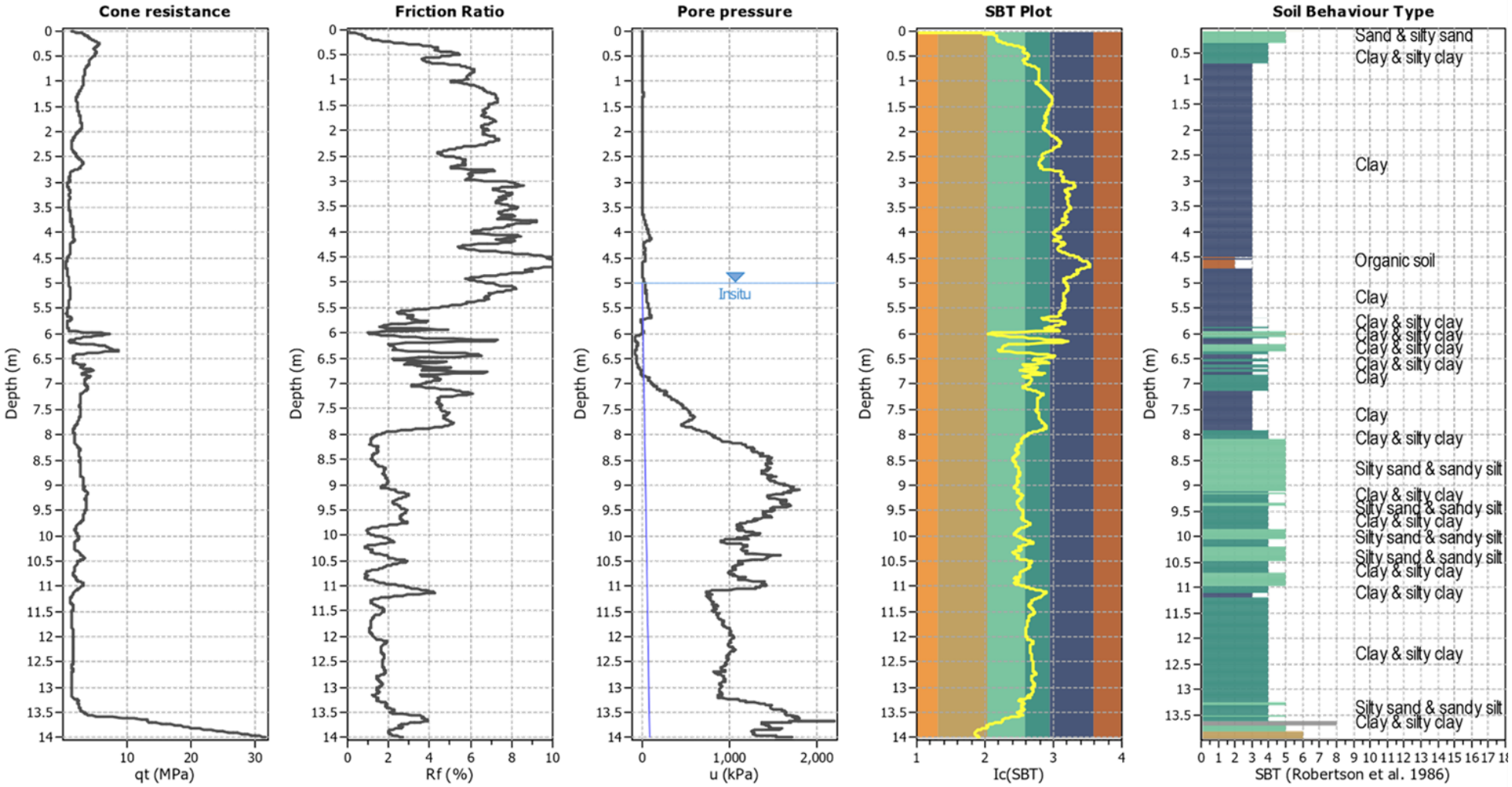
CPT basic interpretation plots



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Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_o applied:	Yes
Earthquake magnitude M_w:	5.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.26	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	5.00 m	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

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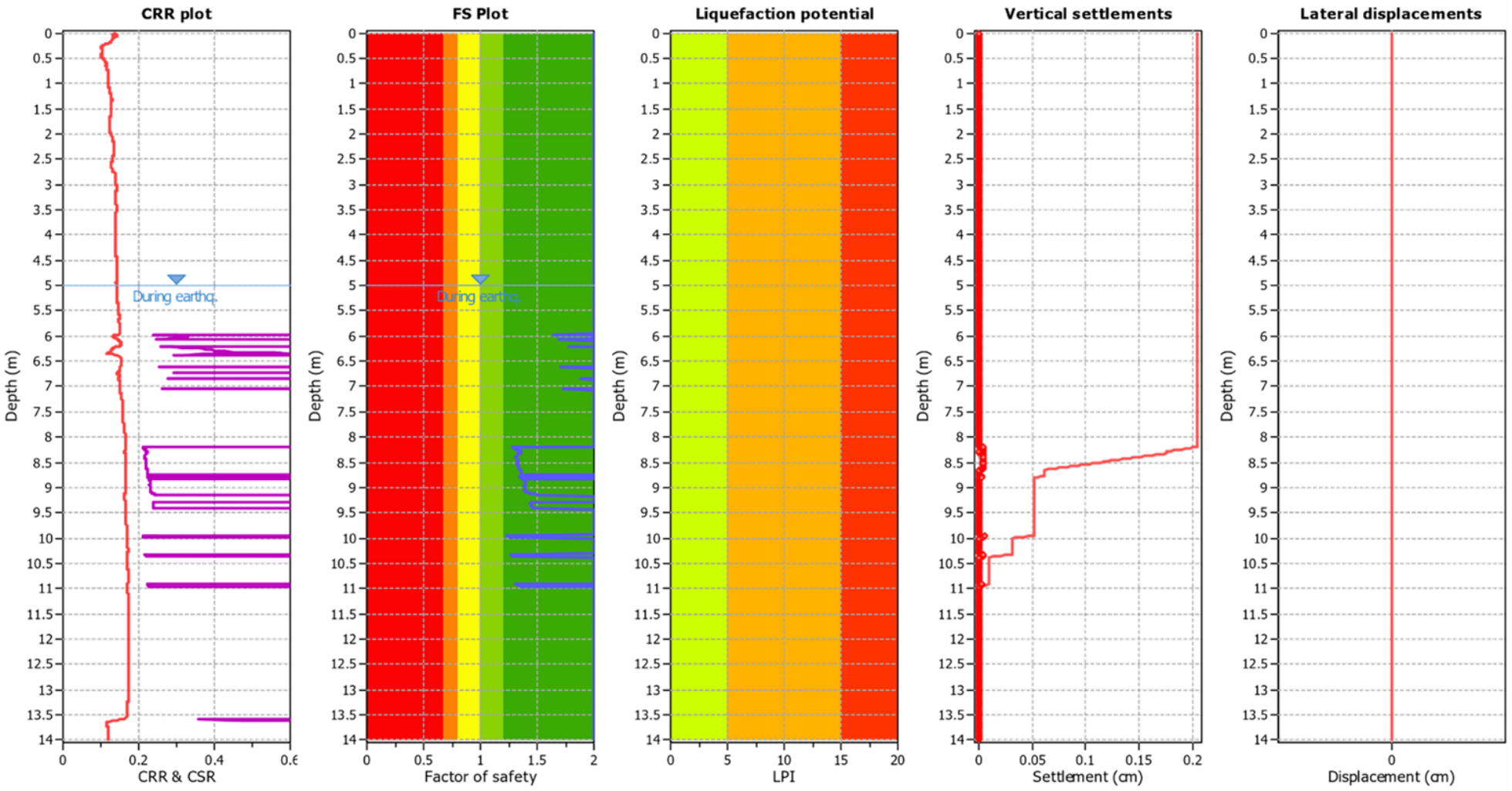
Liquefaction analysis overall plots



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Earthquake magnitude M_w:	5.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.26	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	5.00 m	Fill height:	N/A	Limit depth:	N/A

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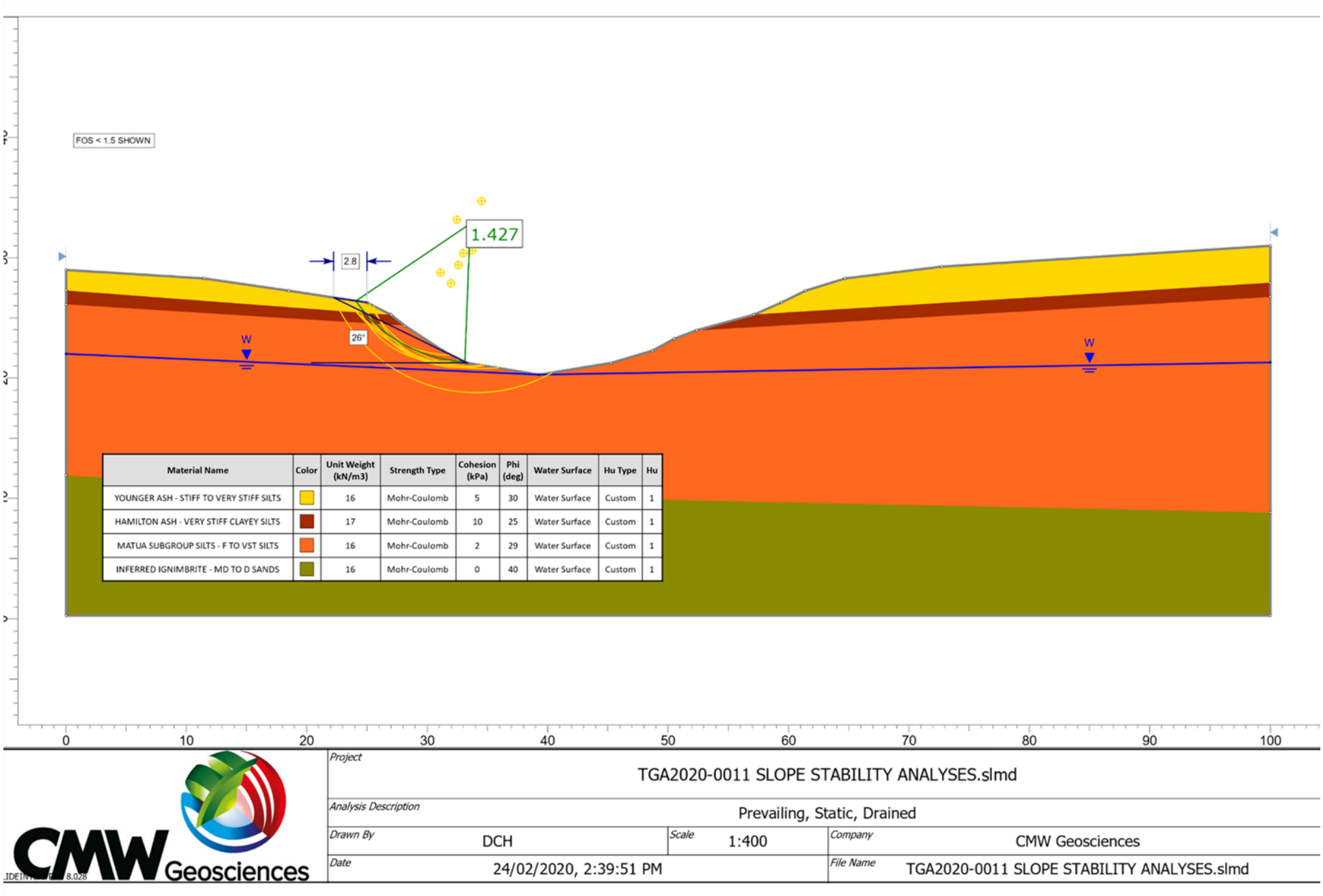
LPI color scheme

- Very high risk
- High risk
- Low risk

CLiq v.3.0.2.1 - CPT Liquefaction Assessment Software - Report created on: 2/03/2020, 1:53:22 PM

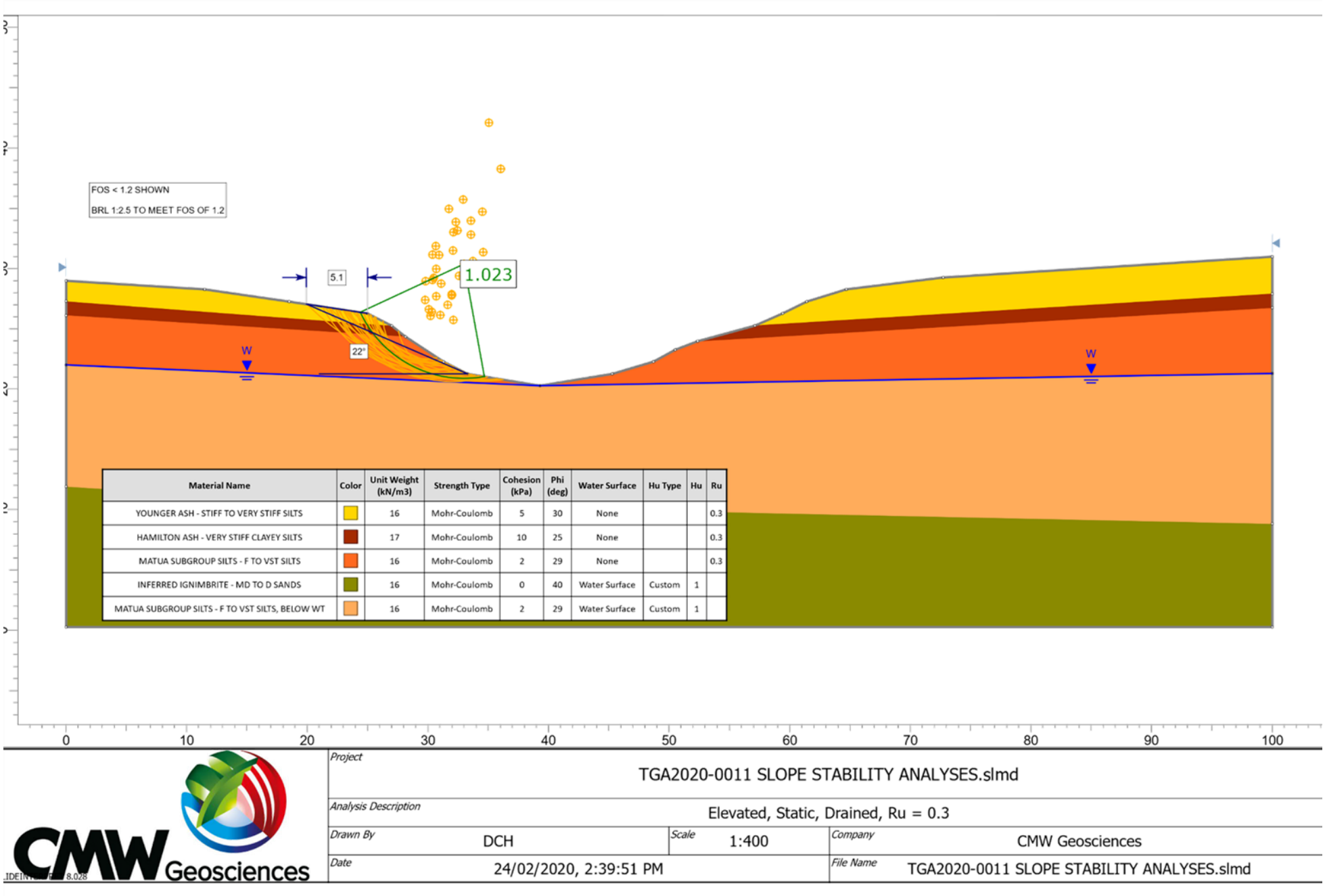
Appendix F: Selected Slope Stability Outputs



Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (deg)	Water Surface	Hu Type	Hu
YOUNGER ASH - STIFF TO VERY STIFF SILTS		16	Mohr-Coulomb	5	30	Water Surface	Custom	1
HAMILTON ASH - VERY STIFF CLAYEY SILTS		17	Mohr-Coulomb	10	25	Water Surface	Custom	1
MATUA SUBGROUP SILTS - F TO VST SILTS		16	Mohr-Coulomb	2	29	Water Surface	Custom	1
INFERRED IGNIMBRITE - MD TO D SANDS		16	Mohr-Coulomb	0	40	Water Surface	Custom	1

CMW Geosciences

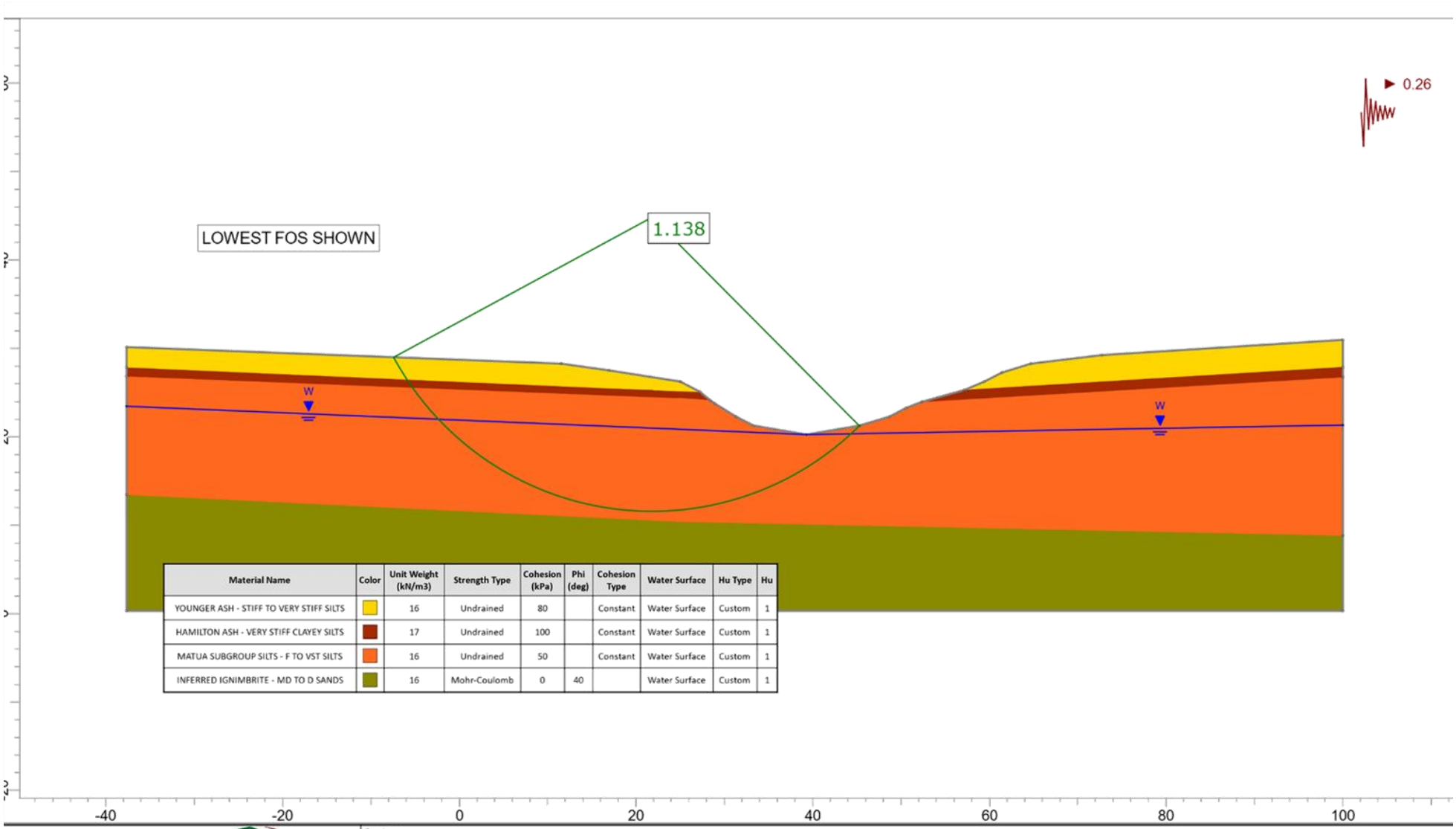
Project	TGA2020-0011 SLOPE STABILITY ANALYSES.slmd				
Analysis Description	Prevailing, Static, Drained				
Drawn By	DCH	Scale	1:400	Company	CMW Geosciences
Date	24/02/2020, 2:39:51 PM			File Name	TGA2020-0011 SLOPE STABILITY ANALYSES.slmd



Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (deg)	Water Surface	Hu Type	Hu	Ru
YOUNGER ASH - STIFF TO VERY STIFF SILTS		16	Mohr-Coulomb	5	30	None			0.3
HAMILTON ASH - VERY STIFF CLAYEY SILTS		17	Mohr-Coulomb	10	25	None			0.3
MATUA SUBGROUP SILTS - F TO VST SILTS		16	Mohr-Coulomb	2	29	None			0.3
INFERRED IGNIMBRITE - MD TO D SANDS		16	Mohr-Coulomb	0	40	Water Surface	Custom	1	
MATUA SUBGROUP SILTS - F TO VST SILTS, BELOW WT		16	Mohr-Coulomb	2	29	Water Surface	Custom	1	

CMW Geosciences

Project	TGA2020-0011 SLOPE STABILITY ANALYSES.slmd				
Analysis Description	Elevated, Static, Drained, Ru = 0.3				
Drawn By	DCH	Scale	1:400	Company	CMW Geosciences
Date	24/02/2020, 2:39:51 PM			File Name	TGA2020-0011 SLOPE STABILITY ANALYSES.slmd



Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (deg)	Cohesion Type	Water Surface	Hu Type	Hu
YOUNGER ASH - STIFF TO VERY STIFF SILTS		16	Undrained	80		Constant	Water Surface	Custom	1
HAMILTON ASH - VERY STIFF CLAYEY SILTS		17	Undrained	100		Constant	Water Surface	Custom	1
MATUA SUBGROUP SILTS - F TO VST SILTS		16	Undrained	50		Constant	Water Surface	Custom	1
INFERRED IGNIMBRITE - MD TO D SANDS		16	Mohr-Coulomb	0	40		Water Surface	Custom	1

CMW Geosciences

Project	TGA2020-0011 SEISMIC ANALYSES.slmd				
Analysis Description	Master Scenario				
Drawn By	DCH	Scale	1:600	Company	CMW Geosciences
Date	24/02/2020, 2:39:51 PM			File Name	TGA2020-0011 SEISMIC ANALYSES.slmd

Geohazard Environmental

Detailed Site Investigation Report

404 Omokoroa Road, Omokoroa

Date 21-05-2020
Job# 200305
Revision C

Detailed Site Investigation Report
404 Omokoroa Road, Omokoroa

This report has been prepared for Southern Orchards Ltd ("the Client") by Geohazard Environmental Ltd. No liability is accepted by this company or any employee or sub-consultant of this company with respect to its use by any other parties.

This disclaimer shall apply notwithstanding that the report may be made available to other persons for an application for permission or approval to fulfil a legal requirement.

The contents of this report comply with good practice and professional standards. It has been approved for release and signed by a Suitably Qualified and Experienced Practitioner.

Quality Assurance Statement		
Task	Responsibility	Signature
Prepared	Nikki Mather	
Reviewed	Jonathan Findon	
Approved for issue	Jonathan Findon	

Revision Schedule		
Revision	Reason	Date
Original Report	-	01 April 2020
Revision A	Updated to include delineation results	19 May 2020
Revision B	Amendments to Section 5.7	19 May 2020
Revision C	Inclusion of a RAP Section	21 May 2020

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Telephone: 0800 GEOHAZARD (436 429)

E-mail: info@geohazard.co.nz

Job No.: 200305

Geohazard Environmental
Contaminated Site Investigation Specialists

Detailed Site Investigation Report
404 Omokoroa Road, Omokoroa

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EXECUTIVE SUMMARY

Southern Orchards Ltd ("the Client") has commissioned Geohazard Environmental Ltd to prepare a Detailed Site Investigation (DSI) Report to investigate 404 Omokoroa Road, Omokoroa for the presence of contaminants. The primary purpose of this is to investigate whether contaminants are present at high levels that would warrant further action prior to redeveloping the site for mixed-use residential and commercial purposes.

This report summarises Geohazard Environmental Ltd.'s investigation, and has been prepared following the Ministry for the Environment's Guidelines for investigations involving potentially contaminated land (referred to herein as the MfE Guidelines). The DSI consisted of a desktop study to gather information about the site and its history, and a site inspection; this information was used to develop an initial conceptual site model, which identifies potential sources of contamination, pathways for release, and potential effects.

For this DSI, Geohazard Environmental Ltd initially collected c.70 surface soil samples on a 30m grid basis across the site and c.10 targeted surface soil samples. Where relevant, analysis was undertaken for a suite of metals, organochlorine pesticides (OCP), polycyclic aromatic hydrocarbons (PAH) and asbestos.

The findings reported herein indicate that soil contaminants north of the shed are present above applicable guidelines, however the overall risk was assessed to be acceptable. Remediation or Site Management was not considered necessary, however, it is understood that to be conservative, the Client has elected to excavate and remove the small identified hotspot to landfill.

This assessment is subject to limitations, as described herein, and it is important that the Client ensure that these are understood and that additional advice is sought, if appropriate, to manage any undiscovered risks.

The presence of any contaminants at site, even at levels that exceed the relevant soil guideline values, does not necessarily mean that an unacceptable human health risk or environmental risk exists. Specific conclusions and recommendations based on findings herein are summarised as follows:

- The site predominantly supports a kiwifruit orchard, with a shed in the centre-east and a dwelling and garage in the south of the site. It is understood that the site is planned to be redeveloped for mixed-use residential, retail and commercial purposes (including numerous residential lots, medium density residential blocks, a retirement home and offices in the west, and a childcare centre, a motel, a parking lot, a clinic and various retail, restaurant and café outlets in the east of the site).

- No evidence of previous ground contamination investigations was identified during the course of undertaking this DSI.

- From at least 1943, the site appeared to support undeveloped assumed grazing land and a section of a gully. Between 1953 and 1959, an assumed hay barn/shed had been erected in the north-east of the site. By 1974, this structure was no longer visible and a further assumed hay barn/shed was present further southwards on-site. Furthermore by this time, the vegetation within the section of gully situated towards the centre and south-east of the site appeared to have been cleared. Between 1974 and 1981, the site had been redeveloped for orchard use. Furthermore during this time, an assumed dwelling was erected in the south-east of the site (assumed associated with the 1979 Building Permit for a house and garage).

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- A site inspection of the entire site area of 7.9 hectares was conducted on 18 March 2020.
    - Given the existing orchard on-site, and that suspected asbestos containing materials were observed on bare ground adjacent to the east of the shed and within cladding/soffits of the garage and dwelling, the potential for contamination couldn't be wholly discounted at the time of the site inspection.
- Geohazard Environmental Ltd initially collected c.70 surface soil samples on a 30m grid basis across the site and c.10 targeted surface soil samples. Where relevant, analysis was undertaken for a suite of metals, organochlorine pesticides (OCP), polycyclic aromatic hydrocarbons (PAH) and asbestos.
- Although organochlorine pesticides were not detected in site soils, concentrations of some metals were noted to be elevated above predicted background concentrations (namely, arsenic, cadmium, copper, and zinc). It is considered more likely than not that **HAIL A.10** activates occurred ('*persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds*').
- Of the 76 surface level soil samples analysed for a suite of metals, one contained concentrations of arsenic above guidelines for the relevant adopted land use scenario (sample HA71 0.0m).
    - Although not confirmed, the most likely source of the elevated arsenic is considered to be associated with a treated timber post, as concentrations of chromium and copper were noted to be elevated when compared to the other results (arsenic, copper and chromium are indicative of treated timber chemicals).
    - Delineation sampling confirmed that the impacted area was likely less than 4m^2 in area and less than 0.3m bgl in depth. Given the small size of this area, the concentrations of arsenic detected, and the large-scale earthworks and planned retail use of this area of the site, remediation/site management was not considered necessary. However, it is understood that to be conservative, the Client has elected to excavate and remove this small hotspot to landfill.
- Asbestos was confirmed in minor fragments on the ground in an area adjacent to the east of the shed. Soil samples collected in this area did not show asbestos in soils. By the time of undertaking the above delineation soil sampling (06 May 2020), an asbestos pick appeared to have been completed and no remaining suspected fragments of asbestos containing material were identified in the vicinity. Given that no asbestos in soil was detected as part of Geohazard Environmental Ltd's investigation, and given the small-scale nature of the area, no further work/remediation/site management was considered necessary.
- The site is considered to be a "**piece of land**" under NES legislation. Therefore National Environmental Standard rules relating to the subdivision, land use change or soil disturbance at the site apply.
- It is likely that the District Council will require a **Restricted Discretionary consent** for any future subdivision or land use change at the site. Small-scale remediation is planned to remove the c.4m^2 area of elevated arsenic identified adjacent to the north of the existing shed (sample location HA71).
- Based on calculations provided in the NES, approximately 3,960m^3 may be disturbed, and approximately 790m^3 may be removed as a permitted activity. There are other criteria

regarding permitted activities that a planner will be able to assist with. Exceedance of permitted volumes and other criteria means a consent may be required by the local council.

- Due to the nature of this investigation, it is not possible to detail the full extent of contamination at the site and neighbouring sites, and there remains a possibility that the site may have been impacted by previous site activities to a degree greater than apparent from results reported herein.

Recommendations
The advice of a planner should be sought, or contact made with the District Council and Regional Council, prior to undertaking any earthworks at the site, to ensure all rules are complied with.

The planned small-scale excavation and removal to landfill of the c.4m2 area situated adjacent to the north of the shed shall be undertaken in accordance with the RAP in Section 7.0 of this report. The works are intended to allow the vicinity of HA71 to be suitable for the proposed commercial use. As such, validation testing of remaining soils is likely to be required. Western Bay of Plenty District Council and the Bay of Plenty Regional Council will likely require verification that the impacted soils were disposed of to appropriate locations, and remaining soils are within guidelines for the proposed residential land use. In addition, any imported soils will require confirmation that they meet applicable standards.

Geohazard Environmental Ltd. are therefore satisfied that an appropriate level of investigation has been undertaken and that with the implementation of this Remedial Action Plan, the land should be safely and effectively remediated, while at the same time avoiding or appropriately mitigating adverse environmental effects.

Further Client Actions
Consent requirements must be checked for both the site and the receiving environment. A planner can assist with this.

Should site earthworks indicate fill material on-site contains anthropogenic material, or if any underground fuel storage tanks are encountered during the earthworks or subsurface suspected hydrocarbon staining, a suitably qualified environmental specialist should be engaged to determine if there is any undue risk.

Soils elsewhere on-site (outside of the area proposed for remediation) with concentrations above background levels but below conservative residential guidelines and/or environmental protection guidelines may still not be suitable for cleanfill. If site soil from outside of the remediation area is to be removed from site, the disposal location should be assessed for compliance with all rules (for example proximity to water).

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1.0 INTRODUCTION

1.1 Background and Objectives

Historically, the site at 404 Omokoroa Road, Omokoroa has supported grazing land and subsequently an orchard. Recently, it has been planned to be redeveloped for mixed-use residential and commercial purposes. Southern Orchards Ltd requested that Geohazard Environmental Ltd investigate the site to determine whether environmental contamination might be present. The Client's brief specifically included field testing to enhance confidence in results. The primary deliverable of the work is this Detailed Site Investigation (DSI) Report, which includes conclusions as to the site's disposition with respect to known or potential environmental contamination, and, as appropriate, recommended steps needed to ensure that contaminant risk is mitigated for end-users of the site.

1.2 Scope of Work

Consistent with the MfE Guidelines for DSI of potentially contaminated land, the following scope of work was undertaken:

(i) Review of all relevant information, including searching for any previous reports pertaining to 404 Omokoroa Road, Omokoroa. Sources were as follows:

- Western Bay of Plenty District Council property file records.
- Bay of Plenty Regional Council property file records.
- Current site owners and/or users:
  - Southern Orchards Ltd; primary contact – Craig Lemon.
- Historic Certificates of Title.
- Historic aerial images.
- Other sources of information, as noted below.

(ii) Inspection of the site to assess its present state and any indications of potentially contaminating activities that have taken place historically or are currently occurring at the site.

(iii) Preparation of this DSI report, which includes all relevant information (collected from above), and complies with relevant reporting guidelines (MfE, 2003). Herein, this report will assess the following:

- Whether previous and/or current on-site activities had or have the potential to cause on-site contamination.
- The likely nature of any contamination.
- The risks to future site users from any contamination.
- The requirement for further on-site investigations to define the extent of any contamination.

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1.3 Limitations

Geohazard Environmental Ltd has performed services for this project in accordance with current professional standards for environmental site assessments. No guarantees are either expressed or implied. This report does not attempt to fulfil the requirements of legal due diligence.

There is no investigation that is thorough enough to preclude the presence of materials at the site that presently, or in the future, may be considered hazardous. As regulatory criteria are subject to change, contaminant concentrations present and considered to be acceptable may, in the future, become subject to different regulatory standards that cause them to become unacceptable for existing or proposed land use activities.

Any recommendations, opinions or findings stated in this report are based on circumstances, facts and regulatory criteria as they existed at the time that Geohazard Environmental Ltd performed the work and on data obtained from the investigations and site observations as detailed in this report. Opinions and judgements expressed in this report, which are based on an understanding and interpretation of current regulatory standards, should not be construed as legal opinions. This report and the information it contains have been prepared solely for the use of Southern Orchards Ltd. Any reliance on this report by other parties shall be at such party's own risk.

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2.0 SITE OVERVIEW

2.1 Site Identification

The site is located at 404 Omokoroa Road, Omokoroa. The site is listed on the Western Bay of Plenty District Council files as P 1207 106 and is legally described as Lot 1 DP 307535. Figure 1 illustrates the general locale of the site. The land parcel site is c.79200m^2 in size. In this report, reference to "the site" constitutes the whole of the parcel generally.

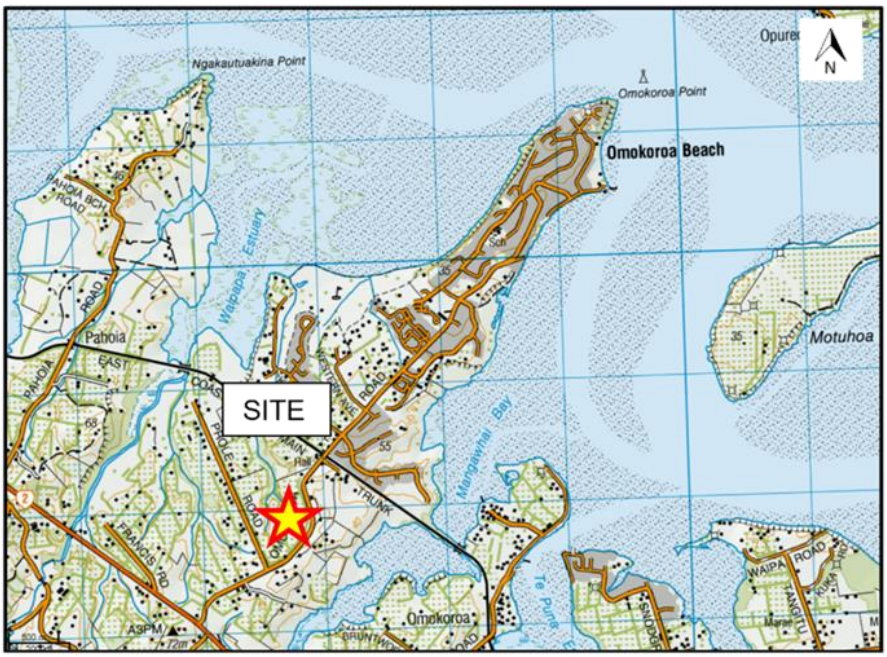

Figure 1: Map View of the Site Location in Relation to Omokoroa

In Figure 2, the area inside the red lines is the approximate site area under investigation.



Figure 2: The Site at 404 Omokoroa Road, Omokoroa

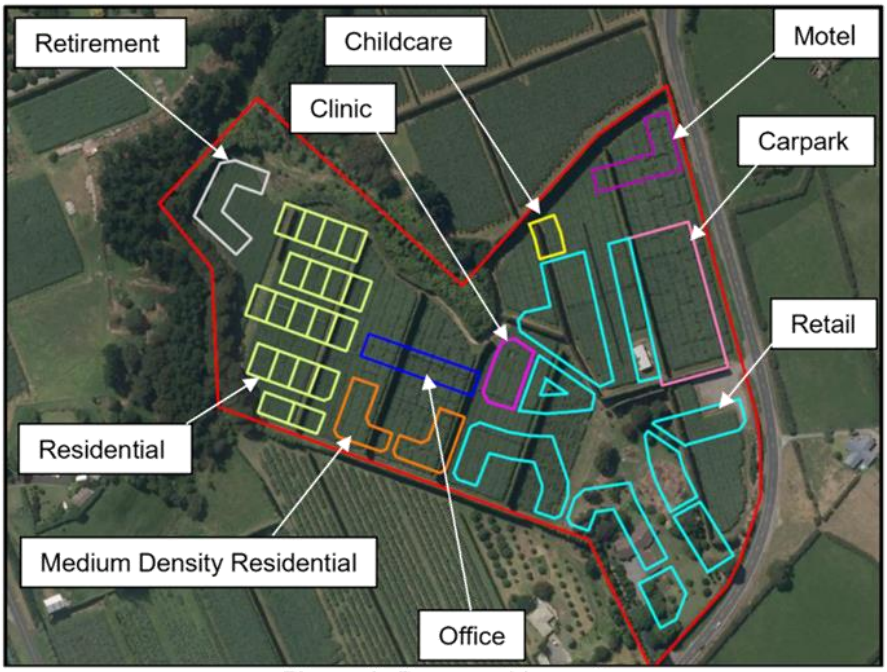

Figure 3: Proposed Layout

2.2 History of Site Ownership and Use

The site history is reviewed to give an indication of potential contaminants at the site. This includes review of past ownership, council file review, historic photo review, and where possible discussions with occupiers. Hazardous Activities and Industries List (HAIL) codes are given where appropriate.

2.2.1 Historic Certificates of Title

Historic Certificates of Title (CT) are used to give an indication of the occupation of land owners. Whilst not definitive that an activity did occur, in many cases it can be reasonably assumed that the owner's occupation correlated with site use. This report uses the terminology "(?)" to indicate if text is unclear or illegible.

The earliest legible documents available for the site indicate that in February 19(?) Arthur A(?) Crapp (**farmer**) was seised of the wider estate in fee-simple. In December 192(?), the title was transferred to Annie Josephine Carter. In December 1957, the title was transferred to Albert Normanby Raphiel Gane (**farmer**). In October 1979, the title was transferred to James Desmond Connell (**orchardist**).

CTs also referred to "Part Lot 1 DP 307535" where in June 1985, one half share was transferred to Betty Alice Gane and in August 1988, ½ share of Albert Normanby Raphael Gane was transferred to Betty Alice Gane, Ian Albert Gane (driver) and Kathryn Alice Raynel (nurse). In June 1995, the title was transferred to Colin James Gane and Yvonne Marcelle Gane (contractors), and in April 1998, 1/3 share was transferred to John Leslie Bullin and 1/3 to Jacqueline Kay Bullin. In October 2002, CTs were issued for Part Lot 1 and Lot 2 DP 307535 and Part Lot 1 was transferred to Susan Mary Connell and James Desmond Connell.

In July 2013, the title was transferred to James Desmond Connell, Susan Mary Connell and Abernethy Broatch Trustee Co 2012 Limited. In June 2015, the title was transferred to Kiwi Green New Zealand Limited.

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2.2.2 Western Bay of Plenty District Council Files

The property file relating to the site was provided by the Western Bay of Plenty District Council on USB, dated 10 March 2020. The following information was identified on the property file:

- In October 1979, J Connell submitted an application for a Building Permit to erect a house and garage (ref.: 6914).
- In July 2004, a Consent Order was issued regarding an appeal under s.174 of the Resource Management Act 1991 between J D & S M Connell and Western Bay of Plenty District Council for the amendment and re-aligning of the road (ref.: RMA 0581/03).
- In April/May 2015, the property was registered on the Bay of Plenty Regional Council's Land Use Register as HAIL A.10 (*persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds*) – Verified Site History (ref.: WBOP_371).
- According to a letter from Kiwigreen New Zealand Ltd (KGNZ) dated February 2018, KGNZ had been the landowner since 2015. The property is a producing kiwifruit orchard.

2.2.3 Bay of Plenty Regional Council Files

The Bay of Plenty Regional Council noted in a letter dated 09 March 2020 that the site is listed on their Selected Land Use Register as HAIL A.10 – Verified Site History as aerial photographs dated 2003, 2007 and 2011 confirmed the presence of an orchard (ref.: LUR-WBP-00371).

The Bay of Plenty Regional Council GIS system shows c.20 HAIL sites within 500m of the site, all of which have been identified as HAIL A.10 (persistent pesticide use).

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2.2.4 Historic Aerial Images

Aerial images are reviewed to present a snapshot in time, and give an indication of what activities may have been undertaken at the site.

The aerial image dated 1943 (below) indicates that from at least 1943, the site and surrounding area appeared to predominantly support undeveloped assumed grazing land. A section of a gully was visible in the north-western, central and south-eastern areas of the site.



1943 (Image Ref.:499/32, Courtesy of Retrolens)

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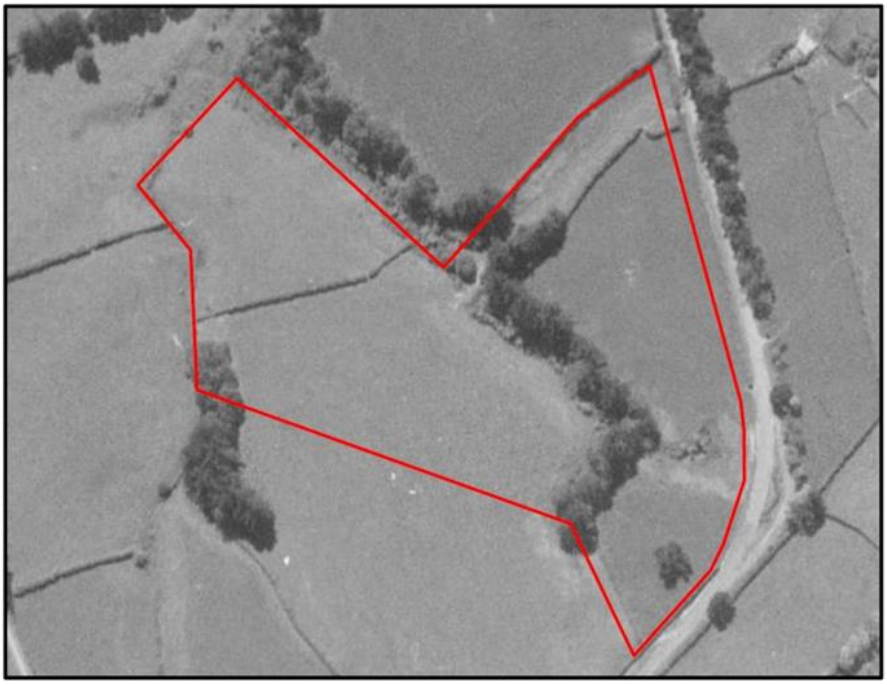
The aerial image dated 1953 (below) indicates that no significant changes appeared to have taken place on-site or within the surrounding area between 1943 and 1953.



1953 (Image Ref.:2230/4, Courtesy of Retrolens)

The aerial image dated 1959 (below) indicates that between 1953 and 1959, an assumed hay barn was visible in the north-east of the site.



1959 (Image Ref.:3007/17, Courtesy of Retrolens)

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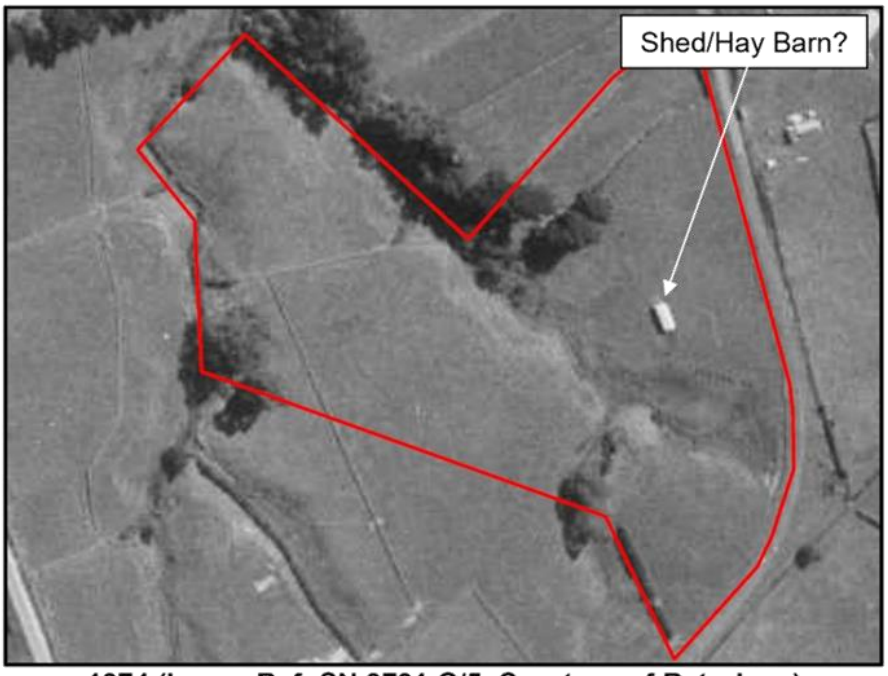
The aerial image dated 1974, the above-mentioned assumed hay barn was no longer viable and a further assumed hay barn was present further southwards. Furthermore, the vegetation within the section of gully situated towards the centre and south-east of the site appeared to have been cleared.



1974 (Image Ref.:SN 3731 G/5, Courtesy of Retrolens)

The aerial image dated 1981 (below) indicates that between 1974 and 1981, the site and surrounding area was redeveloped for orchard use. Furthermore during this time, an assumed dwelling was erected in the south-east of the site (assumed associated with the 1979 Building Permit for a house and garage).



1981 (Image Ref.:SN 5857 R/7, Courtesy of Retrolens)

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The aerial image dated 1986 (below) indicates that between 1981 and 1986, no significant changes appeared to have taken place on-site or within the surrounding area.



1986 (Image Ref.:SN 8626 G/4, Courtesy of Retrolens)

The aerial image dated 2015 (below) indicates that between 1986 and 2015, no significant changes appeared to have taken place on-site or within the surrounding area.



2015 (Image Courtesy of Google Earth Pro)

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The aerial image dated 2019 (below) indicates that between 2015 and 2019, no significant changes appeared to have taken place on-site, however, much of the surrounding area was being redeveloped for residential use.



2019 (Image Courtesy of Google Earth Pro)

2.3 Previous Investigations

No evidence of previous ground contamination investigations was identified during the course of undertaking this DSI.

2.4 Information Provided by the Client

The Client provided a Contamination Assessment Brief prepared by Momentum in February 2020. Relevant information included the following:

- To the south of the site is land recently purchased by the Ministry of Education for a secondary school.
- The land has been developed as a kiwifruit orchard and has been in operation for over 20 years.
- The test for site contamination should be assessed in terms of both commercial and residential land uses as the ultimate land use for this land may include a mix of activities.

2.5 Current and Future Use

The site currently supports a kiwifruit orchard with a shed in the centre-east and a dwelling and garage in the south of the site. It is understood that the site is planned to be redeveloped for mixed-use residential, retail and commercial purposes (including numerous residential lots, medium density residential blocks, a retirement home, offices, a childcare centre, a motel, a parking lot, a clinic and various retail, restaurant and café outlets).

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2.6 Geology and Hydrology

The site undulates in topography. The site straddles a geological boundary. The east of the site is mapped as Whakamarama Group Waitewhariki Formation described as "*crystal-rich dacitic welded ignimbrite.*" The remainder of the site is mapped as early to middle Pleistocene aged river deposits described as "*poorly to moderately sorted gravel with minor sand and silt underlying terraces; includes minor fan deposits and loess*".

A gully encroaches onto the north-west of the site. A further gully is present from adjacent to the west of the site. These gullies flow northwards into the Waipapa Estuary c.1.7km north of the site.

According to the Bay of Plenty Regional Council GIS, the following three wells are recorded on-site:

- Well BN-10863, situated in the vicinity of the water fill point in the far east of the site, is recorded as being 180m deep. Water level before pumping was recorded as 25.4m bgl. The bore was drilled in July 2004 and the status is listed as "active".
- Well BN-1374, situated adjacent to the south of the garage in the south of the site, is recorded as being 42.7m deep. Water level before pumping was recorded as 12.8m bgl. The bore was drilled in February 1979 and is recorded as "active".
- Well BN-1369, also situated adjacent to the south of the garage in the south of the site, is recorded as being 602m deep. Water level before pumping was recorded as 25.9m bgl. The bore was drilled in March 1979 and is recorded as "active".

Seven other bores are recorded within a 500m radius of the site. Water level before pumping (where recorded) ranged between 21.3m bgl and 40m bgl.

2.7 Climate

According to the National Climate Database, annual statistics normalised (average) for a given 30 year period (1981 – 2010) recorded at a station in Whakamarama were as follows:

Table 1: Average Climate Recorded over 1981 – 2010 at Whakamarama

Description	Station	From - To	Annual
Total Rainfall (mm)	Whakamarama 1	1981 - 2010	2640.5
Mean Air Temperature (Celsius)			12.7
Mean Daily Maximum Air Temperature (Celsius)			16.1
Mean Daily Minimum Air Temperature (Celsius)			9.4
Total Sunshine (hours)			1930.8

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2.8 Additional Site Information

Additional details concerning the site's present disposition are summarised in Table 2 below.

Table 2: Summary of Additional Site Information

Ownership	– Previous owners of the site have included various farmers (dating back to at least the 1920s), a driver, a nurse, and contractors. In June 2015, the title was transferred to Kiwi Green New Zealand Limited.
Zoning/Classifications	– The east of the site is zoned as "commercial" and the west of the site is zoned as "future urban" in the Western Bay of Plenty District Council Plan.
Caveats / Covenants	– CTs refer to a caveat by Kiwi Green New Zealand Limited dated April 2015, which was withdrawn in June 2015 (ref.: 10045740.1).
Easements	– CTs refer to a drainage right created by Transfer H245549.3.
Building Consents / Permits	– The Western Bay of Plenty District Council property files were reviewed on 16 March 2020 by Geohazard Environmental staff. The property files contained various building permits/consents relating to the site (including an application for the erection of a house in garage in 1979, see Section 2.2.2).
Resource Consents	– In July 2004, a Consent Order was issued regarding the amendment and re-aligning of the road. – No other resource consents have been identified with respect to activities on the site from either the Bay of Plenty Regional Council or the Western Bay of Plenty District Council.
Underground / Aboveground Storage Tanks	– None identified.
Sewerage and Services	– Assumed present in the vicinity of the dwelling and garage in the south-east of the site.

2.9 Summary of Desktop Information

From at least 1943, the site appeared to support undeveloped assumed grazing land and a section of a gully. Between 1953 and 1959, an assumed hay barn/shed had been erected in the north-east of the site. By 1974, this structure was no longer visible and a further assumed hay barn/shed was present further southwards on-site. Furthermore by this time, the vegetation within the section of gully situated towards the centre and south-east of the site appeared to have been cleared. Between 1974 and 1981, the site had been redeveloped for orchard use. Furthermore during this time, an assumed dwelling was erected in the south-east of the site (assumed associated with the 1979 Building Permit for a house and garage).

Table 3 below outlines typical contaminants found on land uses similar to the site. It does not imply some or all the contaminants will be found on site.

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Table 3: Contaminants on Similar Sites

Activity or Industry	Possible Contaminants	Possible Locations	Possible Vertical Extent	Notes
Buildings containing asbestos products known to be in a deteriorated condition	Asbestos	In and around old structures.	Surface soils (0.0 to 0.1m) likely to be affected. Deeper soil may be affected if ploughing/earthworks has occurred.	From at least 1959 until pre-1974, an assumed hay barn/shed of unknown construction was present in the north-east of the site. By 1974, this structure was no longer present, however a slightly larger assumed hay barn/shed had been erected further southwards on-site (which remained in-situ at the time of writing). At the time of the site inspection, the existing shed appeared to comprise timber cladding and a corrugated iron roof. However, fragments of suspected asbestos containing material (ACM) were observed adjacent to the east of the shed. No suspected ACM was identified in the vicinity of the former shed.
Pastoral Farming	Pesticides, metals	Elevated concentrations in and around sheds, near water supplies (mixing chemicals), animal holding yards and dips. Lower or residual levels across paddocks from fertiliser and pesticide broadcast application.	Surface soils (0.0 to 0.1m) likely to be affected by surface application of pesticides. Deeper soils may be affected where ploughing has occurred. Deeper soils may be affected by point-source spills etc.	From at least 1943 until pre-1981, the site appeared to support assumed grazing land and a section of a gully.
	Hydrocarbons	Fuel storage areas, sheds and workshops on farm	Deeper soils (to groundwater) may be affected by downward migration of hydrocarbons.	As mentioned above, two assumed hay barns/sheds were identified on-site during the time the site supported pastoral farm uses. The potential for fuel storage activities to have occurred cannot be wholly discounted (however, no suspected hydrocarbon staining or odour was identified during the site inspection).
Orchards	Pesticides, metals	Elevated concentrations in and around sheds, near water supplies (mixing chemicals), lower or residual levels in orchard areas	Surface soils (0.0 to 0.1m) likely to be affected by surface application of pesticides. Deeper soils may be affected where ploughing has occurred. Deeper soils may be affected by point-source spills etc.	From at least 1981, the site has supported an orchard. At the time of the site inspection, a water outlet was identified near the main orchard entrance in the east of the site (in the same vicinity as Well BN-10863, which was drilled in 2004).
	Hydrocarbons	Fuel storage areas, sheds and workshops on farm	Deeper soils (to groundwater) may be affected by downward migration of hydrocarbons	The existing shed in the centre-east of the site has been present since before the site was developed for orchard use (however, no suspected hydrocarbon staining or odour was identified during the site inspection).

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3.0 SITE CONDITION AND SURROUNDING ENVIRONMENT

3.1 Site Inspection

A site inspection of the entire site area of 7.9 hectares was conducted on 18 March 2020. The inspection was conducted by Geohazard Environmental Ltd staff to examine the site and observe any evidence of contamination. Specific points noted are conditions at the site boundaries and visible signs of contamination or odours that might suggest contamination. A cursory inspection of factors that relate to site geology and hydrology is also performed to ensure consistency with what is known of the surrounding area. An overall picture of the site geology and hydrology is useful in assessing the transport potential of contaminants to or from the site.

3.2 Conditions at Site Boundaries

Conditions at the site boundaries are as described below:

North – Residential properties.
East – Omokoroa Road, beyond which construction of a multi-lot residential development is underway.
South – Orchard.
West – Gully, beyond which further orchard land and a rural-residential property are located.

The site boundaries are defined with shelterbelts and fencing. Fencing will not affect migration of any contaminants onto or off the site.

3.3 Visible Inspection, Signs of Contamination and Odours

At the time of the site inspection, the majority of the site supported a kiwifruit orchard (see Photograph 1 below). An associated water outlet was observed near to the main entrance in the east of the site (see Photograph 2 below). A shed with timber cladding and a corrugated iron roof was observed towards the centre-east of the site (see Photograph 3). Minor fragments of suspected asbestos containing material (ACM) were observed on top of bare ground in a c.70m area adjacent to the east of the shed (see Photograph 4 below). A dwelling and shed were present in the south of the site (see Photographs 5 and 6 below). Although unconfirmed, suspected ACM was observed within cladding and soffits. Although no suspected ACM was observed in surrounding soils, minor damage was observed to the exterior of these structures (assessing the structures on-site for the presence of ACM falls outside of the scope of this investigation).

Given the existing orchard on-site, and that suspected asbestos containing materials were observed, the potential for contaminated land could not be wholly discounted at the time of the site inspection.

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Photograph 1: General View of the Kiwifruit Orchard On-Site



Photograph 2: View of the Water Outlet in the East of the Site

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Photograph 3: General View of the Existing Shed On-Site



Photograph 4: General View of the Suspected ACM Fragments East of the Existing Shed

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Photograph 5: General View of the Dwelling On-Site



Photograph 6: General View of the Garage On-Site

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4.0 DISPOSITION OF SITE CONTAMINATION

The disposition of any contamination at site must be confirmed with results from field sampling and analysis, and, for contaminated land, these results must be evaluated against soil guideline values (SGV), also known as soil contaminant standards (SCS). This section summarises appropriate SCS for the site, followed by Geohazard Environmental Ltd review of readily available information concerning the disposition of site contamination.

4.1 Basis for Soil Contaminants Standards (SCS)

A SCS is a first stage screening value that provides the concentration of a contaminant in soil to which people (and/or ecological receptors) on or near a site can be exposed without creating an unacceptable level of risk to health. For the protection of human health, SCS are derived by defining a critical receptor (e.g. a child of a certain age and weight) and defining tolerable daily intake for a particular contaminant. Then, using assumptions regarding exposure (e.g. amount, duration, pathway), the soil concentrations that would equal the tolerable daily intake are calculated. Exposure pathways reflect how people are exposed to contaminants.

SCS are based on generic exposure scenarios based on use. An exposure scenario is a combination of exposure pathways typical of a particular activity or use in which exposure to soil contaminants is likely to occur; an activity could be, for instance, a child playing in a residential area. The intent is to estimate the intake of a contaminant for each particular scenario. For simple risk assessment, generic use scenarios are used, with a standard combination of exposure pathways for each scenario. The generic use scenarios used for the SCS are intended to be typical of the great majority of situations in which New Zealanders may be exposed to soil contaminants.

The site investigated here is classed as “commercial” in the east and “future urban” in the west by the Western Bay of Plenty District Council, and also considering the site’s proposed mixed use for residential, retail and commercial purposes, the “residential grown produce consumption (up to 10 %)” use scenario, described in Table 4 below, is considered most relevant for the western half of the site (given the proposed residential lots and medium-density residential blocks proposed in the western half of the site), and the “commercial / industrial” use scenario is considered most relevant for the eastern half of the site (given the proposed motel, parking lot, clinic, and various retail/restaurant/café units proposed in the eastern half of the site). As a result, based on the MfE Guidelines, any results should be assessed against SCS given for the allocated scenario. There are both more conservative and more liberal standards that could be applied; however, the one presented is appropriate both to the use classification of the site based on the information available.

Table 4: Use Scenario Most Relevant to this DSI.

Parks / Recreational	Covers exposure at public and private green areas and reserves that are used for active sports and recreation. This scenario is intended to cover playing fields and suburban reserves where children play frequently. It can also reasonably cover secondary school playing fields but not primary school playing fields.
Residential grown produce consumption (up to 10 %)	Covers standard residential lots for single dwelling sites with gardens, including home-grown produce consumption (up to 10 %).
Rural/ lifestyle block	Rural residential use, including home-grown produce consumption. Applicable to the residential portion of farms, but not productive parts of agricultural land.
Commercial / Industrial	Commercial / industrial sites with varying degrees of exposed soil.

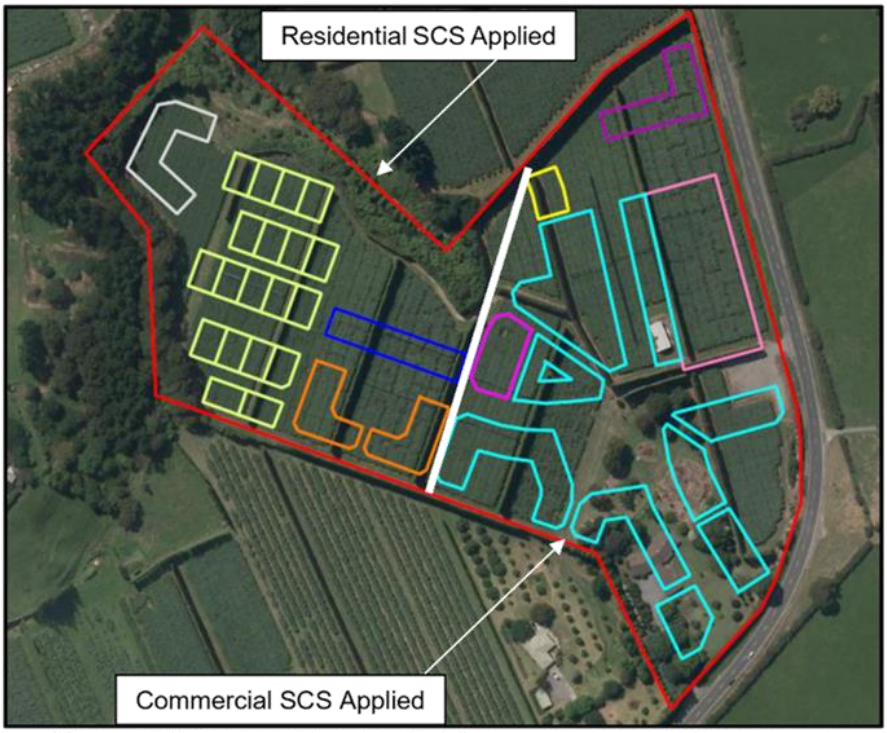

Figure 4: Use Scenarios Applied (image courtesy of Momentum)

SCS in this report, tabulated in Section 4.3, are taken from the National Environmental Standards (NES) and New Zealand Ministry for the Environment (MfE) wherever possible. In some cases, the MfE has not developed a specific SCS for some contaminants under some use scenarios. When MfE values are unavailable, guideline values from reputable sources such as the Australian National Environmental Protection Council (NEPC) are used, according to acceptable SCS sources and the hierarchy of use for these sources that is specified by the MfE (2007).

The NES for contaminated land was introduced in order to address a legacy of soil contamination in New Zealand that has resulted from the use, and improper storage and disposal, of chemicals in industry and agriculture.

The NES controls apply to "Land use change, subdivision, and disturbance of any land where, according to the best information available to the local authority, there has been a facility on the land or a hazardous activity carried out on the land that may have involved the intentional or accidental discharges of hazardous substances that could now be a risk to human health". Hence the NES is applicable to the present site due to the proposed change in land use. The NES contains SCS, and where present these supersede those previously published in MfE industry-specific guidelines.

4.1.1 Background Levels

The NES defines background as "natural background" levels. Background soil concentration predictions were developed by Landcare Research from geostatistical analysis of trace element data from regional councils, national soils database and GNS Science identifying associations with geological parameters adapted from the GNS Science QMAP geological map dataset. The applicable guidelines are shown in the tables in Section 4.3 below. Background levels are particularly relevant when considering whether soils are suitable for disposal as cleanfill.

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4.1.2 Bay of Plenty Regional Council Guidelines

In addition to human health standards, the Bay of Plenty Regional Council requires that contaminants be assessed against guidelines for the protection of the environment. Relevant guidelines are shown in the tables below.

4.2 Field Sampling and Analysis

For this DSI, the Client's brief specifically entailed conducting field sampling and analysis, and this provides an evidentiary basis for determination of the disposition of contaminants at the site. Geohazard Environmental Ltd initially undertook the following soil sampling:

- 70 surface level soil samples (samples "HA01 – HA70 0.0m") were collected on a 30m grid basis across the site. Samples were individually analysed for a suite of metals and appropriately composited (mixed) in the laboratory and analysed for a suite of organochlorine pesticides (OCP).
- Four targeted surface level soil samples (samples "HA70 – HA74 0.0m") were collected around the existing shed situated towards the centre-east of the site. These samples were individually analysed for a suite of metals, OCP and asbestos (presence/absence). As HA71 0.0m and HA73 0.0m were collected in entrance ways to the shed, these two samples were also analysed for a suite of polycyclic aromatic hydrocarbons (PAH).
- As fragments of suspected ACM were observed on top of the bare ground adjacent to the east of the site, fragments were collected and screened for asbestos identification (sample "Asbestos I.D.")
- One targeted surface level soil sample (sample "HA75 0.0m") was collected in the footprint of the former suspected shed in the north-east of the site. This sample was individually analysed for a suite of metals, OCP, PAH and asbestos (presence/absence).
- Three targeted surface level soil samples (samples "HA76 – HA78 0.0m") were collected around the existing dwelling and garage. As minor damage was observed to the externals of these structures, and as the potential for ACM couldn't be discounted, these samples were individually analysed for asbestos (presence/absence).
- One targeted surface level soil sample (sample "HA79 0.0m") was collected below the water outlet in the east of the site. This sample was individually analysed for a suite of metals and OCP.

The purpose of taking composite samples, i.e. samples that represent a mixture of several sub-samples taken from different locations, is to reduce needless laboratory expense – if contamination is present at high levels, even if some of the sub-samples are uncontaminated, the resulting sample will still reflect the presence of the contaminated sub-samples that went into the composite.

Samples were collected using a hand auger. The auger was cleaned between each sample location using Decon90 (a non-phosphate laboratory grade detergent) and deionised water. Samples were placed into laboratory supplied jars, and placed into a chillybin with ice. Samples were couriered to Analytica Laboratories in Hamilton under Chain of Custody documentation.

Information about the site indicates that HAIL (Hazardous Activities and Industries List) associated use has occurred (given the orchard, and suspected ACM), hence HAIL compounds associated with these uses were chosen for analysis.

4.3 Results

The results from analysis of samples, summarised in this section, indicate that one of the 79 soil samples contained contaminant concentrations above adopted guideline values (arsenic in HA71 0.0m). Furthermore, asbestos was confirmed to be present in the loose fragments observed on top of the bare ground adjacent to the east of the existing shed. Per MfE Guidelines, all results

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reported herein that exceed SCS are highlighted; this report uses grey highlighting to emphasise any results over guideline values. The results from analysis of samples for metals are summarised in Table 5 below.

Table 5: Results from Analysis for Metals (all results in mg/kg).

Sample	As	Be	Bo	Cd	Cr	Cu	Pb	Hg	Ni	Zn
Samples Taken in the West of the Site (where residential SCS apply)										
HA31	6.8	0.81	7.9	**0.696**	14.2	**109**	18.1	0.17	7.95	138
HA44	5.2	0.75	5.1	**0.4**	5.8	21.6	10	0.14	2.9	64.5
HA45	9.8	0.88	10	**0.508**	9.1	**62**	10.4	0.12	4.7	84.6
HA46	10	1	8.4	**0.867**	15.2	**92.6**	13.5	0.16	10.9	**129**
HA49	6.6	0.79	5.9	**0.968**	11	**82.6**	10.6	0.12	7.28	98.5
HA50	4.6	0.73	7.2	**0.767**	7.7	**48.3**	8.49	0.11	5.95	85.3
HA51	4.6	0.84	5.9	**0.47**	4.5	24.2	9.44	0.13	2.8	66.8
HA52	5.7	0.79	8.6	**0.956**	11	**113**	10.6	0.14	8.89	**112**
HA53	6.9	0.85	8.7	**0.765**	15.9	**113**	12.2	0.15	9.98	**115**
HA54	6.1	0.84	9	**0.689**	12	**93.8**	12.4	0.14	7.66	**110**
HA55	7.4	0.86	8.9	**0.649**	11	**91.8**	11.4	0.13	5.84	**126**
HA56	**16.1**	0.74	9.7	**0.739**	17.5	**97.6**	12.6	0.13	6.45	**143**
HA57	6.3	0.64	4.9	**1.16**	16.3	**69**	10.7	0.12	10.7	98.3
HA58	4.6	0.53	7.7	**0.895**	19.4	**95.7**	8.44	0.1	7.73	**137**
HA59	4.7	0.58	6.1	**0.931**	9.8	**112**	9.7	0.11	7.9	**120**
HA60	9.2	0.77	6.7	**1.05**	16	**100**	11	0.15	9.7	**121**
HA61	5.1	0.72	7.6	**0.878**	11	**74.7**	9	0.11	7.1	101
HA62	3.9	0.76	6.4	**0.541**	4	21.7	8.74	0.12	2.9	68.2
HA63	7	0.74	5.9	**0.971**	13.4	**114**	10.9	0.13	9.79	**124**
HA64	5.7	0.67	7.6	**1.09**	16.7	**111**	11	0.14	12.1	**126**
HA65	8	0.81	8.6	**0.747**	13.2	**106**	11.8	0.15	7.25	**119**
HA66	6	0.87	9.6	**0.718**	11	**74.6**	12.2	0.15	6.82	**106**
HA67	12	0.84	10	**1.1**	21.7	**141**	14.3	0.2	11.6	**164**
HA68	6	0.72	11	**0.888**	14.4	**114**	10.9	0.15	7.44	**155**
HA69	7.9	0.99	9	**0.49**	9.9	**56.5**	13.9	0.15	4.4	92.3
HA70	9.3	0.75	9.1	**0.728**	16.5	**111**	16	0.19	7.85	**162**
Samples Taken in the East of the Site (where commercial SCS apply)										
HA01	5.5	0.79	7.6	**0.574**	9.2	**62.6**	13.5	0.14	6.11	104
HA02	8.5	0.71	8.1	**0.88**	12.9	**90.2**	11	0.14	8.73	116
HA03	6.1	0.7	9.8	**1.12**	18	**101**	12.5	0.15	10.6	121
HA04	5.4	0.66	9.1	**1.13**	11	**112**	12.9	1	8.39	117
HA05	6.6	0.86	6.1	**1.24**	12	**77.5**	18.2	0.16	10	113
HA06	9.2	0.9	6.8	0.27	11	**45.4**	18.3	0.17	5	78.9
HA07	12.6	0.88	5.6	**0.819**	12.7	**80**	15.5	0.17	7.33	**145**

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Sample	As	Be	Bo	Cd	Cr	Cu	Pb	Hg	Ni	Zn
HA08	3.9	0.62	2.3	0.12	4.2	21.7	4.8	<0.025	1.6	71.6
HA09	5.5	0.72	10	**1.17**	12	**85.5**	10.4	0.11	9.49	121
HA10	5.7	0.72	11	**1.39**	15.1	**106**	12.6	0.14	11.8	**153**
HA11	11	0.77	11	**1.13**	15.3	**119**	12.6	0.15	9.81	**145**
HA12	3.5	0.55	13	**0.532**	3.8	27.1	7.63	0.12	2.3	73.4
HA13	5.7	0.94	4.3	**0.622**	15.4	**40.8**	14.5	0.15	5.74	98.6
HA14	**13.3**	0.8	7	**0.49**	14.2	**73.2**	15.1	0.15	5.54	**112**
HA15	9.6	0.73	11	**0.683**	11	**76**	10.3	0.11	5.27	**138**
HA16	8.5	0.7	11	**0.875**	15.6	**114**	10.3	0.15	8.57	**140**
HA17	6.6	0.69	8.8	**1.15**	14.2	**92.5**	10.7	0.12	10.8	**126**
HA18	7.9	0.99	4.7	**0.36**	5.8	20.3	12.6	0.14	3.3	64.5
HA19	5.6	0.98	6.4	**0.32**	5.4	14.1	11.7	0.15	3.5	50.5
HA20	3.9	0.58	27	**0.29**	3.7	25.2	8.52	0.12	2.3	66
HA21	8.1	0.78	7.7	**0.646**	14.2	**93.5**	13	0.18	6.5	**115**
HA22	5.6	0.9	4.1	**0.557**	6.6	17.2	14.2	0.14	3.9	65.5
HA23	16.5	0.98	2.9	**0.4**	9.3	27.7	28.6	0.14	3.2	68.1
HA24	6	1	3.3	**0.589**	4.9	23.5	14	0.13	2.4	88.3
HA25	**27.2**	0.93	7.1	**0.702**	14.6	**57**	17	0.16	4	**134**
HA26	6.2	0.91	4.1	0.25	6.1	14.7	14.9	0.13	2.7	62.1
HA27	6.7	0.84	7.8	**0.519**	9.1	**75.3**	12.3	0.16	5.89	94.4
HA28	8.4	0.75	15	**0.981**	19	**168**	12.8	0.18	10.8	**171**
HA29	**16.5**	0.98	10	**0.831**	15.5	**99.9**	14.3	0.2	7.01	**236**
HA30	5.3	0.78	14	**0.38**	5.3	23.1	11.4	0.16	2.8	70.7
HA32	6	0.7	8.8	**0.45**	9.5	**52.4**	12.3	0.13	5.08	98
HA33	7.5	0.94	9.3	**0.508**	11	**69.6**	13.2	0.18	6.52	86.1
HA34	9.2	0.81	6.9	0.23	8.2	28	12.3	0.13	3.4	89
HA35	6.5	0.86	6.1	**0.607**	12	33.4	13.7	0.14	7.42	92.9
HA36	8	0.86	8.8	**0.638**	5.8	26.8	12.8	0.11	2.6	**106**
HA37	5.2	0.93	5	**0.29**	4.7	12.4	12.8	0.14	2.4	49.2
HA38	3.4	0.32	2.1	0.1	7.5	18.1	9.97	<0.025	3.7	87.3
HA39	5.4	0.83	8.9	**0.43**	5.1	18.5	15.3	0.13	3.3	69.6
HA40	6.5	0.81	4.8	**0.37**	7.6	27.2	12.8	0.13	3.2	**103**
HA41	6.8	0.81	9.4	**0.5**	6.4	28.2	11.9	0.13	4.6	**121**
HA42	8.3	0.88	11	**0.811**	16.3	**127**	14.1	0.18	10.7	**143**
HA43	9.4	0.94	8.1	**0.639**	11	**80.2**	14.2	0.18	7.27	**112**
HA47	7.2	0.73	9.1	**0.917**	12	**91.6**	11.1	0.15	9.47	**120**
HA48	7.6	0.76	9.9	**0.794**	16.5	**115**	12.3	0.16	8.11	**127**
HA71	**81.6**	0.88	2.1	**0.905**	20.3	**63.5**	**38.5**	0.12	3.7	**204**

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Sample	As	Be	Bo	Cd	Cr	Cu	Pb	Hg	Ni	Zn
HA72	**59.4**	0.69	1.4	**0.835**	17.2	**45.7**	21.3	0.16	4.5	**269**
HA73	6.7	0.82	1.8	**0.33**	5.2	23.9	12.8	0.18	2.3	56.1
HA74	5.2	0.98	2.5	**0.32**	3.9	22.6	11	0.17	2.4	94.5
HA75	5	0.9	6.4	**0.635**	5.2	29.8	10.6	0.12	3.6	79.3
HA79	12	0.58	13	0.15	10	**419**	7.49	0.048	3.7	**436**
SCS (commercial)	70 [a]	500 [b]	>10,000 [a]	1,300 [a]	6,300 [a]	>10,000 [a]	3,300 [a]	4,200 [a]	6000 [b]	400,000 [b]
SCS (Residential)	20 [a]	60 [b]	>10,000 [a]	3 [a]	460 [a]	>10,000 [a]	210 [a]	310 [a]	400 [b]	7400 [b]
Environ-mental [c]	100	-	-	7.5	400	325	250	0.75	105	400
"U95pred" Predicted Background Soil Concentrations (for HA01-HA12 and HA20-HA22 only) [d]	16.38	-	-	0.49	67.35	42.16	24.79	-	33.75	129.7
"U95pred" Predicted Background Soil Concentrations (for all other sample locations) [d]	12.67	-	-	0.28	60.5	40.17	30.08	-	32.88	101.8
Class A Landfill WAC [e]	100	200	400	20	100	100	100	4	200	200

As - Arsenic, Be – Beryllium, B - Boron, Cd - Cadmium, Cr - Chromium, Cu – Copper, Hg – Mercury, Pb – Lead, Ni – Nickel, Zn – Zinc
Cells highlighted in grey exceed SCS; cells highlighted in bold exceed predicted background concentrations; cells underlined exceed environmental criteria; – indicates guideline not specified or not available.

a) MfE 2012 National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health,
b) National Environment Protection Council (NEPC) updated 2013. Guideline on Health-Based Investigation Levels and Ecological Investigation Levels. *=standard residential
c) Bay of Plenty Regional Council Interim Environmental Guidelines
d) Landcare Research Limited (June 2016) Predicted Background Soil Concentrations
e) MfE 2004 Module 2 Hazardous Waste Guidelines: Landfill Waste Acceptance Criteria and Landfill Classification

With regards to the samples analysed for a suite of persistent pesticides, concentrations of OCP were below the laboratory limit of reporting and, therefore, below the human health or environmental criteria.

Table 6 below summarises results from analysis for PAH. Of the PAH, benzo[a]pyrene (BAP) is often used as an indicator of carcinogenic or cancer-causing PAH, and hence sometimes a BAP equivalent (BAP_{eqv}) is reported, which is a value that expresses the projected equivalency of the different kinds and amounts of PAH present in a sample as the equivalent of a single concentration of BAP.

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The NES requires that nine PAH (BAA, BAP, BBF, BJF, BKF, CRY, DBA, FLA, and IND) and their associated potency equivalency factors be used in calculating BAP_{eqv}. In accordance with MfE guidelines, only detected concentrations are used for the calculation of the BAP_{eqv}.

Typically three values of PAH are reported for simplicity and clarity; benzo(a)pyrene, naphthalene, and pyrene, being representative of carcinogenic, non-carcinogenic and less volatile non-carcinogenic PAH respectively.

Table 6: Results from Analysis for PAH (all results in mg/kg).

Sample	BAP	BAP_{eqv}	NAP	PYR
HA71	0.04	0.06	<0.01	0.03
HA73	<0.01	0.03	<0.01	<0.02
HA75	<0.01	0.03	<0.01	<0.02
SCS (Residential)	10 [a]	10 [a]	58 [b]	1600 [b]
SCS (Commercial / Industrial)	35 [a]	35 [a]	190 [b]	NA [b]
Environmental [c]	2.15 [c]	-	-	-
Class A WAC [d]	300	300	200	-

NA indicates that the estimated criterion exceeds 20,000 mg/kg, at which concentration separate phase is hydrocarbon is expected to have formed in soil matrix
Abbreviations for PAH are as follow: Benzo[a]pyrene, BAP; Naphthalene, NAP; Pyrene, PYR.

a. MfE 2011. National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health
b. MfE. 1999. Guidelines for Assessing and Managing Petroleum Hydrocarbon Contaminated Site's in New Zealand. Values shown are for sandy soil types and contamination < 1 m depth.
c. Bay of Plenty Regional Council Interim Environmental Guidelines.
d. MfE 2004 Module 2 Hazardous Waste Guidelines: Landfill Waste Acceptance Criteria and Landfill Classification

Results from screening the samples for asbestos are given in the table below. No asbestos was detected in the soil samples screened, However, asbestos was confirmed to be present in the loose fragments observed on top of the bare ground adjacent to the east of the existing shed.

Table 7: Results from Analysis for Asbestos

Sample	Analysis Results	Form
HA71 0.0m	No Asbestos Detected	-
HA72 0.0m	No Asbestos Detected	-
HA73 0.0m	No Asbestos Detected	-
HA74 0.0m	No Asbestos Detected	-
HA75 0.0m	No Asbestos Detected	-
HA76 0.0m	No Asbestos Detected	-
HA77 0.0m	No Asbestos Detected	-
HA78 0.0m	No Asbestos Detected	-
Asbestos ID	Chrysotile (white asbestos) Fibres	Paint and millboard

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4.3.1 Additional Soil Sampling (Arsenic at Sample Location HA71)

Given the single exceedance of arsenic detected at HA71, on 06 May 2020, Geohazard Environmental Ltd returned to the site and collected a sample at 0.3m bgl in the original exceedance location, as well as further surface soil samples 1m north, south, east and west of HA71. The samples were individually analysed for arsenic. The results were as follows:

Table 8: Results from Analysis for Metals (all results in mg/kg).

Sample	Arsenic
HA71 0.3m	6.5
HA71 - 1m N	**64.5**
HA71 - 1m E	15.6
HA71 - 1m S	**27.4**
HA71 - 1m W	**43.9**
SCS (commercial) [a]	70
Environmental [b]	100
"U95pred" Predicted Background Soil Concentrations [c]	16.38
Class A Landfill WAC [d]	100

Cells highlighted in bold exceed predicted background concentrations.

a) MfE 2012 National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health
b) Regional Council Interim Environmental Guidelines
c) Landcare Research Limited (June 2016) Predicted Background Soil Concentrations
d) MfE 2004 Module 2 Hazardous Waste Guidelines: Landfill Waste Acceptance Criteria and Landfill Classification

Copies of all laboratory results are given in Appendix C.

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5.0 SITE CHARACTERISATION

5.1 Type of Environmental Contamination

The term contaminant refers to a substance that is not normally present in the environment. For this report however, the following operational definition is used: a contaminant is a substance that is present at levels that might cause harmful effects to humans or the environment. Therefore, this report does not consider whether or not the levels present are from natural sources or not, but only whether or not contamination is likely to, or does, exist above safe levels, i.e. SCS.

The results from analysis of samples taken at site indicate that concentrations of arsenic are present at sample location HA71 0.0m (situated adjacent to the north of the existing shed) at levels above the adopted SCS. Therefore, this area of the site is contaminated with respect to the operational definition given above. Results of exceedances are summarised in Table 9 below.

Table 9: Summary of Environmental Contamination at Site.

Contaminant	Exceeds the SCS by a percentage of
Arsenic	116.6%

It is acknowledged that concentrations of copper and zinc in sample HA79 0.0m were elevated above environmental guidelines. However, as no environmental receptors were identified in the vicinity, this is unlikely to be of concern.

5.2 Extent of Environmental Contamination

From the data available, it appears that soils within the vicinity of sample location HA71 0.0m (situated adjacent to the north of the shed in the centre-east of the site) are affected by elevated arsenic above guideline values for a commercial land use.

The source(s) of the contamination is not confirmed, however the most likely source of the elevated arsenic is considered to be associated with a treated timber post, as concentrations of chromium and copper were noted to be elevated when compared to the other results (arsenic, copper and chromium are indicative of treated timber chemicals).

The foregoing provides an assessment of the extent of the contamination at the site based on the information at hand, however it should not be regarded as definitive due to the nature of this investigation.

5.3 Potential for Degradation and Interaction

5.3.1 Arsenic

All rocks contain some arsenic. Some igneous and sedimentary rocks may contain higher arsenic concentrations. The sources of arsenic in soils are both geochemical and anthropogenic. Metallic arsenic is mainly used for strengthening alloys or copper and lead. Arsenic is used in semiconductor electronic devices. Arsenic compounds where historically used for the production of pesticides. Indiscriminate use of arsenic pesticides during the early to mid-1900s has led to extensive contamination of soils worldwide.

Arsenic is considered to be persistent in the environment, and unlikely to degrade at a rate that would be beneficial to occupiers. Inhalation and ingestion are the two routes of exposure. Long-term exposure to arsenic in drinking water is causally related to increased risks of cancer in the skin, lungs, bladder and kidney. Occupational exposure to arsenic by inhalation is causally associated with lung cancer. Arsenic can cause clastogenic damage in different cell types with different end-points in exposed individuals and in cancer patients. For point mutations, the results

are largely negative. Arsenic can also inhibit degradation of any organics by adversely affecting microbial action in site soils if levels are high enough.

5.4 Additional Risk Assessment

5.4.1 Arsenic at Sample Location HA71

Concentrations of arsenic were detected above the adopted guideline values in only one of the 76 surface level soil samples analysed (HA71 0.0m, situated adjacent to the north of the existing shed). Delineation sampling confirmed that the impacted area was likely less than 4m^2 in area and less than 0.3m bgl in depth. Given the small size of this area, the concentrations of arsenic detected, and the large-scale earthworks and planned retail use of this area of the site, it is the opinion of Geohazard Environmental Ltd that the risk from this single exceedance is low and no further work or remediation/site management is considered necessary. However, it is understood that to be conservative, the Client has elected to excavate and remove this small hotspot (see Section 6.0 below).

5.4.2 Asbestos Fragments East of the Shed

With regards to the asbestos confirmed in the occasional fragments identified on the surface in a c.70m area east of the existing shed, an asbestos pick was proposed in the original DSI (01 April 2020). By the time of undertaking the above additional soil sampling (06 May 2020), the asbestos pick appeared to have been completed and no suspected fragments of asbestos containing material were identified in the vicinity. Given that no asbestos in soil was detected as part of Geohazard Environmental Ltd's investigation, and given the small-scale nature of the area, no further work or reporting is considered necessary.



Photograph 7: General View to the East of the Shed Post-Asbestos Pick – 06 May 2020

5.5 Exposure Routes and Risks to Exposed Populations

For human health, exposure is the primary concern, and below we summarise ways by which exposure is most likely to occur:

- Surface soils (0-1 m)
  - Ingestion;

  - Dermal contact (absorption through skin); and
  - Inhalation of soil, dust, or volatised contaminants.
- Sub-surface soils (> 1 m)
  - Water-borne migration of contaminants to surface during times of high rainfall (enabling exposure via all three routes above); and
  - Inhalation via diffusion of vapour-phase contaminants to the surface.

Of these exposure routes, none are likely because no significant contamination source is known or suspected. There is no basis to recommend further investigation at this site. Table 10 therefore shows a conceptual site model **without linkage** between contamination source, pathways and receptors.

Table 10: Conceptual Site Model

Source	Pathway	Receptor	Linkage Present
Volatile Contaminants (Hydrocarbons, solvents)	Inhalation	Site occupiers/users, workers undertaking site development and/or environment	Unlikely. Source not identified.
Non-volatile contaminants (e.g. metals, asbestos)	Ingestion, dermal contact, inhalation	Site occupiers/users, workers undertaking site development and/or environment	Unlikely. A single exceedance of arsenic was detected, however delineation sampling confirmed that the risk was low, and no remediation/site management was considered necessary. However, it is understood that to be conservative, the Client has elected to excavate and remove this small hotspot (see Section 6.0 below). Asbestos was confirmed in fragments on the ground to the east of the shed. By the time of undertaking the above delineation soil sampling (06 May 2020), an asbestos pick appeared to have been completed and no remaining suspected fragments of asbestos containing material were identified in the vicinity. Given that no asbestos in soil was ever detected as part of Geohazard Environmental Ltd's investigation, and given the small-scale nature of the area, no further work/remediation/site management was considered necessary. It is acknowledged that copper and zinc were elevated above published environmental criteria in sample HA79 0.0m. However, no significant environmental receptors were identified in the vicinity (the nearest surface water feature is the gully on-site, which is c.160m north-west of HA79). Therefore, this is unlikely to be of concern.

5.6 NES Consents

The National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health (NES) outlines various 'Permitted Activities' (not requiring consent) and 'Controlled, Restricted Discretionary and Discretionary Activities' (requiring resource consent). The advice of a planner should be sought to ensure all consent requirements are met.

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The site has supported an orchard since at least 1981. Although organochlorine pesticides were not detected in site soils, concentrations of some metals were noted to be elevated above predicted background concentrations (namely, arsenic, cadmium, copper, and zinc). It is considered more likely than not that **HAIL A.10** activates occurred (*'persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds'*).

Of the 76 surface level soil samples analysed for a suite of metals, one contained concentrations of arsenic above SCS for a commercial land use (sample HA71 0.0m). Although not confirmed, the most likely source of the elevated arsenic is considered to be associated with a treated timber post, as concentrations of chromium and copper were noted to be elevated when compared to the other results (arsenic, copper and chromium are indicative of treated timber chemicals). Therefore, it is considered more likely than not that **HAIL I** activates occurred in the vicinity of the existing shed (*'any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment'*).

HAIL E.1 was considered for the c.70m^2 area east of the shed (*'asbestos products manufacture or disposal including sites with buildings containing asbestos products known to be in a deteriorated condition'*). However, an asbestos pick appeared to have been completed and no remaining suspected fragments of asbestos containing material were identified in the vicinity. Furthermore no asbestos in soil was ever detected as part of Geohazard Environmental Ltd's investigation.

The site is considered to be a **"piece of land"** under NES legislation. Therefore National Environmental Standard rules relating to the subdivision, land use change or soil disturbance at the site apply.

5.6.1 Land Use Change

Section 8(4) of the NES states that subdivision or land use change is a Permitted Activity, provided a PSI exists, and the PSI states that it is highly unlikely that there will be a risk to human health. A PSI has not been undertaken, however the desktop information is this report is identical to that of a PSI and may be used as such for consenting purposes. Due to the presence of unacceptable levels of contaminants, it cannot be stated that it is highly unlikely there is a risk to human health. The proposed change of land use cannot be considered a "Permitted Activity" under NES legislation.

Section 9 of the NES states that subdivision or land use change is a Controlled Activity, provided a DSI states that soil contamination does not exceed applicable guidelines. Section 10 states land use change or subdivision is a Restricted Discretionary activity if contaminants are above guidelines.

A single exceedance of arsenic was identified. Delineation soil sampling found the risk to be low, however, it is understood that to be conservative, the Client has elected to excavate and remove this small hotspot (see Section 6.0 below).

Despite the above, it is likely that the District Council will require a **Restricted Discretionary consent** for any future subdivision or land use change at the site. This Detailed Site Investigation report has identified that soil contaminants north of the shed are present above applicable guidelines, however the overall risk is assessed to be acceptable.

5.6.2 Earthworks

The NES sets permitted standards in relation to soil disturbance under Regulation 8(3). The area of the identified piece of land is approximately 79,200m^2. Based on calculations provided in the

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NES, approximately 3,960m^3 may be disturbed, and approximately 790m^3 may be removed as a permitted activity. There are other criteria regarding permitted activities that a planner will be able to assist with. Exceedance of permitted volumes and other criteria means a consent may be required by the local council.

Geohazard Environmental Ltd has not been provided with details relating to the potential earthworks associated with the proposed mixed-use residential/commercial development. Therefore, the potential for the earthworks associated with the development to require consent cannot be fully discounted at this stage.

It is considered highly unlikely that the site will present a risk to human health for the "soil disturbance activity" during the proposed redevelopment earthworks.

Where material is required to be removed from site, the contractor should assess suitability of disposal site in liaison with councils and fill site operators. Although samples indicate the risk to human health is low, earthworks at the site should be undertaken in accordance with best practice. This includes:

- Minimising dust generation by watering the earthworks are if required, or using other dust suppression substances.
- Wearing full-sleeved clothing and gloves to minimise skin exposure to soils.
- Providing dust masks to workers for use in dusty conditions.
- Avoid stockpiling material on site prior to offsite disposal where possible.
- Reinstate surfaces at the works area as soon as practical after earthworks.

Due to the very low risk, we are of the opinion that no further reporting regarding soil contaminants or validation reporting is required with respect to these earthworks at the site. Discretion regarding consent reporting requirements may be exercised by the local council.

5.7 Other Consent Requirements

Under DW R25 (Rule 35) of The Bay of Plenty Regional Natural Resources Plan 2008 last amended May 2018 (formerly the Regional Water and Land Plan), consent for a Restricted Discretionary Activity is required for the remediation or disturbance of a contaminated site. The BOPRC defines a contaminated site as "*a location at which hazardous substances in soil, groundwater or surface water occur at concentrations above background levels….and where assessment indicates those substances pose….a hazard to human health or the environment*". Our assessment is that it is unlikely contaminants would be present at the site in concentrations likely to pose a hazard to human health or the environment.

Under DW R8 (Rule 37), consent for a discretionary activity is required for discharges of a contaminant to water, or discharges of a contaminant onto or into land in circumstances which may result in the contaminant entering water. The plan defines contaminated land as above background levels. If soil is removed, depending on the location of disposal, consent may be required from the Bay of Plenty Regional Council. Furthermore, soils imported to site (if undertaken) above background levels will likely require consent from the Bay of Plenty Regional Council.

The advice of a planner should be sought to ensure all consent requirements are met.

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6.0 REMEDIATION ACTION PLAN

6.1 Site Characterisation

Although no remediation or site management is considered necessary, it is understood that the Client has elevated to excavate and remove the small hotspot of elevated arsenic detected at sample location HA71 0.0m. It is therefore proposed that the contractor excavates and disposes of the impacted soils at an appropriate location as per this RAP.

From soil sampling undertaken to date, the area proposed for remediation is approximately $4m^2$ in size/$1.2m^3$ in-situ volume (area outlined in pink on the Plan in Appendix A).

6.2 Remediation Plan Objectives and Goals

The objective of this Remediation Action Plan is to ensure that the works required as part of the project are appropriately managed and that contaminated or potentially contaminated soils are identified, handled and disposed of in an appropriate manner. The goals of the remedial works are to:

- Remove the pathway for impacted soils to adversely affect human health (the receptor).
- Ensure appropriate protection of on-site workers during works.
- Remove surplus soil to appropriate landfill locations.
- Limit discharges from the site during and following remediation.

6.3 Outline of Works

The proposal is to remove affected soils to a depth of at least 300mm, and if required for site levels, backfill with clean soils. The purpose of this RAP is twofold: firstly to ensure the health of site occupiers and the general public, and secondly to ensure discharges from the site are managed to mitigate any adverse effects to the environment.

Soils within the vicinity of sample location HA71 (situated adjacent to the north of the existing shed) are impacted by the presence of contaminants (namely, arsenic) from previous activities on the site.

The investigation has identified potential risk to soils from historical activities impacting surficial and near-surface soils only. The following works will be undertaken at the site:

- Soil removal.
- Offsite disposal of soils.
- Importation of verified clean soils if required for site levels.
- Validation sampling and reporting of the remediated areas.

The contractor shall dispose of soil at an appropriate landfill facility licenced to accept such material.

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6.4 Volumes for removal

From soil sampling undertaken to date, approximately 1.2m^3 (in-situ volume) is proposed for excavation/removal.

Once the proposed excavation and removal has been completed, validation soil sampling will likely be required prior to backfilling (to confirm that the remediation undertaken has been successful). Although concentrations of contaminants of concern were found to generally be within Class A Landfill WAC, confirmation of acceptance of the soil shall be obtained from the landfill operator prior to undertaking the work.

6.5 Site Establishment

The earthworks contractor shall complete a health and safety induction prior to the works commencing for all contractors employed during the remediation works in the project area. A Health and Safety Plan shall be prepared, and include actions that need to be taken for handling potentially contaminated soil and groundwater as described in this RAP.

Access to the site shall be restricted to authorised personnel by the use of barricades/fences and adequate signage. Personnel shall be authorised access to site following completion of site induction procedures.

6.6 Methodology for Excavating and Removing Impacted Soils

The following requirements are to be met when removing the contaminated soil from the site:

- Vehicles and machinery used for the works shall be cleaned prior to leaving the site. This includes:
  - Brushing wheels and tracks to remove any excess dirt.
  - Rinsing truck trays and/or earth working machinery if needed.
  - Rinse areas shall be designated “dirty areas”. It is important to ensure wash water does not flow to clean areas of the site.

- To avoid the need for significant vehicle cleaning/washing, the truck could be parked on adjacent undisturbed grass-covered ground.

- The soil should be placed directly onto a waiting truck.

- The soil in the truck shall be covered to minimise exposure to dust. Prior to leaving site, the outside of the cover shall be clean and free of any significant impacted soil/dust that might have transferred onto the outside cover.

- Waste shall be transported directly to and disposed of at the selected facility licensed to take such material.

- Soils taken away for disposal shall be tracked, with landfill gate receipts collected and retained. All landfill gate receipts must be kept and provided for any Validation reporting (if required). If alternative disposal methods are proposed, then approval from District Council and Bay of Plenty Regional Council shall be obtained before the proposed removal work commences.

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6.7 Pathways for Exposure (Site Workers)

Soil exposure can occur in several ways:

- Direct soil contact, for example during excavation of soils.
- Soil ingestion.
- Inhalation of dust.

To minimise soil contact, the management processes outlined in the section below are proposed for the site.

6.8 Worker Protection - Health and safety

The contractor shall prepare and implement a Health and Safety Plan in compliance with the Health and Safety at Work Act, 2015, and associated regulations, and other applicable legislation, regulations, codes and guidelines. The contractor's Health and Safety Plan shall also cover measures related to the presence of potentially contaminated material. As a minimum, the following measures shall be implemented by the contractor.

- While the excavations remain open, entry to the site shall be restricted to authorised workers only.
- A designated wash-point shall be made available on the site. This shall include a supply of fresh clean water and soap.
- An environmental safety officer (ESO) shall be appointed for the works. The role of the ESO shall be to ensure workers are wearing the correct protective equipment and respond to new hazards as they arise. The ESO is typically an experienced member of the contractors' staff.
- All workers shall be inducted prior to carrying out works at the site. The inductions shall describe the PPE requirements and outline the potential hazards of the contamination that is likely to be encountered at the site.
- In addition to standard health and safety requirements such as hi-visibility jacket and steel capped boots, all workers shall be required to wear gloves if handling significant quantities of potentially contaminated soil. Sufficient quantities of disposable gloves shall be made available.
- Dust control measures shall be put in place. This includes:
  - Wetting of soils as required to minimise dust generation.
  - Stopping work when wind causes visible dust clouds to be generated.
  - Dust masks shall be made available. Workers shall use these if visible dust clouds are present within the working area.
- All incidents and accidents shall be reported to the Environmental Safety Officer.
- Hand to mouth contact (including eating, drinking and smoking) within the earthworks area shall be avoided.

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6.9 Groundwater

Groundwater at the site has not been tested for the presence of contaminants. Groundwater shall not be extracted from the site and used for human consumption nor dust control unless future laboratory analysis shows groundwater to be suitable for such use.

Groundwater is not expected to be encountered during shallow earthworks for these proposed remedial works at the site.

6.10 Dust Controls

Contaminated dust may become airborne during dry and windy conditions when potentially contaminated soil is exposed during any excavation. To avoid and minimise the generation of potentially contaminated dust, the contractor shall ensure any exposed soil and trafficked areas shall be dampened down with water spray during adverse weather conditions. Prior to undertaking the works, it should be confirmed if water is readily available on-site. In the highly unlikely event that wind conditions prevail and where water applied to site cannot maintain the surface to ensure dust is not discharged offsite, machinery movements shall cease.

The requirement for damping shall be monitored by the on-site project manager and/or environmental safety officer.

6.11 Odour Controls

From the information identified to date, the soil is not believed to contain significant putrescible material. It is not expected that significant odours will be generated by the earth-working of soil. If significant odours (e.g. hydrocarbon odours) are noted during the earthworks, a Suitably Qualified Environmental Professional (SQEP) shall be engaged.

6.12 Risks to Off-site Receptors

The risks to off-site receptors are managed through the earthworks and transport procedures outlined in this document. The overall level of risk is very low, as impacted soils planned to be removed from the site are to be placed in covered trucks, and transported predominantly on paved roads. It is essential waste is taken directly to an approved landfill, to avoid soils being placed in inappropriate locations, such as on farms that may be later developed for residential use.

6.13 Landfill Acceptance

The soil from the proposed remediation area does not meet the cleanfill definition, and it is unsuitable for disposal to cleanfill.

Concentrations of contaminants of concern were found to generally be within Class A WAC, and therefore a Class A Landfill facility is considered to be the most appropriate disposal location for these soils.

Possible landfills which *may* accept the soil include Greenpark Landfill in Oropi or Tirohia Landfill. However, the chosen landfill facility should be contacted in advance to confirm acceptance of these soils.

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6.14 Contingency and Notification

Not all ground conditions can be anticipated, and some contingency measures are required if ground contamination is encountered in excess of what is indicated by this Remediation Action Plan. A suitably qualified and experienced practitioners (SQEP) shall be engaged if there is doubt about soil quality. In addition to engaging a SQEP, it is the duty of the contractor to notify the appropriate Contaminated Land Officer of the Tauranga City Council within 48hrs that adverse site conditions have been encountered.

Below are examples of when a suitably qualified person shall be engaged. The list is not comprehensive and discretion is required on site. None of the below are considered likely scenarios on this site:

- Underground fuel storage tanks encountered, whether empty or filled.
- Buried waste of different characteristics to material known to be on-site is identified in significant quantities (more than $5m^3$), indicating a potential landfill site.
- Groundwater is encountered within the remedial works area.
- Hydrocarbon odours are noted from soils on-site.
- Staining of sub-surface natural soils observed.

6.15 Conceptual Model (Post Remediation)

Following completion of the proposed remediation, the pathway for inhalation and ingestion will have been removed. Table 11 therefore shows a conceptual site model without linkage between contamination source, pathways and receptors.

Table 11: Conceptual Site Model (Post Remediation)

Source	Pathway	Receptor	Linkage Present
Non-volatile contaminants (e.g. metals)	Ingestion, dermal contact, inhalation	Site occupiers	No. Pathways removed.
Volatile contaminants (e.g. hydrocarbons)	Ingestion, dermal contact, inhalation	Site occupiers	No. Source not identified.

6.16 Movement of Other Soils

It is expected that earthworks are planned to take place as part of the proposed development. With removal of the "hotspots" of contamination as proposed in this RAP, no barriers have been identified with regards to other site surface soils potentially being used elsewhere on-site for other purposes.

It should however be noted that some of the soil samples taken on-site (excluding the area proposed for remediation) contained metals above predicted natural background concentrations and therefore, general site soils may not be suitable for disposal as cleanfill.

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7.0 VALIDATION

The works are intended to be small-scale site remediation, to allow the vicinity of HA71 to be suitable for the proposed commercial use. As such, validation testing of remaining soils may be requested. Western Bay of Plenty District Council and the Bay of Plenty Regional Council will require verification that the impacted soils were disposed of to appropriate locations, and remaining soils are within guidelines for the proposed commercial land use. In addition, any imported soils will require confirmation that they meet applicable standards.

The following information shall be retained and presented at completion of the works:

- Details of any additional sampling undertaken.
- Documentation showing that all soil excavated and removed from the project area was disposed of to an appropriate location, at an off-site licensed landfill facility;
    - Volumes and locations of soil excavated from the site.
    - Transport operator details.
    - A photographic record of works as they progress
    - Details of disposal location.
    - Receipts from landfill operators showing the date and volume or tonnage of soil disposed.
- Documentation of the quality of any imported clean soil. The contractor shall confirm that the topsoil meets the validation requirements set out in Table 12 below.
- Documentation that stormwater and groundwater (if encountered during works) was disposed in an appropriate manner, if removed from the site.
- Details of any contingency measures invoked.
- Sampling at the periphery of each of the excavated areas (including the base of each excavation area) to confirm that all affected soils have been removed.

7.1 Imported Topsoil and Hard Fill Validation

The contractor shall ensure that any imported topsoil (if required) to backfill the excavation at HA71 shall meet at least the validation requirements set out in Table 12 (below). The lesser of human health protection guidelines is the maximum allowable. **Note that consent will be required to import soils that exceed the "cleanfill criteria"**.

The source of the topsoil shall be confirmed to be appropriate for commercial use, with testing and comparison against residential land use guidelines if required (e.g. topsoil from an intensive market garden site may not be suitable).

Should the contractor import fill for use directly from a quarry, no validation testing is required of the hard fill.

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Table 12: Imported topsoil maximum validation criteria (human health protection)

Contaminant	Human Health criteria (mg/kg)
Arsenic	70 [a]
Cadmium	1,300 [a]
Chromium	6,300 [a]
Copper	>10,000 [a]
Nickel	6000 [b]
Lead	3,300 [a]
Zinc	400,000 [b]

a) MfE 2012 National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health.
b) National Environment Protection Council (NEPC) updated 2013. Guideline on Health-Based Investigation Levels and Ecological Investigation Levels, standard residential.

7.2 Ongoing Site Management

Ongoing management is not required, as it is proposed to remove the single hotspot of surface contaminated soils from the site.

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8.0 CONCLUSIONS AND RECOMMENDATIONS

8.1 Summary and Conclusions

The following summarises results from Geohazard Environmental Ltd.'s investigation of the site:

- The site predominantly supports a kiwifruit orchard, with a shed in the centre-east and a dwelling and garage in the south of the site. It is understood that the site is planned to be redeveloped for mixed-use residential, retail and commercial purposes (including numerous residential lots, medium density residential blocks, a retirement home and offices in the west, and a childcare centre, a motel, a parking lot, a clinic and various retail, restaurant and café outlets in the east of the site).

- No evidence of previous ground contamination investigations was identified during the course of undertaking this DSI.

- From at least 1943, the site appeared to support undeveloped assumed grazing land and a section of a gully. Between 1953 and 1959, an assumed hay barn/shed had been erected in the north-east of the site. By 1974, this structure was no longer visible and a further assumed hay barn/shed was present further southwards on-site. Furthermore by this time, the vegetation within the section of gully situated towards the centre and south-east of the site appeared to have been cleared. Between 1974 and 1981, the site had been redeveloped for orchard use. Furthermore during this time, an assumed dwelling was erected in the south-east of the site (assumed associated with the 1979 Building Permit for a house and garage).

- A site inspection of the entire site area of 7.9 hectares was conducted on 18 March 2020.
    - Given the existing orchard on-site, and that suspected asbestos containing materials were observed on bare ground adjacent to the east of the shed and within cladding/soffits of the garage and dwelling, the potential for contamination couldn't be wholly discounted at the time of the site inspection.

- Geohazard Environmental Ltd initially collected c.70 surface soil samples on a 30m grid basis across the site and c.10 targeted surface soil samples. Where relevant, analysis was undertaken for a suite of metals, organochlorine pesticides (OCP), polycyclic aromatic hydrocarbons (PAH) and asbestos.

- Although organochlorine pesticides were not detected in site soils, concentrations of some metals were noted to be elevated above predicted background concentrations (namely, arsenic, cadmium, copper, and zinc). It is considered more likely than not that **HAIL A.10** activates occurred ('*persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds*').

- Of the 76 surface level soil samples analysed for a suite of metals, one contained concentrations of arsenic above guidelines for the relevant adopted land use scenario (sample HA71 0.0m).
    - Although not confirmed, the most likely source of the elevated arsenic is considered to be associated with a treated timber post, as concentrations of chromium and copper were noted to be elevated when compared to the other results (arsenic, copper and chromium are indicative of treated timber chemicals).

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- Delineation sampling confirmed that the impacted area was likely less than 4m^2 in area and less than 0.3m bgl in depth. Given the small size of this area, the concentrations of arsenic detected, and the large-scale earthworks and planned retail use of this area of the site, remediation/site management was not considered necessary. However, it is understood that to be conservative, the Client has elected to excavate and remove this small hotspot to landfill.

- Asbestos was confirmed in minor fragments on the ground in an area adjacent to the east of the shed. Soil samples collected in this area did not show asbestos in soils. By the time of undertaking the above delineation soil sampling (06 May 2020), an asbestos pick appeared to have been completed and no remaining suspected fragments of asbestos containing material were identified in the vicinity. Given that no asbestos in soil was detected as part of Geohazard Environmental Ltd's investigation, and given the small-scale nature of the area, no further work/remediation/site management was considered necessary.

- The site is considered to be a "**piece of land**" under NES legislation. Therefore National Environmental Standard rules relating to the subdivision, land use change or soil disturbance at the site apply.

- It is likely that the District Council will require a **Restricted Discretionary consent** for any future subdivision or land use change at the site. Small-scale remediation is planned to remove the c.4m^2 area of elevated arsenic identified adjacent to the north of the existing shed (sample location HA71).

- Based on calculations provided in the NES, approximately 3,960m^3 may be disturbed, and approximately 790m^3 may be removed as a permitted activity. There are other criteria regarding permitted activities that a planner will be able to assist with. Exceedance of permitted volumes and other criteria means a consent may be required by the local council.

- Due to the nature of this investigation, it is not possible to detail the full extent of contamination at the site and neighbouring sites, and there remains a possibility that the site may have been impacted by previous site activities to a degree greater than apparent from results reported herein.

8.2 Recommendations

The advice of a planner should be sought, or contact made with the District Council and Regional Council, prior to undertaking any earthworks at the site, to ensure all rules are complied with.

The planned small-scale excavation and removal to landfill of the c.4m2 area situated adjacent to the north of the shed shall be undertaken in accordance with the RAP in Section 7.0 of this report. The works are intended to allow the vicinity of HA71 to be suitable for the proposed commercial use. As such, validation testing of remaining soils is likely to be required. Western Bay of Plenty District Council and the Bay of Plenty Regional Council will likely require verification that the impacted soils were disposed of to appropriate locations, and remaining soils are within guidelines for the proposed residential land use. In addition, any imported soils will require confirmation that they meet applicable standards.

Geohazard Environmental Ltd. are therefore satisfied that an appropriate level of investigation has been undertaken and that with the implementation of this Remedial Action Plan, the land should be safely and effectively remediated, while at the same time avoiding or appropriately mitigating adverse environmental effects.

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8.3 Further Client Actions

Consent requirements must be checked for both the site and the receiving environment. A planner can assist with this.

Should site earthworks indicate fill material on-site contains anthropogenic material, or if any underground fuel storage tanks are encountered during the earthworks or subsurface suspected hydrocarbon staining, a suitably qualified environmental specialist should be engaged to determine if there is any undue risk.

Soils elsewhere on-site (outside of the area proposed for remediation) with concentrations above background levels but below conservative residential guidelines and/or environmental protection guidelines may still not be suitable for cleanfill. If site soil from outside of the remediation area is to be removed from site, the disposal location should be assessed for compliance with all rules (for example proximity to water).

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9.0 REFERENCES

Bay of Plenty Regional Council (2011) *Trace Elements in Bay of Plenty Soils Report 2011/16*

GNS Science (GNS) GeoAtlas, http://data.gns.cri.nz/geology/ accessed 30.03.2020.

MfE 2004. *Module 2 Hazardous Waste Guidelines: Landfill Waste Acceptance Criteria and Landfill Classification.*

MfE 2011a. *Contaminated Land Management Guidelines No.1: Reporting on Contaminated Site's in New Zealand.*

MfE 2011b. *Contaminated Land Management Guidelines No. 2: Hierarchy and Application in New Zealand of Environmental Guideline Values.*

MfE 2011c. *Contaminated Land Management Guidelines No.5: Site Investigation and Analysis of Soils.*

MfE 2011d *Hazardous Activities and Industries List (HAIL).*

MfE 2012 *National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health.*

National Environment Protection Council (NEPC) 1999. *Guideline on Health Based Investigation Levels (updated 2013).*

National Institute of Water and Atmospheric Research (NIWA) 2011. *The National Climate Database,* http://cliflo.niwa.co.nz/ -accessed 30.03.2020.

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Geohazard Environmental
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APPENDIX A

Historic Certificates of Title

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

R.W. Muir
Registrar-General
of Land

Constituted as a Record of Title pursuant to Sections 7 and 12 of the Land Transfer Act 2017 - 12 November 2018

Identifier	**29280**
Land Registration District	**South Auckland**
Date Issued	25 October 2002

Prior References
SA25B/71 SA54D/456

Estate	Fee Simple
Area	7.9099 hectares more or less
Legal Description	Lot 1 Deposited Plan 307535

Original Registered Owners
Susan Mary Connell as to a 2/5 share
James Desmond Connell as to a 3/5 share

Interests

Subject to a drainage right (in gross) over parts marked B and C on DP 307535 in favour of The Tauranga County Council created by Transfer H245549.3 - 7.8.1979 at 12.12 pm

The easements created by Transfer H245549.3 are subject to Section 37 (1) (a) Counties Amendment Act 1961

H322922 Mortgage to The Bank of New South Wales - 13.1.1981 at 10.47 am (Affects part)

H565581.2 Mortgage to Trusteebank Bay of Plenty - 11.1.1985 at 11.19 am (Affects part)

H565581.3 Memorandum of Priority making Mortgages H565581.2 and H322922 first and second mortgages respectively - 11.1.1985 at 11.19 am

B379504.1 Court Order vesting Mortgage H565581.2 in Westpac Banking Corporation - produced 18.11.1996 at 9.00 am and entered 11.11.2004 at 9:00 am

6212111.1 Variation of Mortgage H565581.2 - 11.11.2004 at 9:00 am

7095691.1 Application pursuant to Section 99A Land Transfer Act 1952 vesting Mortgage H322922 in Westpac New Zealand Limited - 2.11.2006 at 9:00 am

7095691.1 Application pursuant to Section 99A Land Transfer Act 1952 vesting Mortgage H565581.2 in Westpac New Zealand Limited - 2.11.2006 at 9:00 am

9439401.1 Discharge of Mortgage H322922 - 11.7.2013 at 3:47 pm

9439401.2 Discharge of Mortgage H565581.2 - 11.7.2013 at 3:47 pm

9439401.3 Transfer to James Desmond Connell, Susan Mary Connell and Abernethy Broatch Trustee Co 2012 Limited - 11.7.2013 at 3:47 pm

9439401.4 Mortgage to ANZ Bank New Zealand Limited - 11.7.2013 at 3:47 pm

10045740.1 CAVEAT BY KIWI GREEN NEW ZEALAND LIMITED - 30.4.2015 at 11:04 am

10067793.1 Withdrawal of Caveat 10045740.1 - 12.6.2015 at 12:06 pm

10067793.2 Discharge of Mortgage 9439401.4 - 12.6.2015 at 12:06 pm

10067793.3 Transfer to Kiwi Green New Zealand Limited - 12.6.2015 at 12:06 pm

10067793.4 Mortgage to Bank of New Zealand - 12.6.2015 at 12:06 pm

10912251.2 Variation of Mortgage 10067793.4 - 25.9.2017 at 3:37 pm

COMPUTER FREEHOLD REGISTER UNDER LAND TRANSFER ACT 1952

Historical Search Copy

R.W. Muir
Registrar-General
of Land

Cancelled

Identifier	**SA54D/456**
Land Registration District	**South Auckland**
Date Issued	08 March 1995

Prior References
SA45D/696

Estate	Fee Simple
Area	9306 square metres more or less
Legal Description	Lot 4 Deposited Plan South Auckland 68314

Original Proprietors
John Leslie Bullin as to a 1/3 share
Jacqueline Kay Bullin as to a 2/3 share

Interests

Subject to a drainage right (in gross) over part marked A on DPS 54663 in favour of The Tauranga County Council created by Transfer H245549.3

The easements created by Transfer H245549.3 are subject to Section 37 (1) (a) Counties Amendment Act 1961

B474255.3 Mortgage to Westpac Banking Corporation - 3.4.1998 at 10.46 am

5383271.1 Discharge of Mortgage B474255.3 - 25.10.2002 at 9:00 am

5383271.2 Transfer of Part Lot 1 DP 307535 to Susan Mary Connell (4/10 share) and James Desmond Connell (6/10 share) - 25.10.2002 at 9:00 am

5383271.3 CTs issued - 25.10.2002 at 9:00 am

Legal Description	Title
Part Lot 1 Deposited Plan 307535	29280
Lot 2 Deposited Plan 307535	29281

CANCELLED AND DUPLICATE DESTROYED

References
Prior C/T 45D/696

Transfer No.
N/C. Order No. B.260371.1

Land and Deeds 69

REGISTER

No. 54D/456

CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT

This Certificate dated the 8th day of March one thousand nine hundred and ninety five under the seal of the District Land Registrar of the Land Registration District of SOUTH AUCKLAND

WITNESSETH that BETTY ALICE GANE of Omokoroa widow (½ share) BETTY ALICE GANE abovenamed IAN ALBERT GANE driver and KATHRYN ALICE RAYNEL nurse both of Tauranga as executors (½ share jointly) are seised of an estate in fee simple as tenants in common in the said shares

~~is seised of an estate in fee simple~~ (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial underwritten or endorsed hereon) in the land hereinafter described, delineated with bold black lines on the plan hereon, be the several admeasurements a little more or less, that is to say: All that parcel of land containing 9306 SQUARE METRES more or less situated in Block IV Tauranga Survey District being Lot 4 on Deposited Plan S.68314

DISTRICT LAND REGISTRAR

ASSISTANT LAND REGISTRAR

THIS CERTIFICATE IS AFFECTED BY THE FOLLOWING INTERESTS AS AT THE DATE OF ISSUE

Subject to a Drainage Easement in gross over part herein marked A on DPS.54663 in favour of the Tauranga County Council created by Transfer H.245549.3
(subject to Section 37(1)(a) Counties Amendment Act 1961)

H.417706 Mortgage to The Rural Banking and Finance Corporation of New Zealand - 5.7.1982 at 2.15 p.m.
(varied by 3 memoranda of variation)

B.260371.2 A.L.R.

B.279788.1 Transfer to Colin James Gane and Yvonne Marcelle Gane both of Omokoroa contractors - 23.6.1995 at 9.05 o'c

for A.L.R

B.279788.2 Mortgage to ANZ Banking Group (New Zealand) Limited 23.6.1995 at 9.05 o'c

DISCHARGED ISSUED FOR D.L.R

for A.L.R.

B474255.2 Transfer to John Leslie Bullin (1/3 share) and Jacqueline Kay Bullin (2/3 share)

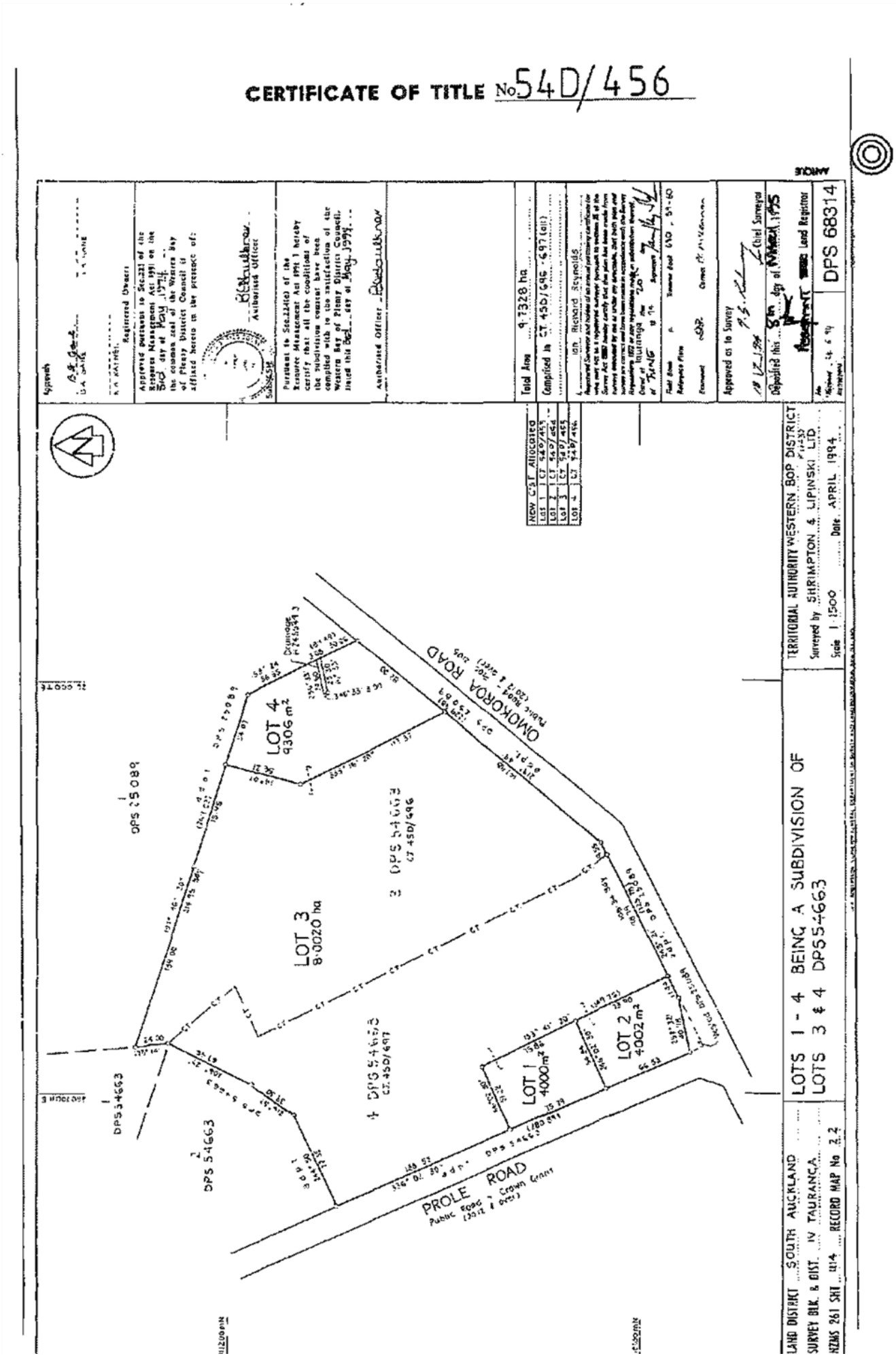
B474255.3 Mortgage to Westpac Banking Corporation

all 3.4.1998 at 10.46

for DLR

Measurements are Metric

54D/456


CERTIFICATE OF TITLE No. 54D/456
Approved pursuant to Section 321 of the Resource Management Act 1991 on the 3rd day of May 1994
Pursuant to Section 226(1) of the Resource Management Act 1991 I hereby certify that all the conditions of the subdivision consent have been complied with to the satisfaction of the Western Bay of Plenty District Council. Dated this 3rd day of May 1994.
Total Area 9.7328 ha
Compiled in CT 450/696 - 697 (all)
Ian Richard Reynolds
Appeared as to Survey
Deposited this 5th day of March 1995
Land Registrar
DPS 68314
NEW C/T Allocated
Lot 1 CT 540/469
Lot 2 CT 540/468
Lot 3 CT 540/467
Lot 4 CT 540/466
TERRITORIAL AUTHORITY WESTERN BOP DISTRICT
Surveyed by SHRIMPTON & LIPINSKI LTD
Scale 1:1500 Date APRIL 1994
LAND DISTRICT SOUTH AUCKLAND
SURVEY BLK. & DIST. IV TAURANGA
NZMS 261 SHT. 114 RECORD MAP No 2.2
LOTS 1 - 4 BEING A SUBDIVISION OF LOTS 3 & 4 DPS 54663
LOT 1 4000m²
LOT 2 4002m²
LOT 3 8.0020 ha
LOT 4 9306 m²
DPS 25089
DPS 54663
CT 450/696
CT 450/697
OMOKOROA ROAD
Public Road (20.12 & over)
PROLE ROAD
Public Road (20.12 & over) Crown Grant

References
Prior C/T 25B/72

Transfer No.
N/C. Order No. H.944883.4

CANCELLED
DUPLICATE DESTROYED Land and Deeds 69

REGISTER

No. 45 D / 696

CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT

This Certificate dated the 10th day of April one thousand nine hundred and ninety under the seal of the District Land Registrar of the Land Registration District of SOUTH AUCKLAND

WITNESSETH that BETTY ALICE GANE of Omokoroa widow (1/2 share) and BETTY ALICE GANE abovenamed and IAN ALBERT GANE driver and KATHRYN ALICE RAYNEL nurse both of Tauranga (1/2 share jointly) are seised of an estate in fee simple as tenants in common in the said shares

~~is seised of an estate in fee simple~~ (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial underwritten or endorsed hereon) in the land hereinafter described, delineated with bold black lines on the plan hereon, be the several admeasurements a little more or less, that is to say: All that parcel of land containing 5.2600 HECTARES more or less situated in Block IV Tauranga Survey District being Lot 3 on Deposited Plan S.54663

DISTRICT LAND REGISTRAR SOUTH AUCKLAND N.Z.

ASSISTANT LAND REGISTRAR

THIS CERTIFICATE IS AFFECTED BY THE FOLLOWING INTERESTS AS AT THE DATE OF ISSUE

Subject to a Drainage Easement in gross over part herein marked A on D.P.S.54663 in favour of The Tauranga County Council created by Transfer H.245549.3 (Subject to Section 37 (1) (a) Counties Amendment Act 1961)

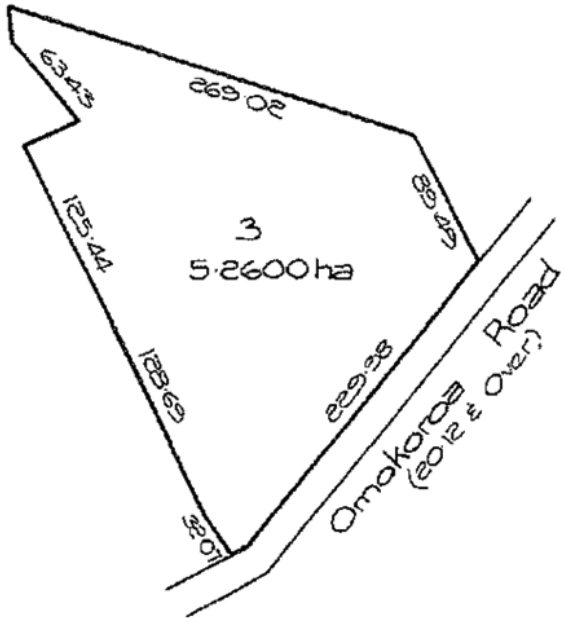
H.417706 Mortgage to The Rural Banking and Finance Corporation of New Zealand - 5.7.1982 at 2.15 o'c (varied by 3 memoranda of variation)

A.L.R.

B.260371.1 ONCT) Cancelled and the following
8.3.1995) CsT issued for Lots on DPS.68314:
part Lot 3 - 54D/455, Lot 4 - 54D/456

A.L.R.

CANCELLED
DUPLICATE DESTROYED



Measurements are Metric

45 D/ 696

CERTIFICATE OF TITLE No. / REGISTER

93560H—50,000/2/89MK

References
Prior C/T 1418/29

Transfer No.
N/C. Order No. H.245549.2

CANCELLED
DUPLICATE DESTROYED

Land and Deeds 69

REGISTER

No. 25B / 72

CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT

This Certificate dated the 7th day of August one thousand nine hundred and seventy-nine under the seal of the District Land Registrar of the Land Registration District of SOUTH AUCKLAND

WITNESSETH that ALBERT NORMANBY RAPHIEL GANE of Omokoroa farmer

is seised of an estate in fee-simple (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial underwritten or endorsed hereon) in the land hereinafter described, delineated with bold black lines on the plan hereon, be the sevefal admeasurements a little more or less, that is to say: All that parcel of land containing 7.4180 HECTARES more or less being Lot 2 on Deposited Plan S.25089 and being part Allotments 61 and 62 Parish of Te Puna

DISTRICT LAND REGISTRAR SOUTH AUCKLAND, N.Z.

ASSISTANT LAND REGISTRAR

H.245549.3 Transfer granting a Drainage Easement in gross over the part herein marked A on Plan S.25089 in favour of The Tauranga County Council produced 7.8.1979 at 12.12 o'c

A.L.R.

The easement created by Transfer H.245549.3 is subject to Section 37(1)(a) of the Counties Amendment Act 1961

A.L.R.

Blk IV Tauranga S.D.

S.54663
16-11-89



Measurements are Metric

No. 25B / 72

H.417706 Mortgage to The Rural Banking and Finance Corporation of New Zealand produced 5.7.1982 at 2.15 o'c

for A.L.R.

H.481203.1 Mortgage to Allied Farmers Nominees Limited produced 16.8.1983 at 1.30 o'c

DISCHARGED

#597218.1

for A.L.R.

H.481203.2 Memorandum of Priority making Mortgage H.481203.1 a first mortgage and Mortgage H.417706 a second mortgage produced 16.8.1983 at 1.30 o'c

for A.L.R.

H.481203.3 Variation of terms of Mortgage H.417706 produced 16.8.1983 at 1.30 o'c

for A.L.R.

H.597213.2 Variation of terms of Mortgage H.417706 produced 26.6.1985 at 11.25 o'c

for A.L.R.

H.597213.3 Transfer of a one half share to Betty Alice Gane of Omokoroa married woman produced 26.6.1985 at 11.25 o'c

for A.L.R.

H.651093 Variation of terms of Mortgage H.417706 produced 17.4.1986 at 10.45 o'c
(consent of Mortgagee under Mortgage H.313657)

for A.L.R.

over

CANCELLED
DUPLICATE DESTROYED

CT 25B/72

H.817965 Transmission of the 1/2 share of Albert Normanby Raphael Gane to Betty Alice Gane widow, Ian Albert Gane driver and Kathryn Alice Raynel nurse all of Tauranga AS EXECUTORS produced 26.8.1988 at 9.01 o'c

for A.L.R.

H.944883.4 ONCT) Cancelled and the following
10.4.1990) C'sT issued for Lots on
DPS.54663
Lot 3 - CT 45D/696
part Lot 4 - CT 45D/697

A.L.R.

CANCELLED
DUPLICATE DESTROYED

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Historical Search Copy

R.W. Muir
Registrar-General
of Land

Cancelled

Identifier	**SA25B/71**
Land Registration District	**South Auckland**
Date Issued	07 August 1979

Prior References
SA1418/29

Estate	Fee Simple
Area	7.8678 hectares more or less
Legal Description	Lot 1 Deposited Plan South Auckland 25089

Original Proprietors
Susan Mary Connell as to a 2/5 share
James Desmond Connell as to a 3/5 share

Interests

Subject to a drainage right (in gross) over parts marked B and C on DPS 25089 in favour of The Tauranga County Council created by Transfer H245549.3 - 7.8.1979 at 12.12 pm

The easements created by Transfer H245549.3 are subject to Section 37 (1) (a) Counties Amendment Act 1961

H322922 Mortgage to The Bank of New South Wales - 13.1.1981 at 10.47 am

H565581.2 Mortgage to Trusteebank Bay of Plenty - 11.1.1985 at 11.19 am

H565581.3 Memorandum of Priority making Mortgages H565581.2 and H322922 first and second mortgages respectively - 11.1.1985 at 11.19 am

5383271.3 CTs issued - 25.10.2002 at 9:00 am

Legal Description	**Title**
Part Lot 1 Deposited Plan 307535	29280

CANCELLED AND DUPLICATE DESTROYED

References
Prior C/T 1418/29

Transfer No.
N/C. Order No. H.245549.2

Land and Deeds 69

No. 25B/71

REGISTER

CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT

This Certificate dated the 7th day of August one thousand nine hundred and seventy-nine under the seal of the District Land Registrar of the Land Registration District of SOUTH AUCKLAND

WITNESSETH that ALBERT NORMANBY RAPHIEL GANE of Omokoroa farmer

is seised of an estate in fee-simple (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial underwritten or endorsed hereon) in the land hereinafter described, delineated with bold black lines on the plan hereon, be the sevefal admeasurements a little more or less, that is to say: All that parcel of land containing 7.8678 HECTARES more or less being Lot 1 on Deposited Plan S.25089 and being part Allotments 61 and 62 Parish of Te Puna

DISTRICT LAND REGISTRAR SOUTH AUCKLAND, N.Z.

ASSISTANT LAND REGISTRAR

H.245549.3 Transfer granting a Drainage Easement in gross over the part herein marked B and C on Plan S.25089 in favour of The Tauranga County Council produced 7.8.1979 at 12.12 o'c

A.L.R.

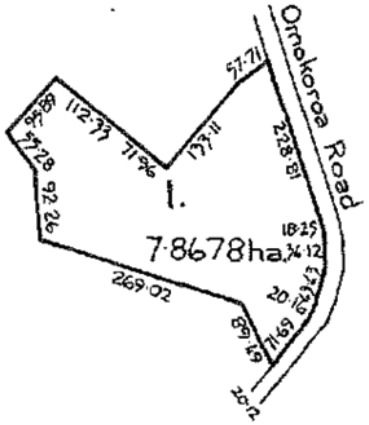
The easement created by Transfer H.245549.3 is subject to Section 37(1)(a) of the Counties Amendment Act 1961

A.L.R.

H.256167.1 Transfer to James Desmond Connell of Omokoroa orchardist produced 9.10.1979 at 10.49 o'c

for A.L.R.

Blk IV Tauranga S.D.



Measurements are Metric

(2) H.256167.2 Mortgage to Thomas Michael Connell produced 9.10.1979 at 10.49 o'c

DISCHARGED FOR D.L.R.

for A.L.R.

(4) H.322922 Mortgage to The Bank of New South Wales produced 13.1.1981 at 10.47 o'c

for A.L.R.

(3) H.417860.1 Mortgage to The Rural Banking and Finance Corporation of New Zealand produced 6.7.1982 at 9.30 o'c

DISCHARGED FOR D.L.R.

for A.L.R.

H.417860.2 Memorandum of Priority making Mortgage H.417860.1 a second mortgage and Mortgage H.322922 a third mortgage produced 6.7.1982 at 9.30 o'c

for A.L.R.

H.420563 Transmission of Mortgage H.256167.2 to Elena Margaret Connell and David Gordon Hall as executors entered 21.7.1982 at 10.40 o'c

for A.L.R.

H.565581.1 Variation of terms of Mortgage H.417860.1 produced 11.1.1985 at 11.19 o'c

for A.L.R.

(1) H.565581.2 Mortgage to Trusteebank Bay of Plenty produced 11.1.1985 at 11.19 o'c

for A.L.R.

H.565581.3 Memorandum of Priority making Mortgage H.565581.2 a first mortgage, Mortgage H.256167.2 a second mortgage, Mortgage H.417860.1 a third mortgage

No. 25B/71

CERTIFICATE OF TITLE 25B/71

H.571379 Transfer of a 4/10th share to Susan Mary Connell of Tauranga Married Woman. Produced 5.2.1985 at 11.08 o'c

for A.L.R.

B509771.1 Transmission of mortgage H256167.2 to David Gordon Hall as survivor - 30.10.1998 at 11.30

for DLR

REGISTER

SOUTH

Land and Deeds—4
FORM No. 2

REGISTER

Reference: Vol. 321, Folio 91
Transfer No. S. 133024
Order for N/C No.

NEW ZEALAND

Register-book, Vol. 1418, folio 29

CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT

This Certificate, dated the third day of December, one thousand nine hundred and fifty-seven under the hand and seal of the District Land Registrar of the Land Registration District of AUCKLAND WITNESSETH that ALBERT NORMANBY RAPHIEL GANE of Omokoroa farmer

is seised of an estate in fee-simple (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial under written or endorsed hereon, subject also to any existing right of the Crown to take and lay off roads under the provisions of any Act of the General Assembly of New Zealand) in the land hereinafter described, as the same is delineated by the plan hereon bordered green, be the several admeasurements, a little more or less, that is to say: All that parcel of land containing 59 ACRES 2 ROODS 0.2 PERCHES more or less being Lot 2 Deposited Plan S.4524 and being part Allotments 61 and 62 Parish of Te Puna.

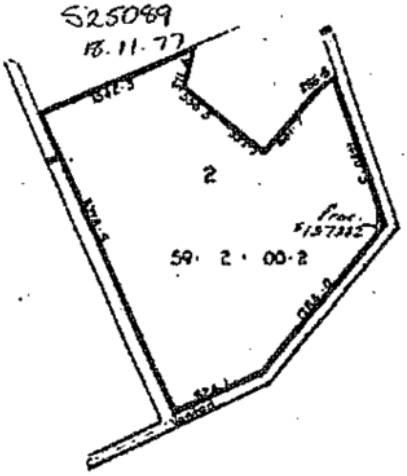
District Land Registrar.
Assistant

DISCHARGED

IV Tauranga S.D.

59: 2: 00·2
— 59·0 - Proc. S137332
59: 1: 01·2

S25089
18.11.77



Scale - 10 chains - 1 inch

*S. 137534 Mortgage to Vernon Harold Gane. Produced 11.3.19 [illegible] H.184847-2 FOR A.L.R. ALR

*S137332 Proclamation taking part for road Entered 6.3.1958 at 2 o'c. [illegible] ALR

S.[illegible] DISCHARGED [illegible] and New Zealand Bank [illegible] Produced [illegible] 1962 at 10.39 o'c.
H.245549.1 [illegible] A.L.R. [illegible] ALR

THIS REPRODUCTION (ON A REDUCED SCALE) CERTIFIED TO BE A TRUE COPY OF THE ORIGINAL REGISTER FOR THE PURPOSES OF SECTION 215A LAND TRANSFER ACT 1952.
[illegible] A.L.R.

H.184847.1 Transmission of Mortgage S.137534 to Abel George Gane and Albert Normanby Raphiel Gane as trustees entered 26.6.1978 at 10.43 o'c
B. Lloyd
for A.L.R.

Pursuant to Section 35 (3) of the Counties Amendment Act 1961 Lot 4 Plan S.2 089 (herein is vested in the Tauranga County Council as a road entered 7.8.1979
[illegible]
A.L.R.

H.245549.2 ONCT 7.8.1979) Cancelled and the following C's.T. issued for Lots on Plan S.25089 (herein)

Lot 1 - C.T. 25B/71 Lot 3 - C.T. 25B/73

Lot 2 - C.T. 25B/72 [illegible]

(Land and Deeds—s.

[Examined.

NEW ZEALAND.

SOUTH

Vol. 187 Folio. 275

Reference: Warrant No. / P.R. folio / Transfer No. 137451

Register-book, Vol. 321, folio 91

CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT.

This Certificate, dated the Fourteenth day of December, one thousand nine hundred and Twenty under the hand and seal of the District Land Registrar of the Land Registration District of Auckland, ~~being a Certificate issued by His Excellency the Governor-General, in exercise of the power vesting him in that behalf,~~ Witnesseth that

Annie Josephine Carter wife of Reginald Carter of Tauranga, Farmer

is seized of an estate in fee-simple (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial under written or endorsed hereon; subject also to any existing right of the Crown to take and lay off roads under any Act of the General Assembly of New Zealand) in the land hereinafter described, as the same is delineated by the plan hereon, bordered Green, be the several admeasurements a little more or less, ~~which said land is in the said Warrants expressed as having been originally acquired by~~

~~Dated this day of one thousand hundred~~

~~under~~ Ed. one hundred and two (102) acres two (2) roods seven decimal one (7·1) perches parcel of land containing ~~two hundred (200) acres more or less~~ more or less being Lot 1 on Deposited Plan 4524 and part Lot 7 on Deposited Plan No 12835 which said parcel of land comprises Allotments 1 & 61 (sixty one) Lot 62 (sixty two) Lot 61 A (sixty one A) Lot 62 A (sixty two A) Lot 91 A (ninety one A) Lot 91 (ninety one) of the Parish of Te Puna.

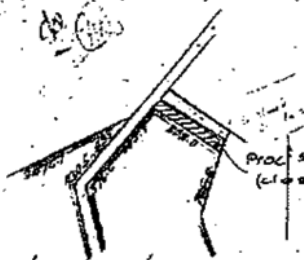
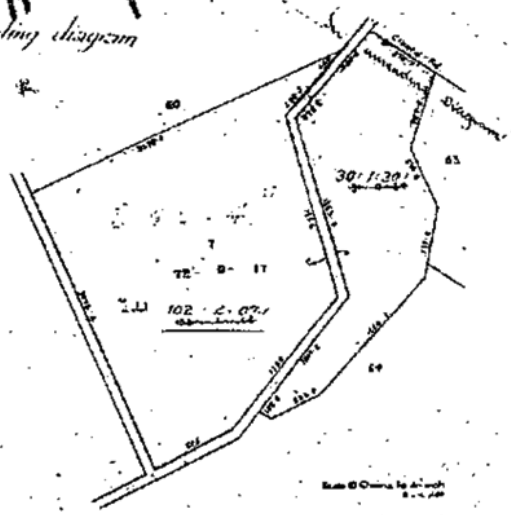


Diagram amended, see T. 102251

Deposited D.L.R. 15.7.27

Diagram



Scale of Chains to an Inch

Transfer No. 138922 to Annie Josephine Carter to Normanby Harold Gane of Tauranga, Farmer produced the 21st day of January 1921 at 2.10 p.m.

Assistant Land Registrar

Objection No. 138922A Normanby Harold Gane to The State Advances Superintendent produced 2nd July 1923 at 10.45 a.m.

Assistant Land Registrar

S. 133024 Transfer of Lot 2 Plan S. 4524 to Albert Normanby Raphiel Gane produced 3-12-1927 at 10.4 o'c.

Assistant Land Registrar

S. 133025 Transfer of Lot 1 Plan S. 4524 and part Lot 7 Plan 12835 (residue) to Ronald Gane produced 3-12-1927 at 10.15 o'c.

Assistant Land Registrar

CANCELLED

THIS REPRODUCTION ON A REDUCED SCALE IS CERTIFIED TO BE A TRUE COPY OF THE ORIGINAL REGISTER FOR THE PURPOSES OF SECTION 215A LAND TRANSFER ACT 1952

District Land Registrar

321/091

DISTRICT LAND REGISTRAR
CANCELLED

NEW ZEALAND. S [Form B.

Reference: Vol. 111 Folio 195 / Vol. 137 Folio 257 / Vol. 139 Folio 61 / Transfer No.

Register-book, Vol. 187, folio 275

Amalgamation

CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT.

This Certificate, dated the Sixth day of February, one thousand nine hundred and Twelve, under the hand and seal of the District Land Registrar of the Land Registration District of Auckland Witnesseth that Arthur Algernon Crapp of Cambridge Farmer in the provincial district of Auckland farmer

is seised of an estate in fee-simple (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial under written or indorsed hereon, subject also to any existing right of the Crown to take and lay off roads under the provisions of any Act of the General Assembly of New Zealand) in the land hereinafter described, as the same is delineated by the plan hereon bordered green, to the several admeasurements a little more or less, that is to say: All that parcel of land containing One hundred and twenty-six acres and one rood more or less, commencing at the north-west corner of Section 49 Tauranga Parish and bounded thereafter by the north-west boundary of Section 49 aforesaid bearing north-east one hundred and eighty-seven links; by part of Section 50 Tauranga Parish bearing north-east one hundred and eighty-seven links; by Section 51 Tauranga Parish bearing north-east one hundred and eighty-seven links; by part of Section 52 Tauranga Parish bearing north-east one hundred and eighty-seven links; by Section 53 Tauranga Parish bearing north-east one hundred and eighty-seven links; by part of Section 54 Tauranga Parish bearing north-east one hundred and eighty-seven links; by Section 55 Tauranga Parish bearing north-east one hundred and eighty-seven links; by part of Section 63 Tauranga Parish bearing north-east one hundred and eighty-seven links; by Section 64 Tauranga Parish bearing north-east one hundred and eighty-seven links; by part of Section 70 Tauranga Parish bearing north-east one hundred and eighty-seven links; by Section 71 Tauranga Parish bearing north-east one hundred and eighty-seven links; by part of Section 72 Tauranga Parish bearing north-east one hundred and eighty-seven links; by Section 73 Tauranga Parish bearing north-east one hundred and eighty-seven links; by part of Section 74 Tauranga Parish bearing north-east one hundred and eighty-seven links; by Section 75 Tauranga Parish bearing north-east one hundred and eighty-seven links; by part of Section

187/275

Proclamation No 325 closing road in Sec 11 West Bourneauty of which part is produced & July 1903 at noon

Arthur A Tebbs
Asst Surveyor

Transfer No 137449 Arthur Algernon Knapp to Arthur Arundel Knapp of Lot 5 on plan 12835 produced 11th December 1920 at 2.15 pm
215/5 pc

Arthur A Tebbs
Asst Surveyor

Transfer No 137450 Arthur Algernon Knapp to Lenia Louise Lumsden of Lot 6 on plan 12836 produced 11th December 1920 at 2.30 pm
215/6 pc

Arthur A Tebbs
Asst Surveyor

Transfer No 137451 Arthur Algernon Knapp to Annie Josephine Hunter of Lot 7 on plan 12835 produced 11th December 1920 at 2.45 pm
240/115 321/91

Arthur A Tebbs
Asst Surveyor

Transfer 137452 Arthur Algernon Knapp to the said Arthur Algernon Knapp and Gerald Lucas Knapp as tenants in common in equal shares of Lot 10 on plan 12835 produced 11th December 1920 at 2.45 pm
321/90

Arthur A Tebbs
Asst Surveyor

Transfer 137453 Arthur Algernon Knapp to Cyril Everest Knapp of Lot 9 on plan 12835 produced 11th December 1920 at 3.15 pm
318/248

Arthur A Tebbs
Asst Surveyor

Transfer No 137759 Arthur Algernon Knapp to Sidney Lee Knapp of Lot 8 on plan 12835 produced 11th December 1920 at 3 pm
318/249

Arthur A Tebbs
Asst Surveyor

Transfer No 140353 Arthur Algernon Knapp & Mabel Alice Howard Knapp of Lot 6 on plan 12835 produced 11th February 1921 at 12.45 pm
323/112

Arthur A Tebbs
Asst Surveyor

Transfer No 142226 Arthur Algernon Knapp & Rosa Lucy Cooney of Lot 3 on plan 12835 produced 28th June 1921 at 2.30 pm
331/115

Arthur A Tebbs
Asst Surveyor

Proclamation No 6307 taking part of within land for railway and road purposes produced 20th November 1924 at 10 am

Arthur A Tebbs
Asst Surveyor

Shall not be entered here or on the certificate of title

Transfer No 201459 Arthur Algernon Knapp to Richard Edwards of Blenheim Farmer produced 19/12/26 at 11 50 am
442/187

Laurie
Asst Dist Regr

THIS REPRODUCTION (ON A REDUCED SCALE) CERTIFIED TO BE A TRUE COPY OF THE ORIGINAL REGISTER FOR THE PURPOSES OF SECTION 31A LAND TRANSFER ACT 1952.

Dist. Regr.

CERTIFICATE OF TITLE.

Vol. , folio

Geohazard Environmental
Contaminated Site Investigation Specialists

APPENDIX B

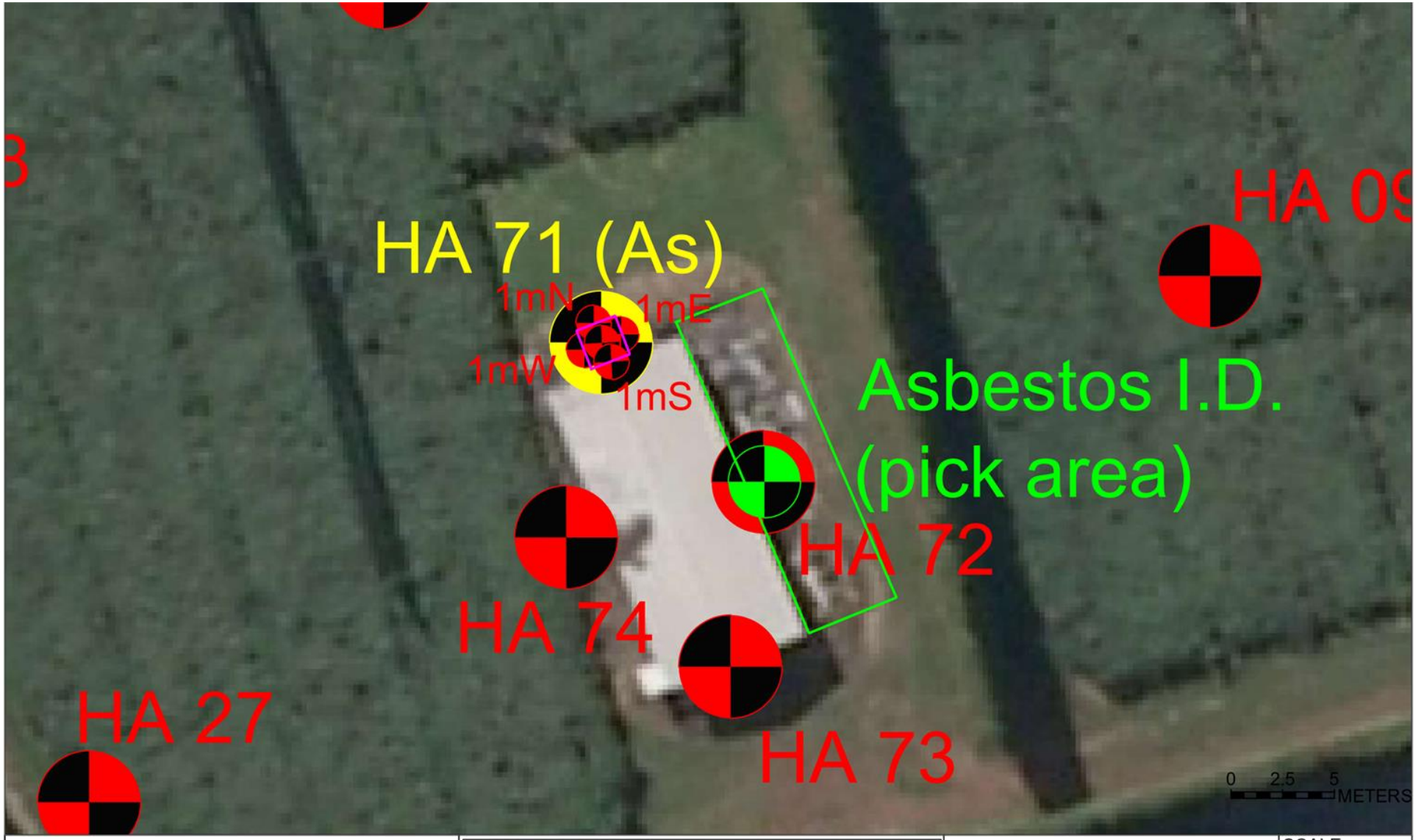
Sample Location Plan



404 Omokoroa Rd
Sample Location Plan

Geohazard Environmental
Contaminated Site Investigation Specialists

Client: Southern Orchards Ltd		SCALE: 1: 2000@ A4
JOB # 200305	DATE: 21/05/20	DRAWN BY: NM
DRG No. 001		REV. -



404 Omokoroa Rd
Sample Location Plan

Geohazard Environmental
Contaminated Site Investigation Specialists

Client: Southern Orchards Ltd		SCALE: 1: 250@ A4
JOB # 200305	DATE: 21/05/20	DRAWN BY: NM
DRG No. 002		REV. -

Geohazard Environmental
Contaminated Site Investigation Specialists

APPENDIX C

Laboratory Results

ANALYTICA LABORATORIES
Ruakura Research Centre
10 Bisley Road
Hamilton 3214, New Zealand
Ph +64 (07) 974 4740
sales@analytica.co.nz
www.analytica.co.nz

Certificate of Analysis

eohazard Environmental Ltd
otorua Arts Village (2nd Floor),1240 Hinemaru St
otorua 3010

ttention: Jonathan Findon
hone: 0210769753
mail: Nikki@geohazard.co.nz

ampling Site: 404 Omokoroa Rd

Lab Reference: 20-12092
Submitted by: Nikki
Date Received: 20/03/2020
Testing Initiated: 20/03/2020
Date Completed: 24/03/2020
Order Number: N/A
Reference: 404 Omokoroa Rd

eport Comments

amples were collected by yourselves (or your agent) and analysed as received at Analytica Laboratories. Samples were in cceptable condition unless otherwise noted on this report.
pecific testing dates are available on request.

leavy Metals in Soil

	Client Sample ID		HA01 0	HA02 0	HA03 0	HA04 0	HA05 0
	Date Sampled		18/03/2020	18/03/2020	18/03/2020	18/03/2020	18/03/2020
nalyte	Unit	*Reporting Limit*	20-12092-1	20-12092-2	20-12092-3	20-12092-4	20-12092-5
rsenic	mg/kg dry wt	*0.125*	5.5	8.5	6.1	5.4	6.6
eryllium	mg/kg dry wt	*0.013*	0.79	0.71	0.70	0.66	0.86
oron	mg/kg dry wt	*1.25*	7.6	8.1	9.8	9.1	6.1
admium	mg/kg dry wt	*0.005*	0.574	0.880	1.12	1.13	1.24
hromium	mg/kg dry wt	*0.125*	9.2	12.9	18.0	11	12
opper	mg/kg dry wt	*0.075*	62.6	90.2	101	112	77.5
ead	mg/kg dry wt	*0.25*	13.5	11.0	12.5	12.9	18.2
ercury	mg/kg dry wt	*0.025*	0.14	0.14	0.15	1.0	0.16
ickel	mg/kg dry wt	*0.05*	6.11	8.73	10.6	8.39	10.0
inc	mg/kg dry wt	*0.05*	104	116	121	117	113

leavy Metals in Soil

	Client Sample ID		HA09 0	HA10 0	HA11 0	HA12 0	HA13 0
	Date Sampled		18/03/2020	18/03/2020	18/03/2020	18/03/2020	18/03/2020
nalyte	Unit	*Reporting Limit*	20-12092-6	20-12092-7	20-12092-8	20-12092-9	20-12092-10
rsenic	mg/kg dry wt	*0.125*	5.5	5.7	11	3.5	5.7
eryllium	mg/kg dry wt	*0.013*	0.72	0.72	0.77	0.55	0.94
oron	mg/kg dry wt	*1.25*	10	11	11	13	4.3
admium	mg/kg dry wt	*0.005*	1.17	1.39	1.13	0.532	0.622

IANZ ACCREDITED LABORATORY

All tests reported herein have been performed in accordance with the laboratory's scope of accreditation, with the exception of tests marked which are not accredited.

		Client Sample ID	HA09 0	HA10 0	HA11 0	HA12 0	HA13 0
		Date Sampled	18/03/2020	18/03/2020	18/03/2020	18/03/2020	18/03/2020
hromium	mg/kg dry wt	0.125	12	15.1	15.3	3.8	15.4
opper	mg/kg dry wt	0.075	85.5	106	119	27.1	40.8
ead	mg/kg dry wt	0.25	10.4	12.6	12.6	7.63	14.5
ercury	mg/kg dry wt	0.025	0.11	0.14	0.15	0.12	0.15
ckel	mg/kg dry wt	0.05	9.49	11.8	9.81	2.3	5.74
nc	mg/kg dry wt	0.05	121	153	145	73.4	98.6

eavy Metals in Soil

		Client Sample ID	HA14 0	HA15 0	HA16 0	HA17 0	HA27 0
		Date Sampled	18/03/2020	18/03/2020	18/03/2020	18/03/2020	18/03/2020
alyte	Unit	Reporting Limit	20-12092-11	20-12092-12	20-12092-13	20-12092-14	20-12092-15
senic	mg/kg dry wt	0.125	13.3	9.6	8.5	6.6	6.7
eryllium	mg/kg dry wt	0.013	0.80	0.73	0.70	0.69	0.84
oron	mg/kg dry wt	1.25	7.0	11	11	8.8	7.8
admium	mg/kg dry wt	0.005	0.49	0.683	0.875	1.15	0.519
hromium	mg/kg dry wt	0.125	14.2	11	15.6	14.2	9.1
opper	mg/kg dry wt	0.075	73.2	76.0	114	92.5	75.3
ead	mg/kg dry wt	0.25	15.1	10.3	10.3	10.7	12.3
ercury	mg/kg dry wt	0.025	0.15	0.11	0.15	0.12	0.16
ckel	mg/kg dry wt	0.05	5.54	5.27	8.57	10.8	5.89
nc	mg/kg dry wt	0.05	112	138	140	126	94.4

eavy Metals in Soil

		Client Sample ID	HA28 0	HA06 0	HA07 0	HA08 0	HA21 0
		Date Sampled	18/03/2020	18/03/2020	18/03/2020	18/03/2020	18/03/2020
alyte	Unit	Reporting Limit	20-12092-16	20-12092-17	20-12092-18	20-12092-19	20-12092-20
senic	mg/kg dry wt	0.125	8.4	9.2	12.6	3.9	8.1
eryllium	mg/kg dry wt	0.013	0.75	0.90	0.88	0.62	0.78
oron	mg/kg dry wt	1.25	15	6.8	5.6	2.3	7.7
admium	mg/kg dry wt	0.005	0.981	0.27	0.819	0.12	0.646
hromium	mg/kg dry wt	0.125	19.0	11	12.7	4.2	14.2
opper	mg/kg dry wt	0.075	168	45.4	80.0	21.7	93.5
ead	mg/kg dry wt	0.25	12.8	18.3	15.5	4.8	13.0
ercury	mg/kg dry wt	0.025	0.18	0.17	0.17	<0.025	0.18
ckel	mg/kg dry wt	0.05	10.8	5.0	7.33	1.6	6.50
nc	mg/kg dry wt	0.05	171	78.9	145	71.6	115

eavy Metals in Soil

		Client Sample ID	HA18 0	HA19 0	HA20 0	HA26 0	HA22 0
		Date Sampled	18/03/2020	18/03/2020	18/03/2020	18/03/2020	18/03/2020
alyte	Unit	Reporting Limit	20-12092-21	20-12092-22	20-12092-23	20-12092-24	20-12092-25
senic	mg/kg dry wt	0.125	7.9	5.6	3.9	6.2	5.6
eryllium	mg/kg dry wt	0.013	0.99	0.98	0.58	0.91	0.90
oron	mg/kg dry wt	1.25	4.7	6.4	27	4.1	4.1
admium	mg/kg dry wt	0.005	0.36	0.32	0.29	0.25	0.557
hromium	mg/kg dry wt	0.125	5.8	5.4	3.7	6.1	6.6
opper	mg/kg dry wt	0.075	20.3	14.1	25.2	14.7	17.2

		Client Sample ID	HA18 0	HA19 0	HA20 0	HA26 0	HA22 0
		Date Sampled	18/03/2020	18/03/2020	18/03/2020	18/03/2020	18/03/2020
ead	mg/kg dry wt	0.25	12.6	11.7	8.52	14.9	14.2
ercury	mg/kg dry wt	0.025	0.14	0.15	0.12	0.13	0.14
ckel	mg/kg dry wt	0.05	3.3	3.5	2.3	2.7	3.9
nc	mg/kg dry wt	0.05	64.5	50.5	66.0	62.1	65.5

eavy Metals in Soil

		Client Sample ID	HA23 0	HA38 0	HA39 0	HA24 0	HA25 0
		Date Sampled	18/03/2020	18/03/2020	18/03/2020	18/03/2020	18/03/2020
alyte	Unit	Reporting Limit	20-12092-26	20-12092-27	20-12092-28	20-12092-29	20-12092-30
senic	mg/kg dry wt	0.125	16.5	3.4	5.4	6.0	27.2
eryllium	mg/kg dry wt	0.013	0.98	0.32	0.83	1.0	0.93
oron	mg/kg dry wt	1.25	2.9	2.1	8.9	3.3	7.1
admium	mg/kg dry wt	0.005	0.40	0.10	0.43	0.589	0.702
hromium	mg/kg dry wt	0.125	9.3	7.5	5.1	4.9	14.6
opper	mg/kg dry wt	0.075	27.7	18.1	18.5	23.5	57.0
ead	mg/kg dry wt	0.25	28.6	9.97	15.3	14.0	17.0
ercury	mg/kg dry wt	0.025	0.14	<0.025	0.13	0.13	0.16
ckel	mg/kg dry wt	0.05	3.2	3.7	3.3	2.4	4.0
nc	mg/kg dry wt	0.05	68.1	87.3	69.6	88.3	134

eavy Metals in Soil

		Client Sample ID	HA36 0	HA37 0	HA29 0	HA30 0	HA31 0
		Date Sampled	18/03/2020	18/03/2020	18/03/2020	18/03/2020	18/03/2020
alyte	Unit	Reporting Limit	20-12092-31	20-12092-32	20-12092-33	20-12092-34	20-12092-35
senic	mg/kg dry wt	0.125	8.0	5.2	16.5	5.3	6.8
eryllium	mg/kg dry wt	0.013	0.86	0.93	0.98	0.78	0.81
oron	mg/kg dry wt	1.25	8.8	5.0	10	14	7.9
admium	mg/kg dry wt	0.005	0.638	0.29	0.831	0.38	0.696
hromium	mg/kg dry wt	0.125	5.8	4.7	15.5	5.3	14.2
opper	mg/kg dry wt	0.075	26.8	12.4	99.9	23.1	109
ead	mg/kg dry wt	0.25	12.8	12.8	14.3	11.4	18.1
ercury	mg/kg dry wt	0.025	0.11	0.14	0.20	0.16	0.17
ckel	mg/kg dry wt	0.05	2.6	2.4	7.01	2.8	7.95
nc	mg/kg dry wt	0.05	106	49.2	236	70.7	138

eavy Metals in Soil

		Client Sample ID	HA32 0	HA34 0	HA35 0	HA40 0	HA41 0
		Date Sampled	18/03/2020	18/03/2020	18/03/2020	18/03/2020	18/03/2020
alyte	Unit	Reporting Limit	20-12092-36	20-12092-37	20-12092-38	20-12092-39	20-12092-40
senic	mg/kg dry wt	0.125	6.0	9.2	6.5	6.5	6.8
eryllium	mg/kg dry wt	0.013	0.70	0.81	0.86	0.81	0.81
oron	mg/kg dry wt	1.25	8.8	6.9	6.1	4.8	9.4
admium	mg/kg dry wt	0.005	0.45	0.23	0.607	0.37	0.50
hromium	mg/kg dry wt	0.125	9.5	8.2	12	7.6	6.4
opper	mg/kg dry wt	0.075	52.4	28.0	33.4	27.2	28.2
ead	mg/kg dry wt	0.25	12.3	12.3	13.7	12.8	11.9
ercury	mg/kg dry wt	0.025	0.13	0.13	0.14	0.13	0.13

			Client Sample ID	HA32 0	HA34 0	HA35 0	HA40 0	HA41 0
			Date Sampled	18/03/2020	18/03/2020	18/03/2020	18/03/2020	18/03/2020
ckel	mg/kg dry wt	0.05		5.08	3.4	7.42	3.2	4.6
nc	mg/kg dry wt	0.05		98.0	89.0	92.9	103	121

eavy Metals in Soil

		Client Sample ID	HA33 0	HA42 0	HA47 0	HA48 0	HA43 0
		Date Sampled	18/03/2020	18/03/2020	18/03/2020	18/03/2020	18/03/2020
alyte	Unit	Reporting Limit	20-12092-41	20-12092-42	20-12092-43	20-12092-44	20-12092-45
senic	mg/kg dry wt	0.125	7.5	8.3	7.2	7.6	9.4
eryllium	mg/kg dry wt	0.013	0.94	0.88	0.73	0.76	0.94
ron	mg/kg dry wt	1.25	9.3	11	9.1	9.9	8.1
dmium	mg/kg dry wt	0.005	0.508	0.811	0.917	0.794	0.639
romium	mg/kg dry wt	0.125	11	16.3	12	16.5	11
pper	mg/kg dry wt	0.075	69.6	127	91.6	115	80.2
ad	mg/kg dry wt	0.25	13.2	14.1	11.1	12.3	14.2
ercury	mg/kg dry wt	0.025	0.18	0.18	0.15	0.16	0.18
ckel	mg/kg dry wt	0.05	6.52	10.7	9.47	8.11	7.27
nc	mg/kg dry wt	0.05	86.1	143	120	127	112

eavy Metals in Soil

		Client Sample ID	HA44 0	HA45 0	HA46 0	HA49 0	HA50 0
		Date Sampled	18/03/2020	18/03/2020	18/03/2020	18/03/2020	18/03/2020
alyte	Unit	Reporting Limit	20-12092-46	20-12092-47	20-12092-48	20-12092-49	20-12092-50
senic	mg/kg dry wt	0.125	5.2	9.8	10	6.6	4.6
eryllium	mg/kg dry wt	0.013	0.75	0.88	1.0	0.79	0.73
ron	mg/kg dry wt	1.25	5.1	10	8.4	5.9	7.2
dmium	mg/kg dry wt	0.005	0.40	0.508	0.867	0.968	0.767
romium	mg/kg dry wt	0.125	5.8	9.1	15.2	11	7.7
pper	mg/kg dry wt	0.075	21.6	62.0	92.6	82.6	48.3
ad	mg/kg dry wt	0.25	10.0	10.4	13.5	10.6	8.49
ercury	mg/kg dry wt	0.025	0.14	0.12	0.16	0.12	0.11
ckel	mg/kg dry wt	0.05	2.9	4.7	10.9	7.28	5.95
nc	mg/kg dry wt	0.05	64.5	84.6	129	98.5	85.3

eavy Metals in Soil

		Client Sample ID	HA51 0	HA62 0	HA52 0	HA60 0	HA61 0
		Date Sampled	18/03/2020	18/03/2020	18/03/2020	18/03/2020	18/03/2020
alyte	Unit	Reporting Limit	20-12092-51	20-12092-52	20-12092-53	20-12092-54	20-12092-55
senic	mg/kg dry wt	0.125	4.6	3.9	5.7	9.2	5.1
eryllium	mg/kg dry wt	0.013	0.84	0.76	0.79	0.77	0.72
ron	mg/kg dry wt	1.25	5.9	6.4	8.6	6.7	7.6
dmium	mg/kg dry wt	0.005	0.47	0.541	0.956	1.05	0.878
romium	mg/kg dry wt	0.125	4.5	4.0	11	16.0	11
pper	mg/kg dry wt	0.075	24.2	21.7	113	100	74.7
ad	mg/kg dry wt	0.25	9.44	8.74	10.6	11.0	9.00
ercury	mg/kg dry wt	0.025	0.13	0.12	0.14	0.15	0.11
ckel	mg/kg dry wt	0.05	2.8	2.9	8.89	9.70	7.10
nc	mg/kg dry wt	0.05	66.8	68.2	112	121	101

eavy Metals in Soil

	Client Sample ID		HA63 0	HA53 0	HA54 0	HA58 0	HA59 0
	Date Sampled		18/03/2020	18/03/2020	18/03/2020	18/03/2020	18/03/2020
nalyte	Unit	*Reporting Limit*	20-12092-56	20-12092-57	20-12092-58	20-12092-59	20-12092-60
senic	mg/kg dry wt	*0.125*	7.0	6.9	6.1	4.6	4.7
eryllium	mg/kg dry wt	*0.013*	0.74	0.85	0.84	0.53	0.58
oron	mg/kg dry wt	*1.25*	5.9	8.7	9.0	7.7	6.1
admium	mg/kg dry wt	*0.005*	0.971	0.765	0.689	0.895	0.931
hromium	mg/kg dry wt	*0.125*	13.4	15.9	12	19.4	9.8
opper	mg/kg dry wt	*0.075*	114	113	93.8	95.7	112
ead	mg/kg dry wt	*0.25*	10.9	12.2	12.4	8.44	9.70
ercury	mg/kg dry wt	*0.025*	0.13	0.15	0.14	0.10	0.11
ckel	mg/kg dry wt	*0.05*	9.79	9.98	7.66	7.73	7.90
nc	mg/kg dry wt	*0.05*	124	115	110	137	120

eavy Metals in Soil

	Client Sample ID		HA64 0	HA65 0	HA69 0	HA70 0	HA55 0
	Date Sampled		18/03/2020	18/03/2020	18/03/2020	18/03/2020	18/03/2020
nalyte	Unit	*Reporting Limit*	20-12092-61	20-12092-62	20-12092-63	20-12092-64	20-12092-65
senic	mg/kg dry wt	*0.125*	5.7	8.0	7.9	9.3	7.4
eryllium	mg/kg dry wt	*0.013*	0.67	0.81	0.99	0.75	0.86
oron	mg/kg dry wt	*1.25*	7.6	8.6	9.0	9.1	8.9
admium	mg/kg dry wt	*0.005*	1.09	0.747	0.49	0.728	0.649
hromium	mg/kg dry wt	*0.125*	16.7	13.2	9.9	16.5	11
opper	mg/kg dry wt	*0.075*	111	106	56.5	111	91.8
ead	mg/kg dry wt	*0.25*	11.0	11.8	13.9	16.0	11.4
ercury	mg/kg dry wt	*0.025*	0.14	0.15	0.15	0.19	0.13
ckel	mg/kg dry wt	*0.05*	12.1	7.25	4.4	7.85	5.84
nc	mg/kg dry wt	*0.05*	126	119	92.3	162	126

eavy Metals in Soil

	Client Sample ID		HA57 0	HA66 0	HA67 0	HA56 0	HA68 0
	Date Sampled		18/03/2020	18/03/2020	18/03/2020	18/03/2020	18/03/2020
nalyte	Unit	*Reporting Limit*	20-12092-66	20-12092-67	20-12092-68	20-12092-69	20-12092-70
senic	mg/kg dry wt	*0.125*	6.3	6.0	12	16.1	6.0
eryllium	mg/kg dry wt	*0.013*	0.64	0.87	0.84	0.74	0.72
oron	mg/kg dry wt	*1.25*	4.9	9.6	10	9.7	11
admium	mg/kg dry wt	*0.005*	1.16	0.718	1.10	0.739	0.888
hromium	mg/kg dry wt	*0.125*	16.3	11	21.7	17.5	14.4
opper	mg/kg dry wt	*0.075*	69.0	74.6	141	97.6	114
ead	mg/kg dry wt	*0.25*	10.7	12.2	14.3	12.6	10.9
ercury	mg/kg dry wt	*0.025*	0.12	0.15	0.20	0.13	0.15
ckel	mg/kg dry wt	*0.05*	10.7	6.82	11.6	6.45	7.44
nc	mg/kg dry wt	*0.05*	98.3	106	164	143	155

Heavy Metals in Soil

	Client Sample ID		HA71 0	HA72 0	HA73 0	HA74 0	HA75 0
	Date Sampled		18/03/2020	18/03/2020	18/03/2020	18/03/2020	18/03/2020
Analyte	Unit	*Reporting Limit*	20-12092-71	20-12092-72	20-12092-73	20-12092-74	20-12092-75
Arsenic	mg/kg dry wt	*0.125*	81.6	59.4	6.7	5.2	5.0
Beryllium	mg/kg dry wt	*0.013*	0.88	0.69	0.82	0.98	0.90
Boron	mg/kg dry wt	*1.25*	2.1	1.4	1.8	2.5	6.4
Cadmium	mg/kg dry wt	*0.005*	0.905	0.835	0.33	0.32	0.635
Chromium	mg/kg dry wt	*0.125*	20.3	17.2	5.2	3.9	5.2
Copper	mg/kg dry wt	*0.075*	63.5	45.7	23.9	22.6	29.8
Lead	mg/kg dry wt	*0.25*	38.5	21.3	12.8	11.0	10.6
Mercury	mg/kg dry wt	*0.025*	0.12	0.16	0.18	0.17	0.12
Nickel	mg/kg dry wt	*0.05*	3.7	4.5	2.3	2.4	3.6
Zinc	mg/kg dry wt	*0.05*	204	269	56.1	94.5	79.3

Heavy Metals in Soil

	Client Sample ID		HA79 0
	Date Sampled		18/03/2020
Analyte	Unit	*Reporting Limit*	20-12092-76
Arsenic	mg/kg dry wt	*0.125*	12
Beryllium	mg/kg dry wt	*0.013*	0.58
Boron	mg/kg dry wt	*1.25*	13
Cadmium	mg/kg dry wt	*0.005*	0.15
Chromium	mg/kg dry wt	*0.125*	10
Copper	mg/kg dry wt	*0.075*	419
Lead	mg/kg dry wt	*0.25*	7.49
Mercury	mg/kg dry wt	*0.025*	0.048
Nickel	mg/kg dry wt	*0.05*	3.7
Zinc	mg/kg dry wt	*0.05*	436

Organochlorine Pesticides - Soil

	Client Sample ID		HA71 0	HA72 0	HA73 0	HA74 0	HA75 0
	Date Sampled		18/03/2020	18/03/2020	18/03/2020	18/03/2020	18/03/2020
Analyte	Unit	*Reporting Limit*	20-12092-71	20-12092-72	20-12092-73	20-12092-74	20-12092-75
2,4'-DDD	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
2,4'-DDE	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
2,4'-DDT	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
4,4'-DDD	mg/kg dry wt	*0.003*	<0.003	<0.003	<0.003	<0.003	<0.003
4,4'-DDE	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
4,4'-DDT	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
Total DDT	mg/kg dry wt	*0.02*	<0.02	<0.02	<0.02	<0.02	<0.02
Alpha-BHC	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
Aldrin	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
Beta-BHC	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
cis-Chlordane	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
cis-Nonachlor	mg/kg dry wt	*0.01*	<0.01	<0.01	<0.01	<0.01	<0.01
Delta-BHC	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
Dieldrin	mg/kg dry wt	*0.05*	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan I	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
Endosulfan II	mg/kg dry wt	*0.01*	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan sulfate	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
Endrin	mg/kg dry wt	*0.05*	<0.05	<0.05	<0.05	<0.05	<0.05

Organochlorine Pesticides - Soil

			Client Sample ID	HA71 0	HA72 0	HA73 0	HA74 0	HA75 0
			Date Sampled	18/03/2020	18/03/2020	18/03/2020	18/03/2020	18/03/2020
Endrin aldehyde	mg/kg dry wt	0.01		<0.01	<0.01	<0.01	<0.01	<0.01
Endrin ketone	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
gamma-BHC	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor epoxide	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
Hexachlorobenzene	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
Methoxychlor	mg/kg dry wt	0.01		<0.01	<0.01	<0.01	<0.01	<0.01
trans-nonachlor	mg/kg dry wt	0.01		<0.01	<0.01	<0.01	<0.01	<0.01
trans-Chlordane	mg/kg dry wt	0.01		<0.01	<0.01	<0.01	<0.01	<0.01
Chlordane (sum)	mg/kg dry wt	0.02		<0.020	<0.020	<0.020	<0.020	<0.020
TCMX (Surrogate)	%	1		88.6	87.8	86.8	86.4	84.9

Organochlorine Pesticides - Soil

			Client Sample ID	HA79 0	Composite 1 (HA01, HA02, HA03, HA04)	Composite 2 (HA05, HA09, HA10, HA11)	Composite 3 (HA12, HA13, HA14, HA15)	Composite 4 (HA16, HA17, HA27, HA28)
			Date Sampled	18/03/2020				
Analyte	Unit	Reporting Limit		20-12092-76	20-12092-77	20-12092-78	20-12092-79	20-12092-80
2,4'-DDD	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
2,4'-DDE	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
2,4'-DDT	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
4,4'-DDD	mg/kg dry wt	0.003		<0.003	<0.003	<0.003	<0.003	<0.003
4,4'-DDE	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
4,4'-DDT	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
Total DDT	mg/kg dry wt	0.02		<0.02	<0.02	<0.02	<0.02	<0.02
alpha-BHC	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
Aldrin	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
beta-BHC	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
cis-Chlordane	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
cis-Nonachlor	mg/kg dry wt	0.01		<0.01	<0.01	<0.01	<0.01	<0.01
delta-BHC	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
Dieldrin	mg/kg dry wt	0.05		<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan I	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
Endosulfan II	mg/kg dry wt	0.01		<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan sulfate	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
Endrin	mg/kg dry wt	0.05		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	mg/kg dry wt	0.01		<0.01	<0.01	<0.01	<0.01	<0.01
Endrin ketone	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
gamma-BHC	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor epoxide	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
Hexachlorobenzene	mg/kg dry wt	0.005		<0.005	<0.005	<0.005	<0.005	<0.005
Methoxychlor	mg/kg dry wt	0.01		<0.01	<0.01	<0.01	<0.01	<0.01
trans-nonachlor	mg/kg dry wt	0.01		<0.01	<0.01	<0.01	<0.01	<0.01
trans-Chlordane	mg/kg dry wt	0.01		<0.01	<0.01	<0.01	<0.01	<0.01
Chlordane (sum)	mg/kg dry wt	0.02		<0.020	<0.020	<0.020	<0.020	<0.020
TCMX (Surrogate)	%	1		85.8	83.8	83.9	83.5	90.3

Organochlorine Pesticides - Soil

	Client Sample ID		Composite 5 (HA06, HA07, HA08, HA21)	Composite 6 (HA18, HA19, HA20, HA26)	Composite 7 (HA22, HA23, HA38, HA39)	Composite 8 (HA24, HA25, HA36, HA37)	Composite 9 (HA29, HA30, HA31, HA32)
	Date Sampled						
Analyte	Unit	*Reporting Limit*	20-12092-81	20-12092-82	20-12092-83	20-12092-84	20-12092-85
2,4'-DDD	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
2,4'-DDE	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
2,4'-DDT	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
4,4'-DDD	mg/kg dry wt	*0.003*	<0.003	<0.003	<0.003	<0.003	<0.003
4,4'-DDE	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
4,4'-DDT	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
Total DDT	mg/kg dry wt	*0.02*	<0.02	<0.02	<0.02	<0.02	<0.02
Alpha-BHC	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
Aldrin	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
Beta-BHC	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
cis-Chlordane	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
cis-Nonachlor	mg/kg dry wt	*0.01*	<0.01	<0.01	<0.01	<0.01	<0.01
Delta-BHC	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
Dieldrin	mg/kg dry wt	*0.05*	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan I	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
Endosulfan II	mg/kg dry wt	*0.01*	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan sulfate	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
Endrin	mg/kg dry wt	*0.05*	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	mg/kg dry wt	*0.01*	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin ketone	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
Gamma-BHC	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor epoxide	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
Hexachlorobenzene	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
Methoxychlor	mg/kg dry wt	*0.01*	<0.01	<0.01	<0.01	<0.01	<0.01
trans-nonachlor	mg/kg dry wt	*0.01*	<0.01	<0.01	<0.01	<0.01	<0.01
trans-Chlordane	mg/kg dry wt	*0.01*	<0.01	<0.01	<0.01	<0.01	<0.01
Chlordane (sum)	mg/kg dry wt	*0.02*	<0.020	<0.020	<0.020	<0.020	<0.020
TCMX (Surrogate)	%	*1*	88.6	85.6	86.8	84.8	86.0

Organochlorine Pesticides - Soil

	Client Sample ID		Composite 10 (HA34, HA35, HA40, HA41)	Composite 11 (HA33, HA42, HA47, HA48)	Composite 12 (HA43, HA44, HA45, HA46)	Composite 13 (HA49, HA50, HA51, HA62)	Composite 14 (HA52, HA60, HA61, HA63)
	Date Sampled						
Analyte	Unit	*Reporting Limit*	20-12092-86	20-12092-87	20-12092-88	20-12092-89	20-12092-90
2,4'-DDD	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
2,4'-DDE	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
2,4'-DDT	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
4,4'-DDD	mg/kg dry wt	*0.003*	<0.003	<0.003	<0.003	<0.003	<0.003
4,4'-DDE	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
4,4'-DDT	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
Total DDT	mg/kg dry wt	*0.02*	<0.02	<0.02	<0.02	<0.02	<0.02
Alpha-BHC	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
Aldrin	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
Beta-BHC	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
cis-Chlordane	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005
cis-Nonachlor	mg/kg dry wt	*0.01*	<0.01	<0.01	<0.01	<0.01	<0.01
Delta-BHC	mg/kg dry wt	*0.005*	<0.005	<0.005	<0.005	<0.005	<0.005

Organochlorine Pesticides - Soil

		Client Sample ID	Composite 10 (HA34, HA35, HA40, HA41)	Composite 11 (HA33, HA42, HA47, HA48)	Composite 12 (HA43, HA44, HA45, HA46)	Composite 13 (HA49, HA50, HA51, HA62)	Composite 14 (HA52, HA60, HA61, HA63)
		Date Sampled					
Dieldrin	mg/kg dry wt	0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan I	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Endosulfan II	mg/kg dry wt	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan sulfate	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Endrin	mg/kg dry wt	0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	mg/kg dry wt	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin ketone	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005	<0.005
gamma-BHC	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor epoxide	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Hexachlorobenzene	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Methoxychlor	mg/kg dry wt	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
trans-nonachlor	mg/kg dry wt	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
trans-Chlordane	mg/kg dry wt	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chlordane (sum)	mg/kg dry wt	0.02	<0.020	<0.020	<0.020	<0.020	<0.020
TCMX (Surrogate)	%	1	85.8	86.6	86.0	84.6	85.8

Organochlorine Pesticides - Soil

		Client Sample ID	Composite 15 (HA53, HA54, HA58, HA59)	Composite 16 (HA64, HA65, HA69, HA70)	Composite 17 (HA55, HA57, HA66, HA67)	Composite 18 (HA56, HA68)
		Date Sampled				
Analyte	Unit	Reporting Limit	20-12092-91	20-12092-92	20-12092-93	20-12092-94
2,4'-DDD	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005
2,4'-DDE	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005
2,4'-DDT	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005
4,4'-DDD	mg/kg dry wt	0.003	<0.003	<0.003	<0.003	<0.003
4,4'-DDE	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005
4,4'-DDT	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005
Total DDT	mg/kg dry wt	0.02	<0.02	<0.02	<0.02	<0.02
alpha-BHC	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005
Aldrin	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005
beta-BHC	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005
cis-Chlordane	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005
cis-Nonachlor	mg/kg dry wt	0.01	<0.01	<0.01	<0.01	<0.01
delta-BHC	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005
Dieldrin	mg/kg dry wt	0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan I	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005
Endosulfan II	mg/kg dry wt	0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan sulfate	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005
Endrin	mg/kg dry wt	0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	mg/kg dry wt	0.01	<0.01	<0.01	<0.01	<0.01
Endrin ketone	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005
gamma-BHC	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor epoxide	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005
Hexachlorobenzene	mg/kg dry wt	0.005	<0.005	<0.005	<0.005	<0.005
Methoxychlor	mg/kg dry wt	0.01	<0.01	<0.01	<0.01	<0.01
trans-nonachlor	mg/kg dry wt	0.01	<0.01	<0.01	<0.01	<0.01
trans-Chlordane	mg/kg dry wt	0.01	<0.01	<0.01	<0.01	<0.01
Chlordane (sum)	mg/kg dry wt	0.02	<0.020	<0.020	<0.020	<0.020

			Client Sample ID	Composite 15 (HA53, HA54, HA58, HA59)	Composite 16 (HA64, HA65, HA69, HA70)	Composite 17 (HA55, HA57, HA66, HA67)	Composite 18 (HA56, HA68)
			Date Sampled				
CMX (Surrogate)	%	1		84.4	85.8	85.3	85.0

olycyclic Aromatic Hydrocarbons - Soil

			Client Sample ID	HA71 0	HA73 0	HA75 0
			Date Sampled	18/03/2020	18/03/2020	18/03/2020
alyte	Unit	Reporting Limit		20-12092-71	20-12092-73	20-12092-75
Methylnaphthalene	mg/kg dry wt	0.01		<0.01	<0.01	<0.01
Methylnaphthalene	mg/kg dry wt	0.01		<0.01	<0.01	<0.01
enaphthene	mg/kg dry wt	0.01		<0.01	<0.01	<0.01
enaphthylene	mg/kg dry wt	0.01		<0.01	<0.01	<0.01
thracene	mg/kg dry wt	0.01		0.05	0.02	<0.01
nz[a]anthracene	mg/kg dry wt	0.02		0.02	<0.02	<0.02
nzo[a]pyrene	mg/kg dry wt	0.01		0.04	<0.01	<0.01
nzo[b]&[j] oranthene	mg/kg dry wt	0.02		0.05	<0.02	<0.02
nzo[g,h,i]perylene	mg/kg dry wt	0.02		0.03	<0.02	<0.02
nzo[k]fluoranthene	mg/kg dry wt	0.01		0.01	<0.01	<0.01
rysene	mg/kg dry wt	0.01		0.03	<0.01	<0.01
benz(a,h)anthracene	mg/kg dry wt	0.01		<0.01	<0.01	<0.01
uoranthene	mg/kg dry wt	0.02		0.03	<0.02	<0.02
uorene	mg/kg dry wt	0.01		<0.01	<0.01	<0.01
deno(1,2,3-cd)pyrene	mg/kg dry wt	0.01		0.05	0.01	<0.01
aphthalene	mg/kg dry wt	0.01		<0.01	<0.01	<0.01
enanthrene	mg/kg dry wt	0.01		<0.01	<0.01	<0.01
rene	mg/kg dry wt	0.02		0.03	<0.02	<0.02
nzo[a]pyrene TEQ OR)	mg/kg dry wt	0.03		0.06	0.03	0.03
nzo[a]pyrene TEQ ero)	mg/kg dry wt	0.01		0.05	<0.01	<0.01
thracene-d10 urrogate)	%	1		91.4	85.1	100.9

oisture Content

			Client Sample ID	HA71 0	HA73 0	HA75 0
			Date Sampled	18/03/2020	18/03/2020	18/03/2020
alyte	Unit	Reporting Limit		20-12092-71	20-12092-73	20-12092-75
oisture Content	%	1		14	20	23

ethod Summary

lements in Soil	Samples dried and passed through a 2 mm sieve followed by acid digestion and analysis by ICP-MS. In accordance with in-house procedure based on US EPA method 200.8.
CP in Soil	Samples are extracted with hexane, pre-concetrated then analysed by GC-MSMS. (Chlordane (sum) is calculated from the main actives in technical Chlordane: Chlordane, Nonachlo and Heptachlor). (In accordance with in-house procedure).
otal DDT	Sum of DDT, DDD and DDE (4,4' and 2,4 isomers)

Method Summary

PAH in Soil	Solvent extraction, silica cleanup, followed by GC-MS analysis. **Benzo[a]pyrene TEQ (LOR)**: The most conservative TEQ estimate, where a result is reported as less than the limit of reporting (LOR) the LOR value is used to calculate the TEQ for that PAH. **Benzo[a]pyrene TEQ (Zero)**: The least conservative TEQ estimate, PAHs reported as less than the limit of reporting (LOR) are not included in the TEQ calculation. Benzo[a]pyrene toxic equivalence (TEQ) is calculated according to *'Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health'*. Ministry for the Environment. 2011. (In accordance with in-house procedure).
Moisture	Moisture content is determined gravimetrically by drying at 103 °C.

mily Hanna, B.Sc.
ace Elements Team Leader

Kimmy Ignacio, B.Sc.
Technician

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hone: 0210769753
mail: Nikki@geohazard.co.nz

Lab Reference: 20-12240
Submitted by: Nikki
Date Received: 20/03/2020
Date Completed: 30/03/2020
Order Number: N/A
Reference: 404 Omokoroa Rd

ampling Site: 404 Omokoroa Rd
escription of Work: 404 Omokoroa Rd

eport Comments

amples were collected by yourselves (or your agent) and analysed as received at Analytica Laboratories. Samples were in cceptable condition unless otherwise noted on this report.

sbestos in Soil (Qualitative)

ample Details

Laboratory ID	Client Sample ID	Sample Location	Sample Description	Date Sampled	Date Analysed
	Units				
20-12240-1	HA71 0		Soil	18/03/2020	30/03/2020
20-12240-2	HA72 0		Soil	18/03/2020	30/03/2020
20-12240-3	HA73 0		Soil	18/03/2020	30/03/2020
20-12240-4	HA74 0		Soil	18/03/2020	30/03/2020

formation in the above table supplied by the client: Client Sample ID, Sample Location, Date Sampled.

nalysis Results

Laboratory ID	Client Sample ID	ACM Weight*	ACM Types*	Fibre Types	Trace Asbestos (Presence / Absence)	Asbestos (Presence / Absence)
	Units	g				
20-12240-1	HA71 0	0.0000	No Asbestos Detected	Asbestos NOT Detected. Organic Fibres	Absent	Absent
20-12240-2	HA72 0	0.0000	No Asbestos Detected	Asbestos NOT Detected. Organic Fibres	Absent	Absent
20-12240-3	HA73 0	0.0000	No Asbestos Detected	Asbestos NOT Detected. Organic Fibres	Absent	Absent
20-12240-4	HA74 0	0.0000	No Asbestos Detected	Asbestos NOT Detected. Organic Fibres	Absent	Absent

formation in the above table supplied by the client: Client Sample ID.

sbestos in Soil (Qualitative) Approver:

IANZ ACCREDITED LABORATORY

All tests reported herein have been performed in accordance with the laboratory's scope of accreditation, with the exception of tests marked which are not accredited.

Georgina Jackson

eorgina Jackson, PGDipSci.
echnician

lethod Summary

ısbestos Fibres in ɔil (Qualitative)	Sample analysis was performed using polarised light microscopy with dispersion staining in accordance with AS4964-2004 Method for the qualitative identification of asbestos in bulk samples. Note 1: The reporting limit for this analysis is 0.1g/kg (0.01%) by application of polarised light microscopy, dispersion staining and trace analysis techniques. Note 2: Trace asbestos is indicative that freely liberated respirable fibres are present and dust control measures should be implemented or increased on site. This is not the sole indicator for the friable nature of the asbestos present. Note 3: If mineral fibres of unknown type are detected, by PLM and dispersion staining, these may or may not be asbestos fibres. To confirm the identity of this fibre, another independent analytical technique such as XRD analysis is advised. Note 4: The laboratory does not take responsibility for the sampling procedure or accuracy of sample location description.

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hone: 0210769753
mail: Nikki@geohazard.co.nz

Lab Reference: 20-12240
Submitted by: Nikki
Date Received: 20/03/2020
Date Completed: 24/03/2020
Order Number: N/A
Reference: 404 Omokoroa Rd

ampling Site: 404 Omokoroa Rd
escription of Work: 404 Omokoroa Rd

eport Comments

amples were collected by yourselves (or your agent) and analysed as received at Analytica Laboratories. Samples were in cceptable condition unless otherwise noted on this report.

sbestos in Soil (Qualitative)

ample Details

Laboratory ID	Client Sample ID	Sample Location	Sample Description	Date Sampled	Date Analysed
	Units				
20-12240-5	HA75 0		Soil	18/03/2020	24/03/2020
20-12240-6	HA76 0		Soil	18/03/2020	24/03/2020
20-12240-7	HA77 0		Soil	18/03/2020	24/03/2020
20-12240-8	HA78 0		Soil	18/03/2020	24/03/2020

formation in the above table supplied by the client: Client Sample ID, Sample Location, Date Sampled.

nalysis Results

Laboratory ID	Client Sample ID	ACM Weight*	ACM Types*	Fibre Types	Trace Asbestos (Presence / Absence)	Asbestos (Presence / Absence)
	Units	g				
20-12240-5	HA75 0	0.0000	No Asbestos Detected	Asbestos NOT Detected. Organic Fibres	Absent	Absent
20-12240-6	HA76 0	0.0000	No Asbestos Detected	Asbestos NOT Detected. Organic Fibres	Absent	Absent
20-12240-7	HA77 0	0.0000	No Asbestos Detected	Asbestos NOT Detected. Organic Fibres	Absent	Absent
20-12240-8	HA78 0	0.0000	No Asbestos Detected	Asbestos NOT Detected. Organic Fibres	Absent	Absent

formation in the above table supplied by the client: Client Sample ID.

sbestos in Soil (Qualitative) Approver:

IANZ ACCREDITED LABORATORY

All tests reported herein have been performed in accordance with the laboratory's scope of accreditation, with the exception of tests marked which are not accredited.

Georgina Jackson

eorgina Jackson, PGDipSci.
echnician

lethod Summary

ısbestos Fibres in ɔil (Qualitative)	Sample analysis was performed using polarised light microscopy with dispersion staining in accordance with AS4964-2004 Method for the qualitative identification of asbestos in bulk samples. Note 1: The reporting limit for this analysis is 0.1g/kg (0.01%) by application of polarised light microscopy, dispersion staining and trace analysis techniques. Note 2: Trace asbestos is indicative that freely liberated respirable fibres are present and dust control measures should be implemented or increased on site. This is not the sole indicator for the friable nature of the asbestos present. Note 3: If mineral fibres of unknown type are detected, by PLM and dispersion staining, these may or may not be asbestos fibres. To confirm the identity of this fibre, another independent analytical technique such as XRD analysis is advised. Note 4: The laboratory does not take responsibility for the sampling procedure or accuracy of sample location description.

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ttention: Jonathan Findon
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mail: Nikki@geohazard.co.nz

Lab Reference: 20-12240
Submitted by: Nikki
Date Received: 20/03/2020
Date Completed:
Order Number: N/A
Reference: 404 Omokoroa Rd

ampling Site: 404 Omokoroa Rd
escription of Work: 404 Omokoroa Rd

eport Comments

amples were collected by yourselves (or your agent) and analysed as received at Analytica Laboratories. Samples were in cceptable condition unless otherwise noted on this report.

sbestos Fibres in Bulk (Qualitative)

ample Details

Laboratory ID	Client Sample ID	Sample Location	Sample Description	Date Sampled	Date Analysed
20-12240-9	Asbestos ID		Bulk Materials (100 x 40 x 5 mm)	18/03/2020	24/03/2020

formation in the above table supplied by the client: Client Sample ID, Sample Location, Date Sampled.

nalysis Results

Laboratory ID	Client Sample ID	Sample Layers	Fibre Types	Asbestos (Present / Absent)
20-12240-9	Asbestos ID	L1 - Paint L2 - Millboard	Chrysotile (White Asbestos) Organic Fibres	Present

formation in the above table supplied by the client: Client Sample ID.

sbestos Fibres in Bulk (Qualitative) Approver:

ilie Saia, B.Sc.
uckland Lab Coordinator

IANZ ACCREDITED LABORATORY

All tests reported herein have been performed in accordance with the laboratory's scope of accreditation, with the exception of tests marked which are not accredited.

lethod Summary

sbestos Fibres in ulk Materials ualitative)	Sample analysis was performed using polarised light microscopy with dispersion staining in accordance with the guidelines of AS4964-2004 Method for the qualitative identification of asbestos in bulk samples. Note 1: The reporting limit for this analysis is 0.1g/kg (0.01%) by application of polarised light microscopy, dispersion staining and trace analysis techniques. Note 2: If mineral fibres of unknown type are detected, by PLM and dispersion staining, these may or may not be asbestos fibres. To confirm the identity of this fibre, another independent analytical technique such as XRD analysis is advised. Note 3: The laboratory does not take responsibility for the sampling procedure or accuracy of sample location description.

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hone: 0210769753
mail: jonathan@geohazard.co.nz

ampling Site: 404 Omokoroa Rd Delinention

Lab Reference: 20-16179
Submitted by: Nikki
Date Received: 7/05/2020
Testing Initiated: 7/05/2020
Date Completed: 9/05/2020
Order Number: N/A
Reference: 404 Omokoroa Rd

eport Comments

amples were collected by yourselves (or your agent) and analysed as received at Analytica Laboratories. Samples were in cceptable condition unless otherwise noted on this report.
pecific testing dates are available on request.

lements in Soil

	Client Sample ID		HA71 0.3m	HA71 - 1m N	HA71 - 1m E	HA71 - 1m S	HA71 - 1m W
	Date Sampled		6/05/2020	6/05/2020	6/05/2020	6/05/2020	6/05/2020
nalyte	Unit	*Reporting Limit*	20-16179-1	20-16179-3	20-16179-4	20-16179-5	20-16179-6
rsenic	mg/kg dry wt	*0.125*	6.5	64.5	15.6	27.4	43.9

Method Summary

Elements in Soil Samples dried and passed through a 2 mm sieve followed by acid digestion and analysis by ICP-MS. In accordance with in-house procedure based on US EPA method 200.8.

harelle Frank, B.Sc. (Tech)
echnologist

Amelita Teves, B.Sc.
Sample Prep Team Leader

IANZ ACCREDITED LABORATORY

All tests reported herein have been performed in accordance with the laboratory's scope of accreditation, with the exception of tests marked which are not accredited.

Economic Assessment: 404 Omokoroa Road

May 2020

Prepared for Kiwi Green New Zealand Ltd

DISCLAIMER

Every effort has been made to ensure the soundness and accuracy of the opinions, information, and forecasts expressed in this report.

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DOCUMENT CONTROL

Document ID: 001-2020-20013

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Abbreviations and Definitions

We use various abbreviations and definitions in this report, including:

- CBD – Central Business District
- F&B – Food and Beverage
- SH – State Highway
- Stats NZ – Statistics New Zealand
- WBOPDC – Western Bay of Plenty District Council

1 Introduction

Kiwi Green New Zealand Ltd owns a 7.9 hectare site at 404 Omokoroa Road. They intend to apply for resource consent to develop part of the site (zoned Commercial) as a town centre.

RCG has been engaged to assess the economic effects of this proposal. Our work has included:

- An overview of the site and its context within Omokoroa, a long-identified growth area;
- Comments on other retail precincts in Omokoroa and surrounding areas;
- A review of past economic studies for Omokoroa;
- Compiling data on population and household numbers (past and future 'projections'), and building consents;
- Comments on strategic planning issues as they relate to economics;
- Comments on the Council's 'consultation options' for a new structure plan in 2018;
- Assessing the economic effects of the proposed development.

2 The Site and Context

404 Omokoroa Road is a 7.9 hectare site, partly zoned Commercial and with the rear portions of the site zoned Future Urban. It is the Commercial part that our report focuses on.

2.1 The Commercial Zone

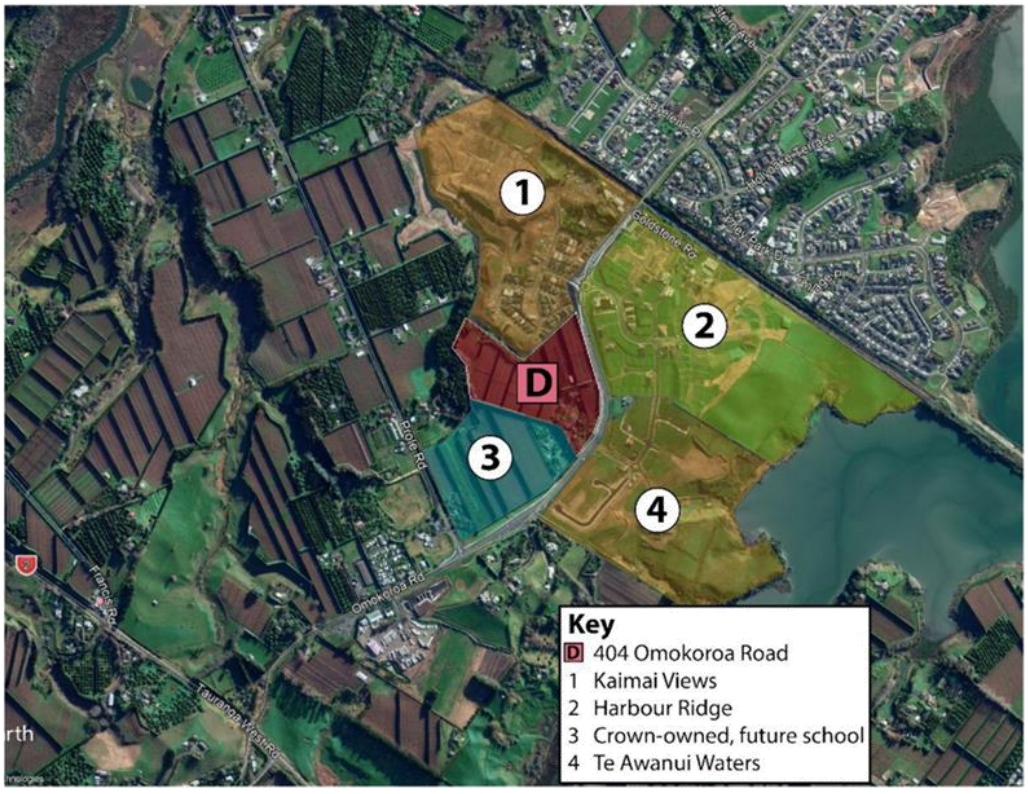
This Commercial zone was identified as a future town centre for Omokoroa some years ago, which is reflected in the Operative District Plan (ODP) and the existing Omokoroa Structure Plan (part of Appendix 7 to the ODP). The zone stretches across parts of several properties, including: 404 Omokoroa Road; the area now being developed as 'Kaimai Views'; and 412-426 Omokoroa Road, which have recently been bought by the Crown for a future school.

As such, although the wider Commercial zone covers some 12.7 hectares, it is only the 404 Omokoroa Road portion (approx. 5.0 hectares) that is still available for commercial development.

2.2 Site Context

404 Omokoroa Road is adjacent to the Kaimai Views subdivision, and across the road from Harbour Ridge and Te Awanui Waters. All three subdivisions are still in progress, with new stages being developed and new homes being built.

Figure 2.1: Site Context for 404 Omokoroa Road



Source: RCG

As shown in Figure 2.1 above, the proposed school site is immediately south of 404 Omokoroa Rd, with residential subdivisions to the north and east.

Other than the developments and sites identified above, most parts of Omokoroa south of the railway line are zoned Future Urban, and would require a plan change or structure plan process to be developed. However, there is an area of live industrial-zoned land east of Omokoroa Rd.

2.3 Omokoroa Background

Omokoroa used to be a small coastal village, and as late as 1986 the peninsula had only 1,100 people. Western Bay of Plenty District Council (WBOPDC) consultation material from 2018 notes that:

> *"Omokoroa was earmarked for growth as far back as the 1970s. It grew in various stages up to the 1990s when pollution from septic tanks into the harbour halted this…*
>
> *In 2007 the peninsula's wastewater was reticulated and septic tanks were disestablished. At that time planning was put in place to urbanise the area between the [Omokoroa Country Estate retirement village] and the railway. This was Stage 1 of Omokoroa's urban planning.*
>
> *Stage 2 occurred in 2010 and zoned the residential areas south of the railway that are now under development (Kaimai Views, Harbour Ridge, and Te Awanui Waters), and the industrial area around where Omokoroa General Carriers are".*[1]

404 Omokoroa Road was also rezoned as part of the Stage 2 planning process.

Even now, Omokoroa is still at an early stage of its development – although it is growing fast. We look into this in more detail in section 5.

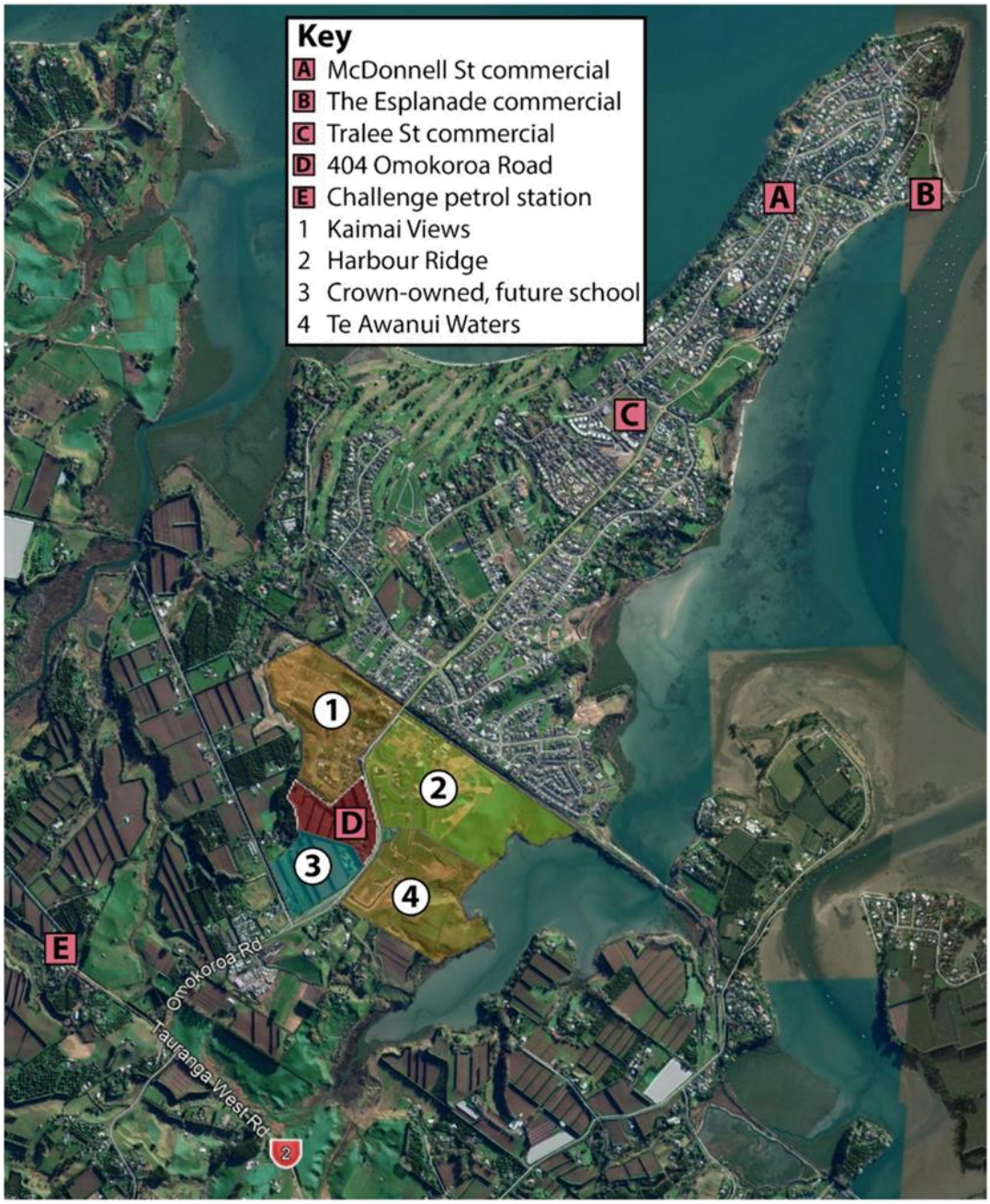
[1] https://haveyoursay.westernbay.govt.nz/39550/widgets/218050/documents/88423

3 Other Retail Precincts

3.1 Omokoroa

There are several small retail areas on the Omokoroa peninsula, shown in Figure 3.1 below:

Figure 3.1: Omokoroa Retail Areas



Source: RCG

Aside from Tralee Street, and 404 Omokoroa Rd which is not yet developed, these retail areas are all very small in size, consisting of only a handful of shops each.

Tralee Street

The Tralee Street Commercial zone covers 3.7 hectares of land, spread over several sites. These include:

- 168 Omokoroa Rd, older industrial premises which now also contain Super Liquor and some food & beverage (The Local Bar & Eatery etc);
- Omokoroa Community Church, which opened in 2002;
- The Omokoroa Medical Centre development, which opened in 2011;
- The 1.0 hectare Fresh Choice development, which opened in 2016;
- A 1.7 hectare site at 97-137 Hamurana Rd which is still undeveloped (but has resource consent for a mixed-use development – see below).

The Fresh Choice development, developed and still owned by Woolworths New Zealand, consists of an 1,100 sqm Fresh Choice and six small shops totalling 486 sqm (source – Ground Floor Plan shown on real estate listings). This development means Omokoroa residents can now do some of their grocery shopping locally – before 2016, the only food offering was dairies.

Figure 3.2: Fresh Choice and Small Shops



Source: https://www.realestate.co.nz/2600554/commercial/lease/tenancy2-omokoroa-road-omokoroa

97-137 Hamurana Rd has not yet been developed, but resource consent for a mixed-use development was granted in late 2019. The consent allows for a mix of terraced residential,

commercial and retail uses. In total, there is 4,244 sqm of ground floor space which is expected to include a mix of medical, retail, F&B and commercial activity.

3.2 Katikati and Te Puna

Katikati has a typical offering for a town of its size: 'main street' focused, with a single supermarket (Countdown, roughly 3,200 sqm and located in the Industrial zone to the south of the main town centre), and a variety of convenience/ F&B/ service providers.

This offering meets the 'everyday' needs of the Katikati community, but for a wider offering people would travel to Tauranga (a 35-minute drive away).

Te Puna has a small retail/ service offering around the intersection of State Highway 2/ Te Puna Rd/ Minden Rd. This includes Four Square, BP, real estate and accountancy offices, Te Puna Motel, Farmlands, a tavern and a backpackers. We would characterise most of this offering as convenience/ rural-oriented, relying mainly on the local community and partly on drive-by traffic.

3.3 Tauranga Retail Centres

Bethlehem has a sizeable offering, with the main retail centre (opened in 2007) now including Countdown, Kmart, a smaller Smiths City store, and a range of convenience/ F&B/ service providers. The centre struggled in the early years, as it had opened all at once rather than in stages as its catchment grew. Part of the specialty space was demolished in order to make way for Kmart, which opened in 2016. Since this strong 'anchor tenant' opened, the centre appears to have become much more successful. Other nearby retailers include Palmers, Z Energy, unstaffed Gull pumps, and several retail/ commercial blocks.

In Tauriko, Tauranga Crossing has now become the largest shopping centre in the Bay of Plenty, with 45,000 sqm of lettable area. Future stages could take this to 70,000 sqm. Currently, it includes Pak N Save, The Warehouse, Farmers and a wide range of specialty retailing.

Other key retail destinations in Tauranga include the City Centre and Bayfair.

4 Review of Previous Studies

We are aware of three previous economic reports for Omokoroa.

- An October 2009 report by Property Economics, titled "Omokoroa Assessment of Commercial & Industrial Land Demand" and prepared for WBOPDC. We assume this report was an input into the 2010 'stage 2' structure planning;
- An August 2013 report by Property Economics, titled "Omokoroa Commercial Centre Review" and prepared for Foodstuffs;
- A March 2018 report by RPS Australia, titled "Omokoroa Structure Plan Economic Review" and prepared for WBOPDC.

Both Property Economics reports were based on 2006 census data, as they were published before any 2013 data was released. RPS Australia would have had access to all 2013 census data and census-derived releases (e.g. population projections). However, none of the three reports had access to 2018 census data, as this was only released in late 2019.

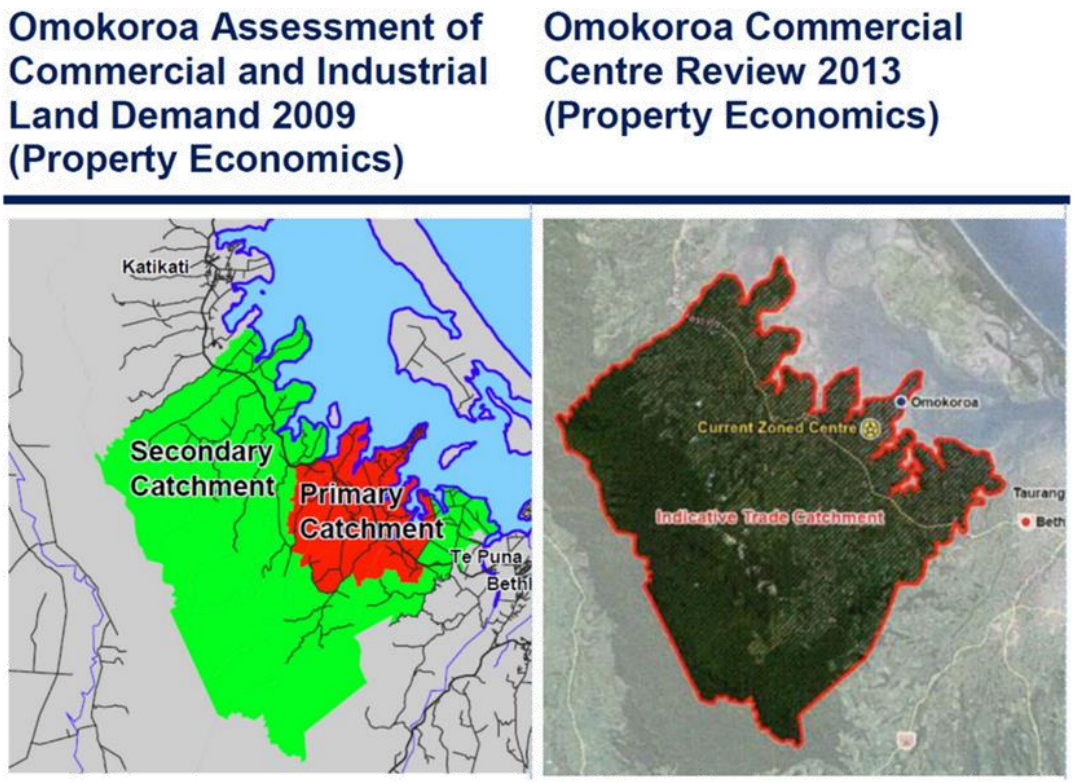
The RPS Australia report is in large part a review of the two earlier reports, together with updated data where available, and new recommendations for the Council.

4.1 Catchment/ Trade Area Definition

The two Property Economics reports use the same overall catchment, but the 2009 report makes a distinction between the 'primary' and 'secondary' parts. This is an important distinction, in our view. RPS did not create a new catchment definition, but simply reused the Property Economics one – distinguishing between the primary and secondary parts.

The overall catchment from the two Property Economics reports is shown below:

Figure 4.1: Property Economics Catchment Definitions



Source: Property Economics 2009 and 2013, RPS 2018

The 2009 Property Economics report noted:

> *"The proposed commercial centre (the Omokoroa Town Centre) will have a clear locational advantage for residents in the Primary Catchment. The Omokoroa Town Centre will attract a smaller portion of the retail spend from the Secondary Catchment, as residents will also have ready access to Katikati, Bethlehem and other Tauranga centres, particularly those residents that travel outside of the local area for employment".*

RPS note that the Property Economics definitions are slightly narrower than Stats NZ area units – i.e. they include all of the Omokoroa and Te Puna area units, but only part of the Aongatete and Minden area units.

4.2 Population Growth

As RPS note, "the 2009 [Property Economics] projections assume a much higher growth rate than the later (2013) projections".

The 2009 Property Economics report assumed that the Primary Trade Area would grow from 5,700 people in 2009 to 12,500 people in 2026, with slower growth in the Secondary Trade Area – from 4,400 to 5,900 people. The total catchment would grow from 10,100 to 18,400 people, growth of 8,300 or 82%.

The 2013 Property Economics report assumed that the total catchment would grow from 10,348 people in 2013 to 13,302 people in 2031, growth of 2,954 or 28% even though the 'end point' is five years later than in the previous report.

The 2018 RPS report assumed that the Omokoroa peninsula would have a population of 8,640 people at capacity, with another 3,360 elsewhere in the PTA for a total of 12,000. The STA would have a capacity of 5,500-6,000 people. RPS didn't give a firm date for when the catchments would be fully developed, but "nominally" used 2036, at least for Omokoroa itself. Based on this, they were projecting growth of say 6,500 people or 60% over this period.

As we note later, RPS seem to have underestimated the potential population in Omokoroa itself. The peninsula is likely to have a population of 11,000-12,000 people when fully developed, so RPS understate the primary catchment population. Other than this, the RPS projections seem reasonable to us.

4.3 Retail Modelling

Both of the Property Economics reports include a retail modelling exercise, whereas RPS did not undertake one themselves. The Property Economics process can be summarised as follows:

- Estimate the retail spending by Omokoroa-based households and businesses, as well as tourists where appropriate;
- Project these figures into the future, based on household growth projections (which vary significantly between the two reports) and assumptions around spend-per-household growth;
- Convert these spending figures into 'net floorspace', based on assumptions around the sales that retailers achieve per square metre of floor space;
- Scale 'net floorspace' up to 'gross floorspace', based on assumptions for trading area vs back of house;
- Make assumptions around what fraction of spending/ floor space demand can be captured locally in Omokoroa, as opposed to going to other centres like Tauranga.

The 2009 Property Economics report runs a full modelling scenario and implies that Omokoroa captures some fraction of spend across all store types. It projects that the town centre could support 8,100 sqm of gross floor space in 2011, or 13,300 sqm by 2026.

The 2013 Property Economics report shows its modelling results in less detail. It also makes more conservative assumptions about how much spending Omokoroa could capture – effectively, that the town centre captures two-thirds of supermarket spending, half of convenience spending, and no spending for other store types.

Property Economics' two modelling exercises help to inform their land demand estimates. Beyond that, they are of limited use in 2020, given how different their assumptions are.

4.4 Town Centre Land Requirements

RPS note in their report:

> *"There seems to be a disconnect between the two Property Economics reports that cannot be explained by the differing population projections. The 2009 report defines a 6.3Ha (not including roads, open space etc) town centre for an 18,400 catchment. While the 2013 report has a 2Ha town centre for 13,400 people".*

This is indeed a major difference. The 2009 report breaks its figures down in more detail, with the 6.3 hectares above consisting of 3.3 ha of retail land and 3.0 ha of "other" land, to include office, community and parks.

The 2009 report notes that "by 2036… Omokoroa urban area will reach its target population of 12,500, and by this time the total commercial land requirement will increase to 11-12 hectares, consistent with the current provision of 13 hectares in the Future Town Centre zone". As we note above, of course, the 13 hectares around 404 Omokoroa Rd has now reduced to just 5 hectares.

The 2013 report assumes a 2 hectare town centre, almost all of which is land for supermarkets and convenience retailing. The figures are lower than the earlier report for several reasons:

- The 2013 report has much lower population projections;
- The 2013 report assumes that the centre would have very few uses besides a supermarket and convenience retail – i.e. a narrower range of store types;
- The 2013 report excludes the "other" non-retail uses from the 2009 report;
- The 2013 report has very optimistic assumptions of how densely the retail will be developed (40% site coverage for supermarkets and 50% for convenience/ service space – both figures are too high for single-storey centres, in our experience).

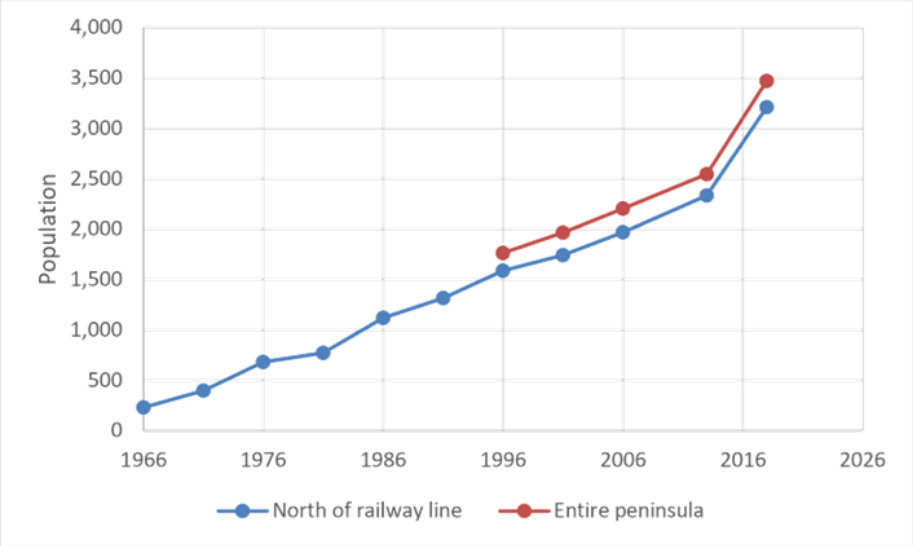
Lastly, RPS recommend a 3.5 hectare town centre in their 2018 report. This is assumed to include a 4,000 sqm supermarket, 3,500 sqm of other retail, and 2,000 sqm of non-retail activity (offices, professional services). It excludes roads, open space, and community uses: "if these are to be included in the town centre, the site area will need to be increased". We broadly agree with the RPS outlook, and note that this is in line with the area zoned Commercial at 404 Omokoroa Rd.

5 Population and Capacity

5.1 Historic Population Figures

The graph below, which we have compiled based on Stats NZ census counts from 1966-2018, show how Omokoroa's population has grown over the last 50 years. Earlier figures are for the 'Omokoroa Community', which was a semi-independent council area until local government reforms in 1989.

Figure 5.1: Historic Population Figures for Omokoroa



Source: RCG based on Stats NZ census counts

The graph shows that Omokoroa's population increased quite steadily over 1966-2013, and that it grew faster over 2013-2018 than it had at any time previously. It also shows that only a small number of people lived south of the railway line by the time of the 2018 census – less than 300, with no homes yet occupied in the new subdivisions there – and that the peninsula was home to just under 3,500 people in 2018, only a third of its long-term target population.

Clearly, Omokoroa still has a lot of growing to do, with potential to add another 8,000 people or so compared with its 2018 census population. We explore this further below.

5.2 Population Projections

'Population projections' show how an area's population could change in the future. We generally use Stats NZ projections as a benchmark in our economic reports. Unfortunately, they are of limited use for Omokoroa for several reasons:

- The latest projections available were released in February 2017, making them very out of date. They were released before the 2018 census (using the 2013 census as a 'base') and before the change to a new measure of migration.

- As noted by RPS, the projections do not appear to take Omokoroa's planned growth into account.
- Stats NZ will create new projections with a 2018 'base', but we understand that projections at the SA2 level are unlikely to be released until 2021.

5.3 SmartGrowth Capacity Estimates

Housing capacity and growth is closely monitored in the SmartGrowth area. The projections below show that Omokoroa had 1,918 existing or consented dwellings by June 2019, and that this is expected to increase by 1,120 or 71% in the next decade.

Figure 5.2: Growth Rate of Urban Growth Areas in the Western Bay of Plenty District

	Stages 1 & 2	Stage 3 (post 2021)	Total
Total Capacity (Dwellings)	2,576	1,750	4,326
Less existing/ consented dwellings as at June 2019	1,831	87	1,918
Gives remaining capacity at June 2019	**745**	**1,663**	**2,408**
Less projected uptake June 2019 – June 2022	252	0	252
Gives estimated remaining capacity at June 2022	**493**	**1,663**	**2,156**
Less projected uptake June 2022 – June 2029	493	627	1,120
Gives estimated remaining capacity at June 2029	**0**	**1,036**	**1,036**

Source: adapted from table 7 of "SmartGrowth: Development Trends, Technical Report 2019"

Omokoroa's total capacity, estimated at 4,326 dwellings, is consistent with a population of up to 12,000 – this implies an average 'household size' of 2.77 if all homes were occupied. With more conservative assumptions, e.g. 10% of homes being unoccupied/ holiday homes, the population might be around 11,000 instead.

Based on SmartGrowth capacity estimates, Omokoroa could overtake Katikati in population within the next decade. Omokoroa will have a higher number of dwellings once its Stage 1 and 2 Urban Growth Areas are fully built out (expected to be by 2029), and it also has more Stage 3 capacity than Katikati.[2]

In the longer term, Omokoroa should also overtake Te Puke for total population, although the timeframe for this is uncertain and Te Puke may well remain the largest 'centre', given that it serves a larger rural community.

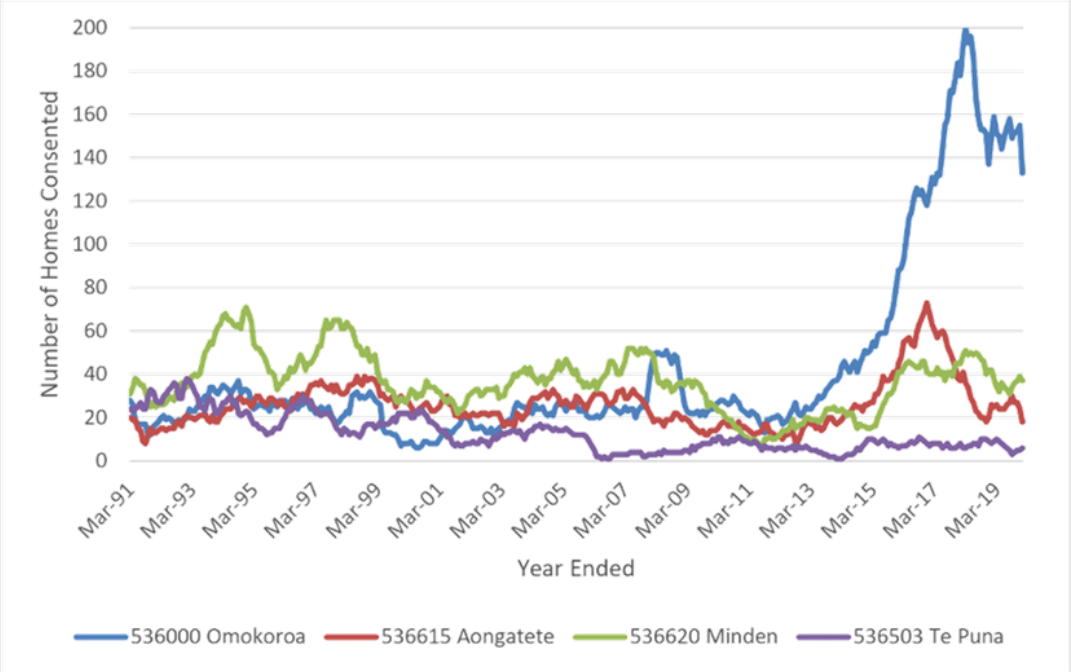
The SmartGrowth assumptions around timing, shown in the table above, are also interesting. They imply uptake of 84 homes annually in the next three years (perhaps reflecting short-term supply constraints), but 160 homes annually in the following seven years. These numbers can be compared to the building consent figures we use below.

[2] "SmartGrowth: Development Trends, Technical Report 2019". Refer to table 7 of that report

5.4 Building Consent Data

Our analysis here draws on 29 years of data, from the year to March 1991 through to the year to January 2020. Figure 5.3 below shows the number of homes consented in Omokoroa and surrounds over this time:

Figure 5.3: Homes Consented in Omokoroa and Surrounds, 1991-2020



Source: Stats NZ, RCG

This graph shows that Omokoroa has begun to grow rapidly in the last few years. Before 2013, there were typically around 20 new homes consented per year, whereas there are now well over 100 consented each year.

Almost all of this growth occurred after the 2013 census, and a large portion of it would have occurred since the 2018 census: given a typical time lag of six months from consent to completed home, the 354 consents issued since September 2017 are all likely to be 'additional' to the census count, reflecting another 1,000 potential residents.

6 Planning Considerations

6.1 SmartGrowth

The SmartGrowth area – Tauranga City and the Western Bay of Plenty District – has adopted a 'centre hierarchy' approach to managing its centres and business areas. The Tauranga City Centre sits at the top of the hierarchy, and is expected to have the largest catchment and the widest range of activities.

The three Sub-Regional Centres (Bayfair, Fraser Cove, and Tauriko) form the next level in the hierarchy. Note that all three are in Tauranga City.

There are a larger number of Town Centres, across both Tauranga and the Western Bay of Plenty District. The Commercial zone at 404 Omokoroa Road is identified as a Town Centre in SmartGrowth maps, along with Te Puke, Katikati and Waihi Beach. Bethlehem is also a Town Centre.

It is important to note that neither the Tralee St commercial area nor Te Puna are identified as Town Centres, and they are implicitly lower in the centres hierarchy. This is recognised in some other (non-statutory) documents as well. For example, the 2008 Omokoroa Built Environment Strategy notes:

> *It is the intention to develop a town centre for Omokoroa on the Southern side of the railway line (Stage 2 area) that will become the heart of the Omokoroa community. It is thus important that commercial development in the existing village compliments the development of the proposed town centre, but the community should not be deprived from neighbourhood scale commercial and social services that can contribute to the development of Omokoroa.*
>
> *There is a fine line between success and failure for developing the proposed town centre and the commercial area in Tralee Street, which has to do with the scale of the development, market needs, future vision for the respective areas and accessibility for the current and future community… It might well be that the 3.5 hectares [at Tralee St] are too big for a neighbourhood centre and that a large portion be rezoned for medium density residential".*

In our view, the SmartGrowth 'centre hierarchy' is a useful way to think about 404 Omokoroa Road and its role within the Western Bay. Identifying it as a Town Centre is appropriate, given that Omokoroa will eventually become the largest town in the Western Bay of Plenty District.

6.2 The Operative District Plan

The WBOPDC outlines its 'centres-based policy' in its Operative District Plan. This is managed through a single zone, the Commercial zone. Section 19 of the Operative District Plan states:

> *The commercial centres of towns form the heart of the town and outlying districts. They are a key element in providing a sense of identity and belonging to individuals and the community in general. There is often considerable community investment in the town centre. It is the focal point of social, economic and cultural activities. The sustainable management of these areas is seen as being a key aspect in enabling people and communities to provide for their social, economic and cultural wellbeing.*

> *The Western Bay of Plenty District has established town centres at Te Puke, Katikati and Waihi Beach. A new town centre has been planned at Omokoroa to support its existing and future planned population of 12,000 people as well as the surrounding rural catchment. Smaller beach and rural communities exist at Pukehina, Paengaroa, Maketu, Te Puna and Whakamaramara that have small commercial areas to service their immediate catchments.*

This focus is further outlined in Section 19's Significant Issues, Objectives and Policies. From an economic perspective, we see the key ones as being:

Significant Issues:

1. The decline of town centres may have an adverse effect on the community's social, economic and cultural wellbeing.

2. Commercial creep into non-commercial zones and the establishment of out of zone large format retail activities have the potential to detract from the viability and efficient operation of commercial centres.

Objectives:

1. Consolidated commercial centres that are vibrant commercial environments that encourage social and cultural interaction.

3. Convenient and safe commercial centres.

4. Commercial development of a scale that is appropriate for the location.

Policies:

3. Limit the establishment of commercial activities in non-commercial zones.

The policy direction above is consistent with the aspirations in SmartGrowth, and again reflects Omokoroa becoming a town centre on par with Te Puke, Katikati and Waihi Beach.

6.3 Practical Issues with the Tralee Street Commercial Area

As noted above, the Tralee Street commercial area has not been identified as a town centre – but it is a Commercial zone. The two earlier Property Economics reports did not anticipate that Tralee Street would eventually have a (small) supermarket. The 2009 report noted:

> *"The Tralee Street site… [offers] potential for a 'local retail centre' that services the day to day needs of the immediate residents, within a 400-800m radius (walking distance).*

> *Such a centre would ideally be similar in function to the local centre located on the corner of Hamurana Road and McDonnell Street, and would be comprised of 5-6 small shops, requiring in the order of 800 sqms GFA of retail floorspace (600 sqms net) or 3,000 sqms of land.*
>
> *It is important that the scale of a retail centre in the Tralee Street location does not duplicate the role and function of the Future Town Centre, and the primary consideration in this respect is the quantum of retail floorspace, as well as the size of the individual tenancies, which should not exceed 250 sqms GFA".*

Actual development patterns have been quite different, with the Tralee Street commercial area now home to around 2,000 sqm of retail including an 1,100 sqm supermarket. This is not necessarily a bad outcome: it has given Omokoroa residents access to a supermarket earlier than they would otherwise have had, and (in future) will give some extra competition for grocery shopping.

Tralee Street now has a reasonable 'neighbourhood centre' offering, and it is well located for people living in the northern part of the peninsula. However, it is less convenient for residents in the growing southern areas, and even less so for people living in the rural areas beyond the peninsula. This effectively limits how big it can get – it will only ever serve part of the Omokoroa catchment.

As noted in section 3.1, additional retail has been consented for the last undeveloped site in the Tralee Street area – 4,244 sqm of ground floor space, although this includes medical and perhaps other non-retail uses. This is, potentially, a lot of extra retail space in this area, and we do have some doubts about its viability. However, the space has been consented and is now considered part of the 'existing environment' for our purposes.

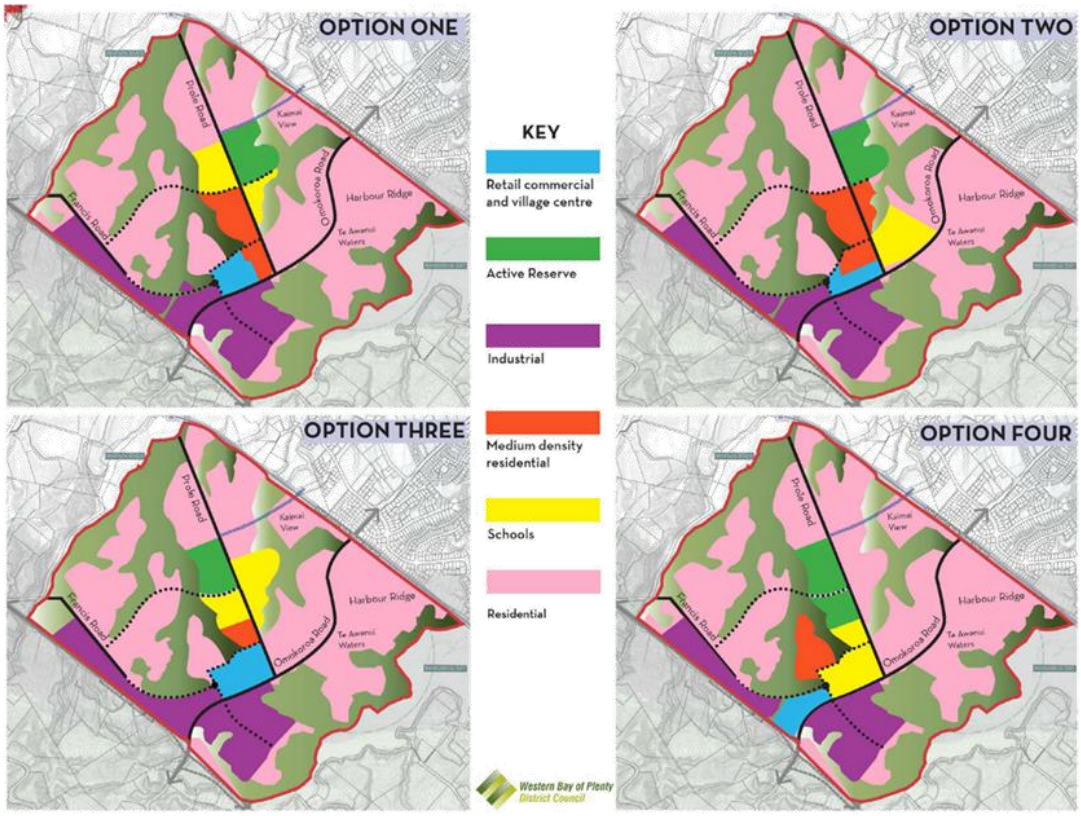
The extent of development that has occurred around Tralee Street so far, or which has been consented, arguably means a longer timeframe to develop the main Omokoroa town centre. This is a simple commercial reality; the early establishment of a supermarket at Tralee St is likely to delay the establishment of a second supermarket in the town centre, if only by a short while. RPS also make this point, noting that "The role and function of the future town centre will be reinforced if the Tralee Street centre is limited to the current size. Further development of the Tralee Street centre will likely delay the timing and scale of the planned town centre".

Even so, 404 Omokoroa Road is a superior commercial location to the Tralee Street area, with access to a larger catchment. Over time, we expect it to a larger and more varied (in terms of its range of uses) centre than Tralee Street. It is a more logical location for a town centre, and this is reflected in strategic planning documents.

7 2018 Consultation Options

Western Bay of Plenty District Council (WBOPDC) consulted on four options for a new Omokoroa structure plan in late 2018. The four options they took to consultation all reflected 404 Omokoroa Rd being rezoned as residential, with other sites (with the site depending on the option) rezoned as a town centre. The four options are shown below:

Figure 7.1: 2018 Structure Plan Consultation Options



Source: https://haveyoursay.westernbay.govt.nz/39550/widgets/218050/documents/88461

This consultation has not resulted in a plan change application to date and we assume it has no statutory weight. However, we do briefly consider the four sites identified for a possible town centre.

7.1 Consultation Options One to Three

These three consultation options locate the town centre on Omokoroa Rd, next to the proposed Francis Rd extension and extending to the intersection with Prole Rd (except for Option One which does not extend quite as far as Prole Rd).

Although retailers and centres often prefer to locate at a crossroads or major intersection, we note that only a small percentage of Omokoroa's population will live off either theFrancis Rd extension or Prole Rd; traffic counts are likely to be much lower than those along Omokoroa Rd itself.

As such, being located on Omokoroa Rd itself is much more important than being close to any particular intersection (excluding SH2). The consultation material for Options 1-3 all noted an "opportunity" that "the village centre has high exposure to Omokoroa Rd which will ensure commercial viability and easy public access".

In our view, 404 Omokoroa Road also meets these criteria, and we are unsure why it was not included as an option for consultation, given that it already has a live centre zoning and has an easier pathway to development via a resource consent process.

7.2 Consultation Option Four

Only one of the consultation options, Option Four, locates the town centre adjacent to SH2. Even then, access from the highway (as suggested by Property Economics in 2009) appears unlikely given the speed of passing traffic and differences in elevation. We understand that the timeframe for any intersection upgrade around SH2/ Omokoroa Rd is still uncertain, and it is not known what the intersection will look like.

The consultation material for Option 4 noted an "opportunity" that "the Retail/ Commercial Centre is close to SH2 and as a result might be exposed to passing traffic and hinterland residents". On the other hand, a "limitation" is that there is "uncertainty around SH2 upgrade design and subsequent effects on the visibility of the Retail/ Commercial Centre".

Another "limitation" is that the centre's location "limits the size of the development site. The village centre is further disconnected from residential areas and schools by the future extension of Francis Road. Access is significantly impacted by traffic along Omokoroa Road, queuing to access SH2 and industrial traffic along Francis Road".

We also note that the land indicated for the town centre in Option Four is owned by three different landowners, and is isolated from any 'walkup' catchment.

7.3 404 Omokoroa Road vs. the Four Consultation Options

In our view, 404 Omokoroa Road has similar locational characteristics to options 1-3, being on the same main road and only 700 metres away. 404 Omokoroa Road also provides a zoned commercial area in line with RPS' size recommendation, and in line with what is provided in the consultation options.

Option Four has different locational characteristics. It adjoins SH2, which may make it slightly more accessible for people coming from outside Omokoroa. There might be some visibility from the highway, but this is uncertain. It is slightly more remote from most parts of Omokoroa, especially from the areas which are already developed or under development.

404 Omokoroa Road is within a 1.2 km radius of most of the new 'Stage 3' areas to be developed and is also convenient for residents living further up the peninsula. For Omokoroa residents, any of the four 'consultation' locations or 404 Omokoroa Road are likely to be equally convenient. Our analysis suggests that Omokoroa residents will make up the majority of the catchment and potential sales.

8 Assessment of Economic Effects

8.1 Summary of Key Points

Key points from the earlier sections of our report include:

- 404 Omokoroa Road is the last undeveloped site in the main Omokoroa Commercial zone, identified as the future town centre for the peninsula;
- It is on the main road, and surrounded by ongoing development, including the Kaimai Views, Harbour Ridge and Te Awanui Waters subdivisions, and a future school site;
- Other than these uses, most of the southern parts of Omokoroa are still zoned Future Urban, but expected to begin development in the next few years;
- Omokoroa is still at an early stage of its development – although it is growing fast;
- Tralee Street is the other noteworthy retail area on the peninsula, and includes around 2,000 sqm of retail including a Fresh Choice. Further retail and mixed-use activity has been consented. However, due to its location and size, Tralee Street will only ever serve part of the Omokoroa catchment;
- There have been three previous economic reports for Omokoroa, with a range of different assumptions and findings.
- The most recent report, by RPS Australia in March 2018, attempts to reconcile the findings of the two previous reports, and includes some more up-to-date data. Generally, its findings seem reasonable, although it underestimates the potential population for Omokoroa and the primary trade area;
- RPS recommend a 3.5 hectare town centre, excluding roads. This is similar to the size of the Commercial zone at 404 Omokoroa Road;
- Omokoroa has grown steadily over time and much more rapidly since 2013. Even so, the peninsula was home to just 3,500 people by the 2018 census date. It still has another 8,000 people to come.
- SmartGrowth estimate Omokoroa's total capacity at 4,326 dwellings, which would give it a population of 11,000-12,000 people. It is likely to overtake Katikati for population in the next decade, and eventually overtake Te Puke to become the largest town in the district;
- SmartGrowth identifies 404 Omokoroa Road as a Town Centre, on par in the 'centres hierarchy' with Katikati or Te Puke and higher than other commercial areas such as Tralee Street. Similar language is reflected in the Operative District Plan;
- WBOPDC created four Structure Plan options for consultation in late 2018, all of which showed 404 Omokoroa Rd rezoned as residential and a town centre in a different location. This consultation has not yet resulted in a plan change and we assume it has no statutory weight;
- In our view, 404 Omokoroa Rd has similar locational characteristics as the town centre sites identified in consultation Options 1-3, whereas Option 4 is different being adjacent to SH2. However, this does not mean that Option 4 is superior, or that it would be quicker to develop.

8.2 Consistency with Strategic Planning Documents

As outlined in section 6, 404 Omokoroa Rd (and the surrounding sites, which have now been developed or proposed for non-commercial uses) is identified as a Town Centre in key planning documents. Omokoroa will grow to become a sizeable town, and it will need a centre to cater for this population. 404 Omokoroa Rd is a suitable location for this to occur.

The size of the site, and the indicative uses shown in the Preliminary Masterplan we have seen, are all consistent with the role expected of a Town Centre in this location. A supermarket is likely to be the main 'anchor tenant' and this could be supported by a range of convenience, food & beverage and service activity initially, perhaps with a broader offering over time as the population and demand grows. This is also in line with the indicative uses identified by RPS.

Providing a town centre in Omokoroa, at 404 Omokoroa Rd, will enable people living in the peninsula or nearby to fulfil more of their shopping and convenience needs locally, improving their economic and social wellbeing. It will also provide employment opportunities, and reduce retail 'leakage' to Tauranga. Development of the town centre will result in significant positive economic effects.

8.3 Effects on Other Centres and Retail Precincts

'Trade competition' effects are not to be considered under the Resource Management Act. However, sometimes retail developments can affect sales in other centres to the extent that they lead to a reduction in amenity and quality of those centres. This can be a significant adverse economic effect, one that should be considered under the Act.

We have considered the potential for such effects on three centres: Tralee Street, Katikati and Bethlehem.

Tralee Street

Tralee Street is the closest centre at 2.5 km away from 404 Omokoroa Road, and will have the highest degree of competition with it.

However, Tralee Street is not intended to be a Town Centre, but a smaller neighbourhood-level offering. It has a lesser role and a smaller, narrower offering than larger centres. As such, impacts on it will be more localised and less significant (for the wider community) than impacts on a larger centre would be. The concern is less around the impacts that the Town Centre could have on Tralee Street, but the impacts that Tralee Street could have on the Town Centre. This point was also made by RPS, who list as one of their recommendations that "the role and function of the future town centre will be reinforced if the Tralee Street centre is limited to the current size" – which, of course, it may not be.

The consented development at 97-137 Hamurana Rd could add up to 4,244 sqm of ground floor commercial space (with a mix of medical, retail, F&B and offices), although the final outcomes might be more modest – this offering is spread across several buildings, so if demand is weaker in this location, some stages might be reconsidered for other uses.

Other than the Fresh Choice supermarket, a use not originally anticipated for Tralee Street, most of the existing tenancies provide neighbourhood-level offerings, in line with 'corner shops'. These uses typically have quite small catchments, and the northern part of the peninsula is large enough to support them.

Fresh Choice itself is a small, owner-operated supermarket. Given its small size, it focuses on locational convenience and knowing its local customer base, rather than competing on price or a wide product range. This is quite a different pitch and offering to a full-size supermarket – which could be 2-3 times the size, and needs a larger catchment to support it.

A potential large supermarket at 404 Omokoroa Road would certainly compete strongly with the Fresh Choice, and there is likely to be a sales impact on the Fresh Choice as it loses its local monopoly. However, this will be a 'trade competition' issue only. It is very unlikely that Fresh Choice would close – supermarket closures are rare in New Zealand, and almost unheard of in growing communities – and a second supermarket would be good for competition in the area. Fresh Choice will continue to provide a convenient grocery offering for people living in the northern part of Omokoroa (and, to a lesser extent, people living elsewhere in the peninsula).

Even in the very unlikely event that Fresh Choice were to close, it is unclear whether this would be a significant adverse effect. Tralee Street is not intended to function as a town centre, and if local residents have access to a wider range of shops and offerings at 404 Omokoroa Road, with some shops and services still nearby at Tralee Street, the community is still likely to be better off overall.

As such, we conclude that there is a negligible chance of significant adverse economic effects on Tralee Street.

Katikati

Katikati is 20 km away from 404 Omokoroa Road, and has very limited catchment overlap with 404 Omokoroa Road. This is also implicit in the three earlier reports from Property Economics and RPS. Katikati is a sizeable town in its own right, with a single supermarket and a range of convenience retail. Any sales impact on Katikati would be very minor, and as such there is no possibility of significant economic effects.

Katikati is 20 km away from 404 Omokoroa Road, and has very limited catchment overlap with the site. Katikati is a sizeable town in its own right, with a single supermarket and a range of convenience retail. It has a larger Commercial zoned area, and its supermarket and some other retail uses are located outside the Commercial zone. Any sales impact on Katikati would be very minor, and as such there is no possibility of significant economic effects.

Bethlehem

Bethlehem is 12 km away from 404 Omokoroa Road, and also has very limited catchment overlap with the site. Bethlehem is a well-established and significant retail centre, including a supermarket, one of only two Kmart stores in the Western Bay, and a range of other specialty retailers and services.

The main centre (on the northwest corner of the SH2/ Bethlehem Rd intersection) is larger than Omokoroa at 7.8 hectares, and there are other commercial sites on the other corners of the intersection. The Bethlehem centre serves as the local shopping destination for Bethlehem and nearby suburbs, and again there is no possibility of significant economic effects from 404 Omokoroa Road.

8.4 Conclusion

We conclude that the proposed development of 404 Omokoroa Rd will have significant positive economic effects, for Omokoroa itself and the Western Bay of Plenty District more generally. Any negative economic effects will be minor and limited to 'trade competition' only.

ARCHAEOLOGICAL ASSESSMENT

PROPOSED SUBDIVISION DEVELOPMENT OF LOT 1 DP 307535

404 OMOKOROA ROAD OMOKOROA

Prepared by

KEN PHILLIPS (MA HONS)

For

MOMENTUM

MARCH 2020

ARCHAEOLOGY B.O.P.
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INTRODUCTION

This report was commissioned by Momentum, on behalf of the land owners, in order to determine if archaeological sites are affected by the proposed subdivision development of a 7.9099-hectare block of land located at 404 Omokoroa Road (Lot 1 DP 307535).

The development will involve extensive topsoil removal and modification to the existing contour of the property. There are no recorded archaeological sites within the property, however, archaeological features were uncovered during the realignment of Omokoroa Road in 2018 immediately adjacent to the property and there is reasonable cause to suspect that archaeological features will be exposed during earthwork within land affected by the development.

This report has been prepared as part of the required assessment of effects accompanying a resource consent application under the Resource Management Act 1991 (RMA) and to identify any requirements under the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA). Recommendations are made in accordance with statutory requirements.

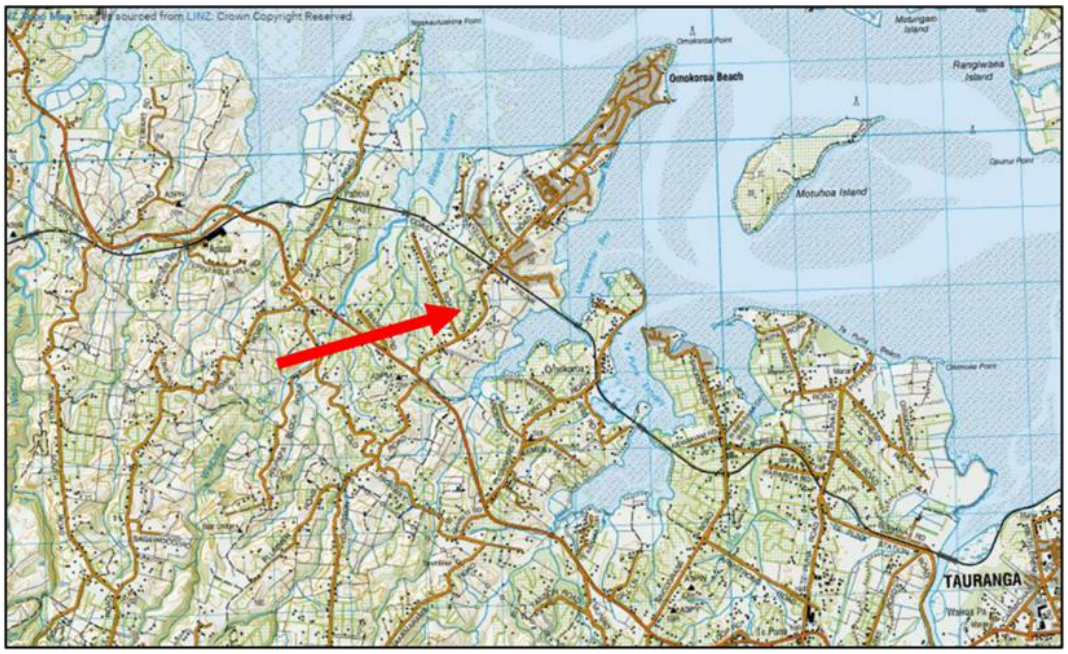

Figure 1. Topographic map showing location of 404 Omokoroa Road.

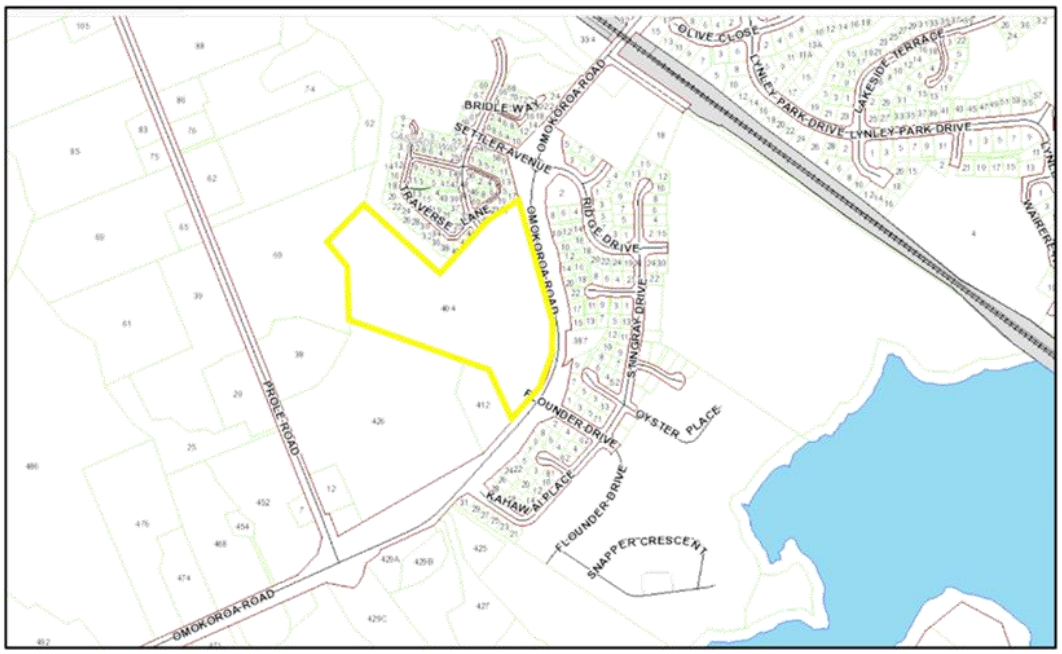

Figure 2. Map showing the location of 404 Omokoroa Road outlined in yellow.



Figure 3. Aerial photo showing the location, extent and current land use within 404 Omokoroa Road (outlined yellow).

HISTORY

The Omokoroa Peninsula falls within the rohe of Pirirakau. The heartland of their rohe is Whakamarama but also encompasses large areas of the Tauranga Harbour margins including Te Puna and the Omokoroa Peninsula. Their relationship with this land dates back to the arrival of the Takitimu, the ancestral waka of Pirirakau. The subsequent settlement, cultivation and defence of these lands by Pirirakau during the pre European period presents a rich traditional history that is reflected in the extensive archaeological record.

The post European contact history of Pirirakau is equally fascinating from the significant early influences of Catholicism and French and English traders to their support of the Kingitanga (King Movement) in the 1850's-1860's which saw portions of their land confiscated by the colonial government. As a result Pirirakau became the principal antagonists during the Tauranga Bush Campaign in 1867 during which they disrupted Government efforts to survey the confiscated lands and suffered considerably as a result with many of their settlements and cultivations destroyed.

Following the subdivision of the Tawhitinui Block in 1868, which saw the Omokoroa Peninsula divided up into 50-acre allotments Pirirakau adopted a strategy of passive resistance when land set aside as Native Reserve was leased by the government to the prominent European settler Joseph Tice Gellibrand. Gellibrand gradually increased his land holdings on the peninsula buying up some of the 50 acre lots in the 1870s. Lots from the original 1868 subdivision affected by the current subdivision proposal include part of Lots 61 and 62.

Lots 61 and 62 were acquired by Ensign J. R. Horne[1] of the 4th Regiment of the Waikato militia in the late 1860s. In October 29th 1879 Gellibrand purchased Lots 91, 60 and 61 from Horne for £500. Lot 61 and 62 were up for sale in 1892[2] by an unspecified vendor and again in 1897 by Arthur Crapp at which time they were described as good fern and tutu land.[3] The lots remained undeveloped until after WW1 when Omokoroa Road was realigned cutting off northern portions of the two lots and the two smaller lots were amalgamated into one lot. The resultant property was fenced and put into pasture for stock grazing.[4] A dwelling was constructed near the Omokoroa Road frontage of Lot 62 in the late 1950s and a milking shed in the centre of Lot 62 in the 1960s (Figure 5). Both Lots 61 & 62 remained as pastoral blocks until they were converted into a kiwifruit orchard in the early 1980s. Lot 1 DP 307535 (404 Omokoroa Road) was formed in 1977 as a result of the subdivision of Lot 2 DPS 4524.

[1] SO 423
[2] B O P Times 26 August 1892
[3] B O P Times 7 May 1897
[4] DP 12835

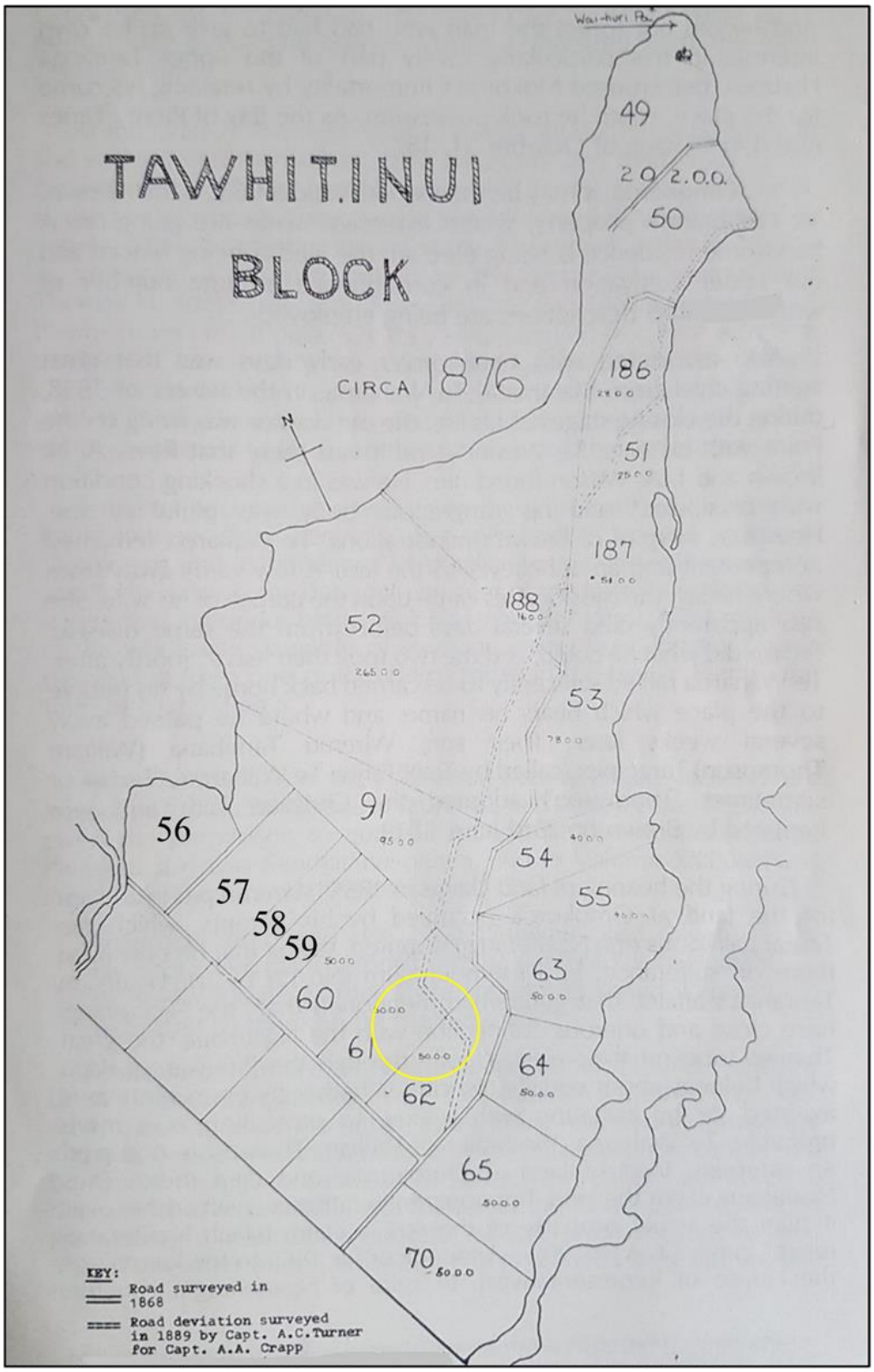

Figure 4. Plan produced by J. Wood showing the location of the Tawhitinui Block based on Survey plan SO 423 produced in 1868. Approximate location of 404 Omokoroa Road circled yellow. (J. Wood 1980:61)

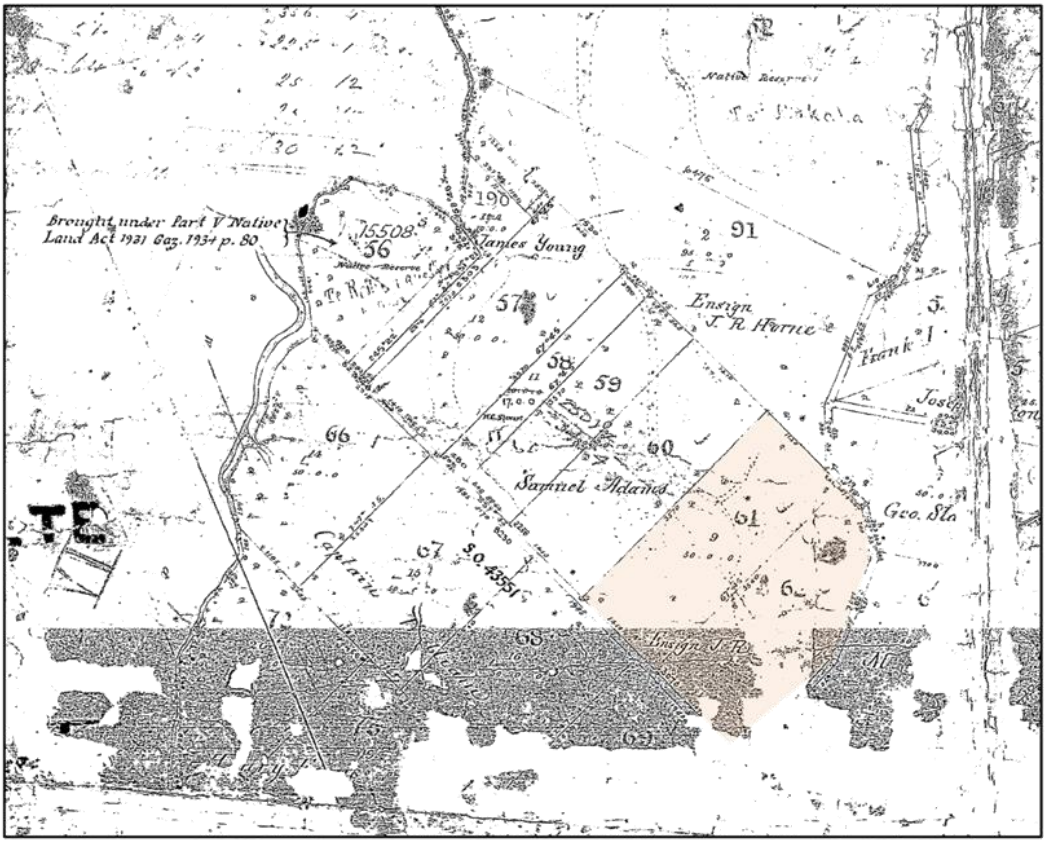

Figure 5. Part subdivision plan of the Tawhitunui Block (SO 423) produced in 1868 showing land owners and Native Reserves. Allotments are 61 & 62 highlighted brown.

PHYSICAL LANDSCAPE

Land affected by the proposed subdivision development is located on gentle west facing slopes within the catchment of the Kakaramea Stream. The property was used for stock grazing until the 1980s during which time little modification occurred to the property with the exception of fencing, farm tracks and the construction of farm shed and sundry structures. Early aerial photos show gullies at the head of the Kakaramea Stream catchment extending into the property. During the establishment of the kiwifruit orchard within the property in the early 1980s the gullies were largely infilled presumably by quarrying the upper edges of the gullies. This earthwork has likely damaged, destroyed or buried archaeological features that may have been present within or surrounding the gullies.

Soils within the property are of the Katikati series of yellow brown pumice loams (Allophanic Soils) derived from Rhyolitic tephras.[5] Allophanic soils are friable to a great depth with excellent physical properties and are ideal for cultivating subtropical crops including traditional Maori cultigens such as kumara.

[5] Rijkse & Cotching 1995

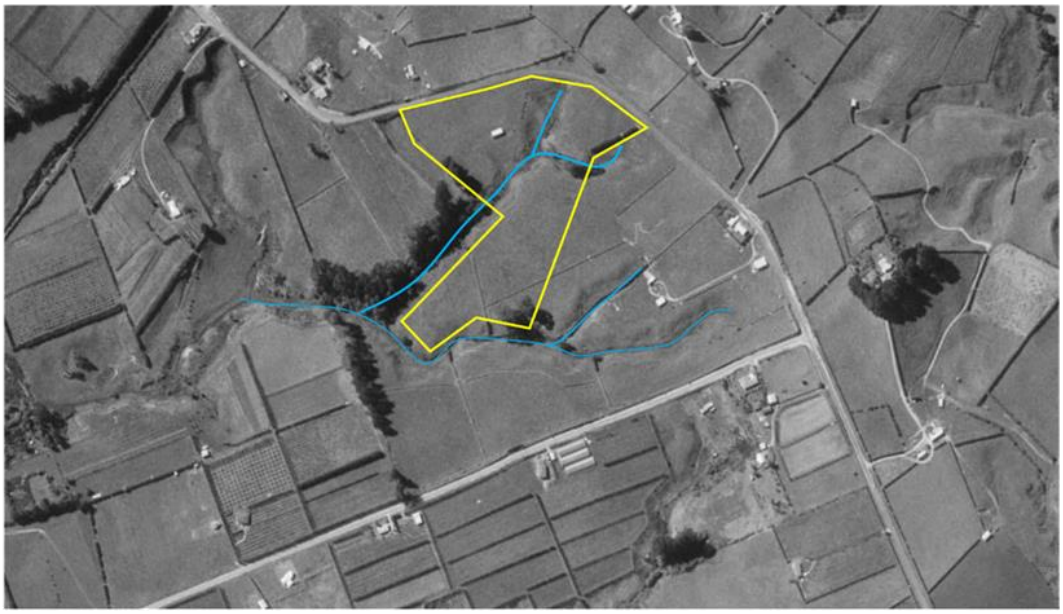

Figure 6. Aerial photo taken in 1974 showing the approximate extent of 404 Omokoroa Road (yellow) and gullies forming the eastern extent of the Kakaramea Stream catchment.

ARCHAEOLOGICAL LANDSCAPE

Archaeological site recording began at Omokoroa in 1968 when David Borell of the Tauranga Historical Society recorded Waihuri Pa (U14/159) at the northern tip of the peninsula. In 1982 the New Zealand Historic Places Trust undertook an archaeological survey of the greater Tauranga Harbour. During this survey 23 archaeological sites were identified on the Omokoroa Peninsula north of State Highway 2 and were entered into the New Zealand Archaeological Association Site Recording Scheme. Subsequent archaeological surveys and investigations of land affected by residential subdivisions and infrastructure projects have resulted in archaeological excavation of known sites and the identification of many previously unrecorded sites.

There are only four recorded pa on the Omokoroa peninsula north of State highway 2. Waihuri Pa (U14/159), located at the northern distal end of the peninsula is perhaps the most well known as it survives in relatively good condition. Rauhuia Pa (U14/520 & 704) is located on the eastern side of the peninsula with commanding views of the Esplanade Beach to the north and estuarine embayment to the south. A house was constructed on the pa sometime in the 1950s, however, impact on subsurface archaeology features of the pa is likely to have been minimal.

The large pa discovered within Lynley Park (U14/712) was destroyed during earthwork associated with the establishment of that subdivision. A further small yet prominent Pa noted on early survey plans survives in relatively good condition on the eastern coast of Mangawhai Bay (U14/3106).[6]

[6] This pa is located in Allotment 64 and illustrated on Survey Plan SO 423 produced in 1868.

Recent archaeological monitoring and investigations carried out during the many residential subdivision developments on the Omokoroa peninsula in the past 20 years have identified numerous previously unrecorded sites primarily in the form of clusters crop storage pits with associated evidence of occupation in the form of cooking hearths house floors and shell midden deposits. These site types are indicative of fallow cycle cultivation sites, however, despite the many archaeological investigations of such sites on the peninsula many research questions remain unanswered. In particular we are still to refine the antiquity of these sites and their relationship to the known pa sites. The occupation periods of the undefended settlements are also unclear as is the nature and extent of associated cultivation areas.

Recorded Archaeological Sites

The New Zealand Archaeological Association Site Recording Scheme was consulted in order to determine if archaeological sites have been recorded within or in the immediate vicinity of the property. The NZAA records show that there are no recorded archaeological sites within 404 Omokoroa Road however there are approximately 14 recorded archaeological sites in the general vicinity of the property. These sites are typically comprised of crop storage pit complexes with associated garden soils, occupation features such as cooking hearths, shell middens and post holes representing above ground structures such as whare.

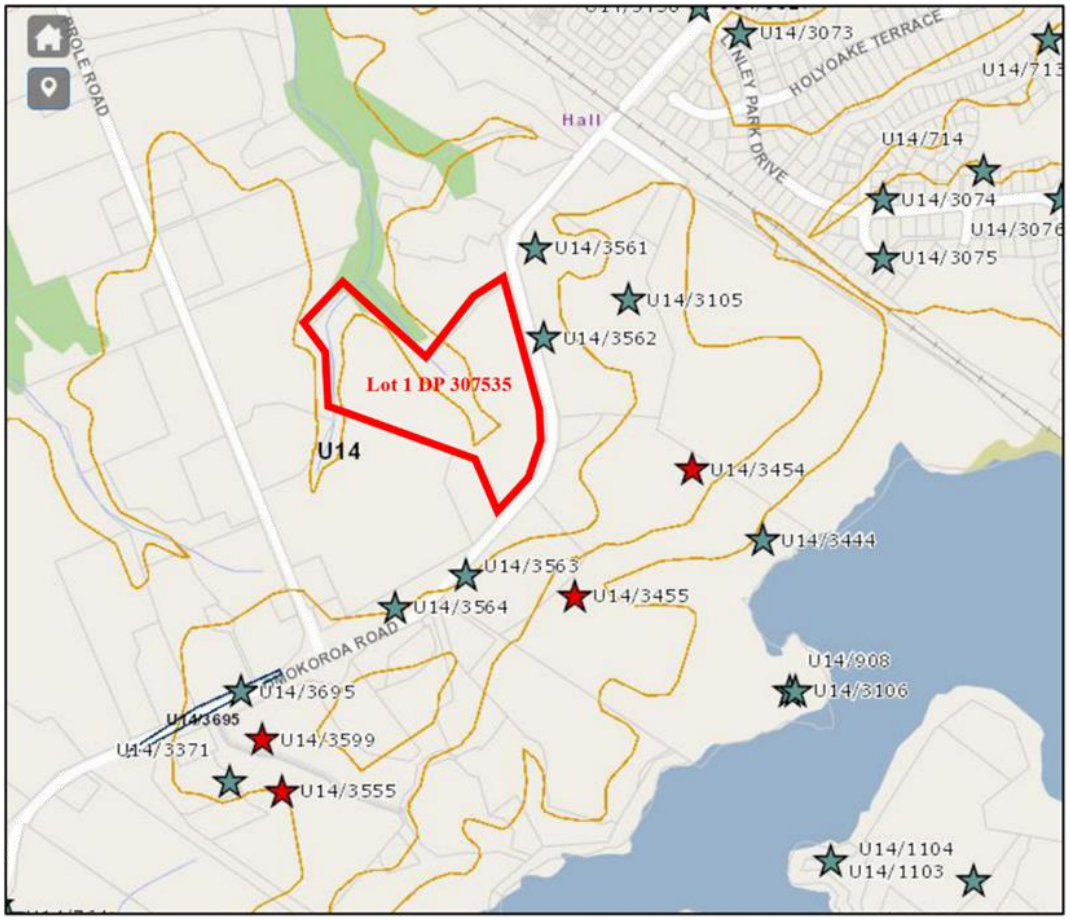

Figure 7. Cadastral plan showing the location of recorded archaeological sites in the general vicinity of the proposed school development (highlighted red).

Table 1. Recorded archaeological sites within 500m of the property.

SITE NUMBER	SITE TYPE
U14/3105	PIT
U14/3444	MIDDEN
U14/3454	PITS
U14/3455	PITS
U14/3561	PITS
U14/3562	PITS
U14/3563	**PITS**
U14/3564	**PITS**

The nearest recorded sites to the property include U14/3561 and U14/3562 both of which were identified during the recent realignment of Omokoroa Road (HNZ Authority 2017/104). Both sites comprised clusters of rectangular semi-subterranean crop storage pits and possible cultivated soils being components of larger sites that likely extend into the adjacent land parcels affected by the proposed subdivision development. A final report including plan of archaeological features identified within these two sites is being prepared by WSP Opus.

SURVEY RESULTS

A visual inspection of the property was carried out by Ken Phillips in March 2020. The greater part of the property was in kiwifruit orchard with an area of lawn and exotic trees surrounding the existing dwelling fronting Omokoroa Road.

The ground surface was examined for evidence of former occupation (in the form of shell midden, depressions, terracing or other unusual formations within the landscape, or indications of 19th century European settlement remains).

Subsurface testing based on spade test pitting was carried out to determine whether buried archaeological deposits could be identified. Disturbed soils and soil profiles exposed in cuttings were examined where encountered for evidence of earlier settlement, and an understanding of the local soil stratigraphy. There is little surface evidence of the cut and fill earthwork carried out during establishment of the orchard however the probable location of two infilled gullies are still evidence as shallow swales descending to the north west.

During the course of the survey no visible surface archaeological features were identified. Test pitting revealed natural, and heavily modified soil profiles however the extent of the 1980s earthwork could not be established by limited spade test pitting. No archaeological features, layers or pre 1900 culturally modified soils were detected however the limitation of spade test pitting should be recognised.

Surface evidence of archaeological sites associated with pre European Maori open settlement and cultivation sites on the Omokoroa Peninsula are often absent or poorly defined and even more substantial settlement features such as crop storage pits rarely have surface expression. They are also difficult to detected by limited spade test pitting however all recent subdivision and road developments have uncovered such archaeological sites.

SUMMARY

There are no recorded archaeological sites within 404 Omokoroa Road however, there are several recorded archaeological sites (U14/3561 & 3562) located within 100m of and components of these sites may extent into the property. Furthermore, there is reasonable cause to suspect that further unrecorded subsurface archaeological sites not identifiable by archaeological survey are present within the property that would be affected by the proposed development.

Archaeological significance

Recorded archaeological sites surrounding the property form part of a wider archaeological landscape representing elevated defended pa and undefended settlement and cultivation on the Omokoroa Peninsula. Further research is required to determine the antiquity and contemporaneity of these sites and the identification and extent of associated cultivations. This type of archaeological landscape is repeated on many of the inner harbour peninsula's and represents the rapid and extensive early adoption of subsistence fallow cycle agriculture on the free draining soils and micro climates unique to the Tauranga Harbour lowlands.

ASSESSMENT OF EFFECTS

Earthwork associated with the proposed subdivision development of 404 Omokoroa Road will affect most of the property. Given the close proximity of recorded archaeological sites to the property and the frequent discovery of previously unrecorded archaeological sites during developments on adjacent properties there is reasonable cause to suspect that unrecorded archaeological sites will be encountered during earthwork associated with the proposed subdivision development.

Therefore, a program for the mitigation of effects on possible intact archaeological features during the residential development of the property should be established before the commencement of ground disturbance. This mitigation program will require an authority from Heritage New Zealand to damage or destroy possible unrecorded archaeological sites within the affected properties during earthwork associated with the development.

GENERAL CONSIDERATIONS

This report is an assessment of impact on archaeological values and does not include an assessment of Maori values. Such an assessment can only be made by the tangata whenua. It should be noted that archaeological survey techniques based on visual inspection and minor subsurface testing cannot necessarily detect all possible subsurface archaeological features, nor identify wahi tapu and other sites of traditional significance to Maori, especially where these have no physical remains.

RECOMMENDATIONS

The following recommendations for avoidance or mitigation are provided below.

1. That a Heritage New Zealand (HNZ) authority to modify damage or destroy possible unrecorded archaeological sites within land affected by the proposed school development at 404 Omokoroa Road (Lot 1 DP 307535) is obtained prior to the commencement of earthwork associated with the development.

2. That prior to the commencement of earthwork associated with the development test stripping of areas selected by the project archaeologist should be carried out in order to determine the likelihood and location of possible unrecorded subsurface archaeological sites within the property.

3. That archaeological monitoring is carried out by a suitably qualified archaeologist during all topsoil removal within the property.

4. That in the event that unrecorded archaeological sites are encountered during ground disturbance associated with the development all work must stop in the immediate area until the project archaeologist has carried out appropriate investigation, sampling and recording in accordance with conditions of an HNZ authority.

5. That if koiwi tangata (human remains) are encountered, no further modification of the site concerned shall occur until tangata whenua and the HNZ have been advised and their responses received.

6. Archaeological survey cannot always detect sites of traditional value to Maori, such as wahi tapu. Tangata whenua should be consulted regarding the possible existence of such sites and informed of the recommendations of this report.

13/05/2020

Hi Tom,

Thank you for providing an indication of your development plans for the Town Centre Omokoroa development. I can confirm that we have infrastructure in the general land area that you are proposing to develop. Chorus will be able to extend our network to provide connection availability. However, please note that this undertaking would of course be subject to Chorus understanding the final total property connections that we would be providing, roll-out of property releases/dates and what investment may or may not be required from yourselves and Chorus to deliver the infrastructure to and throughout the site in as seamless and practical way as possible.

Chorus is happy to work with you on this project as the network infrastructure provider of choice. What this ultimately means is that the end customers (commercial and residential) will have their choice of any retail service providers to take their end use services from once we work with you to provide the physical infrastructure.

Please reapply with a detailed site plan when you are ready to proceed.

Yours sincerely

Scott Hollings
Account Manager Chorus NZ Ltd

Chorus New Zealand Limited

3 Harington Street, Tauranga, 3110
0274 325 154

MOMENTUM
PLANNING AND DESIGN

13th May 2020

Ngati Ranginui
By email: info@ranginui.co.nz

RESOURCE CONSENT FOR OMOKOROA TOWN CENTRE

Kia Ora,

Momentum Planning and Design is preparing a resource consent for the Omokoroa Town Centre at 404 Omokoroa Road (Lot 1 Deposited Plan 307535). The site currently operates as a kiwifruit orchard, as shown in the aerial map below, but is zoned Commercial under the operative District Plan.



Figure 1. Context Plan

Omokoroa Town Centre



Figure 2. Aerial with site boundary

Proposal

The proposal is to establish a mixed-use commercial town centre to service the growing Omokoroa community and nearby rural catchment. The town centre will comprise retail spaces, including a supermarket, shops, cafes/restaurants, bars, office space and possible a cinema.

Residential town houses and medium density apartments in the western portion of the site is also proposed. The vision for the site is to create a vibrant centre, encompassing a mix of uses, and establishing a destination for both the local Omokoroa catchment and rural catchment in close proximity. Given the recreational attributes of Omokoroa and the new cycleway nearing completion, it is likely to be a regional destination for recreation.

The overall design concept is to establish a town centre that includes different scales of retail and office space to accommodate a variety of businesses. The ultimate mix of tenancies will be market driven and respond to the needs of the community.

The District Plan anticipates the town centre connecting to and making the most out of the open space network adjacent to the site. This includes the adjacent stormwater reserve, the recently acquired

Ministry of Education site (south of the town centre) and the existing urban development including the Kaimai Views subdivision, Harbour Ridge subdivision and Te Awanui Waters opposite.





Omokoroa Town Centre



Earthworks and Archaeology

An Archaeological assessment was undertaken by Archaeology B.O.P Heritage Consultants (Ken Phillips) in March 2020, report attached. The report concludes no archaeological features were visible during the site inspection, however this was limited to shovel test pits and analysis of visible surface features only.

Archaeological monitoring will be undertaken by a suitably qualified archaeologist during all topsoil removal within the property, to ensure any potential findings are dealt with by procedures and protocols identified by local Iwi and Heritage New Zealand.

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Collaborative Approach to Design

Moving forward, we would like your feedback on the proposal, as well as any ideas on incorporating cultural design elements into the reserve, Plaza area, landscaping and streets. Your commentary can help inform the detailed design of these spaces, which will be the next step following resource consent.

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In the meantime, if you have any questions on the proposal or archaeological assessment, please feel free to contact me at the details below.

Omokoroa Town Centre

Nga mihi



Richard Coles

Director/Planner

richard@mpad.co.nz

Omokoroa Town Centre

3 Harington Street, Tauranga, 3110
0274 325 154

MOMENTUM
PLANNING AND DESIGN

6th May 2020

Bob Leef
Ngati Taka
By email: bobleef@gmail.com

RESOURCE CONSENT FOR OMOKOROA TOWN CENTRE

Kia Ora Bob,

Momentum Planning and Design is preparing a resource consent for the Omokoroa Town Centre at 404 Omokoroa Road (Lot 1 Deposited Plan 307535). The site currently operates as a kiwifruit orchard, as shown in the aerial map below, but is zoned Commercial under the operative District Plan.



Figure 1. Context Plan

Omokoroa Town Centre



Figure 2. Aerial with site boundary

Proposal

The proposal is to establish a mixed-use commercial town centre to service the growing Omokoroa community and nearby rural catchment. The town centre will comprise retail spaces, including a supermarket, shops, cafes/restaurants, bars, office space and possible a cinema.

Residential town houses and medium density apartments in the western portion of the site is also proposed. The vision for the site is to create a vibrant centre, encompassing a mix of uses, and establishing a destination for both the local Omokoroa catchment and rural catchment in close proximity. Given the recreational attributes of Omokoroa and the new cycleway nearing completion, it is likely to be a regional destination for recreation.

The overall design concept is to establish a town centre that includes different scales of retail and office space to accommodate a variety of businesses. The ultimate mix of tenancies will be market driven and respond to the needs of the community.

The District Plan anticipates the town centre connecting to and making the most out of the open space network adjacent to the site. This includes the adjacent stormwater reserve, the recently acquired

Ministry of Education site (south of the town centre) and the existing urban development including the Kaimai Views subdivision, Harbour Ridge subdivision and Te Awanui Waters opposite.





Omokoroa Town Centre



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Richard Coles

Director/Planner

richard@mpad.co.nz

Omokoroa Town Centre

3 Harington Street, Tauranga, 3110
0274 325 154

MOMENTUM
PLANNING AND DESIGN

6th May 2020

Julie Shepherd
Pirirakau
By email: julie.shepherd@xtra.co.nz

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Omokoroa Town Centre

Nga mihi



Richard Coles

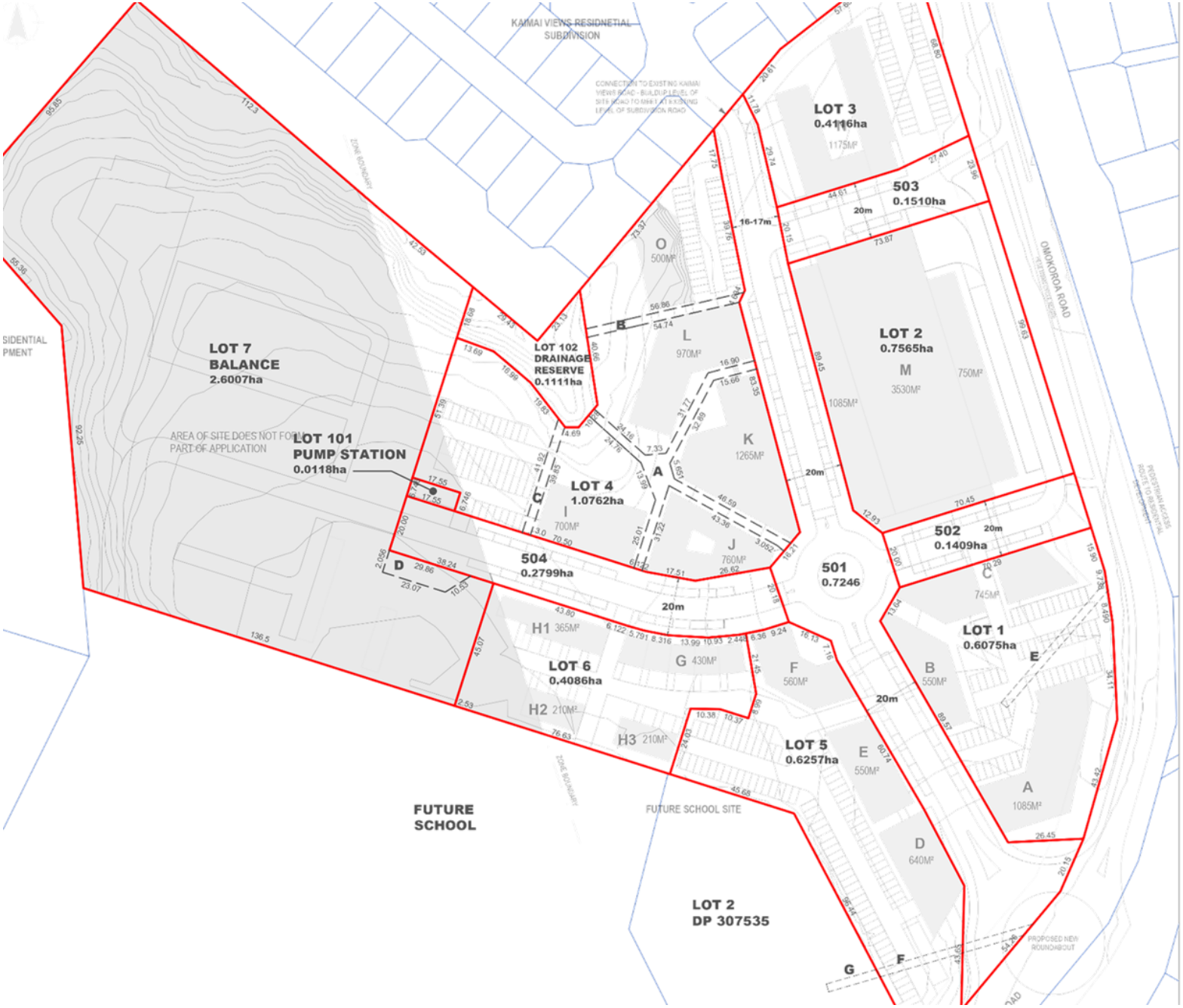
Director/Planner

richard@mpad.co.nz

Omokoroa Town Centre

Iwi Consultation Minutes

Iwi Group	Sent information pack	Follow Up	Status
Ngati Ranginui Contact: PA to the CEO	6th May 2020	19th May – left voice message with PA to the CEO	Awaiting response
Ngati Taka Contact: Bob Leef	6th May 2020	19th May Correspondence with Bob leef over phone	Discussed proposal. Meeting tentatively booked for post June 10th, once Bob returns from South Island.
Pirirakau Contact: Julie Shepherd	6th May 2020	2 x phone calls 19th May	Julie advised - Received information and will look through in due course, will come back with response within 2 weeks



LEGAL DESCRIPTION
LOT 1 Deposited Plan 307535
AREA:7.9099 HA

PROPOSAL
SUBDIVIDE SUBJECT SITE INTO SUPER LOT
PUBLIC ROAD TO FACILITATE TOWN CENTR
DEVELOPMENT:

LOT 1 (0.6075ha)
LOT 2 (0.7565ha)
LOT 3 (0.4116ha)
LOT 4 (1.0762ha)
LOT 5 (0.6257ha)
LOT 6 (0.4086ha)
BALANCE LOT (2.6007ha)
501 (0.29ha)
502 (0.1409ha)
503 (0.1510ha)
504 (0.2799ha)
LOT 102, DRAINGAE RESERVE (0.1111ha)
LOT 101, PUMP STATION (0.0118ha)

SERVICES

REFER TO LYSAGHT SERVICES REPORT

THE CORRECT INSTALLATION OF WATER, WASTEWATER, STORMWATER SERVICE CONNECTIONS TO COUNCIL'S INFRASTRUCTURE DEVELOPMENT CODE

EXISTING EASEMENTS

PURPOSE	SHOWN	SERV	DO
DRAINAGE	E	LOT 1	WBO
DRAINAGE	F	LOT 1 DP 307535	WBC
DRAINAGE	G	LOT 2 DP 307535	WBC

PROPOSED EASEMENTS

PURPOSE	SHOWN	SERV	DOM
STORMWATER	A	LOT 4	501 &
STORMWATER	B	LOT 4	501
STORMWATER	C	LOT 4	504
VEHICLE MANOUVERING	D	LOT 7	504

Drawing Details
Date: May 2020 Designer: TW
Scale: 1:1500 @ A3 Checked: RC
File Name: Omokoroa Town Centre, Subdivision Plan.dwg

Executive Summary

Proposed Town Centre, Omokoroa

404 Omokoroa Road

The following executive summary provides an overview of the resource consent application.

Jace Investments Limited propose to establish and operate a town centre including business, civic, residential, education and reserve activities. The proposal includes the necessary earthworks to modify the landform to establish roads, buildings and develop services. The site is located at 404 Omokoroa Road and includes approximately 5.3 ha of land zoned Commercial and 2.6 ha of land zoned Future Urban (See location Plan Figure 1 below). Minor aspects of the town centre overlap this internal zone boundary due to the shape of the site. This summary should be read in conjunction with the full resource consent application documents.

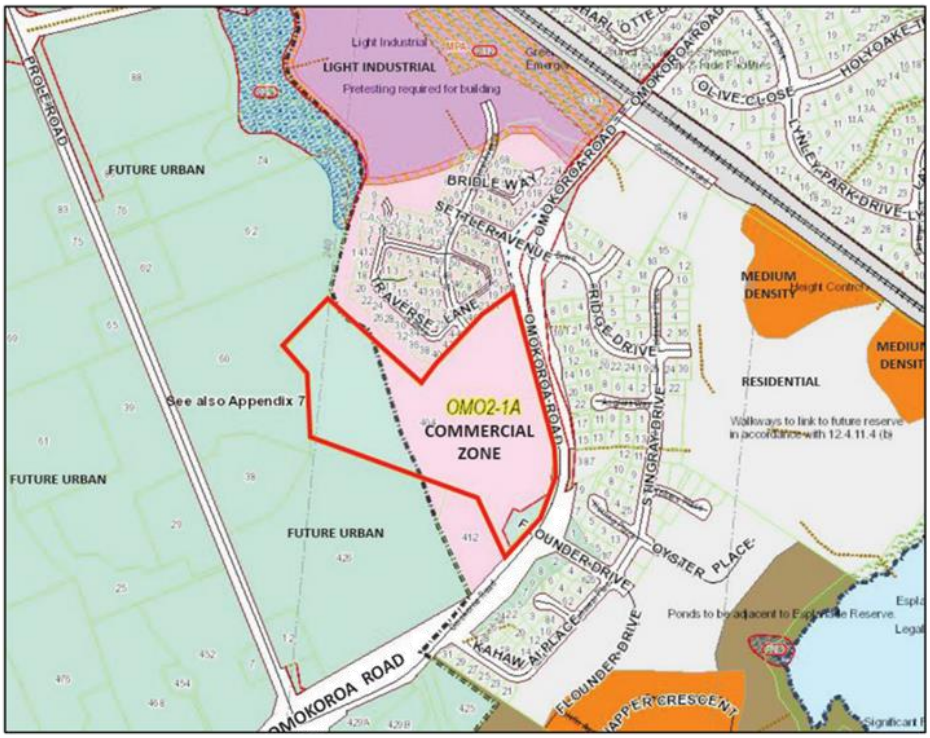


Figure 1- Application Site and Zoning

The District Plan requires a Commercial Area Masterplan to be prepared and sets performance standards and criteria for a comprehensive development plan, which has been prepared as part of this resource consent application. To demonstrate compliance with these standards and criteria a masterplan has been prepared for the commercial area and preliminary architectural design for buildings has been prepared to show building form, articulation, legibility and how these buildings interface with the surrounds including the Omokoroa Road frontage, the Kaimai Views Subdivision, the Ministry of Education school land to the south and also the gully system. Care has been taken to

ensure the buildings are generally compliant with bulk and location standards although due to the topography there are some protrusions through the maximum height plane.

The structure plan is colour coded to shows activity types at ground floor and at the first storey. Most buildings are of a two-storey design, however not all buildings are proposed to be two storeys. Some will be single storey, and some will be three storeys using the topography of the site to best advantage.

Key outcomes sought by the District Plan include a vibrant town centre with mixed uses, a central `plaza court, connection to cycleways, road networks that maintain traffic safety, covered pedestrian streets and buildings that interface well with the gully system. These outcomes have been achieved with the master plan. Focal points have been included for meeting places including the Plaza, a marketplace area adjacent to the gully and careful location of car parking. Provision is made for a supermarket being a likely key anchor tenant for the town centre.

Stormwater will be managed by maintaining the general contour and overland flow paths as well as utilising the gully system that drains towards the stormwater ponds recently established for the sub catchment. The design makes efficient use of the available infrastructure.

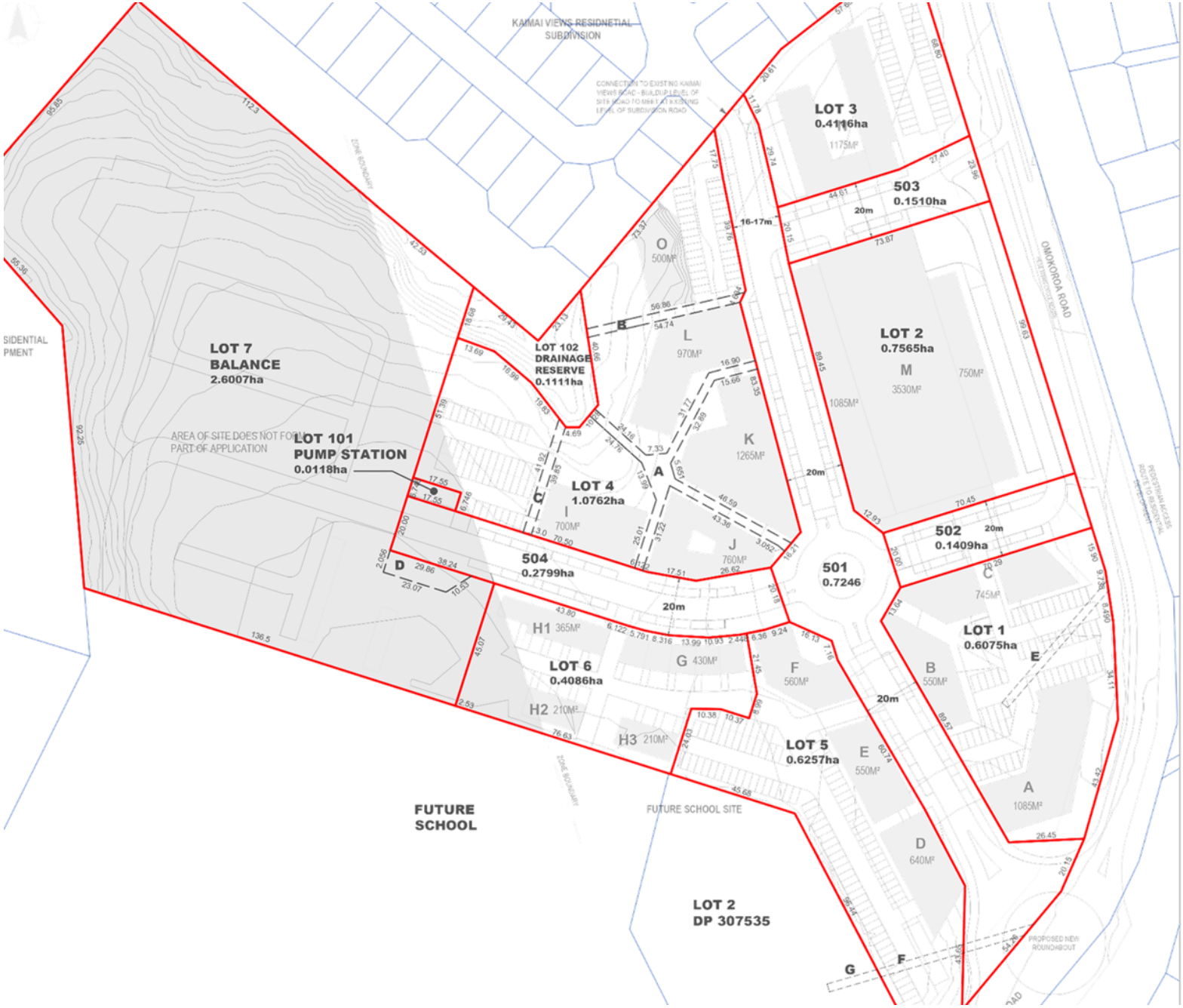
The application includes a subdivision that will enable roads, super lots for staged commercial development, and lots for key infrastructure to be developed in a logical and sequential way.

The resource consent application includes the following:

- Proposal description
- Assessment of environmental effects
- Town Centre masterplan design
- Set of Architectural Plans
- Urban Design Statement showing possible landscaping and edge treatment
- Services report
- Transportation Assessment
- Geotechnical report
- Detailed site investigation of soil contaminants
- Economic report
- Archaeological report
- Consultation with utility providers
- Iwi and hapu consultation
- Subdivision scheme plan

The activity is classified as a non-complying activity due to two road connections being proposed to Omokoroa Road and the fact that there was no prepared Town Centre Masterplan available for the Omokoroa Stage 2 Commercial Area.

Overall, the town centre proposal will provide a functional and vibrant commercial focal point for the community that will provide a range of retail, commercial and residential activities. The proposal will have positive social and economic effects for Omokoroa and the immediate rural catchment.



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0 50

Drawing Details
Date: May 2020 Designer: TW
Scale: 1:1500 @ A3 Checked: RC
File Name: Omokoroa Town Centre, Subdivision Plan.dwg

	FLOOR M²	FLOOR M²		PARKING
MOTEL / HOTEL	1085	1085	2170	Y
RETAIL / OFFICE	550	550	1100	N
RETAIL / OFFICE	745	745	1490	N
OFFICE	640	640	1280	Y
RETAIL / OFFICE	550	550	1100	N
RETAIL / OFFICE	560	560	1120	N
MEDIUM RESIDENTIAL	430	430	860	N
MEDIUM RESIDENTIAL	785	785	1570	N
CIVIC	700	-	700	Y
RETAIL / OFFICE	760	760	1520	N
RETAIL / OFFICE	1265	1265	2530	N
RETAIL / OFFICE	970	-	970	N
SUPERMARKET / RETAIL/ OFFICE	5365	1085	6450	Y
APARTMENT / RETAIL	1175	1175	2350	N
CHILDCARE	500	-	500	N
	16,080	9,630	25,710	

ARKING	
REET	567 SPACES
EET	107 SPACES
	674 SPACES

AREA OF SITE FADED DOES NOT FORM PART OF APPLICATION

BUILDING USE
OFFICE
RETAIL
MOTEL
MEDIUM RESIDENTIAL
CIVIC
CHILDCARE
SUPERMARKET

H1 365M² H2 210M² H3 210M² G 430M² I ROOF BELOW J 760M² K 1265M² L ROOF BELOW O ROOF BELOW F 560M² E 550M² D 640M² B 550M² C 745M² A 1085M² M 3530M² 1085M² ROOF BELOW N 1175M²

NOTE: BUILDING A HAS AN ADDITIONAL THIRD FLOOR

NOTE: BUILDING N HAS AN ADDITIONAL THIRD FLOOR

URCE CONSENT

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notes:
Locale off drawings

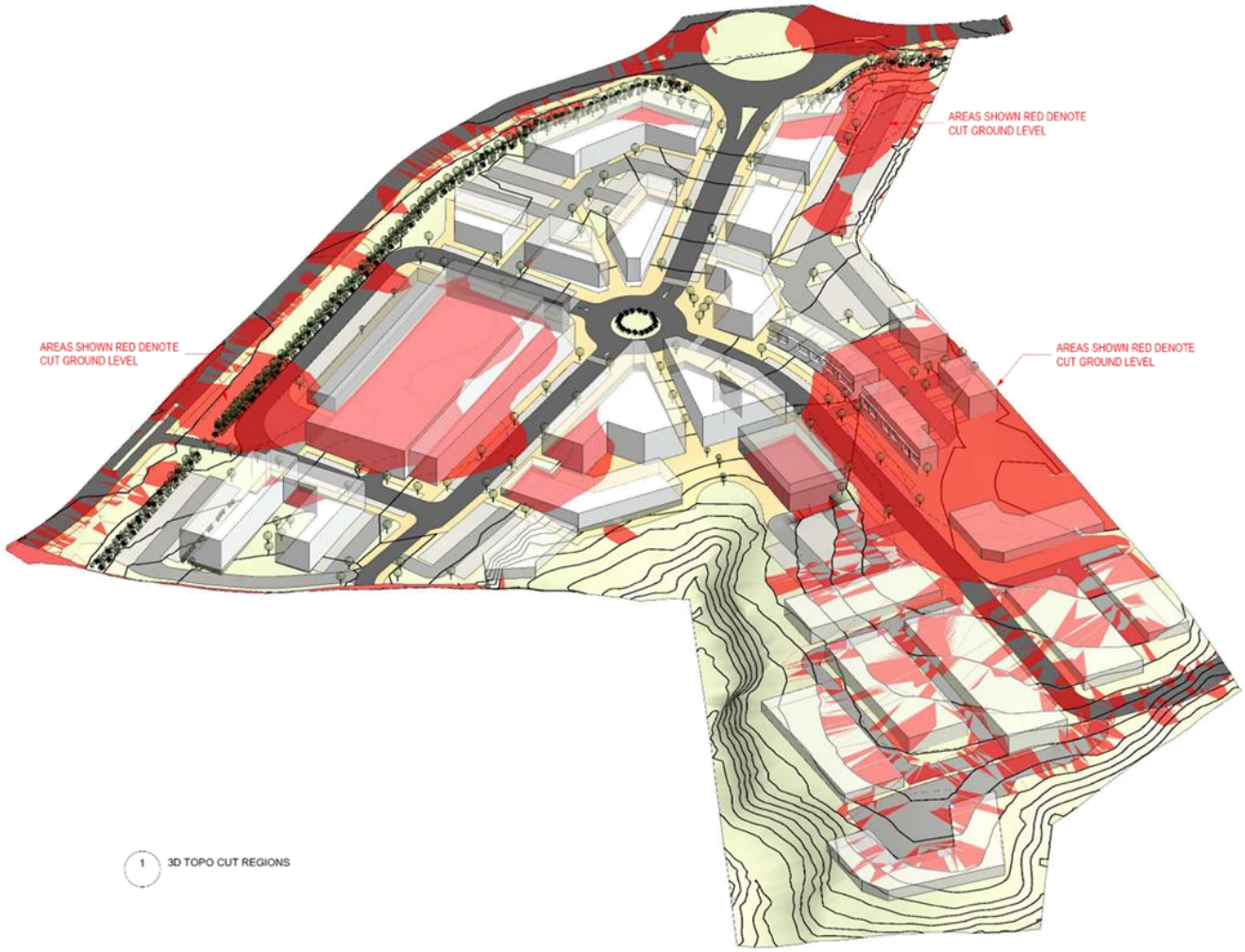
REVISIONS

FIRSTPRINCIPLES architects & interiors

Project: OMOKOROA TOWN CENTRE

Drawing: MASTERPLAN - FIRST FLOOR LEVEL

Drawn By:	Checked By:	Date:
CD/KL	GP	18/05/



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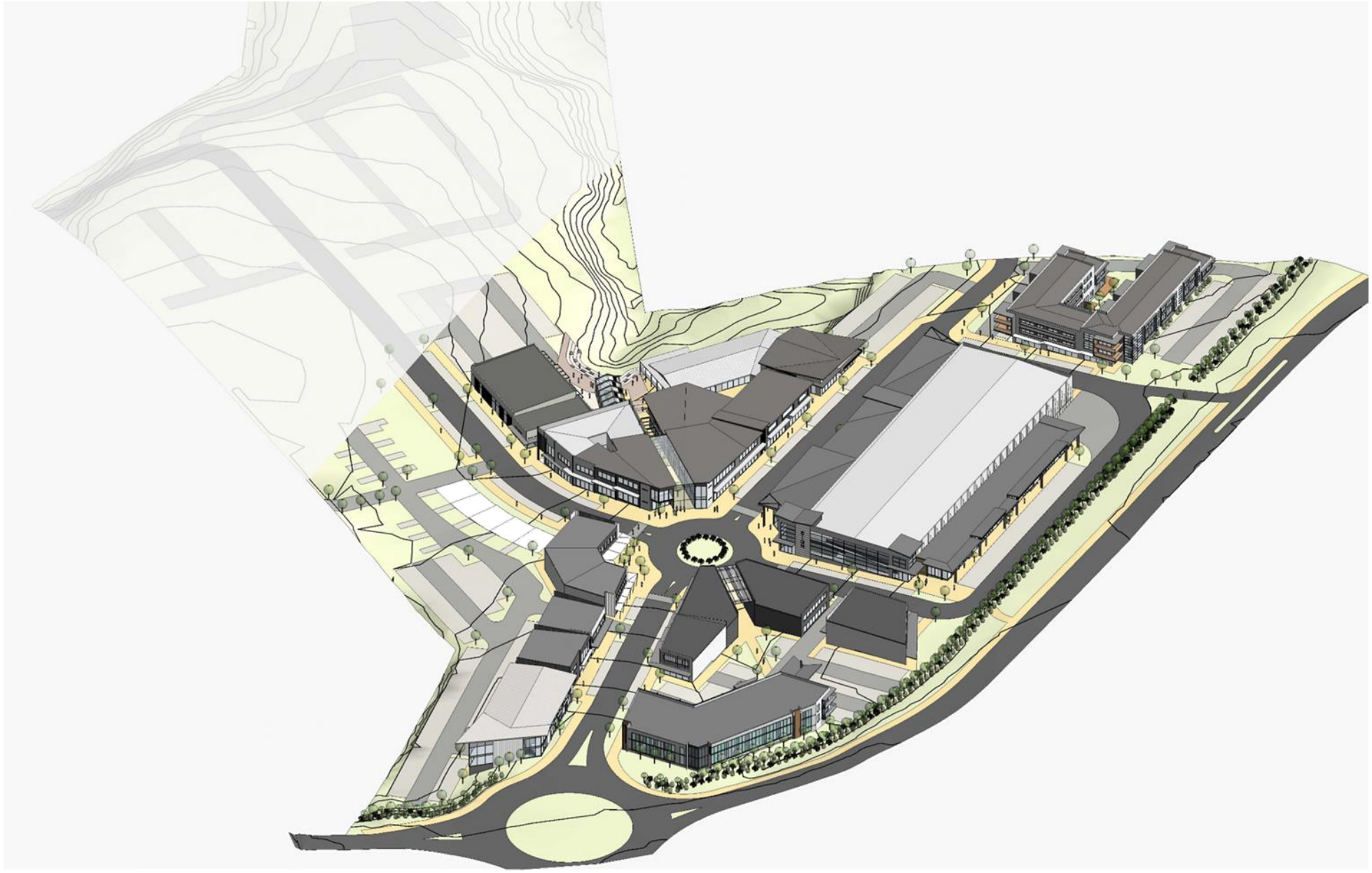
REVISIONS

FIRSTPRINCIPLES
architects & interiors

Project:
OMOKOROA TOWN CENTRE

Drawing:
MASTERPLAN CUT 3D

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/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architects & interiors
Project:
OMOKOROA TOWN CENTRE
Drawing:
AXONOMETRIC
Drawn By:
CD/KL
Checked By:
GP
Date:



1 2.1.10B MAIN ROAD 1
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2 2.1.10B MAIN ROAD 2
1 : 500

3 2.1.10B MAIN ROAD 3
1 : 500



4 2.1.10B ROUNDABOUT SECTION
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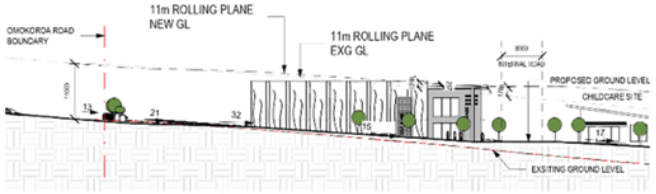

5 2.1.10B SECONDARY EXIT TO OMOKOROA ROAD
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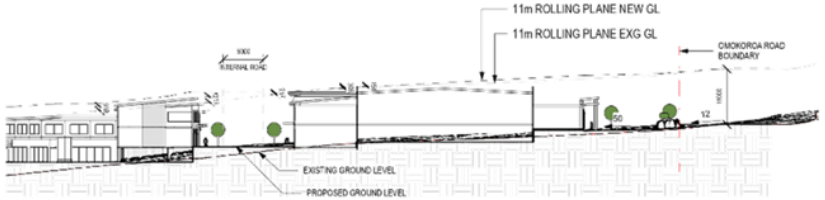

6 2.1.10B INTERNAL ROAD SECTION
1 : 500

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REVISIONS

FIRSTPRINCIPLES
architects & interiors

Project: OMOKOROA TOWN CENTRE

Drawing: ACCESS GRADIENT SECTIONS

Drawn By:	Checked By:	Date:
CD/KL	GP	08/05/

7.2 RC11997L & RC2996S - JACE INVESTMENTS LTD - 404 ŌMOKOROA ROAD, ŌMOKOROA - LAND USE AND SUBDIVISION CONSENT TO ESTABLISH A MIXED-USE COMMERCIAL TOWN CENTRE

File Number: **A3981334**

Author: **Anna Price, Senior Consents Planner**

Authoriser: **Rachael Davie, Group Manager Policy Planning And Regulatory Services**

Applicant: **JACE Investments Ltd**

Owner: **Kiwi Green New Zealand Ltd**

EXECUTIVE SUMMARY

1. This report provides an assessment of the resource management issues with respect to a comprehensive land use and subdivision consent application to establish a large mixed-use commercial town centre on commercial zoned land at Ōmokoroa. The vision is to create a vibrant Town Centre including business, civic, mixed-density residential, education and recreational/reserve activities. The proposal includes significant earthworks to modify the landform and establish roads, buildings and services. The proposal is a non-complying activity.
2. The application was received by Council on 21 June 2020 and has been processed on a publicly notified basis at the request of the applicant. In total 76 submissions were received within the statutory time period (20 working days), 46 submissions in support, 19 in opposition, 7 neutral, 6 conditional and 2 not specified.
3. Further information was requested at the time of public notification and a further s92 request following the close of the submission period.
4. In having regard to the submissions and the proposal, the key issues considered relate to traffic and road design, earthworks, urban design and character and amenity.
5. Having considered the proposal this report makes the recommendation to grant consent to the application.

RECOMMENDATION

1. That the Senior Consents Planner's report dated 12 February 2021, titled 'RC11997L & RC2996S - JACE Investments Ltd - 404 Ōmokoroa Road, Ōmokoroa - Land Use and Subdivision Consent to Establish a Mixed-Use Commercial Town Centre', be received.
2. That pursuant to Sections 34A, 104, 104B, 104D of the Resource Management Act 1991 and Regulation 11 of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health Regulations 2011, the Independent Hearings Commissioners, on behalf of the Western Bay of Plenty District Council, grant consent to the application by JACE Investments Limited to established a mixed-use commercial town centre, being a non-complying activity, located at 404 Ōmokoroa Road, Ōmokoroa , legally described as Lot 1 DP 307535, SA54D/456, subject to appropriate conditions.

INTRODUCTION

6. Although I am the Reporting Officer employed by the Council I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014 and have complied with that practice note in preparation of this report. I agree to comply with it in presenting this report at the hearing. The opinions and assessment within this report are within my area of expertise, except where I have stated my reliance on other identified information. I

have considered all material facts that are known to me that might alter or detract from the opinions that I express in this evidence.

7. This report has been prepared by Anna Price. I am a Senior Consents Planner with Western Bay of Plenty District Council (WBOPDC), a position I have held for the last five years. I have a Bachelor and Master of Earth Sciences Degrees from the University of Waikato (2005, 2007), and I am an associate member of New Zealand Planning Institute (NZPI). I have 15 years of professional experience in the resource management field, both in Local Government and private consultancy.

8. This report is a section 42A Report prepared under the Resource Management Act 1991 (RMA) which provides my advice and recommendations as an officer of the Council. The report has been prepared on the basis of the application and s92 response information available on 9 October 2020. It does not represent any decision on the applications and the conclusions and recommendations reached in the report are not binding on the Hearing Commissioners. The report will be considered by the Commissioners in conjunction with all other technical evidence and submissions to the applications to form and make a decision under delegated authority on behalf of Western Bay of Plenty District Council as the consenting authority.

9. In this report, I will outline the statutory planning framework insofar as it relates to the proposal. I will provide my assessment under section 104 of the RMA, and in doing so I will identify the issues raised through the notification process and will assess the effects of the proposal (both adverse and positive) and the effectiveness of mitigation measures proposed by the applicant. The report draws on specialist advice concerning traffic, visual and landscape and urban design which the consent authority has sought to assist the reporting officer and the Hearing Commissioners. Throughout this report I have relied on these technical experts' reviews and assessments. The specialists' technical assessments are attached as numbered appendices as follows:

Processing Team	Personnel	Technical Expertise	Reference
WBOPDC Senior Planner	Anna Price	Resource Management Act	This Report
Aurecon	Ann Fosberry	Transportation	**Attachment 7**
Boffa Miskell	Rebecca Ryder	Landscape/Visual	**Attachment 7**
Boffa Miskell	Morné Hugo	Urban Design	**Attachment 7**
WBOPDC	Ken Lawton	Development Engineering	Within this report
WBOPDC	Bryan Norton	Reserves	Within this report
WBOPDC	Andries Cloete	Urban Design	Within this report
WBOPDC	Alison Curtis	Noise	**Attachment 7**

PROPOSAL

10. An application was received by the Western Bay of Plenty District Council ('Council') on 21 May 2020 to establish a mixed use commercial town centre including offices, visitor accommodation, childcare, retail, mixed-density residential, supermarket, civic, recreation and hospitality. A copy of the application is included as **Attachment 1**.

11. The applicant requested Public Notification. This application was publicly notified on 19 June 2020.

12. Further information was requested 18 June 2020, and this request is included as **Attachment 3**.

13. The applicant proposes:

- The creation of a mixed use "Town Centre" development on 5.3ha of commercial zoned land on the site with a balance area of 2.6ha zoned future urban. The site is lower than Ōmokoroa Road and drops away towards the gully in the north-west of the site;
- The application includes development of a Master Plan for the commercial zoned land to allow for the mixed use development.
- The development includes approximately 50,000m3 of earthworks to modify the landform
- The development is proposed to proceed over 4 stages
- Stage one includes all bulk earthworks, establishment of super lots 1, 2 & 3 and roads to vest in Council. The proposed pump station will be established and the intersection will be created at Ōmokoroa Road. This includes the motel/ hotel, retail/ office, proposed supermarket, ribbon retail and apartment building;
- Stage Two involves the establishment of Lot 5 and associated infrastructure. This includes two storey retail/office buildings and café/restaurant;
- Stage Three involves the establishment of Lot 4 and associated infrastructure and development and vesting of drainage reserve (Lot 102). This includes a childcare centre, civic building, plaza/market area and retail/office space;
- Stage Four establishes Lot 6 and associated infrastructure being medium density residential;
- Stormwater will be managed via reticulation and by maintaining the general contour for overland flow path. This will discharge to the gully system that drains towards the off site stormwater ponds recently established for the sub-catchment.
- Access to the proposed town centre will be via a new roundabout with Ōmokoroa Road and Flounder Ave. A through road is proposed to connect to the existing Sentinel Avenue in the Kaimai Views residential development.
- Currently the site is utilised for a kiwifruit orchard and historically the site was utilised for farming (grazing) purposes with a large gully (now infilled) that crossed the property from the South East to the North West.

14. The site is included in the Ōmokoroa Stage 2 Structure Plan (Stage 2 Structure Plan), and is also part of the proposed Stage 3 Structure Plan currently under development by the Council.

Masterplan

15. An overall Masterplan (Figure 1 below) has been developed for the proposed development which identifies the extent of the proposed Town Centre.

Building M	Supermarket – sleeved by smaller retail and convenience retail adjacent to Ōmokoroa Road. The supermarket will have a large underground carpark
Buildings B, C, E, F, J, K, L, M & N	Finer grained retail shops including cafes and restaurants, commercial services and other retail shops. These buildings are two storey format with office space above the ground floor retail.
Buildings A & D	Two prominent buildings of sufficient scale to frame the main entrance to the town centre from Ōmokoroa Road. Building A is a motel/hotel and building D is an office building. Both buildings are proposed to be 3 storeys in height.

Building I	Civic building
Building N	Mixed use building of three storeys, reducing to two storeys adjacent to Kaimai Views. Small retail shops will be located on the ground level adjacent to Sentinel Avenue, with medium density apartments above.
Building O	Childcare centre

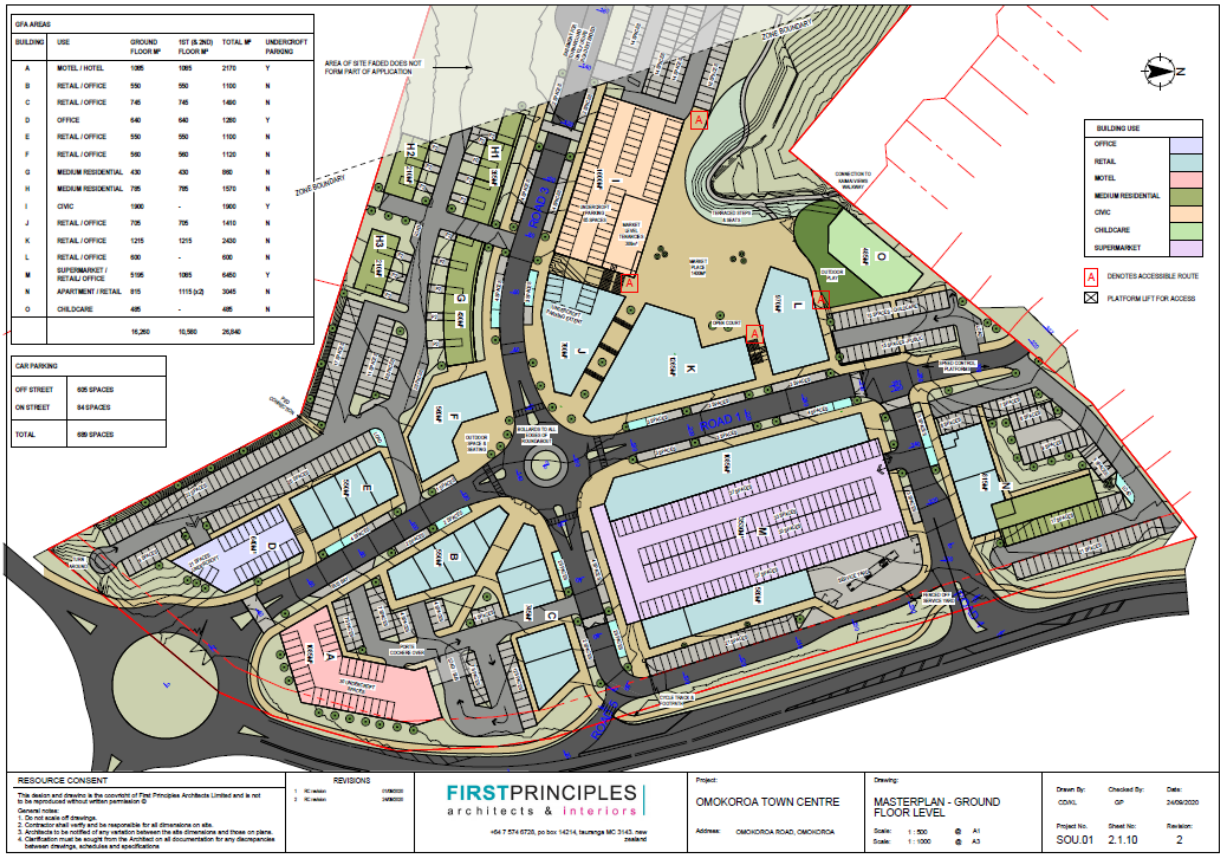

Figure 1: Overall Master Plan following s92 Request (also included at Attachment 5)

16. The proposal is outlined in the application details (**Attachment 1**) submitted as part of the application details including:

i) Assessment of Environmental Effects - Application Report, prepared by Momentum Planning and Design Ltd, entitled “Application for Resource Consent – Ōmokoroa Town Centre, 404 Ōmokoroa Road – For JACE Investments Limited”, dated 20 March 2020.

ii) Executive Summary

iii) Appendix 1 – Record of Title

iv) Appendix 2 – Ōmokoroa Town Centre Master Plan

v) Appendix 3 – Architectural Plans Full Set

vi) Appendix 4 – Urban Design Statement

vii) Appendix 5 – Urban Design Peer Review

viii) Appendix 6 – Services Report

ix) Appendix 7 – Transportation Assessment

x) Appendix 8 – Geotechnical Report

xi) Appendix 9 – Detailed Site Investigation - Revised

xii) Appendix 10 – Economic Report

xiii) Appendix 11 – Archaeological Report

xiv) Appendix 12 – Consultation with Utility Provider

xv) Appendix 13 – Iwi and **Hapû** Consultation Letters

xvi) Appendix 14 – Subdivision Scheme Plan

17. Seventy six (76) submissions were received during the submission period. 46 in support (4 conditional support), 19 oppose, 7 neutral, 2 conditional and 2 not specified. A summary and full list of submissions can be found at **Attachment 4**.

18. Following the close of submissions (17 July 2020), Council requested additional further information, refer **Attachment 5**. Peer Reviews of the Transportation Assessment, Landscape and Visual Assessment and the Urban Design Guidelines and Master Plan were also undertaken following the return of the further information.

19. In response to the further information requests from Council, the Applicant provided a response included as **Attachment 6** made up of the following:

"Resource Consent RC11997L – Ōmokoroa Town Centre" dated 9 October 2020

- Attachment 1 – Masterplan and Architectural Plan Set
- Attachment 2 – Summary of Submission points
- Attachment 3 – Financial Contributions Assessment
- Attachment 4 – Subdivision Scheme Plan and Staging Plans
- Attachment 5 – Iwi Consultation
- Attachment 6 – Markets, precedents, Comparative Assessment
- Attachment 7 – Master Plan and Architectural Plan Set
- Attachment 8 – Ōmokoroa Town Centre Design Guidelines [pages
- Attachment 9 – Draft Conditions Land Use
- Attachment 10 – Landscape and Visual Assessment
- Attachment 11 – Existing Drainage Easements
- Attachment 12 – Lysaght – Earthworks and Cut to Fill Plan
- Attachment 13 – Lysaght – Retaining Wall Plans
- Attachment 14 – Geotechnical Report
- Attachment 15a – Stantec 200916 RFI Response
- Attachment 15b – Stantec 310203882_A5A-TR1
- Attachment 15c - Stantec 310203882_A5A-TR2
- Attachment 15d - Stantec 310203882_A5A-TR3
- Attachment 15e - Stantec 310203882_A5A-TR4
- Attachment 15f - Stantec 310203882_A5A-FIG 1A
- Attachment 15g - Stantec 310203882_A5A-FIG 6
- Attachment 15h - Stantec 310203882_A5A-FIG 7
- Attachment 16 – Concept Stage Road Safety Audit

- Attachment 17 – Lysaght – Road Layout Plan and Cross Sections
- Attachment 18a – Lysaght Wastewater Capacity Analysis – Present State
- Attachment 18b – LysaghtWastewater Capacity Analysis
- Attachment 19 – PowerCo and Fiber Consultation
- Attachment 20 – Acoustic Report
- Attachment 21 – Refuse and Loading Bay Location Plan
- Attachment 22 – Lysaght – General Services Arrangement Plan
- Attachment 23 – Lysaght – Erosion and Sediment Control Plan

20. The full application details are available on Council's website along with the further information request from Council and the information received to support the application. During the submission period a full hard copy of the application was available at the Council's The Centre – Patuki Manawa Katikati and the Ōmokoroa Library and Office.

SITE AND LOCALITY

21. The application site is 7.9099ha and is an irregular shaped piece of land, with the site containing a split zone comprising of approximately 5.3ha of "Commercial" within the Ōmokoroa Stage 2-1A area and 2.6ha of "Future-Urban" (refer Appendix A of the application details for Record of Title included in **Attachment 1**). The site is subject to identified natural hazard layers which are currently not yet incorporated into the District Plan being Ōmokoroa Floodable Area and Liquefaction Ōmokoroa Stage 3 (damage unlikely). These layers are based on the most up to date hazard risk information and the Council relies on these layers when making decisions on resource and building consent applications and includes it in LIMs. Figure 2 below shows the current District Plan layers on the left and the non-District Plan Natural Hazard layers on the right. There are no recorded archaeological sites on the application site. The site contains designation D233, the requiring Authority being Western Bay of Plenty District Council (WBOPDC), for the purpose of Ōmokoroa Intersection Upgrades. There is also an Airport Approach Surface of 240m which crosses the western side of the site.

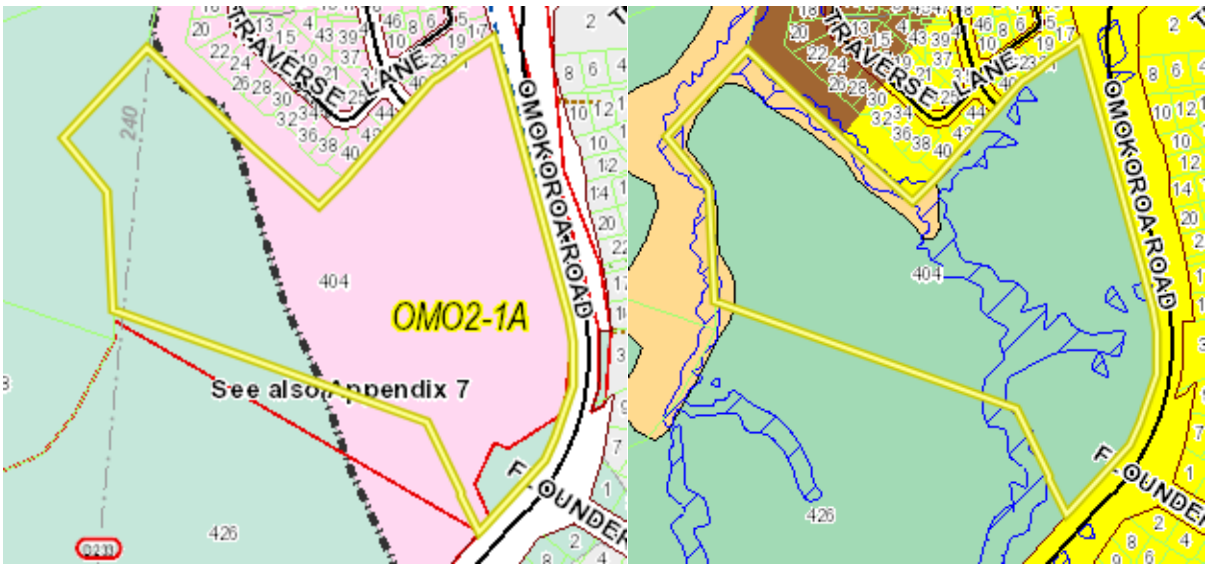

Figure 2: District Plan maps - Natural Hazards Liquefaction & Floodable

22. The site is currently a productive kiwifruit orchard and is bound to the east by Ōmokoroa Road, to the north by the Kaimai Views residential subdivision and kiwifruit orchards to the west and

south. Figure 3 below shows the location of the property on the Ōmokoroa Peninsular. The Ministry for the Environment has also recently applied for and been granted a Notice of Requirement for a new school on the adjoining property to the south at 426 Ōmokoroa Road. There is a single dwelling located in the south eastern corner of the property and an existing barn located centrally on the site. The site comprises a gently graded terrace landform with the heads of two gully features present on the western and northern boundaries. The terraced landform generally falls towards the north-west with existing ground levels ranging from RL 32m (Moturiki Datum) adjacent to Ōmokoroa Road to RL 20m at the north western boundary. The gully slopes forming the western and northern site boundaries are typically falling 5m to the base of the gully below. The northern gully continues north into the neighbouring property. Historical aerial imagery from the Retrolens website identifies that the gully along the northern boundary once continued through the centre of the site towards the eastern boundary but was infilled sometime between 1953 and 1976 in conjunction with development of the orchard on site.

23. Activities within the immediate and wider environment include predominantly orchard activities, small scale farming and residential activity, reflective of the underlying zonings. With the principal character of the immediate surrounding environment being orchard activities to the west and south of the application site and residential activity to the north and east.

24. The wider environment is currently going through a process of change, with residential development occurring on the commercially zoned land directly to the north, adjoining the site, as part of the HASHA and Special Housing Area legislation. To the south and west there are areas involved in the proposed Stage 3 Structure Plan process which will open up land for future residential development. Urban road upgrades are also underway for Ōmokoroa Road and Prole Road with physical works expected to commence in 2021.

25. The site adjoins an area to the north which is currently zoned “commercial” however it has been developed as a residential subdivision (Kaimai Views) under the Housing Accords and Special Housing Areas Act 2013 (HASHAA) as a Special Housing Area (SHA). Council has not yet undergone the necessary plan change to rezone this land to residential, and the zoning was to be considered under Ōmokoroa Stage 3 Structure Plan.



Figure 3: Site Location

Site Context and Planning Timeline

26. The Stage 1 Structure Plan (PC 20) was made operative in 2004 and urbanised the area between Ōmokoroa Country Estate and the East Coast Main Trunk Railway line, in anticipation of wastewater reticulation being available. In 2007 wastewater was reticulated on the peninsula.

27. In 2009 Property Economics were engaged by Council to prepare an assessment of market potential for a town centre at Ōmokoroa. The Report determined an ultimate demand for a town centre of 11-12ha.

28. In 2009 Council undertook Plan Change 69 - Stage 2 Structure Plan which:

    i) Reviewed the District Plan rules for Stage 1

    ii) Extended the urban area to include the developments south of the East Coast Main Trunk Railway line and to the east of Ōmokoroa Road, now known as Harbour Ridge, Te Awanui Waters, and to the west of Ōmokoroa Road being industrial and commercial zoned land now known as Kaimai Views and the JACE property. Approximately 12ha was zoned Commercial for the town centre as part of this Plan Change.

    iii) As part of Plan Change 69 the Stage 2 Structure Plan was prepared for the whole of the area from SH2 to the East Coast Main Trunk Railway line, but the component related to the Future Urban Zone was withdrawn through the Environment Court Appeal process.

    iv) The Stage 2 Structure Plan S32 Report prepared by BECA (August 2007) estimated a town centre of 13ha. Their calculations were based on evidence by Akehurst of Market Economics prepared for the Tauranga City Pyes Pa West Hearing.

    v) The particular location for the commercial and civic area was selected based on it being "close to the railway line, because it is centrally located within the peninsula, with excellent visibility and access for vehicles. Its proximity to the railway provides the best opportunity for public transport use in the future."

    vi) The Stage 2 Structure Plan S32 report detailed several points associated with the consenting process including:

    - Restricted discretionary activity status for comprehensive development subject to urban design standards and criteria, a comprehensive development plan for whole zone, provision of retail and other permitted activities and integrated car parking provision.
    - A Comprehensive Master Plan to be undertaken which will ensure Council is clear on how the entire zone will function and integrate with adjoining land uses.
    - Commercial Structure Plan to be notified, however there were no details on how or under what process.

29. Following from Plan Change 69 for the Stage 2 Structure Plan Council held discussions with a number of developers, including Progressive Enterprises and Foodstuffs, to initiate the development of the town centre. The developers present considered that the proposed town centre/ commercial zone was not at the right location due to:

    i) the slope of the land,

    ii) no visibility from State Highway 2,

    iii) upfront costs and

    iv) the size of the catchment.

30. They considered that the future town centre should be as close as possible to the Ōmokoroa Road/State Highway 2 intersection because that location will:

    i) increase the size of the catchment which will have a significant impact on the timeframe,

    ii) be more visible from State Highway 2, and

    iii) be close to the future industrial area (employment area)

31. In August 2013 the Property Economics Report was prepared for Foodstuffs by Veros. That report made the following conclusions in relation to the future town centre:

    - requirement for 2ha plus roading (excludes civic/community)
    - a town centre located adjoining SH2 will be larger and more successful than a centre in the current zoned location. This would provide increased benefits for the local Ōmokoroa community beyond those that could be achieved by a centre in the current zoned areas.

32. In August 2014 the Housing Accord was signed to allow development of Kaimai Views residential subdivision. This resource consent was granted in January 2017 and development is well underway at stages 3 & 4.

33. In November 2017 public open days were undertaken to commence the Stage 3 Structure Plan. This included seeking feedback on the preferred location for a town centre. The town centre options were presented as: the JACE site (option 1), and between the State Highway and Prole Road (options 2 & 3) as shown on the map below (Figure 4).

34. As part of the feedback received from the community, Council received a submission from Veros Property Services on behalf of Foodstuffs North Island Limited. The letter stated Foodstuffs had previously purchased a property at 492 Ōmokoroa Road, which is located within option 3. As a key anchor tenant in any development, it was their professional opinion, that this was the best location for a connected and integrated town centre.

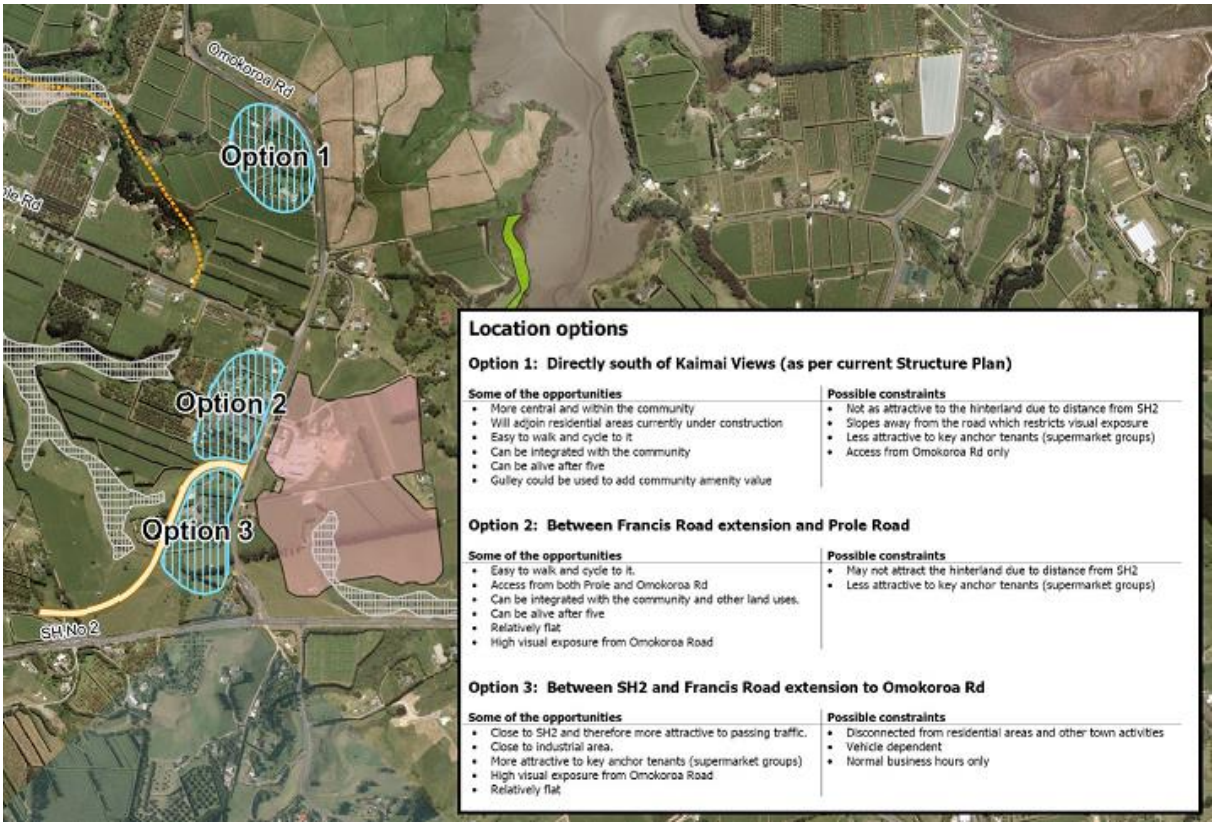

Figure 4: The 2017 Town Centre Location Options

35. In March 2018 RPS Group (RPS) undertook an Economic Review as part of the Stage 3 Structure Plan process. The Report can be read in full at **Attachment 8**, however can be summarised below:

- 3.5ha needed for a commercial town centre excluding roads, open space and community uses.
- Further development of the Tralee Street centre will likely delay the timing and scale of the planned town centre.
- Location for a commercial zone is preferred nearest the State Highway. This will maximise the patronage from the secondary trade area. Reduced patronage from the secondary trade area and passing traffic may decrease the planned scale of the town centre and/or delay the timing of any development.

36. In September 2018 the second round of public open days for Stage 3 Structure Plan were undertaken. Taking into account the feedback received following the first round of consultation four structure plan layouts were consulted on between the State Highway and Francis Road realignment, or between Francis Road realignment and Prole Road.

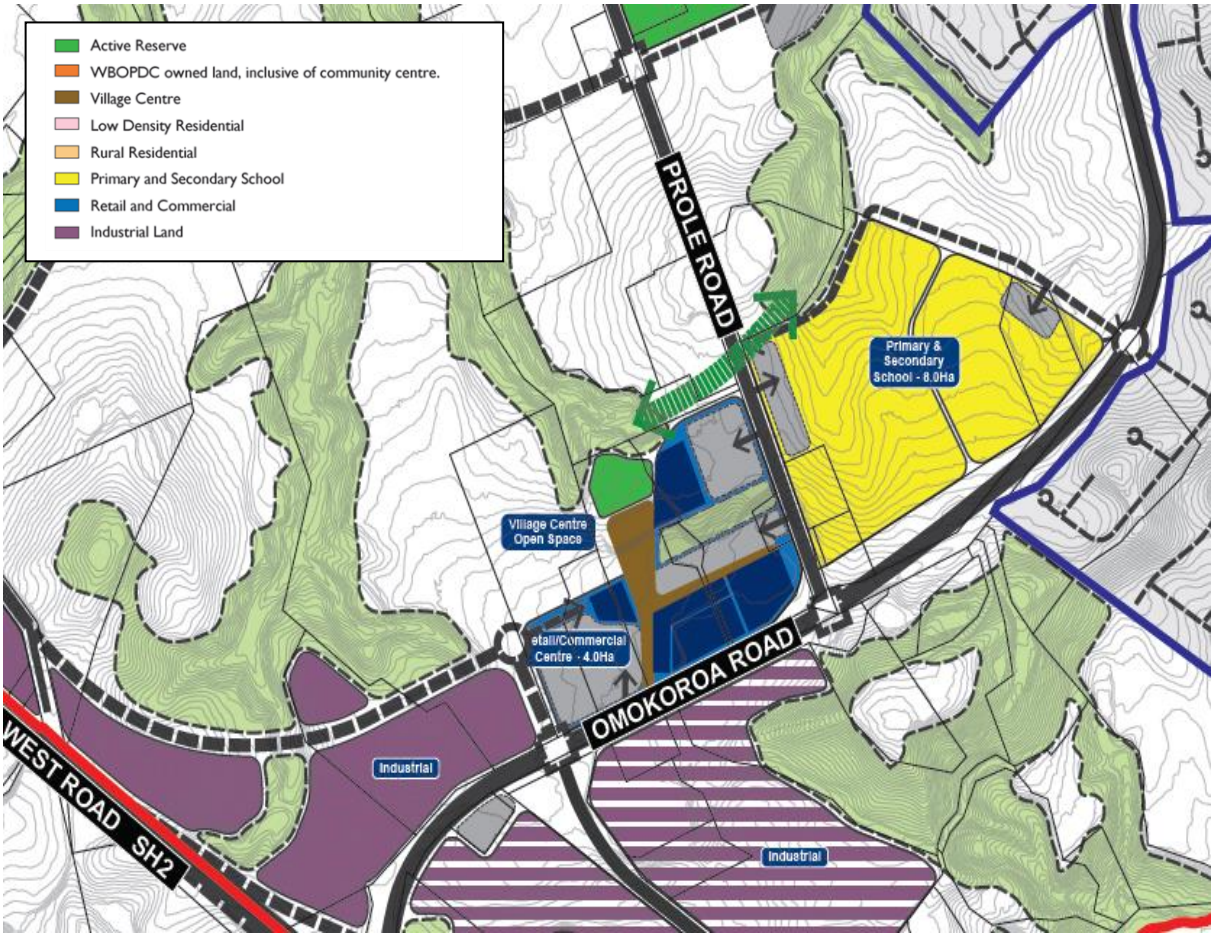

Figure 5: Location of preferred option at 29 November 2018 Policy Committee Workshop

37. Direction was given by Council at a 29 November 2018 Policy Committee Workshop that the preferred option was Option 2, shown on Figure 5 above, following a technical workshop on 28 November 2018 with key staff and stakeholders.

38. In September and November 2019 JACE representatives met with Council's Chief Executive Officer and other senior staff to introduce themselves and discuss their proposal.

39. In November 2019 town centre perspectives were prepared by RPS for Council (for community engagement) showing what a town centre might look like at the preferred option 3 location.

40. In February 2020 Council's Resource Management Manager Mr Phillip Martelli arranged a conference call with JACE technical representatives and Council's advisor RPS following the applicants meeting with the CEO. Points raised were:

    - Location further away from State highway than other options.
    - Geotechnical and contour constraints.
    - Interface with recently secured school site could be improved.
    - Quantum of commercial gross floor area likely to be more than needed for catchments.
    - Potential traffic effects.
    - Interface with gully systems needs improvement.

41. A follow up email was provided from Council that set out the criteria and performance standards for the Commercial Area Master Plan in the District Plan section 19.5, and commentary as to how the JACE proposal addressed them.

42. In May and June 2020 the third round of community engagement was scheduled to occur:

    - Consultation letters posted to landowners on 20 May 2020 advising of public open days on 3 June.
    - JACE application lodged on 21 May 2020.
    - Postponement letters posted to landowners on 27 May 2020.

43. In July 2020 RPS completed an update to their 2018 Economic Report "Ōmokoroa Town Centre Demand Assessment and Alternative Site Evaluation" as part of the Stage 3 Structure Plan process which re-evaluated the possible town centre locations. The conclusion of this report was that site 2 (Figure 6 below) on the corner of Prole Road and Ōmokoroa Road was the preferred location for the Ōmokoroa Town Centre.

44. Following receipt of this application in May 2020, the Stage 3 Structure Plan process was placed on hold pending outcome of this resource consent application.



Figure 6: Map showing location of RPS July 2020 preferred option 2.

NOTIFICATIONS AND SUBMISSIONS

Notification

45. The applicant, JACE Investments Limited, lodged a combined land use and subdivision resource on 21 May 2020 and requested public notification under Section 95A RMA.

46. A copy of the public notice is included as **Attachment 2**. Notice was served on identified affected persons including those on Council's statutory list on 19 June 2020 via email and Council's website. The public notice was included in the Bay of Plenty Times, New Zealand Herald and the Ōmokoroa Lizard, a local community publication.

Submissions received

47. The period for making submissions on the application closed on 17 July 2020. In total 76 submissions were received within the statutory time period (20 working days), 46 submissions in support (4 conditional support), 7 neutral and 19 submissions in opposition, with 2 conditional and 2 not specified. 23 submitters indicated a wish to be heard.

48. Maps showing the submitters in relation to the application site is included in **Attachment 4**, and Figure 7 below. It should be noted that a number of submissions were received from submitters residing outside of Ōmokoroa, in the surrounding rural areas, Te Puna and Minden. 10 of the 76 submissions were received from larger groups including the Bay of Plenty Regional Council, PowerCo, Pirirākau Incorporated Society, Fire and Emergency NZ,

Ōmokoroa Gold Club, Ōmokoroa Ratepayers Association, Ministry of Education, Classics Group, Woolworths NZ Limited and Ōmokoroa Public Art Group.

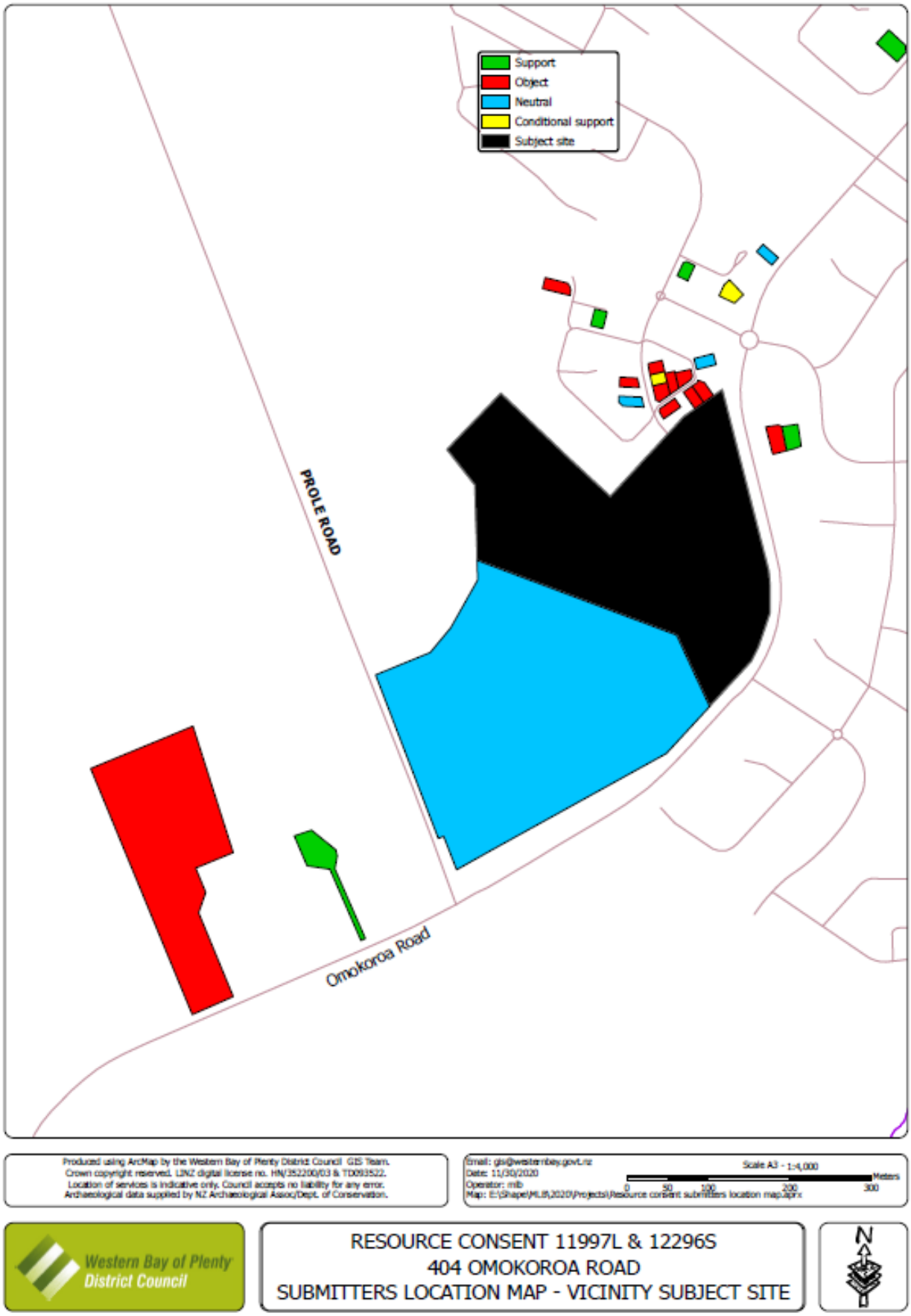

Figure 7: Submissions received (in immediate vicinity of application site)

Matters raised

49. A summary of all submissions received is included as **Attachment 4**, including a submitter location map. Further, summaries of the key issues raised by submissions are outlined below under topic headings.

Environmental / Sustainability

50. Of the 76 submissions received, 3 submissions included matters related to the environment and sustainability. There was 1 submission in support and 2 opposing.

51. The one submission in support stated the environmental considerations were clear.

52. The common themes in comments for those in opposition were concerns surrounding the sustainable building/ environmental design, lack of reference to low impact urban design, alternative modes of transport, low impact stormwater design, not consistent with objectives and policies, reduction of car dominance, not a sustainable management of resources, not in accordance with RMA principles and not consistent with Part 2 and other provisions of the RMA and District Plan.

Regional Development / Economic

53. Of the 76 submissions received there were 6 with comments surrounding regional development and economic factors, 5 of which were in support and 1 opposed.

54. Overall there is a similar theme in submission comments from the supporters surrounding provisions for regional and economic development, the potential growth benefits, and the potential for the creation of job opportunities. Most supporters expressed general support but did not provide detailed comments.

55. Overall the submissions in opposition consider potential adverse effects on the consented Ōmokoroa Village Centre/ Fresh choice, size of proposed commercial centre and cumulative commercial need for the area, lack of detailed economic assessment for the site, lack of assessment to alternative town centre locations, lack of assessment on function of existing commercial areas and adverse economic effects.

Amenity / Character / Housing / Community

56. Of the 76 submissions received there were 34 submissions who made comments surrounding amenity, character, housing and community. There were 21 submissions in support and conditional support and 18 opposed.

57. Common themes in support of the application included that it:

- provides green space,
- encouraged quality retail and cafes,
- was sympathetic to surroundings,
- provided an alternative to travelling to Bethlehem,
- lessened vehicles travelling to Tauranga,
- supports family lifestyle,
- provides community areas,
- was central to the residential population,
- would make Ōmokoroa self sufficient,
- provides onsite amenity for higher density living.

58. Common themes of those in opposition to the proposal included:

- poor urban design,
- lacks innovation,
- lack of consideration of local context and sustainability considerations,
- lack of building design and character,
- proposed office building creates inactive street front at entrance,
- poor activation of open public space areas including plaza area,
- lack of, and poorly located, liveable public spaces,
- location of three storey apartment building overlooking residential area,
- privacy, scale and amenity effects,
- bulk and scale of buildings will change the look and feel of Ōmokoroa,
- lack of consideration for the need to integrate with Kaimai Views properties,
- noise and lighting effects on adjoining properties,
- concerns that the development will be piecemeal/standalone,
- lack of details on how the development is fits with community/plans for the surrounding area,
- location of childcare centre inappropriate,
- lack of detail on design outcomes and landscaping,
- lack of human scale approach and buildings dominating views,
- further information requested on CPTED and underground carpark,
- existing commercial area has space for development,
- no identified children's play areas,
- poor location of Civic Building on edge of town centre,
- requests for buildings to have a 'village feel',
- lack of consideration for pedestrians and cyclists,
- lack of community engagement during the design process to achieve desired outcomes for the community.

Roading / Infrastructure / Stormwater / Water

59. Of the 76 submissions received, 36 submissions made comments surrounding roading and infrastructure, of which 26 were opposed and 10 in support.

60. One submitter supports the potential for improved infrastructure for the broader Ōmokoroa community. However, many (including overall supporters of the application) have concerns around suitable roading, parking, the impact on traffic levels, and traffic effects onto Sentinal Avenue and through Kaimai Views. Some also support the potential reduction in traffic on SH2 to Tauranga and the left turn out only at the northern exit.

61. Those in opposition all had similar concerns in relation to transportation effects and in particular:

- the road connection to Sentinal Avenue and through Kaimai Views,
- the potential for increased through traffic via an under width residential road,

- child safety,
- whether thoroughfare through to Kaimai Views should be pedestrian only (or one-way access only),
- the design of Sentinal Avenue and whether it is suitable for future residential use on the adjoining property.

62. Other concerns and requests include:
    - continued dominance of vehicles within the town centre,
    - more provision for pedestrian and cycleways,
    - pedestrian only main street,
    - additional traffic calming measures,
    - safe pedestrian/cycle access from eastern side of Ōmokoroa Road,
    - unsafe conflict between commercial vehicles, passenger vehicle, pedestrians & cyclists,
    - concerns around existing roading network and Ōmokoroa Road/SH2 intersection being unsafe,
    - SH2 safety improvements should be undertaken prior to allowing any further development.

63. With regard to stormwater matters, some submitters are concerned about on site stormwater management and options for rain gardens/ swales, lack of provision for stormwater collection for large impervious surface, increase in stormwater additional to that from Kaimai Views.

64. With regard to water supply, Fire and Emergency New Zealand requires certainty over the details of water supply for firefighting purposes and suitable access for emergency vehicles.

Cultural

65. Of the 76 submissions received there were 2 submissions with comments surrounding cultural factors, of which both were in support. In general submitters noted the importance of hapū involvement, and ongoing engagement with Pirirakau.

Structure Plan

66. Of the 76 submissions received, 10 submissions made comments surrounding the Ōmokoroa Structure Plan matters, of which 1 submission was neutral and 9 were opposed.

67. The neutral submission (which supported the application overall) seeks clarification on whether the proposal conforms to the overall planning scheme for Ōmokoroa.

68. Submitters in opposition again held the following concerns:
    - that the application is premature and inconsistent with the Council's structure planning process,
    - how the application would create an integrated design with the Structure Plan,
    - the proposed Town Centre site should be at the corner of Prole Road,
    - lack of consultation between the applicant and the community,
    - Council's structure plan process indicated the site would be residential use,
    - that JACE liaise with Council over the proposed Stage 3 Structure Plan otherwise it might result in an inefficient use of Council resources and risk of having too much commercial land in Ōmokoroa,

- community views have been considered in the Council's structure plan process and planning for / development of the local area,
- the applicant has created Masterplan without consulting with the community first,

  lack of analysis surrounding the proposed Stage 3 Structure Plan which undermines the efficiency of this process/outcome.

Miscellaneous

69. Finally, there were 11 of the 76 submissions which could not be grouped under the preceding topics. Out of the 11, 5 submissions were in support, 2 were neutral and 4 opposed.

70. Those in support of the proposal requested the application be granted subject to specific timeframes/ lapse date, considers it an alternative to traveling to Bethlehem, requested clarification on staging

71. Those who were neutral requested continued involvement in the application process, requested conditions regarding water supply and access and involvement during the building consent process

72. Submitters in opposition considered the application to be contrary to many objectives and policies of the District Plan, question the need for additional commercial land, identify non-compliance with the commercial zone performance standards, believe there to be a lack of clarification with regards to Future Urban Zone.

PLANNING FRAMEWORK AND ACTIVITY STATUS

73. The notification date of the Operative District Plan 2012 was 18 June 2012 and all appeals have been resolved. Council has notified a number of plan changes since this time with all but one now being operative. The remaining plan change which is yet to be operative is Plan Change 81 which concerns the Ōmokoroa Industrial Zone and has no relevance to this application.

Activity Status - Operative District Plan 2012

74. Under Rule 19.3.3(b) of the Operative District Plan 2012 within the Commercial Zone shown on the Ōmokoroa Stage 2 Structure Plan all activities other than a dwelling shall be a Restricted Discretionary Activity subject to the development of a commercial area master plan and activity performance standards listed in 19.5. Council has not yet prepared a master plan for the commercial area. Further, the proposal does not meet a number of the activity performance standards listed in 19.5. The proposed activity within the Stage 2 Structure Plan commercial zone is otherwise not specifically provided for as a discretionary or non-complying activity under the commercial zone rules. Accordingly, the activity defaults to Rule 4A.1.4 of the District Plan, and non-complying activity consent is required.

75. Under Rule 12.4.4.4(b) of the Operative District Plan access on to Ōmokoroa Road – the number or potential number of dwellings or other activities gaining direct access to these roads shall not be increased, with a minimum separation distance from other intersections of 150m. The application proposes a main roundabout entrance in accordance with the Stage 2 Structure Plan, however proposes two minor access points to/from Ōmokoroa Road and as such in accordance with Rule 12.3.4.1 the activity is considered a restricted-discretionary activity.

76. Under Rule 12.4.11 of the Operative District Plan 2012 outlines the requirements of the Ōmokoroa Structure Plan and Rule 12.4.11.5 outlines that all subdivision, use and development in the identified Structure Plan areas shall provide the identified services in general proximity of the locations shown on the structure plan. Non-compliance with the Structure Plans will require a resource consent approval for a non-complying activity. As the development proposes additional connections to Ōmokoroa Road which are not in accordance with the Ōmokoroa Stage 2 Structure Plan resource consent is required for a non-complying activity.

77. Under Rule 12.4.1(J) earthworks within the Ōmokoroa Stage 2 Structure Plan area that exceeds 300m2 in a 6-month period is considered a controlled activity. The application proposes approximately 50,000m3 of earthworks within Stage 1 of the development and as such a controlled activity consent is required.

78. Under Rule 19.4.1 of the Operative District Plan several Commercial Zone performance standards will not be met by the proposed development, including building height, verandas, continuous retail frontage, carparking within 10m of a road boundary, location of offices, setback from strategic road and dwellings at ground floor. In accordance with 19.4.1 resource consent for a restricted discretionary activity is required.

79. Under Rule 19.3.2(a) of the Operative District Plan subdivision is a controlled activity. Matters of control are restricted to Rule 19.6.2, which specifies there is no minimum lot size.

80. Under Rule 4A.5(b) earthworks within the district require resource consent where the earthworks are undertaken in association with an activity for which a resource consent for a non-complying activity is required. Accordingly, earthworks in the Commercial Zone is considered a non-complying activity under Rule 4A.5.

81. Under Rule 4B.4.2 of the Operative District Plan, no crossing place shall be permitted to serve any proposed new activity that requires resource consent and/or increases the traffic movements to the site. In accordance with Rule 4B.3.4 a consent is required for a non-complying activity.

82. Under Rule 4B.4.7 of the Operative District Plan, carparking is required in accordance with the activity table under 4B.4.7. The application includes a carparking assessment against the District Plan requirements and assesses the proposed parking demand based on activities. The assessment concludes that there will be a shortfall in carparking based on the District Plan requirements. Accordingly, resource consent is required for a restricted discretionary activity under Rule 4B.3.2.

83. Under Rule 12.4.4.2 of the Operative District Plan 2012 (Table 2), a 26.0m road reserve width with a 13m formed carriageway width is required for a commercial road (commercial zones) serving a traffic volume greater than 1000 Passenger Car Equivalents (PCE). However, 20m road reserve width with varying carriageways is proposed. A typical cross-section of the roads is provided in the application drawings (refer Attachment 17 included at **Attachment 6**). Restricted discretionary activity consent is required for an under-width road reserve.

84. The “National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health” (the “NESCS”) requires consideration where an activity referenced on the Ministry for the Environment’s Hazardous Activities and Industries List (“HAIL”) has been undertaken on the site and it is proposed to change the use of the land or undertake soil disturbance. A restricted discretionary activity resource consent is required under Regulation 10(1) to (2) of the NESCS and has been applied for separately to this comprehensive land use and subdivision consent.

85. Under Rule 12.3.2.1 of the Operative District Plan 2012, as a controlled activity, in any zone, where land is to be set aside or vested as a reserve or where land is to become public open space owned by Council, lots can be created without having to comply with the minimum lot sizes and other minimum standards for lots. The relevant lots requiring consent are as follows:

    - Lot 101 Pump Station
    - Lot 102 Drainage Reserve

86. An assessment against the relevant District Plan provisions is outlined within the application details (**Attachment 1**).

87. Overall the proposed activity requires resource consent as a non-complying activity under the Operative District Plan 2012.

STATUTORY CONSIDERATIONS

Section 104 of the RMA – Consideration of Applications

88. Section 104(1) of the Act states:

Consideration of Applications

1) When considering an application for a resource consent and any submissions received, the consent authority must, subject to Part 2, have regard to–

(a) any actual and potential effects on the environment of allowing the activity; and

(ab) any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity; and

(b) any relevant provisions of—

(i) a national environmental standard:

(ii) other regulations:

(iii) a national policy statement:

(iv) a New Zealand coastal policy statement:

(v) a regional policy statement or proposed regional policy statement:

(vi) a plan or proposed plan; and

(c) any other matter the consent authority considers relevant and reasonably necessary to determine the application.

89. The requirements of Sections 104(1)(a) to 104(1)(c) are considered within Sections 93- 254 below.

Section 104B of the Resource Management Act 1991 – Determination of Discretionary and Non-complying activities

90. Section 104B of the Act states:

After considering an application for a resource consent for a discretionary activity or non-complying activity, a consent authority—

(a) may grant or refuse the application; and

(b) if it grants the application, may impose conditions under section 108.

Section 104D of the RMA – Particular Restrictions for Non-Complying Activities

91. RMA case law has established that where a proposal involves a number of activities with varying activity status, the activities should be "bundled", with the most onerous activity status applying to the whole proposal. Adopting this practice, the application therefore falls to be assessed as a non-complying activity.

92. As a Non-Complying activity the application is subject to section 104D of the Act – commonly referred to as the 'gateway test'. Section 104D requires an application to pass at least one of the two tests before it can be fully assessed under section 104 of the Act, and determined under section 104B. If the application fails both 'tests' then it must be declined consent.

93. Section 104D of the Act states:

Particular restrictions for non-complying activities

1) Despite any decision made for the purpose of notification in relation to adverse effects, a consent authority may grant a resource consent for a non-complying activity only if it is satisfied that either—

(a) the adverse effects of the activity on the environment (other than any effect to which section 104(3)(a)(ii) applies) will be minor; or

(b) the application is for an activity that will not be contrary to the objectives and policies of—

(i) the relevant plan, if there is a plan but no proposed plan in respect of the activity; or

(ii) the relevant proposed plan, if there is a proposed plan but no relevant plan in respect of the activity; or

(iii) both the relevant plan and the relevant proposed plan, if there is both a plan and a proposed plan in respect of the activity.

94. The requirements of sections 104D(1)(a) to 104D(1)(b) are considered within sections 93 to 253 below.

ASSESSMENT OF THE EFFECTS ON THE ENVIRONMENT

Matters to be considered

95. In having regard to Sections 86-91 above, the application (including further information) and the submissions received, the matters to be considered relate to the following general topics which are further discussed in this report:

- Permitted baseline
- Master Plan
- Urban Design Effects
- Character and Amenity and Landscape and Visual Effects
- Traffic and Access Effects
- Carparking Effects
- Infrastructure & Servicing Effects
- Earthworks and Geotechnical Effects
- Noise Effects
- Economic Effects
- Archaeological & Cultural
- Recreation and Public Access (Reserve to vest, civic building)
- Earthworks and Construction effects
- Effects on Safety and Security (CPTED)
- Positive effects

Permitted baseline

96. Pursuant to RMA section 104(2), the assessment of the environmental effects of a proposed activity may disregard any adverse effects created by permitted activities established on the subject land. Rule 19.3.1 of the Operative District Plan 2012 sets out the permitted activities in other Commercial zones throughout the District. However, Rule 19.3.3(b) is specific to the subject site, as a restricted discretionary activity.

97. There is no relevant permitted baseline for this application due to rule 19.3.1 noted above.

Actual and Potential Effects on the Environment - s.104(1)(a)

Master Plan

98. The proposal seeks to create and develop an extensive mixed use town centre identified on the Masterplan included in Appendix 2 of the application details (refer **Attachment 1**). The Assessment of Effects states the town centre design has drawn upon development outcomes sought by the District Plan, particularly the criteria and performance standards identified in Rule 19.5. The assessment includes a summary of Rule 19.5(a) (following the same numbering).

99. Rule 19.3.3(b) of the Operative District Plan 2012 limits the Commercial Zone shown on the Ōmokoroa Stage 2 Structure Plan to all activities other than dwellings being a restricted discretionary activity subject to the development of a commercial area master plan and activity performance standards listed in 19.5. These matters are addressed as follows:

100. Rule 19.5(a) of the District Plan outlines that:

"A commercial area master plan for the Ōmokoroa Stage 2 Structure Plan area shall be prepared by Council prior to development of individual titles.

This plan shall define compliance with the performance standards and criteria listed below and the location of buildings/structures, traffic and pedestrian cycle paths and parking areas and shall specify integration with the Commercial Zone and to the Industrial Zone and public reserve"

101. Outlined under Rule 19.5(a)(i)-(viii) are matters which the comprehensive development master plan shall include and in addition under Rule 19.5(b)-(i) outlines the performance standards which shall apply.

102. Council has not yet prepared a Master Plan for the commercial area within the Ōmokoroa Stage 2 Structure Plan area. The applicant has prepared a Master Plan (Appendix 2 included at **Attachment 1**) in conjunction with this resource consent application outlining how the proposed development meets the requirements of Rule 19.5.

103. Rule 19.5(a) outlines criteria which a comprehensive development plan (Masterplan) shall include. In respect of the relevant rules (using the same numerical order) the Council makes the following assessment:

104. Rule 19.5(b)-(i) of the Operative District Plan outlines the performance standards for the creation of the comprehensive development plan (Master Plan). In respect of the relevant rules (using the same numerical order), following advice provided by Mr. Hugo (Boffa Miskell), the Council makes the following assessment:

i) Mixed use areas – The proposed development includes mixed uses throughout the centre. This includes buildings of dedicated mixed use (office and retail combined) accommodation, hospitality, mixed retail and apartment, education, and civic use.

ii) Visually broken facades at human scale – Building M (supermarket is the largest building in terms of bulk and scale within the development. The length of the building is approximately 45m with retail sleeve along the main street (western) façade and convenience retail along the eastern façade. The Urban Design Statement (Appendix 4 at **Attachment 1**), provides some design guidelines for commercial architecture, however does not provide any technical guidelines to assist future design of the

commercial buildings and to provide Council with a level of assurance as to how the expected level of architecture and design can be achieved.

iii) Muted Natural or Recessive Colours – the applicant has provided concept architectural drawings which show muted and recessive colours. However, the Urban Design Guidelines do not make recommendations for a colour palette, nor recommend reflectivity standards or specific materials to ensure the final design of the buildings achieves this outcome. The applicant does not provide detail on how the proposed colours of the development are compatible with the nearby residential development and reserves.

iv) Connection to Ōmokoroa Road – following discussion with Council, the application proposes three connections to Ōmokoroa Road, where the standards require only one connection. The application proposes the main structure plan roundabout to provide primary access to the town centre, while a 'southern' slip lane provides for a secondary (left turn in only) access for private vehicles and delivery vehicles to easily access the convenience retail and the supermarket service area. In addition, a 'northern' access is also proposed. These accesses are discussed in more detail in section 125-151 below.

v) Landscaped carparking – The application proposes a 4m landscape strip along the length of Ōmokoroa Road for amenity planting (with the exception of access points). While no landscaping plan has been prepared the Urban Design Statement includes some planting recommendations.

vi) Functional and alternative mixed use – the proposed design includes mixed use buildings including commercial and residential and also retail and office. A civic building is proposed adjacent to a plaza/market area with passive recreation and connection to the reserve/gully network which will create a focal point.

vii) Outlook to the adjoining gully system – the plaza/market area has been designed at the head of the gully to provide an active edge to the reserve and provide a focal point for the community. This area will provide connection to the walkway through the gully system.

viii) Residential accommodation – the development proposes two residential areas within the town centre including medium density 'terrace' housing (buildings H1-H3 on Attachment 2 included at **Attachment 1**) on the south western boundary of the site, and apartment housing, above retail at ground floor, at the north eastern boundary of the site (building N on Attachment 2 included at **Attachment 1**). Accommodation is also provided by the proposed hotel/motel adjacent to the new round-a-bout. These activities assist to provide vibrancy within the town centre.

105. Further information was requested by Council on 18 June 2020 (refer Item 17 included at **Attachment 3**) to confirm how the proposed "Master Plan" will be implemented and provide Council, the community and future developers/businesses assurance as to the development outcomes.

106. It was confirmed by the applicant in the s92 RMA further information response (refer Item 17 included at **Attachment 6**) that the town centre master plan could be referenced in a condition of consent as "generally in accordance with", that conditions of consent to reflect the urban design outcomes for detailed design at building consent stage could be included, and the general commercial zone permitted activity performance standards could be imposed as conditions of consent. The s92 response states that this approach will provide sufficient direction to ensure the development of the town centre has good urban design outcomes.

107. The Assessment of Environment Effects (AEE) states at section 3.2 (refer item 3 included at **Attachment 1**) that "no town centre plan has been prepared by Council" and Council requested by way of s92 request (refer Item 1 included within **Attachment 3**) details of the applicant's community and stakeholder engagement in developing the "Master Plan".

108. As part of the s92 RMA further information response (item 1 included at **Attachment 3**) the applicant confirmed that there was very limited consultation with Council (at a high level only)

and no public consultation was undertaken while preparing the Master Plan or the application. The applicant held one public open day during the submission period and engaged with a number of commercial property owners in the area. Following public notification, the applicant amended the layout of building N and following discussion with Council's Strategic Property Manager, the Civic building and plaza/market area was increased in size.

109. While the District Plan does not define either in Chapter 19 or Chapter 3 (Definitions) what would be required as part of a Council prepared Masterplan, the applicant has undertaken limited Council and public engagement in preparing the town centre Master Plan. Limited consultation with the community makes it difficult to determine if the principles and strategy set out in the plan are in line with community aspirations and perspectives in order to achieve a shared vision for the future. It is also unclear how the Master Plan manages change in an area of rapid population growth, unique landscape and diverse community, along with the protection and enhancement of the areas intrinsic features and characteristics.

Referral – Resource Management

110. Council's Resource Management department has reviewed the proposed development and make the following comments:

Master Plan:

111. The application provides no information as to how the Master Plan is to be implemented. There are basic guidelines, but how does the community, future developers and/or businesses ensure that the development occurs as presented in the Master Plan and discussed in the guidelines?

Following s92 response

112. There are some stronger references in the proposed conditions however we are still unclear how it will be implemented. There is a lot of reference to 'detailed design' however it is unclear when this will occur and how it fits into the process. This philosophy has the potential to rely on the engineering design process to resolve resource consent matters.

Urban Design Effects

113. To support the application and Master Plan, the applicant has provided an Urban Design Statement (UDS) prepared by Momentum Planning and Design (refer Appendix 4 included at **Attachment 1**) and have had this UDS independently peer reviewed (refer Appendix 5 included at **Attachment 1**). The UDS considers the urban design outcomes sought by the District Plan under Rule 19.5.

114. The applicants AEE gives consideration to the matters outlined in 19.5, and has been discussed in the Master Plan section above.

115. As part of the review of the application, Council requested that a peer review be undertaken. On behalf of Council, Mr Morné Hugo of Boffa Miskell has undertaken a peer review to determine the adequacy of the application in regards to the Master Plan and urban design effects of the proposed development.

116. In this peer review dated 29 January 2021 (included at **Attachment 7**) Mr Hugo concluded that:

- He is in general agreement with the urban design report and peer review document provided by the applicant

  He believes that subject to an appropriate and well-developed detailed architectural, urban design and landscaping design scheme, the project will provide a vibrant, pleasant and environmentally appropriate outcome for the Ōmokoroa Peninsular.

117. Mr Hugo makes the following recommendations:

In order to ensure the above successful design outcomes are achieved the following items would need to be included as conditions of consent:

- Confirmation of all architectural designs, colours, materials and treatments for approval by Council prior to submission for building consent.
- Provision of final detailed landscape concept plans, a landscape management plan and maintenance programme compiled by a Registered NZILA Landscape Architect. These plans should incorporate all relevant boundary fencing, boundary landscaping and visual mitigation treatments proposed. The landscaping plans should also reference all external hard-surface paving treatments, soft landscaping components, shelters and canopy structures, water features and any other relevant landscape design components.

Character and Amenity / Landscape and Visual Effects

118. The subject site is located within the Ōmokoroa Stage 2 Structure Plan area, and has also recently been incorporated into the Stage 3 Structure Plan development. The Stage 2 Structure Plan provides for limited commercial development by way of a Master Plan to be prepared by Council.

119. The applicants AEE provides an assessment of bulk and scale of the proposed buildings which vary between one and three storeys high. The AEE states that due to the fall of the natural ground level and proposed earthworks some buildings will exceed the Commercial Zone performance standard in relation to height.

120. Under Rule 19.4.1(a)(iii)

"Ōmokoroa Commercial Zone Stage 2 Structure Plan Area: The maximum building/structure height in the Ōmokoroa Stage 2 Structure Plan area shall be 11m and no provision is made for additional non-habitable space above the 11m height limit"

121. The AEE states that the effects of building scale are acceptable and will provide legibility to the town centre, with the effects on the adjacent residential development being less than minor due to compliance with daylighting, yards and maximum height.

122. Section 4.4.4 of the AEE includes a specific assessment of building height encroachments and the reasons for the encroachments. Sheet 2.1.12A of the amended Architectural Plans (refer Attachment 1 included at **Attachment 6**) shows a rolling 11m height across the proposed modified ground level (final contours following earthworks). The modulated rooflines of Building M have encroachments along with more significant encroachments of over 3m including roof lines and balcony covers, and third floor dwellings of building N, shown in Figure 9 below.



Figure 8: Showing Building N Height Encroachment

123. The original Master Plan prepared by the applicant provided a different layout for Building N, which placed the building and height encroachments on the northern boundary adjacent to the Kaimai Views subdivision. Following notification and submissions the applicant altered Building N to setback the bulk of the building from the northern boundary. While this has removed the bulk and scale at the adjoining boundary, it is noted there remains a large height infringement

including third floor apartments and balconies, as shown in Figure 8 above. It is noted that daylighting requirements comply from the 'residential' boundary to Building N.

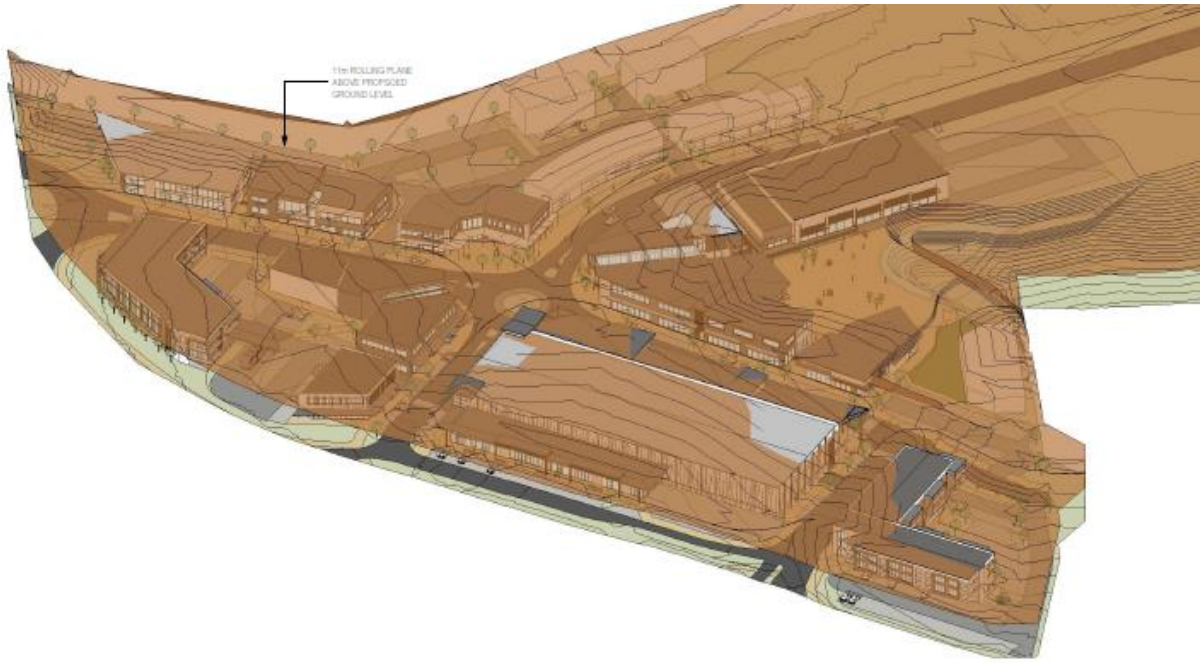

Figure 9: showing overheight in relation to ground level

124. Further information was requested by Council in relation to the landscape and visual effects associated with the application (refer Item 22 included at **Attachment 3**) to enable Council to better assess such effects from the development, and in relation to Rule 19.7.2(b)(vi).

125. The further information response provided a Landscape and Visual Assessment prepared by Tom Watts of Momentum Planning and Design (refer Attachment 10 included at Attachment 6).

126. As part of the review of the application, Council requested that a peer review be undertaken. On behalf of Council, Ms Rebecca Ryder of Boffa Miskell has undertaken a peer review to determine the adequacy of the application in considering the actual and potential landscape and visual effects of the proposed development.

127. The initial peer review dated 21 December 2020 (included at **Attachment 7**) provided seven recommendations for the applicants LVA, and Ms Ryder has now meet with Mr Watts to discuss her recommendations. Following the meeting, Ms Ryder provided a supplementary letter and opinion dated 3 February 2021 (included at **Attachment 7**). Ms Ryder states that Mr Watts will provide a supplementary LVA which will cover off her recommendations.

128. Ms Ryders also states"

"It is my opinion the interface of architectural treatments and landscape treatments to the residential catchment is critical to the visual integration and mitigation of visual effects. These should include conditions of consent that manage the following

- *Design controls of building heights, colour, reflectivity and materials for buildings H2m H3, A, N and O.*
- *Addressing the avoidance of building branding or signage on residential and future residential boundary interfaces*
- *Boundary landscape treatments including performance outcomes for vegetation treatment heights, typology and fencing treatments.*
- *Setting of building RL heights for specific buildings, as set out in the architectural plans. Avoidance of variance above these heights and the projected building height (from*

Ground Level), is important to ensuring the visual effects of building bulk, scale and effects on the visual catchment are maintained.

- *Preparation of a landscape management plan that addresses Urban Design and Visual Effects mitigation treatments. It is noted that this should be submitted for the approval of Council as part of the Engineering Approval process. "*

In my view the proposed development as a zoned commercial site, introduces potential low to moderate-low visual adverse effects upon the neighbouring residential visual catchment.

Therefore, the proposal is critical to limiting height intrusion, managing building treatments and soft landscape treatments at the boundary interfaces with residential and Ōmokoroa Road.

If certainty to the mitigation treatments and performance outcomes are clearly outlined, there is, in my opinion, potential to reduce the effect to a low visual effect and in turn be considered less than minor. I anticipate this can be achieved but providing further certainty through the pending response from Momentum Planning and Design and in turn conditions of consent.

129. Based on Ms Ryder's review and recommendations I consider it appropriate for suitable conditions of consent to be imposed to limit building height, manage building treatments and soften landscape treatments.

Traffic and Access Effects

130. The site is accessed from Ōmokoroa Road which is classed as a Secondary Arterial in the District Plan and provides the only linkage between State Highway 2 and the peninsular, with the application site being located mid-block between the Prole Road and Settler Ave roundabouts (refer site location plan – Figure 1, page 6 of this report). The applicant intends to vest all roads in Council.

131. The application includes a Traffic Assessment (TA) prepared by Stantec (refer Appendix 7 included at **Attachment 1**).

132. The internal road network includes four roads to vest which have a road reserve of 20m and a carriageway width of 8m. It is noted that adjacent to Buildings O & N the road reserve narrows to allow connection to the 15m wide road reserve of Sentinal Avenue. The proposed roading layout and details including a typical cross section and are outlined in the application drawings (refer Attachment 17 included at **Attachment 6**).

133. The TA has assessed the road network and the expected traffic generation from the town centre development on the road network, and assessed the town centre design, its connections to existing and proposed roads and also pedestrian and cycle connectivity.

134. The Ōmokoroa Structure Plan Stage 2 identified the location and extent of the commercial area and the key connections onto Ōmokoroa Road. The key transportation elements of the Structure Plan Stage 2 include a new roundabout connection to Ōmokoroa Road (at Flounder Drive) and a northern connection, now via access through the Kaimai Views subdivision.

135. The Stage 2 Structure plan shows the intersection at Flounder Drive as a 'Tee' with no leg to the site. A future roundabout was budgeted and scheduled for construction in year 2032 and would have been a future upgrade from the current proposed 'Tee' intersection. Because of the Crown Infrastructure Partners (CIP) funding, Council has moved the construction of this roundabout forward, as part of the 'shovel ready' Ōmokoroa Road upgrade.

136. The internal road network consists of an extension to Sentinal Avenue which will continue from Kaimai Views through to Ōmokoroa Road. An internal roundabout is proposed to give access to a western road link to the rear of the site (not part of this application). The eastern roundabout link will provide access to convenience retail adjacent to Ōmokoroa Road.

137. The proposed Ōmokoroa Road/Flounder Drive roundabout is included in the application as a dual lane roundabout reflective of the expected size envisaged at the time of the original site

zoning. However the TA results indicate that a single lane roundabout may be adequate and indeed more desirable to cater for the traffic at the intersection.

138. The Master Plan also proposes a left-turn in and out egress to and from Ōmokoroa Road at the northern end of the site. While this is not in accordance with the Stage 2 Structure Plan, it is proposed by the applicant to assist with delivery vehicles exiting from the supermarket service area, and to encourage access to Ōmokoroa Road, rather than egress through Kaimai Views.

139. The TA notes that traffic volumes within the Ōmokoroa peninsular have been rapidly increasing in recent years corresponding to development growth within the peninsular. The TIA provides a summary of existing traffic data:

"The current 7-day average daily traffic (ADT) volume on the SH2 to Prole Road section of Ōmokoroa Road is 7,066 veh/d, which compares with 4,946 veh/d in 2014, i.e. an increase of 43% in 5 years. For the section of Ōmokoroa Road between Goldstone Road and Kayelene Place, the 7-day ADT volume in 2019 is 5,803 veh/d which compares with 4,550 veh/d in 2014. This provides an increase of 28% in the last 5 years"

140. An assessment of the PM peak traffic generation has been undertaken by the TA by assessing the key activities as part of a large centre. Given the location of the site and mix of activities likely for a town centre (rather than a shopping mall) the TIA sets out a PM peak summary.

Retail/ Commercial/ Civic/ Childcare/ Office	13,780m2 GFA at 7.7 trips per 100m^2	1061 veh/h
Office (first floor)	6,155m^2 GFA at 1.6 trips/ 100m^2	98 veh/h
Residential	27 units @ 1.1 trip per unit	30 veh/h
Motel	40 units @ 0.8 trips per unit	32 veh/h
Total trip generation (peak hour aggregate)		**1221 veh/h**

141. In terms of consistency with the Stage 2 Structure Plan the TA notes that the proposal is largely consistent with the current Ōmokoroa Stage 2 Structure Plan in terms of location and access provisions. The proposal to install a southern left turn in slip lane and northern left turn in/out, is a departure from the Stage 2 Structure Plan. The applicant proposes these additional connections to reduce the potential through traffic to Kaimai Views and to the Settler Avenue roundabout. The northern left turn out has been modelled and demonstrated that it can be readily accommodated on Ōmokoroa Road.

142. The TA concludes that the Master Plan roading network is expected to support the forecast levels of traffic generation by the development, with slower speed town centre roads supportive of pedestrian activity. Safe and efficient connections to the wider network can be achieved that are consistent with the classification of the roads.

143. Further information was requested by Council in relation to the transportation effects associated with the application (refer Items 38-66 included at **Attachment 3**) to enable Council to better assess such effects from the development.

144. The further information response provided information and response prepared by Stantec (refer Attachments 15a-15h included at **Attachment 6**)

145. In accordance with Rule 12.4.4.1(b) of the District Plan (Transportation and Property Access), where a subdivision or development includes the vesting of a new road it shall be designed to ensure safe and efficient movement of traffic (including heavy vehicles), while providing for pedestrian and cycleways, public transport, landscaping and tree planting. In accordance with Rule 12.4.4.1(a) Council will exercise controls over the function and design of new roading in relation to the needs of the subdivision, including requiring any upgrading of any existing roading necessary to serve the development. Any streetscape landscaping to be provided to

enhance the amenity of the area shall be designed to ensure continued traffic and pedestrian safety in accordance with Rule 12.4.4.3 of the District Plan. Street lighting shall be provided in a manner to ensure safety of vehicles, cyclists and pedestrians in accordance with the Development Code and Rule 12.4.4.5 of the District Plan.

146. A Transport Assessment has been provided as part of the application details (refer Appendix 7 included at **Attachment 1** and further information Attachment 15a-h included at **Attachment 6**).

147. The Transport Report provided by the applicant concludes that:

"The proposed Ōmokoroa Town Centre Master Plan has been assessed from a transportation perspective at a level appropriate to a Master Plan stage of development. The nature and form of the proposed development is largely consistent with the transport provisions of the Ōmokoroa Structure Plan included in the District Plan. In particular the principal access to the Town Centre is proposed by way of a roundabout located at the intersection of Flounder Drive and Ōmokoroa Road in accordance with the Ōmokoroa Structure Plan."

148. As part of the review of the application, Council requested that a peer review be undertaken. On behalf of Council, Ms Ann Fosberry of Aurecon has undertaken a peer review to determine the adequacy of the application in considering the actual and potential transportation effects of the proposed development.

149. This peer review dated 5 February 2021 (included at **Attachment 7**) considers if the actual and potential effects have been assessed and mitigated to an acceptable limit.

150. Ms Fosberry's key findings are:

- The roundabout was sensitive to the changes but would operate with an acceptable level of service into the future if it is a two-lane circulating roundabout
- That the proposed northern access does not operate at a satisfactory level of service for the right turn entering movement with the risk of the queue extending back into the through lane south, creating operational and safety issues and both right turn entering and exiting movements should be prevented;
- The Town Centre creates a destination and desire line for pedestrians and cyclists using the connection from Anglers Way which creates a safety risk for those who cross at this location
- From the sensitivity testing of the traffic modelling, in certain test scenarios queuing to exit from Road 4 onto Ōmokoroa Road may occur. If unduly delayed, northbound users will choose to divert through Sentinel Drive to Settlers Avenue to access Ōmokoroa Road. Similarly, because of the expected queuing and safety risk of right turn entering at the northern most JACE access, and the recommendation to only allow left in/left out, the reverse movement is likely to occur through Settlers Avenue and Sentinel Drive. To prevent "rat running", road access between Sentinel Drive and the Town Centre development should be avoided and only pedestrian and cycle access provided for. Vesting the internal Town Centre road network in Council will provide Council with the opportunity to reassess the Sentinel Drive vehicle connection in the future, if necessary.
- The development proposal has an undersupply of parking as identified in Section 9.4 of the Stantec Transportation Assessment dated May 2020. A parking shortfall may result in overflow parking which may occur on Ōmokoroa Road or within areas that affect the safety of vulnerable road users within the town centre and the operation of the internal and external road network. Operational and safety concerns related to the identified parking shortfall remain

151. With regards to the Sentinal Avenue connection Ms Fosberry states

"The northern access right turn in, does not operate at an acceptable level of service under the sensitivity testing, with few gaps for the right turn entering traffic with it expected to queue back into the through lane, blocking southbound Ōmokoroa Road flows. Drivers will often divert to

the next entry rather than queue and may travel further south to enter via the roundabout or try to divert via Settlers Avenue to access the JACE development via Sentinel Drive. Ōmokoroa Road is the strategic spine road (secondary arterial) and is a limited access road and as such additional intersections that disrupt flow are not acceptable. The road safety auditors have also recommended against right turn movements at this intersection. The northern most access is therefore recommended to be left in/left out only or left out only, as the central access between the roundabout and the northern access is a left in only and can accommodate the left turning traffic from Ōmokoroa Road without the need to provide another left turn in at the northern access".

"To prevent drivers "rat running' through the Kaimai Views development via Sentinel Drive and Settlers Avenue, the applicant has suggested that traffic calming be installed. Traffic calming at the interface between the JACE Town Centre proposal and Sentinel Drive is not considered an adequate control to prevent drivers choosing this route should queuing to exit onto Ōmokoroa Road at the northern access occur, as demonstrated in the sensitivity testing. Vehicle access between the JACE Town Centre and Sentinel Drive should be prevented and pedestrian and cycle access only, provided. With the road vested in Council, should a future need be identified to provide a vehicle connection, Council will have control of the road, to do this".

Summary of Development Engineer and Westlink Referrals Comments

152. The Transportation Assessment provided by the applicant, and the further information provided in response to the section 92 RMA request from Council has been reviewed by Council's Transportation team, Land Development Engineering team and Westlink (being the entity contracted to maintain Council's roads) who advise the following:

153. The transportation matters have been reviewed by Mr Ken Lawton – Senior Land Development Engineer who comments as below

"A 'northern' access to Ōmokoroa Road was proposed by the applicant that provided for left turns in and out, as well as a right turn in. Council indicated to the applicant early on that the right turn in for this access would not be supported. I am comfortable that Council's preferred arrangement for the 'southern' and 'northern' accesses provides for suitable access to and from the supermarket service area for commercial vehicles and a secondary entry/exit for private vehicles. However, although a northern right turn in may work, this would need further investigation and modelling to Councils satisfaction that this would not result in stacking back to the Settlers Ave roundabout.

In addition I still have serious traffic safety concerns with allowing traffic through the Kaimai Views residential subdivision to the town centre site via Sentinal Avenue"

154. With regard to the access through Kaimai Views from Sentinal Avenue Mr Lawton has serious safety concerns. He comments:

"The proposal is rather optimistic in regards to the proposed northern access to include for a right turn in off Ōmokoroa Road. There is reliance on this northern right turn in to assist in mitigating the effects of traffic through Kaimai Views (Sentinel Ave). Due to safety concerns on the planned Ōmokoroa Road upgrade, roundabout, stacking concerns raised in the Transportation peer review I am not supportive of this right turn in from Ōmokoroa Road.

Consequently, if there is no right turn in off Ōmokoroa Road, traffic is likely to utilise Kaimai Views and Sentinal Avenue as a through road to the town centre. There will be no mitigation of traffic and safety effects at Kaimai Views. No solution to traffic and safety effects is offered by the applicant, except some unspecified 'traffic calming' at the interface between the town centre and the residential area. Note that traffic calming is used to slow traffic NOT reduce traffic movements.

This is of serious concern to me given the nature of the Kaimai Views housing density, limited on site parking, narrow roading network and residents expectations for peaceful living.
I recommend no vehicular access between the town centre and Kaimai Views via Sentinal

Avenue in order to mitigate the potential traffic and safety effects on Sentinal Avenue and Kaimai Views residents"

155. Mr Lawton also considers there to be outstanding matters in relation to:

- Timing with Councils Ōmokoroa Road upgrade and Councils Stage 3 Structure Plan review
- Proposed internal road reserve widths and their ability to accommodate all servicing, landscape plantings and heavy vehicle manoeuvring. The current widths proposed do not comply with the District Plan requirements. The applicant would need to provide detail to confirm the road widths are acceptable for all servicing, trees, parking etc., as it may impact the layout/ building design if the proposed road widths cannot accommodate all the requirements. Note this is not considered full engineering design and should be resolved prior to granting consent, if it is to be granted.
- Encroachment of buildings into Council's Ōmokoroa Road reserve designation area and final design/layout of Flounder Drive roundabout, as shown on Figure 10 below.

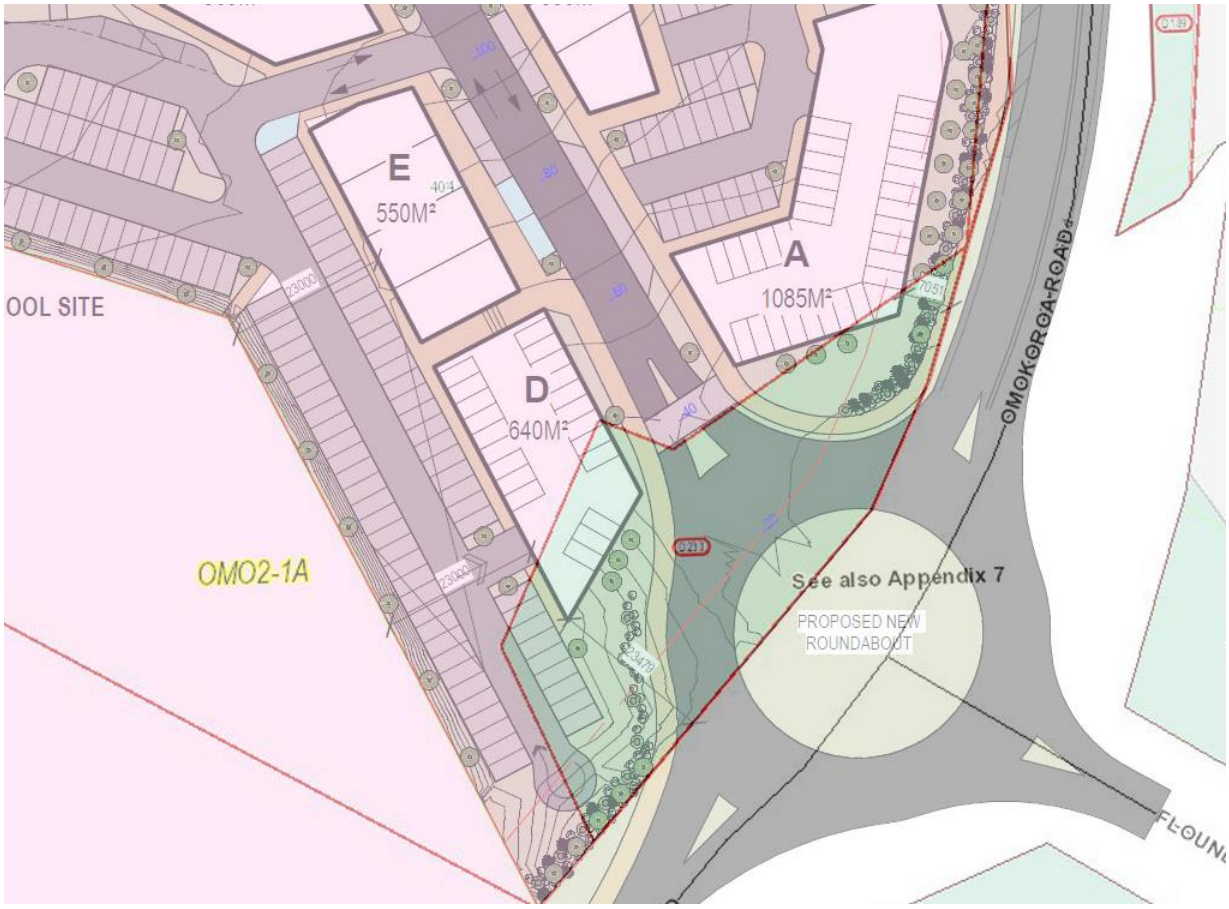

Figure 10: Diagram showing location of buildings within Council Designation

156. At present, I understand that Ms Fosberry and Mr Lawton have concerns with the proposal, with respect to the safety and efficiency of the roading network, including the strategic transport network. Council staff have considered these concerns and in light of the peer review Council will not support a right turn at the northern Ōmokoroa Road entrance. Council will also not support vehicle access from Sentinel Avenue to the town centre, in favour of pedestrian and cycle access only. In light of the concerns raised, I am of the opinion that adverse effects as they relate to transportation matters could be unacceptable. However, in my opinion the matters of concern raised above by Mr Lawton can be adequately conditioned to mitigate the effects to an acceptable level.

Carparking Effects

157. The application includes an indicative car parking layout as shown on the Master Plan. The Transportation Assessment also includes an assessment of parking demand based on the types of activities proposed as part of the Master Plan.

158. The TA has undertaken an assessment against the District Plan requirements for carparking with 898 car parks required based on the activities proposed within the town centre. The TA has also undertaken a parking demand assessment based on the range of activities and the demand through the course of the day across the site. This assessment identifies that 759 car parks are needed. The car parking provided is 92% of the assessed car parking demands (see section 9.4.2 of the TA). It is acknowledged that many of the activities will not have concurrent peak periods.

159. The Master Plan shows some 594 off-street car parks with 107 on-street car parks available. It is also acknowledged that further consideration will need to be given to the staged supply of parking to match the stage of the development, and that some activities will have their own car parking, such as the childcare, residential apartments and terraced housing.

160. Whilst the District Plan provisions will not be satisfied, as the wider site is expected to provide up to 701 spaces, it is considered peak parking demand will practically be met on site once shared use and time of day considerations are made such that overflow parking to surrounding areas is not likely to occur.

161. The TA concludes:

"The parking supply is of an appropriate order but recognising the possibility of actual demands varying form those forecast, it is recommended that a monitoring condition is imposed that requires the actual parking demands to be reviewed on completion of the development. In the event that monitoring shows there was an ongoing shortfall of car parks, additional car parks could be established by extending the at-grade car park next to the civic centre into the balance Future Urban land."

162. Council's Senior Land Development Engineers have considered the proposed carparking numbers and are overall satisfied that the shortfall is manageable within the balance area if necessary. As carparking will be rolled out in stages, suitable monitoring conditions similar to the above, but more specific to each stage, can be imposed to mange any carparking effects. The Concept Safety Audit also recommends a further review of the access to the supermarket carpark and this should be undertaken prior to draft conditions being prepared to ensure adequate access and carparking can be provided.

163. Under the National Policy Statement on Urban Design (NPS-UD) car parking policies have the effect of removing minimum car parking rates from the district plans of tier 1, 2 & 3 territorial local authorities (TLA). Western Bay of Plenty District Council is classed as a tier 1 TLA and will be removing the district plan rules around minimum car parking rates. WBOPDC will be undertaking this project as soon as practicable. While minimum rates can be removed, under the provisions detailed in the NPS-UD Council can still consider the effects of parking supply and demand in resource consents, and developers can determine the amount of parking necessary.

164. Overall Council agrees that the effects from car parking are acceptable subject to appropriate conditions. These conditions will include carparking requirements per stage and monitoring of carparking demands as the site is developed.

Infrastructure and Servicing Effects

165. A Resource Consent Servicing Report prepared by Lysaght Consultants was provided as part of the application details to confirm the suitability of the site development as set out in the application details (Appendix 6 included at **Attachment 1**).

Water

166. There is existing water infrastructure located within the Ōmokoroa Road reserve and within Sentinal Avenue. The development proposes to connect to both existing water mains. In accordance with the Servicing Report, a new 200mm water main is needed in the eastern side

of Ōmokoroa Road, along with upgrading the 50mm rider main adjacent to Flounder Ave, to a 200mm main to complete the loop. The Servicing Report concludes that with the proposed water main upgrades there should be sufficient capacity to service the town centre for the predicted demand.

167. The applicant did not engage in pre-application discussion with Councils Utilities Team. The application did not include any modelling to confirm if there is sufficient capacity or if upgrades are required.

Wastewater

168. The Servicing Report provides a preliminary layout of the wastewater system that will be gravity fed to a pump station within the site. This will pump the wastewater via a rising main to the existing wastewater system on Ōmokoroa Road. The Servicing Report confirms from their calculations, there is adequate capacity in the network to receive the town centres wastewater.

Stormwater

169. The Servicing Report states that the downstream stormwater ponds will cater for all the land within the town centre site. Preliminary stormwater reticulation design has been prepared and included in the Servicing Report and discharges to the gully within the application site. The town centre road network will provide for a secondary flow path towards the gully system. The servicing report states the site can be easily serviced with stormwater infrastructure given the established downstream ponds and natural fall of the site.

Power & Telecommunications

170. The site has an existing power connection which will be required to be upgraded as the town centre is developed. Ultra-fast broadband is available in Ōmokoroa, and Chorus provided confirmation (refer Appendix 12 included at **Attachment 1**) that the network would be able to be extended to provide connection availability, subject to detailed design.

171. Further information was requested by Council in relation to the power and telecommunication servicing with the development (refer Items 83-85 included at **Attachment 3**) to enable Council to better assess such effects from the development, and in relation to Rule 12.3.8(n) and 12.4.8.

172. The further information response provided a letter from PowerCo (refer Attachment 19 included at **Attachment 6**). The response noted that with regards to Chorus, location of cabinetry will be addressed at time of detailed design, and are normally located within the road reserve.

173. Consultation with PowerCo shows that Ōmokoroa area has capacity constraints. PowerCo state:

"Load requirements greater than 1MVA will require reinforcement of the existing 11kV network, plus the installation of transformers and switchgear, and new LV reticulation for your development. There would be a customer contribution required for this work."

174. During the submission period a submission was also received from PowerCo (refer **Attachment 4**), which reiterates that there are existing constraints on the local distribution network and some form of network reinforcement will be required to supply electricity to the development. It also notes that Powerco's electrical networks are recognised as Regionally Significant Infrastructure in the Regional Policy Statement for the Bay of Plenty (RPS) and it is therefore appropriate that any developments avoid adverse effects on the electricity distribution network. The applicant has stated that discussions with PowerCo are ongoing but has not provided any further assessment of effects on the electricity distribution network.

Referrals Comment Summary

175. The Servicing Report provided by the applicant, and the further information provided in response to the section 92 RMA request from Council has been reviewed by Council's Utilities team, Asset Management team and Land Development Engineering team who advise the following:

1) There is still some uncertainty in regard to the ownership (public or private) for water, wastewater and stormwater infrastructure. Not all services are covered by easements, where it is considered they are required. The applicant should check the Servicing Plan is correct and all easements are correctly shown. Confirmation should be provided if there is a mix of private and public service to ensure suitable conditions of consent can be prepared.

   - The applicant has now confirmed the easement layout for services and a condition of consent can be imposed for easements over all services to vest.

2) Timing of vesting of stormwater reserve (Lot 102) and the purpose of the stormwater reserve is required to be confirmed, i.e. is it only a discharge point, or is there attenuation or treatment to be included. Further detail for stormwater within this lot should be provided by the applicant to ensure suitable conditions of consent can be formulated.

   - The applicant has now confirmed that Lot 102 will only include a discharge point and all attenuation and treatment is via the downstream ponds

3) There is no mention of a pond or treatment area in the Services report. Consequently there is no reasoning why lot 102 is proposed to be vested at all and in particular as part of stage 1. However, there are benefits in vesting (management of discharge energies and water treatment) if Council is to own the upstream stormwater system. The applicant needs to confirm.

   - The applicant has now stated the stormwater assets will ultimately form part of Council's stormwater system for integrated maintenance reasons and consider it appropriate as there will be some catchment outside the town centre site that feeds into this network.

   - Council staff are satisfied with this response and consider Lot 102 will provide good scope to continue development of the gully/walkway system.

4) The proposed wastewater pump station location may not be ideal, depending on the future development for the balance of the site. There has been no analysis if this location is the most ideal location for development within the site including the future balance lot development.

   - Lysaght Consultants (authors of the Services Report) have now stated an analysis of the wastewater pump station was indeed undertaken, with consideration given to the entire site including future stages.

   - Council staff have reviewed this response and note that while the pump station will cover the site, it will ultimately become a Council asset and it remains the preference of Council for the pump station to be located further north-west on the property to capture areas beyond the application site. This location has been indicated on the Stage 3 Structure Planning documents.

5) Underground spring management – this is a concern which has been raised with the applicant as there are existing underground springs which are located on the site. No analysis has been provided on how these springs will be managed as part of the development. This should be resolved prior to draft conditions being prepared to ensure they can be suitably managed within the development.

   - The applicant has stated that the geotechnical engineers have not encountered springs on the property.

   - Council staff consider this to leave uncertainty as the grated manholes which currently intercept the spring waters are clearly visible and a sketch map has been previously provided by Council to the applicant.

6) Complying locations of services in road reserves (including private) – for example, will service locations conflict with street tree requirements/locations? Larger or multiple cabling will require additional space in the services corridor and this has not been

considered. Further detail should be provided by the applicant prior to granting consent to ensure road widths are sufficient for all services, noting that the current proposed road width is non-complying.

- The applicant has stated that service locations will be confirmed at the detailed design stage.
- Council staff still consider this an outstanding matter as it relates to the required 26m road width, as opposed to the 20m road width proposed. As the applicant is requesting dispensation for a narrower road width, Council need to be satisfied the narrow road width will not compromise the service locations, street trees or building layout.

7) There are questions around the future capacity in sections of Councils gravity wastewater pipelines in Ōmokoroa Road. However this capacity issue will not become a problem until full development of the future Stage 3 Structure Plan area is nearing completion. It is considered that the capacity issues will be resolved over time and the site if developed ahead of Stage 3 will not affect the current capacity.

8) The capacity of Councils water supply network has not been modelled by the applicant. There are assumptions in the Services Report that the network is designed for full development in the Stage 2 Structure Plan area. Within the s92 request the applicant proposes that Lysaght Consultants works with WBOPDC engineers to carry out the necessary modelling of the area, and to identify whether any off-site upgrades are required. This should be undertaken prior to granting consent to confirm capacity. If any upgrades are required, conditions of consent will need to be imposed.

- The applicant has now stated that as the site is zoned commercial, they assume that sufficient water supply will be planned for by Council.
- Council staff consider this an outstanding matter to be resolved prior to granting of a resource consent.

9) The feedback from Powerco appears to be somewhat ‘light weight’ and leaves the door open for PowerCo to demand upgrades later on. Council are not comfortable with this as it could result in changes to the site layout and servicing. Will a series of street level transformers be sufficient, or will a substation be needed? Powerco have recently indicated to Council as part of the Stage 3 Structure Planning, that a substation will be required. However, there are no sites identified for this under Stage 3 structure planning. It remains uncertain as to whether the site can be served in the interim with transformers.

- The applicant has stated that consultation is ongoing with PowerCo.

176. Mr Lawton also considers there to be outstanding matters in relation to:

- Modelling of water supply network and confirm capacity, this can then inform consent conditions
- Further detail and cross-sections confirming the suitability of the under width 20m road reserve to contain services, street trees, carparking and vehicle/commercial vehicle manoeuvring in accordance with Development Code requirements. The applicant has not satisfactorily demonstrated why Council should accept a non-complying road width.
- Underground spring management has not been satisfactorily resolved as Council will not accept subsoil drains under substantial building structures.

177. In giving consideration to the above referrals and the identified outstanding matters from Mr Lawton, I consider that all the matters can be adequately managed through suitable conditions to ensure the effects are acceptable. With specific regard to the road cross-sections and the proposed 20m width of the road, the applicant has provided cross-sections which show an indicative services layout including carparking and street trees. Suitable conditions can be

imposed to ensure the cross-sections are achieved, without compromising the street trees, carparking and services layout

Earthworks and Geotechnical Effects

Geotechnical Matters

178. A Geotechnical Investigation Report (GIR) prepared by CMW Geosciences was provided as part of the application details to confirm the suitability of the site development as set out in the application details (Appendix 8 included at **Attachment 1**). The report identifies the geotechnical nature of the site, and recommendations for matters which will need to be mitigated through a detailed design process.

179. The GIR identifies a building line restriction which has been taken into account by the applicant when preparing the Master Plan. The GIR key findings are:

- The proposed town centre development is considered to be geotechnically acceptable
- The work will not worsen the instability of the site
- There is no increase in instability to other properties
- Is not at risk from issues of instability arising from both on-site and off-site (i.e. landslip originating from an adjoining property)

180. Further information was requested by Council in relation to the GIR, proposed earthworks and retaining walls (refer Items 32-37 included at **Attachment 3**) to enable Council to better assess such effects from the development, and in relation to Rule 12.4.1.

181. The AEE states at section 4.2.1 that localised retaining will be required around the site, which will be kept at a minimum and does not include any further details. However, the GIR notes that based on the architectural plans and site contours, earthworks will include cuts and fills supported by engineered designed retaining walls.

182. The further information response provided an update to the GIR (refer Attachment 14 included at **Attachment 6**). The response provided updated information in relation to the category of Geo-Professional who provided certification and a Cert 10b form.

Bulk Earthworks and Construction Matters

183. The application originally proposed to undertake large scale earthworks of approximately 50,000m^3, in order to allow for development of the town centre. While preliminary earthworks design has been undertaken the quantity is to be confirmed following the detailed architectural and engineering design, which will affect the finished contours. The application notes that earthworks are a non-complying activity. Preliminary earthworks drawings were provided within the architectural plans (refer sheets 2.1.03, 3.1.10 & 3.1.11 of Appendix 3 included at **Attachment 1**).

184. Further information in relation to earthworks was requested by Council in relation to earthworks (refer items 32-33 included at **Attachment 3**).

185. The further information response provided cut and fill plans and retaining wall location and cross-sections plans (refer Attachments 12 & 13 included at **Attachment 6**). The latest cut to fill plan shows that the fill will actually be 113,500m3 (solid measure). The cut and fill plan is not well supported by corresponding cross-sections. This volume of fill will expand to approximately 158,000m3 truck measure of imported material.

186. No further details under the s92 response were provided in terms of an assessment of effects of the bulk earthworks or construction works. The purpose of Rule 4A.5 of the Operative District Plan is to maintain natural character and amenity values by retaining existing landforms, natural features and significant vegetation; avoid creating new or exacerbating existing natural hazards; ensuring practical building sites and effective stormwater flow paths.

187. The application states that bulk earthworks and construction of the road/utilities network will be undertaken in fill as part of stage 1 of the development. The applicant has provided no further details or assessment of the period of the bulk earthworks and construction works will likely extend over (i.e. months/years) or the period for construction for the remaining stages as the development progresses in stages across the site. The applicant has not undertaken an assessment of effects in relation to potential amenity effects such as noise, traffic and access on adjacent properties and as such I cannot be satisfied as to the actual and potential amenity or traffic effects.

188. The application also did not include an indicative Construction Management Plan showing how effects on the adjoining neighbours could be minimised.

189. In order to determine the actual and potential effects of bulk earthworks and construction effects, the applicant is required to provide further information in relation to an assessment of actual and potential effects of bulk earthworks and construction activities.

190. This information was requested as part of the s92 request, but never adequately responded to.

191. The information required by Council includes but is not limited to:

- the total expected volumes of cut to fill and the volume of material to come from off site,
- the number of truck movements for filling,
- the time period for filling and bulk earthworks,
- hours of operation,
- the effects on amenity values of the surrounding area,
- vibration, noise, visual amenity,
- effects on the transportation network and other infrastructure,
- effects on safety of road users and vehicle accessways,
- indicative Construction Management Plan addressing the procedures to manage and control these off-site effects. This includes a communication strategy with adjacent landowners.

192. It is also appropriate to include a construction noise condition based on the standard (NZS 6803:1999 'Acoustics – Construction Noise') in the District Plan.

193. The applicant has provided supplementary information (included at **Attachment 9**) with regard to the proposed earthworks. They state that a further earthworks model has now been prepared which estimates 80,000m3 of imported fill is required for the site and states that the Ōmokoroa Road upgrade pavement design should take into account the likely projected construction traffic.

194. Council staff have reviewed this response and consider that it does not sufficient address the matters raised in the information requirements (section 186) above to assess the amenity effects from the earthworks as a non-complying activity. This remains an outstanding matter which needs to be further addressed by the applicant, however subject to appropriate conditions and taking into account the required Bay of Plenty Regional Council consents, on-site construction activities can be adequately managed through strong conditions of consent to an acceptable level.

Referrals Comment Summary

195. In addition to the above, Mr Lawton also considers additional clarification is required:

- Location of the retaining wall including footings in relation to the southern boundary will create a 'dead area' area which is not easily accessible from the property for maintenance etc. What is proposed for this 'dead area' between the boundary and the

retaining wall? i.e. planting to mitigate the visual effects (including graffiti). Who will maintain this area of land and can it be accessed from the site or will access be required over the adjacent property?

- the applicant has responded stating the neighbouring site, being the school grounds are likely to allow relatively straight forward access to the wall face. Also, that it may be possible to do away with the wall if the applicant batters out into the school property.
- Council staff have reviewed this response and note there has been no agreement provided from the Ministry of Education to enable access or a batter nor an indicative easement for access shown on the scheme plan.

- Confirmation of the area the retaining wall will require adjacent to the southern boundary and if this will impact on the proposed carparking and landscaping adjacent to this boundary. Further detail is required from the applicant.
  - the applicant has stated that there is 3m between the top of the wall and the carpark which should be sufficient.
- There has been no engagement with the Ministry of Education as to the designated school site at the southern boundary and if the retaining wall and earthworks will impact their possible site layout or design.
  - the applicant states that engagement with the Ministry of Education is ongoing.

Noise Effects

196. The proposed development incorporates residential, commercial, retail and entertainment activities, in addition to a childcare centre. The effects of future activities will be subject to individual compliance with the noise standards of the Commercial Zone. However the receiving environment to the north of the site is residential, which is different from the underlying commercial zone.

197. The AEE states that the noise effects of future activities will be subject to individual compliance with the noise standards of the Commercial Zone. It states that there are no special setback considerations required at the boundary between the commercial zone and adjoining residential development to the north due to the underlying commercial zone.

198. The proposal locates residential activities towards the northern and western boundaries of the development area which are expected to provide some separation between the adjacent sensitive residential sites and the true commercial activities.

199. The AEE states the town centre will comply with the District Plan noise standards and therefore the noise effects will be acceptable. No supporting information was provided with the application to confirm that the proposed activities and layout/design would comply with the District Plan noise standards.

200. Following the close of submissions and in order to better understand noise effects on adjacent residential dwellings both within the site and external to the site, further information was requested by Council in relation to noise effects, (refer Item 14, included at **Attachment 3** and Item 7 included **Attachment 5**).

201. The further information response provided an additional assessment in relation to noise effects and an Assessment of Noise Effects prepared by Earcon Acoustics (refer Attachment 20 included at **Attachment 6**). The intent of the report is to assess noise effects from traffic associated with the proposed development, which includes:

- Predictive modelling of noise propagation from operational and traffic noise sources.
- Assessment of noise levels against relevant regulatory and standards-based criteria.
- Consideration of practicable mitigation measures for the control of noise.

Referral comments summary

202. The application was referred to Council's Compliance and Monitoring Manager Ms Alison Curtis for comments in regards to noise effects (included at **Attachment 7**).

203. I rely on Ms Curtis assessment of the actual and potential noise effects in relation to the development including a review of the Acoustic Report provided as part of the s92 response.

204. Ms Curtis states that the site is proposed to be mixed use with section 19.5 of the Operative District Plan providing for the development of a Ōmokoroa Commercial area Master Plan which includes the proposal for mixed use zones. Specific amenity considerations and development of rules to apply requirements for mixed use zones have not been undertaken by Council and defined by the District Plan as Council has not yet prepared the Master Plan.

205. Ms Curtis notes that Council does not have mixed use zones catered for in the District Plan (which would provide for mixed residential and commercial activities in one area), and the application of the very limited residential accommodation noise levels within the existing commercial and industrial zones is not appropriate. Ms Curtis states that the upper floor residential was included to provide "caretaker" type residences within the commercial zone directly associated with an activity, i.e. owner/occupier business. Specific mixed-use large scale residential development has not been assessed as part of the District Plan.

206. Noise considerations in a mixed-use zone look at the wider implications of the specific residential receiver properties and the effects of high density living. Ms Curtis considers the residential environment for those properties within the commercial area needs to address noise from activities external and internal to the building. Those matters that will require consideration include:

- Internal building noise transmission for residential separate titles vs single ownership,
- Internal building noise transmission for mixed residential and commercial use,
- External noise sources and providing internal noise levels that provide a high degree of residential amenity,
- Ventilation requirements for fresh air versus air conditioning and how these will be assessed- building code, building consent assessment, resource consent assessment and acoustic certification following construction.

207. Ms Curtis recommends the following information be required from the applicant prior to the resource consent being issued:

- Earthworks and development –

  Required: Specific commentary on the application of the construction noise standards in relation to the long term management of noise from the site should be made in the Acoustic report, e.g. construction noise management plan for truck movements, earthworks, foundation construction (sheetpiling etc).

- Residential accommodation –

  Required: Detailed noise levels (predicted) at the building façade for all the residential buildings is required. Buildings N, and G are most likely to be affected by noise from outdoor sources day and night from the hospitality venues at buildings L, K, J and F, outdoor community spaces, childcare facility, and buildings machinery and plant.

  Required: Detailed assessment of the construction details (STC ratings) for external façade attenuation.

- Noise source modelling

  Required: modelling of all potential noise sources, and the receiving environment (levels to be specified per building and activity):

- Hospitality/café venues - in buildings L, K, J, and F are part of the proposal and need to be factored into the modelling. These could include bars/entertainment venues.
- Outdoor spaces - community spaces "plaza" adjoining building F, the glass roofed gazebo and the terraced area between buildings L and I.
- Traffic noise associated with servicing of the commercial spaces - truck deliveries etc
- Mechanical ventilation sources for all residential and commercial operations (assume building based plant e.g. rooftop or central ventilation systems, not individual units).
- Rubbish management for hospitality (glass breaking impact Lmax) on residential space

- Childcare Care

  Required: assessment of the control measures, including building design, hard/vs soft outdoor surfaces, siting of outdoor activities through design, height/type of screening and draft noise management plan

208. In giving regard to the assessment above, and the recommendations from Ms Curtis, I am of the opinion that the noise effects can be adequately managed through appropriate conditions of consent to an acceptable level.

Economic Effects

209. The application includes an economic report prepared by RCG (refer Appendix 10 included at **Attachment 1**) which reviews the earlier economic reports that supported the original zoning including a revised report by Property Economics(that was commissioned by Foodstuffs in 2013), and a report prepared by RPS in 2018 prepared for the Ōmokoroa Stage 3 Structure Plan. The report also considers the practical issues with the Tralee Street commercial area and provides an assessment of the four Ōmokoroa Stage 3 Structure Plan options Council consulted on in 2018.

210. The report summary of key points finds that Ōmokoroa is still at an early stage of its development, although growing fast. Tralee Street is the other noteworthy retail area on the peninsular, however due to its size and location, will only ever serve part of the Ōmokoroa catchment. The earlier RPS Group reports recommend a 3.5ha town centre, excluding roads which is similar in size to the proposed town centre.

211. In terms of effects on other retail/commercial developments, sales in other centres can lead to a reduction in amenity and quality of the existing centres. This can be a significant economic effect. The report considers the Tralee St commercial centre to have the highest degree of competition. The RPS report states that the concern is less around the economic impacts that the town centre would have on other commercial areas, but more the economic impacts that Tralee Street commercial centre could have on the town centre.

212. The view of the RCG report is that the proposed site has similar locational characteristics as the town centre sites identified in the Stage 3 Structure Plan consultation options 1-3. The report notes that a supermarket is likely to be the main 'anchor tenant' which could be supported by a range of convenience, food and beverage and service activity initially.

213. The report notes that in the event that Fresh Choice (at Tralee Street) were to close, it is unclear if this would be a significant adverse effect. The report does not consider the social and economic impact of a closure on the other existing and consented commercial businesses. The report concludes that there is a negligible chance of significant adverse economic effects on Tralee Street and limited to 'trade competition' only.

214. As part of the Stage 3 Structure Plan process which Council has been undertaking, RPS Group have provided an update to their 2018 economic review (included at **Attachment 8**). The report

considers three potential town centre locations being Site 1: a site between SH2 and the proposed Francis Road realignment, Site 2: the corner of Prole Road and Ōmokoroa Road and Site 3: this site (404 Ōmokoroa Road)

215. The RPS Report undertakes a comparison of the three possible town centre sites being investigated as options under the Stage 3 Structure Plan preparation. The comparison utilises a multi-criteria analysis with consistent assessment criteria as outlined at section 5.1 of the Report. The Report notes that the successful delivery of a Town Centre site should consider how other uses such as active reserves, local park, wider residential and employment (including industrial) can be located and delivered within the structure plan area.

216. Table 6 provides an evaluation of the three sites and conclusion:

Site 1: Not considered to be a workable outcome due to slope, roading uncertainty and lack of a proximate and sizeable residential catchment.

Site 2: The preferred site as it can deliver the best outcome for the community with the lowest risk profile.

Site 3: Likely to be a workable site, however, delivery and community benefits will be compromised by the built form response to the terrain. The outcome can be improved if retail and commercial uses occupy 4 hectares, and the balance of the currently zoned area is developed as residential.

217. The RPS Report concludes:

"Site 2 on the corner of Prole Road and Ōmokoroa Road is the preferred location for the Ōmokoroa Town Centre.

The flat site and proximity to a sizeable walkable residential catchment provide the best opportunity to deliver a range of retail, commercial and community uses that deliver the greatest overall benefit to the community."

Referrals

218. Council's Strategic Property Manager and Resource Management Manager have reviewed the application and both requested confirmation as to whether the proposed supermarket had been 'truth tested' with a supermarket operator to determine whether size, location, and servicing factors were suitable. This is due to the applications heavy reliance on a supermarket as an anchor tenant for the town centre.

219. The question was asked under the s92 request and the s92 response stated that discussion was being undertaken with a supermarket operator, however no further information was provided. Given the existing Fresh Choice in Ōmokoroa and submission received from their owner Woolworths NZ Ltd, and the Foodstuffs Group land owned close to SH2, there remains a question around the viability of the development if a suitable anchor tenant cannot be identified. This matter has not been addressed by the applicant.

Cultural Effects

220. There are no historic buildings or structures, significant trees or heritage features identified by the District Plan on this site.

221. The applicant had written to Pirirākau, Ngati Taka and Ngati Ranginui prior to lodging the application with Council. The application notes that consultation will be ongoing, and no formal comments, Cultural Impact Assessment or consultation response was received prior to lodging the application.

222. As part of Council's resource consent referral process, the application was referred to Pirirākau, Ngati Taka and Ngati Ranginui. Pirirākau and Ngati Taka both responded stating they would be meeting with the application on site to discuss. No further referral comments were received.

223. During the submission period, Council received a neutral submission from Pirirākau Incorporated Society

"We seek ongoing engagement with Jace Investments Ltd to enshrine cultural mitigation within the project as outlined by a Memorandum of Understanding between Jace Investments Ltd and or Craig Lemon."

224. I have contacted Ms Julie Shepard at Pirirākau to discuss the submission and if a Memorandum of Understanding has been reached between the parties. Ms Shepard has stated that engagement is ongoing with the applicant.

225. No adverse cultural effects are anticipated and a suitable condition of consent can be imposed in relation to engagement with hapū at the time of earthworks, and in relation to ongoing engagement and involvement is other cultural aspects such as tree planting, historical sign boards, road naming etc.

Archaeological Effects

226. An archaeological assessment prepared by Ken Phillips - Archaeology BOP (refer Appendix 11 included at **Attachment 1**) was provided as part of the application details. This report outlines there are no known archaeological sites within the site, however there are several recorded sites in the near vicinity and wider Ōmokoroa area representing elevated defended pa and undefended settlement and cultivation. There may be also undiscovered subsurface sites. Given the close proximity of recorded archaeological sites and frequent discovery of previously unrecorded archaeological sites during developments on the Ōmokoroa Peninsular, there is reasonable cause to suspect that unrecorded archaeological sites will be encountered during earthworks at the site.

227. The archaeological report recommends a program for the mitigation of effects on possible intact archaeological features during the site earthworks be established prior to commencing any ground disturbance. This will include an authority from Heritage New Zealand (HNZ) to damage or destroy unrecorded archaeological sites on the property during development.

228. The application was referred to Heritage New Zealand for comment, and HNZ advised it concurs with the archaeological assessment undertaken by Ken Phillips, and that an archaeological authority is required for the proposed works.

229. A suitable Advice Note related to archaeology would be included for any consent granted. The application details outline that an authority to modify will be applied for from Heritage New Zealand with respect to any unrecorded archaeology.

Reserve to vest, Public Realm and landscaping

230. One drainage reserve is proposed within the development, being Lot 102 located at the head of the gully at the northern boundary of the site.

231. Rule 12.3.2.1 of the Operative District Plan 2012 outlines that, as a controlled activity, in any zone, lots can be created for the purposes listed, including (b) 'where land is to be set aside or vested as reserve' and (c) 'where land is to become public open space owned by Council', without having to comply with the minimum lot sizes and other minimum standards for lots which would otherwise apply within the zone, provided the balance area of any subdivision complies with the relevant standards of 12.4 of the District Plan, namely the activity performance standards including 12.4.1 Site Suitability.

232. The application includes within the Urban Design Statement (UDS, refer Attachment 8 included at **Attachment 6**) details relating to public space and landscaping. The Statement recommends that a mix of hard and soft landscaping should be used throughout the development to enhance amenity and help break up carparking and hard surfaces. Planting will seek to integrate with native flora in the surrounding context, including the gully of trees in the north west of the site. The terraced area at the head of the gully reserve will have a strong pedestrian focus with paved walkways and may be used as a focal point for future Ōmokoroa market days.

233. The UDS states that a network of parks, reserves and green corridors is proposed throughout and around the edges of the town centre, encouraging biodiversity and amenity. However, on review of the Landscape Masterplan included within the UDS, it would appear the only reserve

or green space area proposed is in the head of the gully. The only other green space within the development appears to be associated with dwelling gardens at Buildings H1-3 & G, street trees and screen planting along Ōmokoroa Road. There is also a small area of green space adjacent to Building N, however it is unclear if this would be considered public reserve.

234. The stormwater network and overland secondary flows are proposed to be discharged to the gully, via the Drainage Reserve (Lot 102). Section 4.7.3 of the AEE states that this discharge will require an outfall with energy dissipation devices such as rock armouring of the gully floor to prevent scour.

235. The application does not include any detail or discussion around how both stormwater discharge and amenity/planting of the gully will work together.

Referral

236. Council's Reserves and Facilities team has reviewed the proposed development in relation to the proposed Local Purpose drainage reserves and make the following recommendations:

- Sec. 4.7.3 of the application states that the stormwater network will be completed during the detailed engineering design stage to follow. The Reserves and Facilities team anticipates that this will include associated design details for the gully (Drainage Reserve Lot 102) in accordance with point 1 and point 3 of this referral response.
    - In the supplementary information provided (included at **Attachment 9**) the applicant states that the interface and walkways through the drainage reserve will require detailed design as will any stormwater reticulation through the drainage reserve and any specific outlet design.
- In the application the proposed Drainage Reserve will also contribute aesthetic and recreational benefits for the development and the Ōmokoroa community. Consequently, this referral response also anticipates an appropriate consent condition to reflect due presentation treatment of the Drainage Reserve to enable:
    - The aesthetic and recreational opportunities that are inferred in the application;
    - The aesthetic and recreational treatment of the Drainage Reserve is in sympathy with its drainage function;
    - Practicable legal access by Council for ongoing maintenance and future development of the reserve as may be necessary.

Note – the applicant has agreed a condition of consent is appropriate.

- Many of the plant species indicated at section 7 of the "Ōmokoroa Town Centre Design Guidelines 30 Sept 2020" (refer Attachment 8 included at **Attachment 1**) are well suited to site; however, some species are not – indeed, a couple are contrary to the Development Code 2009 AP2&3.
- To avert future structural problems to street infrastructure and community problems with respect to excessive leaf litter, rat habitat, over-shadowing, loss of views in the neighbourhood, etc., we recommend that detailed plant species lists and planting design plans are required to be submitted for Council comment/alteration as may be required and approval prior to planting.
- With respect to a possible condition about availability of locally sourced native trees, it may be appropriate for such a condition to be more specific to ensure that any Council approved tree species which meet agreed standards and can be sourced through Pirirakau shall be obtained from that source.
- Until the applicant presents detailed landscape design and planting plans for approval, the Reserves and Facilities team has no further requirements or conditions at this stage.

237. The applicant has reviewed the other matters above and agrees that detailed planting plans can be prepared as a condition of consent (comments included at **Attachment 9**).

Civic Space

238. The application proposes a civic building near the head of the gully which will be a focal point of the centre and link to the market/plaza area at the head of the gully. This assists the town centre in providing functional and alternative mixed use for the development.

239. The civic building has been designed to face the head of the gully and overlook the proposed market place area. This ensures an active edge to the reserve and creates a focal point. Undercroft parking is also proposed under the civic building which will also provide a covered area for the market place.

240. Council's Strategic Property Manager has reviewed the proposed development, and in particular noted the following:

- The civic space is too small. It would likely need to be double (i.e. 1400m2).
- There is no consideration of CPTED principles
- There is little public green space for community activities e.g. markets, civic ceremony's

241. As no pre-application consultation had been undertaken with Council staff, under the s92 request I requested further details and assessment of the proposed use of the civic building and plaza and suggested engagement with Council's Strategic Property Manager as to the size and suitability of the proposed building, location and market place area (refer item 5 included within **Attachment 3**).

242. Following the s92 request and the close of submissions the applicant meet with Council staff including Council's Strategic Property Manager Mr Blaise Williams to discuss the civic building and market space.

243. The outcome of discussions with staff was for a larger civic building including a hall which could be used for multi-purpose activities and public gatherings, Council office space, break out rooms and public reception space, with approximately 1900m2 gross floor area to be provided. It was also requested by Council staff that the market/plaza area be increased in size from approximately 800m2 to provide for larger gatherings of 400 people. Council's Strategic Property Manager also confirmed that Council would require ownership of the civic building.

244. The s92 response showed a reconfigured and larger civic building of approximately 1900m2, the market place increased to 1400m2, and a reduction in the size of Building L was made to allow for the larger more open market place/plaza. This will be of a sufficient size for some cafes and restaurants to have permanent alfresco dining, enable street art, bicycle parking and flexible market space. The applicant has included other market place examples (refer Attachment 6 included at **Attachment 6**) against which the area would likely be modelled.

245. The s92 response was referred to Mr Williams for review and comments. Mr Williams confirmed that the applicant had engaged with him and the proposed civic area and building was now acceptable in terms of size, dimensions and layout.

Safety and Security (Crime Prevention through Environmental Design - CPTED)

246. Following the s92 request for further information on CPTED principals in relation to the proposed underground carparks (refer item 6 included at **Attachment 3**), the s92 response provided further analysis of the CPTED principles.

247. The response states that access to underground carparks will be determined by the operating hours of the buildings above. While carparks are open, surveillance within carparks will be informal, from respective users and staff and formal from CCTV cameras. Multiple access points including stairs/ramps up to the supermarket and vehicle access from the northern end of building B provides options when entering and exiting the supermarket underground carpark. Underground carpark areas will be lit to ensure visibility is optimal for a large underground car park area.

248. I consider the effects in relation to CPTED to be less than minor.

Financial contributions

249. Growth in the District needs to be supported by infrastructure provided at appropriate levels of service. Financial contributions from development are imposed to mitigate potential adverse effects on the environment. If consent is granted, a review condition will be imposed to ensure that the infrastructure costs may be fairly recovered at the time that the subdivision consent stages proceed to a Registered Title.

250. A special assessment of the financial contributions has been provided as part of the s92 response information.

251. Financial contributions are payable in relation to the additional demand from activities and services created and will be applied in accordance with Section 11 – Financial Contributions of the District Plan.

252. If consent is granted financial contributions would be payable.

Subdivision Performance Standards

253. As a subdivision and development in the Commercial Zone a comprehensive assessment of effects against the relevant Activity Performance Standards for subdivision and development is required, including:

Rule 12.4.1 – Site Suitability

Rule 12.4.2 – Contaminants in Soil

Rule 12.4.3 – Extension of Services

Rule 12.4.4 – Transportation and Property Access

Rule 12.4.5 – Stormwater

Rule 12.4.6 – Wastewater Drainage

Rule 12.4.7 – Water Supply

Rule 12.4.8 – Network Utilities.

254. The application details provide an assessment against the District Plan provisions (refer AEE section 3.2 included at **Attachment 1**), and a geotechnical report prepared by CMW (refer Appendix 8 included at **Attachment 1**) outlines further the suitability of the site for development.

Referral Comments – Development Engineering

255. Council's Senior Land Development Engineer Mr Ken Lawton has reviewed the application and advises that following review of the application detail and the s92 further information response Council supports the development in principle from an infrastructure requirements perspective. However, there are unresolved infrastructure issues that need to be resolved in order to provide Council certainty in formulating robust engineering consent conditions. The applicant seeks to rely on detailed design being provided at the Engineering Design Approval stage to confirm a number of matters.

256. Mr Lawton states *"Overall there is a lack of detail provided in the application for earthworks, transportation, servicing and the 'built' environment. Compliance with Councils standards has not been adequately demonstrated. The application report tends to rely on resolving these through the engineering design process which Council officers consider inappropriate. This philosophy is carried through to the section 92 responses. It is considered that if these matters can be satisfactorily resolved, suitable conditions can be formulated to support the application"*.

257. I have considered Mr Lawton's outstanding matters and consider it appropriate to impose conditions of consent to manage these matters at the engineering design stage.

Positive Effects

258. Almost all the submissions in support of the application were in relation to the economic benefits of the proposed development for Ōmokoroa and wider District.

259. Positive effects do not pertain to the specific assessment criteria, however these are still considered relevant with respect to how the proposal aligns with the aspirations of the Ōmokoroa community. While the application has not specifically identified any positive effects on the environment associated with the proposed town centre how I consider the following to be positive effects:

- Employment opportunities and growth
- Economic benefit to Ōmokoroa Peninsular with dedicated town centre
- Reduction in SH2 traffic to other regional commercial/retail areas
- Live, work, play opportunities for positive social benefits

SUMMARY OF EFFECTS

260. In considering the above assessment on the actual and potential effects I consider the proposal will or is likely to have adverse effects on the environment that are considered less than minor, minor and more than minor. Those effects which are considered to be more than minor are transportation effects and earthworks effects as outlined above. However I considered that these effects can potentially be mitigated to an acceptable level subject to appropriate conditions of consent should consent be granted.

261. On balance I consider the actual and potential effects of the proposal to be minor and the proposal therefore passes the first test of s104D(1)(a) of the RMA.

OBJECTIVES AND POLICIES OF THE OPERATIVE DISTRICT PLAN

262. As a non-complying activity, regard must be had to the relevant objectives and policies in the Operative District Plan.

Commercial Zone

263. The relevant objectives and policies within Section 19 (Commercial Zone) are as follows:

19.2.1 Objectives

1. *Consolidated commercial centres that are vibrant commercial environments that encourage social and cultural interaction.*
2. *Well designed commercial centres which reflect accepted urban design principles.*
3. *Convenient and safe commercial centres.*
4. *Commercial development of a scale that is appropriate for the location.*
5. *Public, civic and private space that relate well to each other.*
6. *Commercial centres that have a high level of amenity.*
7. *Commercial Zones in which commercial activities can operate effectively and efficiently, without undue restraint from non-commercial uses which may require higher amenity values.*
8. *Important heritage buildings and landscape features are retained.*
9. *An efficient network of road, cycle and pedestrian linkages connecting the District's commercial centres to surrounding urban areas.*
10. *The development of commercial centres and associated transportation networks that enhance social, economic and cultural activity through attention to design detail and the integration of the public, civic and private places nearby and therein.*

11. The development of town centres that complement adopted documents compiled with the respective communities such as town centre plans and comprehensive development plans.

264. In having regard to the objectives above I consider the proposal to be mostly consistent with the objectives 1-11 for the following reasons:

- The Master Plan shows a consolidated commercial area with mixed use residential incorporated to ensure a vibrant commercial environment.
- The architectural plans show a high level of design can be achieved throughout the development to reflect accepted urban design principles.
- The applicant has indicated the development can comply with CPTED requirements to provide a safe commercial centre.
- The Urban Design Statement and architectural plans show the development is at a scale appropriate to the location, especially with the inclusion of residential sensitive activities adjacent to the neighbouring Kaimai Views subdivision.
- The proposed market/plaza and civic space can be seen to interact well together with the surrounding buildings and reserve area providing a high degree of amenity for a public focal point.
- Landscape features can be retained and enhanced through the development of the gully head and public market space to achieve connection to the Ōmokoroa walkways and other reserve space.

Transportation, Access, Parking and Loading

265. The relevant objectives and policies within Section 4B (Transportation, Access parking and Loading) are as follows:

Section 4B - Transportation, Access, Parking and Loading

4B.2.1 - Objectives

1. To provide an integrated, efficient, safe and sustainable transportation network that supports the social and economic wellbeing, and land use pattern of the sub-region as defined in this District Plan and that maintains or enhances the regional strategic linkages.

2. To provide for more efficient land use, development and subdivision of existing areas in a way that recognises and integrates with the functions of different road types, transport modes and the defined transportation network.

3. To encourage the use and development of alternative modes of transport including, but not limited to, public transport, cycling, walking and other non-vehicular forms of transport that provide for an integrated, efficient, safe and sustainable transport network.

266. The applicant has stated that transportation outcomes reflect these objectives and provide for a low speed multi use environment. Council acknowledges and recognises that the internal road network, as a shared space, must be safe for all users. The applicant states carparking for both visitors and staff will be provided for within the town centre, with on street car parking and specimen tree planting helping to slow the traffic speed of the high street. The location of carparks has been carefully placed throughout the town centre to avoid having a dominant large tar seal area. The southern car parking area provides for weekend use of the school fields being located immediately adjacent. It is considered that this will help the town centre to be vibrant throughout the week and weekend.

267. Key pedestrian cycle and vehicle connections make the town centre permeable, encouraging connections from adjacent sites and promoting sustainable forms of transport. The application states there has been consideration of the existing public transport routes and also future alternative routes once the town centre is established will provide for multi modal transport options.

4B.2.2 - Policies

2. To avoid, remedy or mitigate the adverse effects of land use, development and subdivision on the safety, efficiency, sustainability and capacity of the transportation network.

3. To manage the land use, development and subdivision of areas to achieve compatibility with the roads they front and the wider transportation network, with particular regard to the potential effects on that network, including, but not limited to, the safe and efficient provision of site access at the local level and intersections within the wider network and the effects of reverse sensitivity experienced between the operation and use of the transportation network and the establishment of adjacent land uses.

5. To recognise and provide for network wide effects of land use change on transport networks by assessing the effects of land use change across the networks affected.

6. To recognise and provide for the function of each road as described in the road hierarchy, and provide for the efficient use of that road type, by managing the intensity and form of land use, development and subdivision that impact on these roads.

7. To encourage the efficient use of land particularly in identified land use zones to reduce the potential impacts on the transportation network.

8. To ensure land use, development and subdivision planning provides for the implementation of multi-modal transport activities including public transport, walking and cycling facilities that address the identified need for new facilities/networks or enhance existing facilities/networks.

9. To maintain or enhance the sustainable and efficient use of arterial and collector roads through the use of transport optimisation methods and techniques (for example traffic demand management) that encourage adjacent land uses to provide access in keeping with the function of the road in the roading hierarchy and support alternative modes of transport.

10. The access, parking and loading effects of activities on the transportation network shall be avoided, remedied or mitigated with particular regard given to the level of service the road provides within the District's roading hierarchy.

11. Activities should be established and operate in a manner which ensures safe and effective on-site and off-site vehicle parking, manoeuvring and access and pedestrian access.

12. Provide safe, usable and attractive networks and associated linkages for pedestrians, cyclists and motor vehicles.

268. These objectives and policies provide direction in regard to how the development integrates with the safe and efficient functioning of the transport network. While there may be some engineering design elements to work through should the proposal be granted, the overarching policies are considered to be met. The proposal will create roads to vest, public market/plaza space and links to public walkways in accordance with the Development Code as shown in the scheme plan.

Amenity

269. The relevant objectives and policies within Section 4C (Amenity) are as follows:

Section 4C - Amenity

4C.1.2.1 - Objective

- *An environment free of unreasonable noise in accordance with the character and amenity of the zone within which the noise is generated and received.*

4C.1.2.2 - Policies

1. Ensure activities do not generate noise levels inconsistent with the character and amenity of the zone in which the generated noise is received.

3. Have regard to any relevant New Zealand standards, guidelines, or codes of practice in the assessment of applications for resource consents.

4C.5.2.1 - Objective

- *Avoidance or mitigation of the potential adverse visual effects of activities situated in prominent locations or adjacent to residential areas.*

4C.5.2.2 - Policy

- *Ensure appropriate landscaping and screening is established in conjunction with activities so as to minimise potential adverse visual impact.*

270. The application does not have specific regard to these objectives and policies.

271. The District Plan prescribes maximum noise limits for the Commercial Zone. Noise is also likely from the earthworks and construction phase and is an outcome of a land development of this scale.

272. However with regard to objective 4C.1.2.1 – consideration needs to be given to the mixed use of the zone and the reasonable noise limits for high density residential living within the development. This could be in the form of stricter night time noise limits and hours of operation for potentially noisy activities to ensure that reasonable noise limits are achieved for the residential dwellings. This can be achieved by suitable conditions of consent following further analysis as discussed in the sections above.

273. Overall the application is consistent with the above Objectives and Policies related to noise.

Financial Contributions

274. The relevant objectives and policies within Section 11 (Financial Contributions) are as follows:

11.2.1 - Objectives

1. Protection of the natural and physical environment and the social, economic and cultural wellbeing of people and communities from the potential adverse effects of new or intensified development.
2. The provision of adequate funding for and efficient utilisation of the District's infrastructure.
5. Timing of development commensurate with the ability to make appropriate provision for infrastructure.

11.2.2 Policies

1. *Actual or potential adverse effects on the natural and physical environment which would otherwise be created by new or intensified development should be avoided, remedied or mitigated through the use of financial contributions and other appropriate measures.*
2. *The effects of new and intensified development on infrastructure in the District should be mitigated through expenditure of financial contributions.*
3. *The costs of infrastructure should be allocated in an equitable manner over both existing and new users so as to ensure that such costs are not borne unfairly by the wider community.*
4. *Calculations to assess infrastructure requirements should be based on the level of service needed to meet peak demand.*
5. *Calculations shall not seek to do more than recoup costs actually incurred in respect of expenditure to provide infrastructure to deal with the effects of growth including, where appropriate, the costs of financing such infrastructure over time.*
6. *Where appropriate, contributions should be levied differentially to reflect the particular circumstances applying to different parts of the District.*
9. *Where appropriate, financial contributions that would otherwise be payable should be reduced or waived in recognition of specific environmental protection or enhancement measures proposed to be undertaken.*
10. *Where appropriate, consideration will be given to the reduction or waiver of financial contributions for recreation and leisure that would otherwise be payable in recognition of a historic oversupply of recreation and leisure land.*
11. *Provide a mechanism whereby a financial contribution can be taken to address or offset localised effects outside any approved development programme, or in lieu of works that would otherwise be undertaken by a consent-holder.*
12. *The full costs of required infrastructure and services should be paid when subdivision and development requires such provision outside an approved development programme.*
13. *Developers who fund infrastructure ahead of time in an approved development programme should be refunded only* at the time that development funds become available.

275. The proposed development will result in additional demand on Council's water, wastewater, stormwater and transportation (roading) infrastructure. If granted consent, then appropriate financial contributions will be imposed by consent condition under s108 of the Act as prescribed through the relevant Annual Plan's schedule of Fees and Charges, to mitigate any adverse effect. We note that the plan requires Recreation and Leisure and Ecological financial

contributions only for dwellings in the Commercial Zone. Accordingly the application is consistent with the above Objectives and Policies.

Subdivision and Development

276. The relevant objectives and policies within Section 12 (Subdivision & Development) are as follows:

12.2.1 Objectives

1. *Subdivision and development that provides for and reinforces the existing built form and local character of an area.*
2. *Subdivision and development is planned in an integrated manner and provided with the necessary infrastructure and services to ensure that the land is able to be used for its intended purpose.*
3. *Infrastructure and services are designed and constructed to minimum standards which will result in improved environmental outcomes without significant additional cost to the community.*
4. *Sufficient infrastructure capacity is provided to ensure the efficient and equitable provision of services to all land in the catchment.*
5. *Comprehensive assessment of development proposals to ensure that the full effect of the proposal is able to be determined.*
6. *Subdivision and development that minimises the effects from stormwater run-off.*
7. *Subdivision design and development that takes into account the principles of optimum energy efficiency and the benefits of renewable energy.*

12.2.2 Policies

1. *All urban subdivision is to have regard to subdivision guidelines contained in the Development Code, Built Environment Strategy and urban design protocols and guidelines which provide urban design outcomes.*
2. *The design of subdivision is in accordance with structure plans.*
3. *Require subdivision to be undertaken in accordance with any staging requirements to ensure the effective and efficient servicing of land within the catchment.*
4. *Require subdivision and development to provide infrastructure and services to meet the reasonably foreseeable needs of other land in the vicinity of the development.*
5. *Require subdivision and development to comply with the minimum standards in the Development Code for the provision of infrastructure and services, or to an alternative standard which is as effective and efficient in the long term and results in improved environmental outcomes.*
6. *Require all subdivision and development proposals submitted to Council to include a comprehensive assessment prepared in accordance with the information requirements of the Development Code.*
7. *Subdivision and development practices that take existing topography, drainage and soil conditions into consideration with the aim of minimising the effects of stormwater run-off.*
8. *Require the design and development of subdivision to reflect the principles of optimum energy efficiency and solar energy gain (in relation to the size and shape of each proposed lot, and the design and orientation of the subdivision as a whole) and generation of renewable energy such as solar water heating.*
9. *Adverse effects of traffic generation from subdivision and development on the transport network will be avoided, remedied or mitigated.*

277. The applicant states that significant consideration to the surrounding environment has been applied during the determination of the proposed layout. The town centre has been comprehensively designed taking into consideration the site constraints and the immediate context, including surrounding subdivisions and uses and also the wider landscape context. The infrastructure for the town centre is either established or is within close proximity to the site and able to be efficiently and effectively extended. New infrastructure will integrate into the existing networks. Capacities have been considered by the applicant and Council's Utilities team and proposed upgrades have been documented in the Services Report. The town centre will be developed in stages with appropriate infrastructure for each stage, with all main services to be installed in the stage 1 development.

278. While the development is not in strict accordance with the Stage 2 Structure Plan requirements, I consider the addition southern slip lane left in and norther left in/left out to be appropriate for the scale of the development. Council's access arrangement preferences (no norther right turn in and no vehicle access from Sentinal Ave) will ensure that main traffic flows are not directed through the narrow residential streets of Kaimai Views. The southern slip lane left turn in will also ensure that heavy vehicle deliveries to the supermarket will be removed from the main town centre road and roundabout.

279. Overall, I consider the application is consistent with the above Objectives and Policies in relation to subdivision and development.

OBJECTIVES AND POLICIES SUMMARY

280. In considering the above relevant objectives and policies, I find on balance that the application will not be repugnant to the objectives and policies of the District Plan. This passes the second limb of the gateway test of section 104D(b).

ASSESSMENT OF RELEVANT PLANNING INSTRUMENTS

281. The applicants AEE has not had regard to or assessed the higher order provisions of the relevant statutory documents, I consider these documents to be:

- National Policy Statements
- National Environmental Standards
- Bay of Plenty Regional Policy Statement (RPS)
- Bay of Plenty Natural Resource Plans (NRP)

282. As an assessment has not been undertaken by the applicant, I have undertaken below an appropriate consideration of the relevant statutory documents listed above.

NATIONAL POLICY STATEMENTS AND STANDARDS

National Policy Statement – Urban Development (NPS-UD)

283. The NPS-UD recognises the need for urban environments to be able to develop and change to meet the needs of people and community's and future generations. The proposal provides for residential development, infrastructure and public spaces that are designed to function as an integrated and cohesive urban development to meet the needs of an expanding urban area, on land intended and zoned for this purpose. Accordingly, I consider the proposal is aligned with the National Policy Statement.

284. The NPS-UD placed new requirements on local authorities within a high-growth urban area. Through monitoring and related projections it has been concluded by Council that there is insufficient capacity within WBOPDC urban areas to meet these requirements. Accordingly, the Ōmokoroa Stage 3 Structure Planning process and plan change is being undertaken.

National Environmental Standard for Assessing and Managing Contamination in Soil to Protect Human Health (NESCS)

285. The Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 ensures that land affected by contaminants in soil is appropriately assessed and made safe for human use.

286. The site has historically supported grazing land and more recently a kiwifruit orchard. Consequently, the site is considered a piece of land on which an activity described in the Hazardous Activities and Industries List (HAIL) has been undertaken. The National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health Regulations 2011(NES:CS) will apply to the proposed activities of soil disturbance, subdivision and a change in land use.

287. This was confirmed by a Detailed Site Investigation (DSI) done and reported by Geohazard Environmental on behalf of the applicant (refer Appendix 9 included at **Attachment 1**). The DSI has established based on a variety of historical information, a site walkover and sampling that multiple HAILs are known or suspected to have been, or currently are, present at the site. The DSI recommended that a restricted discretionary resource consent should be applied for under the NES:CS due to subdivision and land use changes at the site.

288. The applicant has applied separately for a NES:CS consent as the original NES:CS consent was incomplete in May 2020. A separate NES:CS application was received 29 September 2020 for a restricted discretionary activity under regulation 10. As the s92 response was only received on the 29 January 2021, the NES:CS component of the development has not been bundled with the comprehensive subdivision and land use consents for the town centre development.

289. The NES:CS application will be considered separately to this report.

REGIONAL POLICY STATEMENTS AND PLANS

Bay of Plenty Regional Policy Statement

290. The Bay of Plenty Regional Policy Statement (RPS) was made operative on 1 October 2014. The RPS provides a framework for sustainably managing the region's natural and physical resources. It highlights regionally significant issues with land, air, fresh and coastal water, infrastructure and biodiversity, including issues of significance to Iwi. It sets out what needs to be achieved (objectives) and how it will be achieved (policies and methods). The Western Bay of Plenty Operative District Plan is required to reflect the provisions of the RPS.

291. A summary of the relevant objectives and policies in the RPS applicable to this application are set out below:

Section	Objective	Policy
Iwi Resource Management	15, 16, 21	IW 4B (Iwi/hapū management plans - are there any relevant?) IW 5B (adverse effects on matters of significance to Maori)
Urban and Rural Growth Management	23, 24, 25	UG 3A (travel demand management) UG 6A (sequencing of urban growth) UG 8B (High quality urban design and live-work-play principles) UG 9B (co-ordinate urban development and infrastructure) UG 11B (Managing the effects of subdivision, use and development on infrastructure) UG 12B (Quality open spaces) UG 13B (integration of land use and transportation) UG 14B (urban limits) UG 20B (reverse sensitivity)
Water Quality	29	WL 7B (Minimising effects of land and soil disturbance)
Water Quantity	30	WQ 1A (efficient water use) WQ 7B (reducing water demand)
Natural Hazards	31	NH 9B (land is > 5ha) –

Iwi Resource Management

292. The relevant objectives and policies that relate to ensuring Te Tititi o Waitangi are taken into account in achieving the purpose of the act include recognition of te tino rangatiratanga and Kaitiakitanga.

293. A development should ensure iwi and hapū resource management plans are taken into account in resource management decisions. Further, Policy IW 5B requires that when

considering proposals that may adversely affect any matter of significance to Māori recognise and provide for avoiding, remedying or mitigating adverse effects on:

a) The exercise of kaitiakitanga;

b) Mauri, particularly in relation to fresh, geothermal and coastal waters, land and air;

c) Mahinga kai and areas of natural resources used for customary purposes;

d) Places sites and areas with significant spiritual or cultural historic heritage value to Tangata Whenua; and

e) Existing and zoned marae or papakāinga land.

294. The application demonstrates that the proposal will not adversely effect matters of significance to Maori. The applicant has undertaken engagement with local hapū, has undertaken a comprehensive Archaeological Assessment and will continue to work with Pirirākau hapū on cultural and planting opportunities within the town centre.

Urban and Rural Growth Management

- The relevant policies I have considered under this section are below:
- UG 3A (travel demand management)
- UG 6A (sequencing of urban growth)
- UG 8B (High quality urban design and live-work-play principles)
- UG 9B (co-ordinate urban development and infrastructure)
- UG 11B (Managing the effects of subdivision, use and development on infrastructure)
- UG 12B (Quality open spaces)
- UG 13B (integration of land use and transportation)
- UG 14B (urban limits)
- UG 20B (reverse sensitivity)

295. I have read the relevant policies listed above and I am satisfied that the application is consistent with these policies. The development has provided a considered approach to development, taking into account regional and local travel patterns, managing the effects of subdivision, ensuring high quality urban design and providing public open space. UG 14B states that urban activities shall not be developed outside of the urban limits, Map 8 of Appendix E of the RPS shows the site to be located within the Urban Limit (start 2021) and as such the development is consistent with this policy.

Land and Soil Disturbance

296. WL 7B (Minimising effects of land and soil disturbance) is relevant due to the nature and volume of the proposed earthworks on the site. Little information has been provided in relation to the effects of earthworks in relation to District Council requirements, and the applicant has confirmed they have applied for a Regional Council consent to undertake earthworks.

Water Quantity

297. With regards to WQ 1A and WQ 7B, I consider the proposed development to be in accordance with these policies.

Natural Hazards

298. The applicant has not had regard to policy NH 9B (as the overall site is greater 5ha) and accordingly there is no assessment against Appendix L to assess natural hazard risk. The site is not subject to any current District Plan Natural Hazard overlays, and it is subject to non-

statutory mapping of floodable area within the gully area. It is also noted the land area within the site for the proposed development is 5.3ha, with a 2.6ha balance area.

299. The applicant has not commented directly on this policy and the Bay of Plenty Regional Council who have reviewed this application have not requested that the assessment be undertaken.

Regional Natural Resources Plan

300. The relevant section of the RNRP relate to:

- Kaitiakitanga
- Integrated Management of Land and Water
- Land Management
- Natural Hazards

301. I consider the relevant regional plans are the Regional Natural Resources Plan (RNRP) on the basis that the proposal will require earthworks and stormwater discharge. The BOPRC submission states that the on-site systems are unsuitable for a development of this scale. High groundwater will preclude individual on-site systems or a community wastewater system on the larger property. BOPRC state that the applicant will need to design and develop a suitable reticulation system.

302. Overall, given the extent of the construction works, on-site effluent treatment will need to comply with the relevant rules of the RNRP, or apply for the appropriate consent. Accordingly, I consider that the proposal is not contrary to the relevant objectives and policies within those plans.

OTHER RELEVANT MATTERS

Plan change / Structure Plan versus Resource Consent

303. The applicant has chosen to submit an application for resource consent to develop the property rather than request Council prepare a Master Plan for the site or prepare a Plan Change for the Structure Plan area. Given the proposal is not a prohibited activity there is nothing precluding this approach.

Ōmokoroa Stage 3 Structure Plan

304. As outlined in section 26-43 above, in the last 3 years prior to this application being lodged, Council had begun and was working on the Ōmokoroa Stage 3 Structure Plan. The background and history is outlined in section 26-43 where it is clear in the level of detail and community engagement that Council has undertaken as part of working through this process to provide a desired and agreed outcome for the community.

305. The applicant has chosen to disregard this structure plan process which was underway and has not discussed in the AEE the impact of this application on the process Council had been undertaking.

PART II OF THE RESOURCE MANAGEMENT ACT 1991

306. Part II of the Act provides the Purpose and Principles of the Act, principally under Section 5, which provides the overarching framework under which resource management decisions are made. The purpose is defined as:

(1) The purpose of this Act is to promote the sustainable management of natural and physical resources.

*(2) In this Act, **sustainable management** means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while:*

- *Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*

- *Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
- *Avoiding, remedying, or mitigating any adverse effects of activities on the environment.*

307. The proposal has regard to the purpose of the Act in that natural and physical resources are being managed in a sustainable manner.

308. The proposal does not detrimentally affect the potential of the natural and physical resources to meet the reasonable and foreseeable needs of future generations, nor the life supporting capacity of water, soil, air and ecosystems. It is acknowledged that there are effects which require mitigation. This report finds that suitable mitigation can be incorporated to avoid significant adverse effects.

309. The matters in Part II should prevail over other provisions of the Act or other planning documents in the event of their being a conflict between these. Part II includes sections 5 (Purpose of the Act) and sections 6, 7 and 8 which are principles that are intended to provide guidance as to the ways in which the purpose of the Act is to be achieved.

310. The application of section 5 involves a broad overall judgement of whether a proposal will promote the sustainable management of natural and physical resources. The Act's "use, development and protection" are a general indication that all resources are to be managed in a sustainable way, or at a rate which enables people and communities to provided for their social, economic and cultural wellbeing, and for their health and safety, while sustaining the potential of natural and physical resources to meet the reasonably foreseeable needs of future generations, safeguarding the life supporting capacity of air, water, soil and ecosystems, and avoiding, remedying or mitigating any adverse effects of activities on the environment. The enabling and management functions found in section 5(2) should be considered of equal importance and taken as a whole.

311. As discussed, in sections 93 - 254 of this report, the actual and potential effects generated by the proposed development can be mitigated to an acceptable level. The town centre development will provide for the economic wellbeing of the Ōmokoroa community and wider rural catchment, and the social wellbeing of the community by improving the diversity and supply of housing options in Ōmokoroa and providing a live, work, play opportunity.

312. For these reasons the proposal will achieve the purpose of the Act.

SECTION 6 RMA – MATTERS OF NATIONAL IMPORTANCE

313. Section 6 of the Act details 'Matters of National Importance' that Council shall have particular regard to, including the preservation and protection of outstanding natural features, the natural character of the coastal environment, and historic heritage. The activity would not have an adverse effect on any of the stated matters.

314. The matters of Section 6 have been addressed and recognised in the application.

315. The application site currently contains no natural features, landscapes or historic heritage that requires protection.

316. The relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga has been recognised through the town centre proposal as one that has significant positive cultural benefits, with hapū welcoming the opportunity to provide cultural input and assist with planting.

SECTION 7 RMA– OTHER MATTERS

317. Section 7 of the Act outlines 'Other Matters' that Council shall have particular regard to. Those matters deemed relevant are as follows.

(a) Kaitiakitanga

(aa) the ethic of stewardship

(b) the efficient use and development of natural and physical resources:

(ba) the efficient of the end use of energy:

(c) the maintenance and enhancement of amenity values:

(d) intrinsic values of ecosystems:

(e) maintenance and enhancement of the quality of the environment:

(j) the benefits to be derived from the use and development of renewable energy.

318. The proposal represents an efficient use and development of natural and physical resources. Linkages to existing community walkways and cycleways are provided and the market/plaza space provides a focal meeting point for the development. I consider that any adverse effects can be mitigated by the proposed design and layout to minimise the potential adverse effects on surrounding properties.

319. The proposal is considered to be generally consistent with Section 7 of the Act.

SECTION 8 RMA – TREATY OF WAITANGI

320. Section 8 of the Act requires all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi). Regard has been had to the Treaty of Waitangi and it is determined that for this application there are no matters of relevance. Consultation by the applicant has been undertaken with relevant hapū and is ongoing. The use and development of the site will not be contrary to section 8 of the Act.

321. The purpose of the Resource Management Act 1991 requires management of resources and acknowledges the ability to provide for social and economic benefits. However, simultaneously the effects of the activity on the environment, including on natural and physical resources, are required to be avoided, remedied or mitigated.

322. Given the previous assessment, it is determined the application is consistent with Part II.

SECTION 106 RMA

323. Council may refuse to grant a subdivision consent, or may grant a subdivision consent subject to conditions, if there is a significant risk from natural hazards. An assessment of the risk from natural hazards requires a combined assessment of the likelihood of the natural hazards occurring; the material damage that would result from natural hazards to the land where the consent is sought, other land or structures; and any subsequent use of the land that would accelerate or worsen the damage predicted from a natural hazard.

324. The site is not identified within a District Plan Natural Hazard Area, however recent technical information released by Council in November 2020 identifies flooding (from extreme rainfall) and liquefaction on this property. Both studies take into account the effects of climate change. The flooding is based on a 1% AEP (1-in-100 year) event in the year 2130 and shows in a low-lying area running through the property. The liquefaction classification for the majority of the property is “liquefaction damage is unlikely”. This technical report was prepared in accordance with the MfE / MBIE “Planning and Engineering Guidance for Potentially Liquefaction Prone Land “ (2017) to a Level B (calibrated desktop) level of detail. This level of assessment included consideration of data collected from geotechnical investigations and groundwater monitoring undertaken within the study area boundary as defined in the technical report. “Liquefaction damage is unlikely” means a probability of more than 85 percent that liquefaction-induced ground damage will be none to minor in a 1 in 500-year earthquake shaking event. At this stage there isn’t enough information to distinguish between Very Low and Low. More detailed assessment would be required. Following more detailed assessment a classification of Medium or High is also a possible categorisation but based on the information available this is considered very unlikely.

325. The applicant has not undertaken a Natural Hazards Risk Assessment under the Natural Hazard provisions of the RPS, because the development area is less than 5ha I do not consider it necessary to undertake this assessment, and the Bay of Plenty Regional Council have not requested this assessment be undertaken.

326. Based on the above, it can be concluded that under Section 106 the site is appropriate for the proposed subdivision and development, subject to suitable conditions in line with the recommendations of the CMW Geotechnical Report and in relation to minimum floor levels if required.

CONCLUSION

327. After considering the actual and potential effects on the environment of allowing the application, it is my conclusion that adverse effects on the environment will be more than minor as they relate to transport. I consider that these effects have the potential to be mitigated and suitably controlled through conditions of consent, such that they are no more than minor and acceptable.

328. Overall I consider the proposal represents an activity that is envisaged by the District Plan and will not be repugnant to the relevant objectives and policies of the Operative District Plan and accordingly can satisfy both limbs of the s104D “gateway” test.

329. Having considered all of the relevant matters under Sections 104 and 104B it is my opinion that consent should be **granted**.

ATTACHMENTS TO REPORT

Please note that all attachments described within this report can be viewed on Council’s website using the following link:

https://www.westernbay.govt.nz/property-rates-and-building/district-plan-and-resource-consents/resource-consents/current-applications/404-Ōmokoroa-road-public-notification

7.3 SUMMARY OF SUBMISSIONS - JACE INVESTMENTS LTD - 404 OMOKOROA ROAD, OMOKOROA - INDEPENDENT COMMISSIONER HEARING

File Number: **A3995370**

Author: **Barbara Clarke, Senior Governance Advisor**

Authoriser: **Jan Pedersen, Group Manager People And Customer Services**

EXECUTIVE SUMMARY

This report provides the **'Summary of Submissions' (Attachment 1)** received in relation to an application made by JACE Investments Ltd for Land Use and Subdivision Consent to establish a Mixed-Use Commercial Town Centre at 404 Omokoroa Road, Omokoroa. [RC11997L & RC2996S]

FULL COPIES OF SUBMISSIONS

Please note that the full copies of all submissions to this application can be viewed on Council's website using the following link:

https://www.westernbay.govt.nz/property-rates-and-building/district-plan-and-resource-consents/resource-consents/current-applications/404-omokoroa-road-public-notification

ATTACHMENTS

1. **Summary of Submissions - Agenda Copy** ⇩

Submission # (from original List)	Parcel ID	Name	Directly Affected	Support/ Oppose/ Neutral	Wishes to be heard at Hearing	Section 100a	Trade Competitor	Summary of submission
14	1128/14	Phillip Williams & Angela Sayring	No	Support Conditional	No	I do not request	No	We support proposal - conditionally - providing: 1. There is no vehicle thoroughfare with Sentinel Avenue. Due to the lack of green areas/children's play areas, children play on the road. Pedestrian accesses must be retained. 2. The proposed apartment/office block should be relocated closer to the supermarket and redesigned in an "L" - creating acoustic barrier to existing properties.
46	1161/2	Rebecca Harris & James Bray	Not Specified	Support Conditional	No	no selection made	No	Supports the application conditional of the following: 1. Connectivity (ie pedestrian bridge) to existing Kaimai Views walkway (assuming they want one? Not clear in submission) 2. Relocate childcare centre (Building O) and apartment/retail (Building N) within lot 6 adjacent to school & relocate residential activity in proposed in lot 6 by Kaimai Views instead. 3. If (2) is not feasible – apartment building should be limited to 2 storey to comply with DP residential height restriction rules to minimise privacy affects on Kaimai Views residents. 4. Extension of Sentinel Rd connecting proposed town centre should be one way from Sentinel providing convenient access from Kaimai Views only.
56		Fire and Emergency New Zealand	No	Support Conditional	Yes	no selection made	No	Fire and Emergency requires certainty over the details of water supply for firefighting purposes and suitable access for emergency vehicles. Fire and Emergency are satisfied with the access arrangements for this development. larger buildings will fall within greater Fire Hazard Categories and Fire Water Classifications (as defined by the Code of Practice) and will require further detailed assessment by a suitably experie fire engineer at a later date. Fire and Emergency seek consent conditions regarding water supply and access for firefighting purposes being sufficient on site to meet the requirements. Further, also seek consent notices on newly created Record of Titles consequent of this subdivision to ensure that the Code of Practice is complied with during subsequent design and development. – Wording for conditions included submission. Request for engagement during building consent process
68	1207/4229	Caroline Zauner	No	Support Conditional	No	I do not request	Yes	Mostly support proposal – subject to following suggested amendments: Preference for small deli-type supermarket for aesthetics/village feel – large supermarkets belong on the outskirts Limit roads within development to shared pedestrian/cycle traffic with only minimal car traffic/speeds.
1		Brian Edward Gillett	Not Specified	Support	Not Specified	no selection made	No	Support as adjacent to their consented retirement village and will be good for residents and the visitors
2	1975/120	Janice & Derek Fowler Wilde	No	Support	Yes	no selection made	No	* Supports application * Emphasises/requests inclusion of green areas, dog friendly/off leash areas/cafes and quality retail encouraging "Local) * Emphasises the retention of Omokoroa's country feel amenity. * Opposed to fast food retailers being established * Suggests meeting place, boutique style cinema, multi purpose building for arts and theatre production etc. * Safe planning for road access/parking consideration
3		Mark & Donna Bentham	No	Support	No	I do not request	No	Submission sheet blank no details provided
4	1481/11	Elles Pearse-Danker	No	Support	No	I do not request	No	* Support application * Request applications be granted subject to completing within specific time frame
5	1161/12	Janelle Carter & Christian Slipper	Not Specified	Support	Not Specified	no selection made	Not Specified	Supports the town centre with the provision the traffic is managed away from Kaimai Views Subdivision Omokoroa Road to SH2 in general needs some attention Concerns surrounding road adjoining Kaimai Views & town centre (roads are already too narrow) walkway would be preferred
6	1218/45	Dave & Christine Paul	Not Specified	Support	No	I do not request	Not Specified	Supports application - great alternative to travelling to Bethlehem Central location
7	1203/19	Melody & Mark Downie	Not Specified	Support	Not Specified	no selection made	Not Specified	Supports application Need for community of shops as proposed in development Sympathetic to public and surroundings
8	1303/14	Hayley Larman & Rob Larman	No	Support	Yes	I request	No	Supports application, proposed location, well thought out/community consultation, local job creation
9	1207/593	Daniel Reedy	Not Specified	Support	No	I request	Not Specified	Supports application and the proposed location
10	1207/593	Rochelle Philip	Not Specified	Support	Yes	I request	Not Specified	Supports application - great alternative to travelling to Bethlehem, great opportunity for the community
11	1270/57	Adele Selfridge	No	Support	Yes	I request	No	Supports application - Supports having amenities locally and will enhance existing Omokoroa Lifestyle
12	1117/3	Robin (Rob) Wright	Not Specified	Support	Not Specified	no selection made	Not Specified	Overall welcomes the development Concerns surrounding Sentinel Road's inclusion in the proposal- road is already narrow and populated with young families - increased traffic flow is undesirable Development staging is unclear will the supermarket/apartment complex be constructed first? Questions when the rest of the development would be commenced (clarity with timelines required)
16		Katherine McGill	Not Specified	Support	No	no selection made	Not Specified	Supports application - Omokoroa needs the infrastructure - impressed with plans & design
17	1975/30	Karen Wilson	No	Support	No	I request	No	Supports application - due to rapid growth in Omokoroa is required existing supermarket is not enough to cope with the growth in the area. providing the design and Roading does not impact adjacent housing and there is safe entry and exit
20	1270/262	Craig & Nicole MacDonald	Not Specified	Support	No	I do not request	Not Specified	Supports application and growth in/for the community

21	1218/919	Shawn Kenny	No	Support	No	I do not request	No	Supports proposal and location - well overdue and will service the wider community.
22	1218/919	Tracy Kenny	No	Support	No	I do not request	No	Supports proposal and location - well overdue and will service the wider community.
23	1027/7	Dianne Renner	Not	Support	Not	no selection made	Not Specified	Supports proposal and location - more shopping without having to use SH2
26	1207/4691	Greig Neilson	Not Specified	Support	No	I do not request	Not Specified	Supports application - would like to see appropriate gathering places for teenagers given location is proximal to student college - space needs indoor/outdoor flow ideally located within propose civic centre.
27	1266/112	Bill & Maureen Jacob	No	Support	No	I request	No	Supports application overall Requests - floor in the community centre be wooden to encourage multifaceted use (dance group friendly). Requests - pedestrian/cycle access from goldstone/harbour view subdivision by way of underpass (Omokoroa Rd/Kahawai Place intersection). Questions whether the proposal conforms with overall planning scheme for Omokoroa? Clarification required
28	1182/7	Jessica Guy-Patterson	Not Specified	Support	No	I request	Not Specified	Supports application - valuable asset to the region, lessen vehicles going into town, supports family lifestyle & brings community together in a central location. Well thought out land use & to the maximum benefit to the community. Best use of the land & location. Plenty of parking/slip ways/roading Iwi participation with project is great Environmental considerations are clear Green/community areas - exceptional ideas
29		Matthew Drayson	No	Support	No	no selection made	Not Specified	Supports application - Necessary for the growth of Omokoroa Clarification sought on nature/timing & staging of works - as proposed works and structure plan upgrades will affect other businesses If consent if granted wants assurances town centre will be developed within agreed staging/works timetable - wants applicant bound by conditions.
30	1259/61	Sandra Vine	No	Support	No	I request	No	Supports application - Necessary with Omokoroa increasing population - great for locals not having to travel to Katikati/Bethlehem Care needed with building design/landscaping & environmental areas
31	1274/9	Jean Kirkham	Not Specified	Support	Not Specified	no selection made	Not Specified	Supports application and location - There is a need with high community growth for a shopping precinct/recreation area. Applauds JACE for their readiness to take this on.
32		Samantha Elkington	No	Support	Yes	I request	No	Supports application in its entirety
33		Lucy Alice Duke	No	Support	Not Specified	I do not request	No	Supports application - Provides more options for residents and the surrounding region for retail/places of work. Proposal should have a positive impact on traffic reduction/commuting numbers to Tauranga for work/shopping
35		Tarlochan Singh	Not Specified	Support	Not Specified	no selection made	Not Specified	Supports application in its entirety - great potential for personal business opportunities
40		Omokoroa Residents & Ratepayers Association Incorporated	No	Support	Yes	I request	No	Supports application: 1. Location - The site is central to the residential population growth, provides easy pedestrian and cycle access & also minimises travel distances for local vehicular travel to town centre. Site is adjacent but not on the same access road as proposed site owned by the MOE for proposed educational facility this is considered beneficial as it will provide pedestrian acces avoid traffic congestion which could arise if both sites were on the same road. 2. Adequacy of site - Site appears to be adequate size to accommodate town centre amenities. Site includes medium density housing but there is no provision for Council offices. There is a conc that the residential aspect could limit full potential of purpose. In particular Blocks G and H1 - could be relocated in adjoining future urban zone owned by applicant. Consideration should be give the relocation of Councils head office as Omokoroa "will be single largest population in the district". 3. Road Access - Supports inclusion of exit only on Omokoroa Rd for North bound traffic. Vehicle access through Kaimai Views should be discouraged. 4. Noise/building height/privacy issues Kaimai Views - Supports granting of consent with conditions requiring compliance with DP noise conditions at notional boundary. Screen planting and incre setback of commercial zone along site boundaries with Kaimai Views. Residential development to soften interface between commercial/residential land uses. 5. Proposed Civic Centre - This is a great opportunity to incorporate Council headquarters into proposed civic centre, together with hall & library. Consideration should be given to providing Cour Head office in Block G & H. 6. Detail & Design - should be sympathetic to community & history of Omokoroa. Kaimai Views residents express desire for children's adventure play area. Support for granting consent subject t community inclusion and input during the design process to achieve the desired character.
41	1947/82	Raewyn Agate	No	Support	No	no selection made	Not Specified	Supports application - wonderful facility and provision of employment opportunities for the people in the fast growing community.
42	1207/3204	Rosslyn Woods	Not Specified	Support	No	I do not request	No	Supports the application overall however is opposed to the following aspects: 1. Roading - proposed road width do not comply with district plan. The roads in Kaimai Views are thin and there are already parking/road access issues - Requests: • Adhere to Council approved road and footpath widths. • Review current traffic flow through the town centre and connecting Kaimai View road. Create roading that doesn't dominate the town centre but makes creative use boarder circle roads. • Make Sentinel Drive pedestrian / cycle access only with 'drop off zones' for service vehicles at both ends. 2. Parking - Clarification required - With a bus stop outside the town centre, has provision been made for car parking for those who will park and ride? Is there suitable provision for carparking f community events and outdoor concerts etc? 3. Pedestrian & Cycle connection - Questions the safety of sharing road with residential and commercial service vehicles on the proposed narrow width roads. There is an opportunity to create w safe paths and roading systems that meet the needs of both on road vehicles, cycling/walking young families and groups as well as those on mobility scooters given the current demographics of Omokoroa. 4. Reserve/Plaza - No identified public toilets or hand washing stations - No identified childrens play area 5. Bus Service - No provision for bus service
44	1947/82	Denis Agate	No	Support	No	no selection made	Not Specified	Supports application – convenient location for Omokoroa and surrounding communities, ideally positioned within growing residential developments.

49	1463/40	Nathan Kidd	Not Specified	Support	No	I request	Not Specified	Supports application
50		Mandeep Singh	No	Support	Yes	no selection made	No	Supports application – Great for Omokoroa residents, creation of jobs and the advancement of infrastructure in Omokoroa
51	1212/244	Shelley Ann Dunne	Not Specified	Support	Not Specified	no selection made	Not Specified	Supports application – Omokoroa is fast growing and needs the infrastructure to support its growth
54		Leyna & Eric Thompson OBO of Pacific Coast Kitchens NZ Ltd	No	Support	No	no selection made	No	Supports the application – as business owners with premises in Omokoroa – Omokoroa needs for its population and to bring in those from surrounding areas. Requests building have a "village feel" in keeping with location and community.
60	1027/28	Jan Ellingham & Richard Hall	No	Support	No	I do not request	No	Fully supports application and its entirety
61	1301/810	Karen Gemmell	No	Support	Yes	no selection made	No	Supports application – prefers the concept of a bespoke, authentic town centre which is meaningful to the community rather than a commercial giant. No trust in Council to achieve this – JACE a a stronger position.
62	1207/4229	Werner Corbe	No	Support	No	I do not request	No	Supports application in principal Objects to proposed road layout/car dominated town centres – the emphasis should be on pedestrian and cycle access. Car access should be limited to essential access. Car access from Kaimai Views and proposed school site should be removed. Roundabout in the middle of the town centre should be removed this would reduce car dominance. Design allows for some public open space – ill located – whilst an interesting feature being out of sight will not attract people to the site. Requests application be amended to incorporate liveable public spaces
63	1195/13	Brian Goldstone	Not Specified	Support	No	no selection made	No	Supports application – great timing, great one developer is building the whole thing otherwise likely to be a shambles
66	1321/138	Allan Clover	No	Support	No	I request	No	Supports application in its entirety – specifically proximity to residential development and distance from SH2. Site is nestled into lower basin of Omokoroa which allows commercial sized buildings/carparking without effecting visual amenity.
73		Harkawal Singh - LATE SUBMISSION	Not Specified	Support	Not Specified	no selection made	Not Specified	Supports application, location, great for personal business opportunities, great potential for population growth.
75	1305/244	Derek Hugh Scott Gardiner - LATE SUBMISSION	No	Support	No	I do not request	No	Supports application - natural extension to existing development
18	1152/4	Johannes Jacbus Van Der Waals	No	Oppose	No	I request	No	Opposed to thoroughfare road with Kaimai Views/Only pedestrian - There is no green area within Kaimai Views & narrow roads, children play on the streets & cars park on the side of the road.
19	1195/12	John Howarth	No	Oppose	Yes	I do not request	No	Opposed to 3 storey apartment building (Building N) - due the height, scale and affects on amenity. The tall building would dominate views, negatively impact local properties and reduce the pri of Kaimai Views residents. 80% of building is residential and should addear to the residential/urban rules (max 9m) regardless of overriding commercial zone feels residential rules would be mor suitable. Seeks 9m building height restriction should be applied across the boards or imposed specifically on building N - failing this 11m from new ground level.
24	1243/22	David, Janine & Aiden Decke	No	Oppose	Yes	I request	No	Opposes the road between Kaimai Views and "town centre" - Roads in Kaimai Views are narrow with cars parked on street the road are much narrower. More cars will increase congestion and c an issue. - Requests - adjoining road be pedestrianised. Opposes the 3 storey apartments in block N - their property borders this part of the project and feel that their privacy will be compromised. - Requests - the position of apartments in block N b altered so there are no balconies facing the Kaimai Views subdivision or relocate them further from the boundary.
34	1085/14	Amy & Haden Bell	No	Oppose	No	no selection made	No	Opposes application at 404 Omokoroa - Opposes road through town centre to sentinel drive - Kaimai views is a safe area for children to play/streets are to narrow - too much traffic/unsafe for children.
37	1152/4	Riana Van der Waals	No	Oppose	No	I request	No	Opposes application at 404 Omokoroa - Opposes road through town centre to sentinel drive - Safety risk for children playing - Wishes for no thoroughfare for any vehicles between Kaimai View shopping centre. Opposes apartment blocks overlooking residential area in Kaimai Views - reduction in privacy for these properties/will lower property values - Requests design change for proposed apartment bl
38		Bay of Plenty Regional Council	Not Specified	Oppose	Yes	no selection made	Not Specified	Opposes application - Application is premature relative to the current structure planning process being carried out by WBOPDC. Process should be completed first to achieve better integrated management Opposes application - No provision for public transport either as bus access or bus stops. The provision of public transport is good urban planning and necessary for community connection in the WBOP.
43	1128/20	Sarah Cooper	Yes	Oppose	No	I request	No	Opposes the application – Lack of transition or buffer between Kaimai Views & commercial shopping area. There will be increased traffic along Sentinel Drive, increased noise from traffic and additional commercial activities, safety risks to pedestrians/children. Decreased residential parking. Does not believe the application adequately assesses the adverse effects on Kaimai Views residents. Seeks clarification surrounding parking management and how will parking be enforced so only residents can park on Sentinel Drive? Requests not thoroughfare for vehicles and make access pedestrian and bicycle only. Would prefer the area be further away – ie Prole Road – Option 3 in the Omokoroa Structure Plan
45	1085/7	Rachel & Brennan Ratana	Not Specified	Oppose	Yes	I request	No	Opposes application – 1. Three storey apartments directly behind their property and their outdoor living space. Concerns surrounding loss of privacy. Requests removal of a multi-storey building behind their property (Building N) 2. Road joining town centre/Sentinel Avenue – existing road is narrow and residents park on both sides of the street making the road one lane. Concerns surrounding traffic and safety of childre which play on the street. Concerns at loss of "quiet subdivision" feel. Concerns customers would park in the Kaimai Views subdivision. Requests relocation of supermarket away from residential area/redesign of road. 3. Concerns surrounding noise during throughout the day. Concerns how trucks will navigate their way through town as road doesn't seem truck friendly. Lack of thought given to effects on the Kaimai Views residents. 4. Feels there has been a lack of consultation with the community. Only had one meeting with JACE before that all they had heard through word of mouth Council's proposed structure plan towr centre near Prole Road. When they purchased property it was never made clear there would be a mixed use commercial/residential area & were under the impression it was to be residential onl Disappointed with the lack of communication as they are directly affected.

47	1085/10	Sara Edwards	Yes	Oppose	Yes	I request	No	Opposes access way between proposed town centre and Sentinel Ave. Road was not designed to service a town centre and will greatly effect the residents of Kaimai Views. Road is too narrow, residents park on either side of road reducing to one lane, concerns around traffic noise/flow on residents. Requests removal of connecting road. Was always noted that 404 Omokoroa Rd would be residential properties and Sentinel Rd will service only residential properties. Sara's property will be impacted by increased traffic (corner of W Huri/Sentinel Ave)
48	1207/365	Maxwell Kehoe	No	Oppose	Not Specified	I request	No	Opposes application: 1. Plan is inconsistent with WBOPDC structure plan/proposed location and consultation which has been developed with Council by the residents of Omokoroa. Requests that the application be declined and we stick with one of the 4 options proposed by WBOPDC. Requests JACE liaise with WBOPDC and build where residents/Council have planned for various zoned activities. Otherwise a waste of Council time, money and resources which have already gone into the structure plan. 2. Commercial areas in Omokoroa have been established without much thought/vision. There is a risk of having too much commercial activity at the village end of peninsula.
55	1085/13	Robyn Scrimshaw	Yes	Oppose	Yes	I request	No	1. Proposal is inconsistent with WBOPDC Structure plan. Consultation focused on 4 locations noting all 4 structure plans had proposed residential zoning up to my property boundary. The comm activities and medium density housing were proposed for nearer to Prole Road. The structure planning process ensures that the community views were taken into consideration & involved in the shaping and planning the local area. This formed part of the basis of the decision to move to Omokoroa and purchase property in the Kaimai Views subdivision. 2. Lack of community engagement from JACE – first heard about it in NZ Herald - The engagement has been after the notification of the Resource consent. if the RC is granted with the propose designs and no future consultation then the statutory powers for influencing design are potentially extinguished from the community. 3. No staging proposed in plan – in meeting it has been advised the supermarket will be constructed first. Supermarket dominates the space in terms of light spill, noise, traffic and amenity for t residential subdivision. The proximity of the entrance to the boundary of the kaimai views residential subdivision is such that the environmental effects on the properties will be disruptive. 4. Civic building design is limited – does not fulfil need for recreation space – clarification on use is required - is it free to use for the surrounds or open at all times? 5. Building N – is on the boundary and overlooks Kaimai Views Subdivision – limited considerations have been made in terms of privacy/overshadowing/noise and lighting. Access driveway boarc Kaimai Views Properties concerned about the noise this will generate. Requests height reduction 6. Road adjoining Sentinel Avenue/proposed town centre – concerns around child safety as kids play on the street due to lack of greenspace in Kaimai Views, increased traffic will negatively imp Kaimai Views residents, road is too narrow, limited parking, cars on either side of the road. 7. No identified landscaping on reserve edge – concerns surrounding SW discharge 8. - No certainty surrounding consent/staging/timeframes 9. Non compliance with district plan rules – building heights, amenity/planting, noise, lights 10. The design is imposing and overbearing. There is no sympathy to the neighbouring residential subdivisions, lack compliance with landscaping and environmental effects. Lack of consideratio cyclists and pedestrians shows inconsistency with the objectives for this area
59	1128/18	Sarah Tawhai & Tyler King	Not Specified	Oppose	No	no selection made	No	Opposed to specific parts - particularly road connecting town centre to Sentinel Ave - Road is too narrow to be connected to a shopping centre – concerns surrounding increased traffic, heavy s vehicle use of the road, reduced parking availability, child safety. Requests – redesign to pedestrian only.
64	1085/11	July Hebbel and Luiz Del Monte	No	Oppose	No	I request	No	Opposes Kaimai Views thoroughfare – Road is narrow, residents park on either side of the road, children play on the road, road was developed for residential traffic and needs to be treated as s Would prefer pedestrian access only. Opposes the 3 storey apartment location – plenty of other places to locate – owners who purchased on the boundary unaware there would be apartments overlooking – requests no building ove – this will change look and feel of Omokoroa
65	1161/1	Lucy Cooney	Not Specified	Oppose	No	I request	No	Opposes vehicle access from town centre to Sentinel Avenue – any connection should be pedestrian only – Sentinel drive has high numbers of cars parked on roadside – wasn't designed for high traffic volumes concerned around safety if traffic volumes were to increase. Concerned around building heights in development and the impact on owners of residential properties which are bordering the development. Lack of consideration has been given to the effects these properties. Concerned that existing roading network (Omokoroa Road/Sh2) will not be able to support traffic increase from development & Tralee Street development. The intersection is already dangerous believes the development at Tralee will be sufficient until intersection has been upgraded.
67	1085/8	Sinead Nicholls & Stephen Nicholls	No	Oppose	Yes	I request	No	Opposed to specific parts of the consent application: Master plan – created without consultation with community – specifically Kaimai Views residents. When purchasing property WBOPDC were considering structure plans as to where the town cen should be located – Prole Road – which is not on the boundary line of Kaimai Views – nor in line with proposed structure plan – if has known was going to be commercial would not have purcha & built home next door. Building N – Opposed to the height of building N apartments – will directly impact our privacy. Living/bedroom and outdoor area will all be in view of apartments. Concerns around noise, exterio lighting, street lighting directly impacting their property/properties along that boundary. Minor is a subjective term Roading – Oppose road adjoining town centre and Sentinel Avenue. Sentinel Ave is a narrow street, often has cars parked on either side. Concerns around child safety due to lack of greenspace play on the street. High volumes of traffic will put them at risk. Earthworks – 10 year period for town centre = 10 years of construction – oppose this as earthworks/dust will contaminate the adjoining properties – high wind zone – water suppression will not sufficient to mitigate. Consent lapse period – Opposed to 10 year consent - will impact the sale of property & being able to move away from Kaimai Views due to the earthworks/building of town centre – Property is the boundary and going to be directly impacted by development.
69		Joseph Gardner	No	Oppose	No	I request	No	Opposed to application in its entirety - should not proceed until SH2/Omokoroa Rd Junction is improved
70	1947/77	William & Rachelle Morrison	Yes	Oppose	No	I request	No	Oppose application in its entirety. Not in accordance with the proposed structure plan location. Questions the need in the community with Bethlehem Town Centre being so easily accessible & existing commercial areas in Omokoroa which adequately accommodate community. Increasing both residential and commercial activities prior to SH2 widening makes no sense.

71	1207/3519	Woolworths New Zealand Limited	Yes	Oppose	Yes	no selection made	Yes	Opposes application: Non-compliance with the performance standards – no provisions for required verandahs, continuous retail frontage. Proposal does not promote sustainable management of resources – not in accordance with RMA principals and is not consistent with Part 2 & other provisions of the RMA and WBOPDC operative district plan. Will not avoid, remedy or mitigate any adverse effects including on the consented Omokoroa Village Centre (which forms part of the existing environment) or the FreshChoice Site. There is insufficient information with regard to economic impacts on Omokoroa Village Centre or wider economic condition of the district. Does not believe application can satisfy section 104D & cannot b granted as a non-complying activity Based on economic reports conclude a 3.5ha commercial centre is required to service Omokoroa – the proposal exceeds 3.5ha and cumulative anticipated need for the district. AEE assesses pro as having similar/better attributes than other TC (Town Centre) options and with nothing provided for comparison. AEE concludes that any adverse effects to trade competition are negligible wit lack of detailed economic assessment. AEE acknowledges that OVC (Omokoroa Village Centre) has an approved consent but does not consider as part of the existing environment or a neighbou centre – where effects must be assessed. Any effects have been discounted as trade competition – Tralee will have the highest competition, will have lower impacts due to being more localised less significant to wider community, application suggests OVC may not develop as consented – with no supporting evidence. Application notes that if Fresh Choice were to close it is not consider and adverse effect – highly disagree with this – adverse effects have not been quantified & closure would undermine function of OVC resulting in adverse economic effects on existing activities v the centre & potential loss of jobs. Lack of clarification with regard to Future Urban Zone boundary and no assessment has been undertaken. Lack of analysis surrounding the proposed structure plan development by WBOPDC/Community. Application undermines the efficiency of this process/outcomes.
72	1128/15	Jana Reichelt & Tayor Dines	No	Oppose	Yes	I request	No	Oppose specific parts of the application Opposes - Adjoining road to Sentinel Avenue/Kaimai Views to town centre – Road is narrow, lots of people parking on both sides of street, children playing/risk to child safety with higher volume traffic. Concerns of limited parking and overflow of this into Kaimai Views – already limited Opposes Earthworks – 10 year period for town centre = 10 years of construction – oppose this as earthworks/dust will contaminate the adjoining properties Opposes Consent lapse period – Opposed to 10 year consent - will impact the sale of property due to noise/work/neighbourhood disruption
15		Basil Mayston	Not Specified	Not Specified	Not Specified	no selection made	Not Specified	Public toilets included in every new commercial development within western bay
36		Jan Caudwell	Not Specified	Not Specified	No	no selection made	No	Did not wish to make a formal submission - provided following comments: Does not believe that "ribbon development" is a good thing for community cohesion Already existing town centre which has space for further development & would benefit/enhance community & town centre Until SH2/Omokoroa rd. has suitable traffic connection/plan this would cause a major disruption to ambiance of area/residents who live in the vicinity
25	1207/347	Ministry of Education	No	Neutral	No	no selection made	No	Application acknowledges & has factored into the proposal that MOE are preparing a notice of requirement to designate site for educational purposes/future school. Application acknowledges importance of creating connections & active edge along shared boundary. Development plans identify public parking/med density residential development along the western boundary of MOE site to be separated by landscaping's - this is considered to be compatible wi school development as well as the design controls (glazing/insulation/ventilation for residential apartments) MOE wish to remain in the process to provide input if amendments are made to application that could adversely impact school development.
39		Jonathan Lewis OBO - Omokoroa Golf Club	Not Specified	Neutral	Not Specified	no selection made	Not Specified	Concerns surrounding SW run off - current SW run off for Kaimai Views is directed through the SW creeks in the Omokoroa golf course. During high rainfall the creeks overflow and therefore wo not be able to cope with increased volume. Creeks would require redesign and reconstruction in order to handle an increase in volume.
53	1239/2	Pirirākau Incorporated Society – Pirirākau Tiaki Taiao	No	Neutral	Yes	no selection made	Not Specified	Neutral submission – seeks ongoing engagement with JACE to enshrine cultural mitigation within the project outlined in memorandum of understanding. Seeks to negotiate consent conditions. Requests to be the final speakers and offer opening ceremonial karakia for hearing, wishes for Maori commissioner on hearing panel
57	1085/4	Michael & Bridget Hardam	No	Neutral	Yes	no selection made	No	Concerns around the 3 storey apartment building overlooking Kaimai Views Subdivision and the impact of resident's privacy, noise affects from the apartments Concerns surrounding increased traffic on Sentinel Avenue, under the impression 404 Omokoroa Rd was to be zoned as residential and any link with Sentinel Ave would carry light traffic. The ro too narrow and cars already park on either side of the road. Increased traffic is a safety concern children/young families. Concerned about noise which will come from the supermarket - late at night and early mornings Concerned abou noise levels from the early childhood centre When properties were sold it was sold on the premise that 404 Omokoroa Road was to be zoned as residential in the structure plan
58		Power Co	No	Neutral	No	no selection made	No	Some form of network reinforcement will be required. As Omokoroa is getting close to its capacity on voltage limits near the development site. - Advice note sought - see submission The provision of space to cater for electricity distribution requirements - can be finalised once more information is provided If planting is required - Electricity (Hazards from Trees) Regulations 2003 should be taken into account. - Inclusion of consent condition sought - see submission
74	1161/7	Matthew & Elizabeth Farrell - LATE SUBMISSION	Not Specified	Neutral	No	I do not request	Not Specified	Do not object to application in theory Concerned around adjoining road to Sentinel Avenue/Kaimai Views to town centre – Road is narrow, lots of people parking on both sides of street, children playing/risk to child safety with highe volumes of traffic. Concerns around the building heights overlooking Kaimai Views Subdivision and the noise affects from construction and commercial deliveries Concerned will be another piecemeal/standalone development - need to show how fits with community/plans for the surrouding development - needs to be planned properly

76	1128	Classic Group - c/- Libby Gosling	Yes	Neutral	Yes	no selection made	No	Neutral with regard to development – In principal does not oppose development – supports commercial activity in Omokoroa – recognises that the area is zoned as commercial and commercial activity is anticipated on that site. At the time of master planning Kaimai Views there was uncertainty surrounding the nature of the activity which would occur on this site. Sentinel Ave has been developed to an 8m rd width. After review of traffic assessment – anticipated vehicle numbers/movements associated with the Town Centre are unclear – Require clarification surrounding vehicle movements – will the road r upgrading? Clarification surrounding traffic calming measures. Requests pedestrian access to town centre and future school Apartments/childcare centre on boundary of Kaimai Views - considers use & logical buffer generally appropriate. However no plans have been provided surrounding childcare centre – We seek be provided & circulated to adjacent residents. Clarification required surrounding design outcomes, requests consenting authority ensures high quality outcomes – landscaping is critical but has not been provided. Omokoroa has seen high demand/ current dependency on SH2 due to lack of amenities, schools & jobs in Omokoroa is deterring potential buyers – Town Centre would make Omokoroa more se sufficient The planning framework is requiring residential growth at higher densities. As a developer, we want is recognised that higher density living there is need for better offsite amenities (to offset lo onsite amenity of high density living). The proposed town centre development would appear to contribute some of these commercial amenities to support the higher densities that are being sou There seems to be a lack of planned reserves and playgrounds. Would like the opportunity to meet with applicant/WBOPDC reserves team to discuss what is planned for reserves/play areas in t area.
13	1947/28	Ailsa Fisher	Not Specified	Conditional	Yes	I request	Not Specified	OPPOSED: 1. Proposed design & Vision - Poor urban design/lacks innovation, local context and incorporation of technological and key environmental/sustainable considerations - Requests - application amendment and impose conditions/develop design guidelines. OPPOSED: 2. Transport - Continued reliance/dominance or road network - lack of provision for a pedestrian/ cycle focused environment/ ebike charging stations, connecting roads through Kaimai views sh be pedestrianised (access to service vehicles after hours should be permitted with use of removable bollard) and Omokoroa Rd should be the main thoroughfare, does not support parallel parkin main street OPPOSED: 3. Building design and character - Design of buildings are typical and do not consider local context and character, no analysis within the urban design statement, suggesting not considered. Sug that local character should be incorporated into the urban design guidelines to retain historical & rural connections through building design/landscape/street art in keeping with objective 12.2.1. For areas where people are encourage active use of areas (Between buildings I, J, K & L) suggests building frontages be activated - outdoor dining/balconies/Children's play equipment. OPPOSED: 4. Sustainable Design - Lack of reference with regard to sustainable building/environmental design that considers climate change & sustainability. Minimal reference to low impact urban design. Sustainability objective should be included in design elements relating to infrastructure and improving environmental outcomes (objectives 12.2.1.3, 12.2.1.7 and policy 12.2.2.8). Does not agre that the development is consistent with policy 19.2.2.14. OPPOSED: 5. Stormwater & Landscape Treatment - Opposes lack of onsite SW treatment/management solution largely directs SW off site to wetland/SW management areas to the north and south of the s Believes SW should be reconsidered with onsite SW retention & treatment (Rain gardens/swales). Opposed to raised landscaping treatments - lack of provision for SW collection (important with impervious areas - carparks). updating will align with objective 12.2.1(6) - minimising effects of SW runoff. OPPOSED: 6. Active Street frontage - Support dwellings on ground floor if patio/outdoor areas are adjacent to street - provides for passive surveillance - notes no designs provided with application. OPPOSED: 7. S104D assessment - Considers application as notified contrary to the following objectives and policies: Transport: Objective - 4B.2.1(3) Policy 4B.3.3(8) Subdivision & Development - Objectives 12.2.1(1),(3),(6) & (7) Policies 12.2.2(5),(7) & (8) Commercial Zones - Objectives 19.2.1 (1),(2) & (10) Policies 19.2.2(4),(13) & (14) Requests - Application amendment & impose conditions where relevant including: Amend application to give effect to mentioned policies and objectives. SUPPORTS IN PART general concept, potential to create a well thought out town centre (although, does not think the application will achieve this).
52	1264/428	Alison Henderson OBO Omokoroa Public Art Group	No	Conditional	Yes	I do not request	No	Concerned the application has not taken into consideration the following concerns: 1. No mention of provision for public art. WBOPDC has clear public art policy and commitment needs to be made by JACE to honour the policy. 2. Failure to consider area between railway/SH2 – lack of planning with significant community development to ensure optimal benefits/integration for whole Omokoroa community/groups. 3. Concerned of limited size of civic building & public space – should be publically owned/developed/ managed by WBOPDC OBO of the community as part of the structure plan, centrally located heart of the town centre & provide a hub. Being on the edge – to little space to provide a wide variety of community activities and events. Building needs to include library, arts hub, indoor/out gallery/workshop spaces. - We ask that Jace Investments Ltd. work with WBOPDC to ensure that any residential and commercial development on 404 Omokoroa Road is fully integrated into the Omokoroa Structure Plan being developed by WBOPDC for the whole area between SH2 and the railway line in Omokoroa
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7.4 INITIAL SECTION 92 REQUEST FOR FURTHER INFORMATION - JACE INVESTMENTS LTD - 404 OMOKOROA ROAD, OMOKOROA

File Number: **A3995373**

Author: **Barbara Clarke, Senior Governance Advisor**

Authoriser: **Jan Pedersen, Group Manager People And Customer Services**

EXECUTIVE SUMMARY

This report provides the Section 92 Request for Further Information dated 18 June 2020, **(Attachment 1)**, and provides details of the information requested **(Attachment 2)**, in relation to an application made by JACE Investments Ltd for Land Use and Subdivision Consent to establish a Mixed-Use Commercial Town Centre at 404 Omokoroa Road, Omokoroa. [RC11997L & RC2996S]

ATTACHMENTS

1. **Section 92 Request for Further Information dated 18 June 2020**
2. **Section 92 Request for Further Information dated 18 June 2020 - Details of Information Requested**

SECTION 92 RESPONSES TO REQUESTS

Please note that all Section 92 Responses to Requests can be viewed on Council's website using the following link:

https://www.westernbay.govt.nz/property-rates-and-building/district-plan-and-resource-consents/resource-consents/current-applications/404-omokoroa-road-public-notification

From:	Anna Price
To:	Richard Coles
Cc:	Tom Watts; Vanessa Hamm (vanessa.hamm@hobec.co.nz); Chris Watt; Rachael Davie; Gary Allis
Subject:	2020-06-18 - RC11997L & RC112296S - S92 Request for Further Information - JACE Investments - 404 Omokoroa Road
Date:	Thursday, 18 June 2020 3:02:00 pm
Attachments:	2020-06-18 - S92 Request for Further Information - Word version.pdf image001.png

Good afternoon Richard,

A preliminary assessment has been made of the above consent application and pursuant to Section 92 of the Resource Management Act 1991, Council staff request the following information relating to the application:

Please see the document attached.

This information is required to enable the Council to better understand the nature of the activity in respect of which the application for a resource consent is made, the effect it will have on the environment, or ways which any adverse effects may be mitigated.

In accordance with S92A, within 15 working days of this letter please;

(a) provide the information; or

(b) confirm in writing to Council that the applicant agrees to provide the information; or

(c) confirm in writing to Council that the applicant refuses to provide the information.

Pursuant to Section 92A(1) Council must notify any application under Section 95(c) where either the information has not been provided or where the applicant has not confirmed or refused to provide the information within 15 working days of this letter. Council will postpone processing of the application until this time.

Should you have any questions please feel free to contact me to discuss further.

Regards

Anna Price
Senior Consents Planner | Kaiwhakamahere Matua
P 07 571 8008 | **FP** 0800 926 732
1484 Cameron Road, Barkes Corner, Greerton, Tauranga
Private Bag 12803, Tauranga Mail Centre, Tauranga 3143
westernbay.govt.nz | Facebook | Instagram | LinkedIn

S92 Request for Further Information
18 June 2020

1. Please provide details of community and stakeholder engagement in developing the proposed "Master Plan" and how the "Master Plan" ties into the community's aspirations to the look and feel of a Town Centre.

2. Please provide a full and detailed assessment of Financial Contributions payable in accordance with the provisions of Chapter 11 of the District Plan.

3. Please provide details on any proposed staging and timing of the development.
   Note: Council will not leave it to the building consent stage to manage development and if staging is required then Council would require an outline of staging and how each stage would be developed in terms of infrastructure and engineering design. This would allow suitable conditions for development and engineering requirements at consenting stage and avoid the need for further variations (time and cost).

4. Due to the nature and scale of the earthworks and site development, and the significant and high rate of known and undiscovered archaeological sites in Omokoroa, there is a likelihood of discovery during site works. An Archaeological Assessment has been provided. However, the Council requires evidence of engagement and consultation with relevant Tangata Whenua (Pirirakau Hapu (Ms Julie Shepherd) and Ngati Taka Hapu (Mr Bob Leef)) which has not been provided with the application.

5. Please provide details and assessment of the proposed use of the Civic building and plaza.
   Note: If not already done so, it is suggested that you engage with Council's Strategic Property Manager as to the size and suitability of the proposed building, location and market place/ green space area.

6. The application discusses an 'intimate space'. It's purpose appears to provide for markets and civic activities. What assessments have been undertaken to ensure the size and location is fit for purpose?

7. Buildings "I", "J" & "K" are in close proximity to each other, and close off the Civic market space from the internal roads. Have alternative options or layouts been considered for this area, which could open up the civic market place area more to the internal roads?

8. What consideration has been given to medium-density town-housing adjacent to the *Kaimai Views* subdivision in order to create a transition into the site?

9. Please provide plans (including concept drawings and elevations) showing the proposed residential buildings at "H" – "G" on the Master Plan.

10. Please show all building yard setbacks to the external boundaries and on the relevant plans.

11. Please also provide updated cross-sections showing the relationship of the buildings "N" and "O" to the residential dwellings to the north in order to assess the change in amenity and visual effects from the residential area.

12. Please provide further detail and design of the landscaping and streetscape of the town houses at buildings "H" – "G", the Urban Design Statement only provides brief details/plans of 'private landscaping'. This should include general entry/treatment/landscaping discussion or design details for the dwelling frontages and discussion around fencing to the road/ school site and service land.

13. With regards to the proposed buildings there appears to be quite a variation between the concept photos and the architectural elevations/plans proposed. The concept photos shown would indicate a high level of design, variation and amenity, while it would appear the architectural designs show more of a toned-down design which does not reflect the concept photos. Council require a high level of amenity and require more variety and architectural details to be reflected in the elevation/site drawings, particularly along the street facades as this will provide certainty as to how the site will be developed. Please demonstrate how this will be achieved.

14. Please provide further assessment on the visual, amenity, noise, light and privacy effects of the proposed development from the directly adjoining properties (40 Sentinel Ave, 17, 19, 21, 23 & 25 Wai Huri Place and 40,42 & 44 Traverse Lane) at the northern boundary, in particular the proposed childcare centre and building "N".

15. Please confirm the boundary treatment (fence/landscaping etc) along the northern boundary between Kaimai Views and the site.

16. Council require some formal requirements in order to ensure the design and character of the Town Centre as currently proposed is carried forward into future building consents and 'super lot' development'. Accordingly please provide a Design Guideline/Rules to be included as conditions of consent or consent notice which would give Council confidence that the high level of design and amenity sought in the resource consent will be achieved on site in the future. This would also need to include landscaping, active surveillance and crime prevention issues.

17. The application does not include any information on how the "Master Plan" will be implemented. There are guidelines, but how does Council, the community and future developers/ businesses ensure that development occurs as presented in the Master Plan and discussed guidelines?

18. Please provide details on rubbish collection, loading zones and service areas as none appear to be proposed.

19. Please provide details and locations of public facilities (toilets/ etc).

20. Given the need for the supermarket delivery trucks to utilise/ cross the High Street roundabout, will deliveries be limited to certain hours of the day to

avoid traffic conflict? Has this been discussed as practicable with the supermarket operators?

21. Please provide a further assessment of effects on the increased traffic flows through Kaimai Views (Sentinel/Settler Avenues).

22. Please provide a Landscape and Visual Assessment by a suitably qualified professional in this field, which assesses the potential landscape and visual effects of the development from surrounding Omokoroa area and impacts on potential viewshafts.

Economic Feasibility

23. Please provide further detail on the impact the Tralee St development will have on the GFA requirements of the town centre application?

24. Response from the commercial sector has not been supplied about the proposal. Has the location of the supermarket been 'truth tested' with supermarket owners to determine bulk and location factors?. Has this been considered and how will this affect the design and feasibility of the proposal?

Record of Title:

25. The existing title has two existing easements "C" and "B" with another, ("A") extending from "B" into a neighboring property. These are in favour of Council for 'drainage' (assumed to be stormwater). It is not stated in the application how these will be managed (cancelled, replaced etc) in regards the proposed development. Is there existing pipework to be redirected?

Subdivision Scheme Plan:

26. The subdivision scheme plan does not have a Title, please amend.

27. All of the easements that may be required are not shown on the scheme plan(see points below 67-83). Please amend as necessary.

28. The easement schedule on the subdivision plan should say "benefited/burdened". Please clarify/ update.

29. The easement schedule is a little strange in that the servient tenements are the roads lot No's, notto vest in favour Western Bay District Council. Please clarify.

30. The staging and supporting infrastructure required for each stage is not clearly demonstrated. Please address.

31. Those roads to be vested should be clearly identified on the scheme plan of subdivision. Please address.

Ground and Geotechnical:

32. There are no drawings to demonstrate the extent of the 50,000m^3 earthworks. Earthworks are not permitted as indicated in the AEE, they area

a non-complying activity under Rule 4A.5 of the District Plan. Accordingly please provide drawings and details.

33. Earthworks details (cut to fill, cross-sections) are also required to ascertain the effects of proposed finished levels/ retaining walls in context with proposed building heights and the surrounding areas. They also inform environmental impact considerations. Please provide/ clarify.

34. The geotechnical assessment report does not provide the categorisation of the Geo-Professional associated with the production of the report. The report cannot be accepted without confirmation it was produced and certified by the appropriate category of Geo-Professional. Please provide this certification.

35. Please provide Council's standard form 'Cert 10b' (Subdivision Consent).

36. Provision of Council's standard form 'Cert 10c' cannot be provided for the Land Use Consent because the subdivision has not be completed. No reference to this has been provided to clearly demonstrate an understanding of this. Please address this situation.

Retaining Structure:

37. It appears that retaining walls are required. These have not been displayed on drawings to demonstrate the extent, height range and impact of these walls. This information informs the need for other compliance mechanisms such as Building Consents. Please clarify.

Transportation Network:

38. No identification of the "position" or technical qualifications of the persons who generated the report has been provided. Please provide an updated and qualified report.

39. There are no typical road or private access cross-sections to demonstrate compliance including for street trees, lighting etc. Please provide.

40. A major roundabout is proposed on Omokoroa Road. It is unclear as to whether this was on our structure plan (TIA item 5.1 para 3 "the designated roundabout")? I only see a "T" or cross-roads intersection shown on the structure plan. Please clarify.

41. Section 5.4.1 of the TIA sates "*as noted in the structure plan*". This is not clear where that is, what this means and what part of the structure plan exactly it is referring to. Please clarify.

42. Statements such as "*It is considered that sight lines will be able to be achieved through detailed design*" are not acceptable. A concept safety audit of all internal roads, carparking and intersections proposed is required.

43. Please advise if the transitioning and traffic calming of the road connection from the Town Centre to the Sentinel Road and Kaimai Views will be independently safety audited at both the conceptual and design stages.

44. Please demonstrate and confirm if the gradients of the accessways will be less than 1 in 4.5 and will meet the Council's Development Code requirements?

45. Does the Town Centre development expect to utilise the Omokoroa Road land designation for part of the Town Centre proposal?

46. A left turn out onto Omokoroa Rd (lot 503) and a separate major roundabout are proposed. Any new intersection with Council's road network requires a concept stage safety audit. Please provide.

47. Main entrance - This street appears relatively steep for vehicles leaving the town centre, especially as there is likely to be queuing. Please advise the gradient?

48. Section 5.4.1 of the TIA discusses the lowering/ relocation of speed limits and it appears some design aspects may be dependent on this. This is proposed to be agreed with Council with that agreement deferred to engineering design stage. Council would need to review a concept safety audit to decide if this would be acceptable or not prior to granting resource consent. There are also other procedures involved with relocation of speed limits. Please clarify.

49. It is proposed to link to *Kaimai Views*. The report does not acknowledge the fact that *Kaimai Views* is an established, occupied medium density development (with narrow roads). The effects of allowing traffic (flow) from this commercial development could have detrimental effects. Please address.

50. The TIA refers to a potential mid-block pedestrian crossing/ refuge on Omokoroa Road 180m north of Flounder Drive:
    a) Given the high number of traffic movements on Omokoroa Road, please confirm if you will investigate further options of connecting the Town Centre and Neil Group subdivision via an underground or overhead facility?
    b) Please provide more detail to assess the sight distances.
    c) How does this work with proposed speed limits?
    d) In addition, additional crossing facilities and cyclists have not been considered. Please address.

51. Please undertake an assessment of traffic flows form the Town Centre to Prole Road to demonstrate the impact of traffic flows on the Town Centre and Prole Road and the Omokoroa/Prole Road intersection.

52. Note: The application is somewhat dependant on the re-location and lowering of speed limits on Omokoroa Road. This is subject to an often protracted process to be enforceable. The applicant should have pre-consulted with Council for agreement in principal to use these controls.

53. The tracking curves provided (internal to the site) show service vehicle crossing centrelines at intersections and on bends. The TIA states that this is acceptable but doesn't say why it is acceptable. Please demonstrate

54. The AEE states the internal roundabout will be mountable to enable tracking for supermarket delivery trucks, however the architectural plans (sheet4.0.50) shows vegetation within the roundabout. Please confirm the design of the roundabout and amend the architectural plans to match.

55. There are no supporting tracking curves to demonstrate compliance for on-site parking and manoeuvring areas; only over the 'main' roads. The tracking curves in appendix B are difficult to follow with regard to the overall context. Please update with clearer demonstration of compliance.

56. Please confirm that all vehicle crossings will be designed and safety audited by an independent Engineer to comply with the Council's Development Code and AS/NZS2890.1-2004 safety standards.

57. Please demonstrate that the internal car parking layout has been independently audited by a Traffic Engineer to meet the appropriate functions, design standards and safety guidelines.

58. The standard of the streets from the main entrance to the supermarket service area are not clear. Information is required to show that those streets can handle large vehicles. Please demonstrate.

59. The service yard of the supermarket appears relatively tight and on a street corner/intersection. Limited details are provided. As the supermarket is the key tenant and will likely generate most of the traffic, assurance is needed that it will work for both the supermarket and the public. More details are required on vehicle movements and tracking curves in and out of the supermarket service area, and vehicle movements along the road between the supermarket and Omokoroa Rd.

60. The application is somewhat dependant on the installation of "no stopping lines". We assume this to be internal to the site only?. Please advise.
    Note: This is subject to an often protracted process to be enforceable. The applicant should have pre-consulted with Council for agreement in principal to use this control.

61. The drawings supplied do not demonstrate how the proposed one and two way traffic flows will work within the site or beyond. Council will require an overall drawing showing the basic flows (in terms of direction only), including through Sentinal and Settler Avenues.

62. It appears that the Traffic Impact Assessment does not report on the expected traffic flows (volumes) through Sentinel/Settler Avenues. Please provide an analysis of this.

63. The parking proposals require further clarification as outlined below:
    a) The Stantec TIA:
       Section 9.4.2 Assessed Parking Demand:
       Total Expected Parking Demand = 759 spaces at peak
       Section 9.4.3 Proposed Parking Supply
       594 off street + 107 on street = 701

b) The First Principles Drawing "Masterplan – Parking Plan".
This drawing has a table showing 567 off street + 107 on street = 674, so doesn't match the TIA. Please review and validate the figures across the plans, TIA and AEE for correctness. Also, some spaces (6) are shown in the "Area of site does not from part of this application" which is confusing. Are they being counted or not? In addition, we can only count 81 on street parks, not the 107 claimed

64. The town centre carparks along the school boundary are likely to be taken up by school employees and students. Is this intended? Has this been factored into the carparking calculations? If not how is that conflict to be managed?

65. We are unsure of where in the TIA the proposed manoeuvring easement D is discussed. Please identify.

66. Will the site layout be reviewed by an independent Traffic Engineer so they are fully compliant with the Council's Development Code and other recognised standards and guidelines?

Stormwater:

67. It is proposed to vest the mainline "3-waters" systems in Council. The drawings show some of the wastewater and stormwater lines extending into the super lots but there are no easements. Therefore, are mixed public/ private systems proposed? If so where are the demarcation points and how is it proposed to manage the private systems on a long term basis? The report does not:
    - Clearly identify the infrastructure to be vested in Council ownership.
    - Comment on easements related for the infrastructure

68. There are no long-sections for wastewater or stormwater to demonstrate compliance. This also informs the setting of easement widths. Please provide.

69. Cl 4.2 of the Services Report states that the overland flow from "SHA-B" enters at the gully from the north. How will this be achieved? Please provide map(s) indicating the route and any works (e.g. Open channel along Omokoroa Rd) required to achieve it and sufficient detail of how it will be managed up and into the gullies.

70. Cl 4.3 of the Services Report notes that the gully floor is likely to require protection. How will this be provided?

71. The drawings and plans show the town centre sloping down toward the gully, with a slope of 1:20. How will the stormwater be addressed to manage the effects of runoff along footpaths and walkways, and the roads? Confirm what Low Impact Design (LID) measures will be used for the Town Centre Development to meet the Comprehensive Stormwater Consent (CSC) requirements?

72. Please confirm the type of species and the extent of planting in the overland flow paths and the gullies.

73. The combined services drawing 204509-0100-GA does not clearly demonstrate compliance for location of stormwater within the public or private access. In addition there are no typical road, private access cross-sections to demonstrate compliance either. Please advise how this will be achieved.

Wastewater:

74. It is proposed to vest the mainline "3 waters" systems in Council. The drawings show some of the wastewater and stormwater lines extending into the super lots but there are no easements. So therefore, are mixed public/private systems proposed? If so where are the demarcation points and how is it proposed to manage the private systems on a long term basis? The report does not:
    - Clearly identify the infrastructure to be vested in Council ownership.
    - Comment on easements related for the infrastructure

75. We note that the wastewater will be pumped to WWMH4050. Confirmation is required on the existing pipeline from WWMH4950 to the WW Pump station and its capacity to accommodate the additional wastewater from the Town Centre development and the surrounding catchment areas?

76. No mention has been made on wastewater compliance with the Council's Trade Waste Bylaws. Confirmation is required if the wastewater systems within the Town Centre Development will be installed to satisfy the levels of treatment and the Council's Trade Waste Bylaws.

77. The combined services drawing 204509-0100-GA does not clearly demonstrate compliance for location of wastewater within the public or private access. In addition there are no typical road, private access cross-sections to demonstrate compliance either.

Water Supply:

78. No information is present regarding the servicing of Water Supply for either individual lots and/or 'units' in regards metering – private vs public. Please advise how this will be achieved.

79. Section 6.2 of the Services Report - This section refers to Water Demand Assessment, which has been calculated at 11.9 l/sec peak demand, based on allowances as per Council's Development code. There is no further supporting information to estimate site specific water requirements over and above the code requirements. The application does not provide any modelling evidence that this demand will or will not impact on levels of service to the existing customer base.

80. Section 6.3 of the Services Report - This section refers to a proposed water main to be constructed along the road frontage of the development property, and states;
    - The diameter of this main will need to be confirmed at a later stage.

- The application does not provide any network modelling exercise data to determine if further upgrades are required beyond the parameters of the development.

81. Section 6.5 of the Services Report - This section refers to fire-fighting considerations from SNZ PAS 4509-2008 and the appended drawing. It states the proposed larger buildings fire-fighting requirements will fall within higher Fire Hazard Categories. There is no supporting information to show how these requirements will be achieved, such as on-site storage facilities.

82. The combined services drawing 204509-0100-GA does not clearly demonstrate compliance for location of water supply within the public or private access. In addition there are no typical road, private access cross-sections to demonstrate compliance either.

83. The Telecommunications information from Chorus is relatively generic. The proposal does not speak to placement of street furniture & cabinetry, or how this will be handled within the footprint of the proposal. Please advise.

Power and Phone:

84. Powerco information has not been provided. It would be expected that a development the size of this would draw a lot of power consumption. This could include a potential substation as well as street furniture & cabinetry. Therefore the development has not demonstrated that it is serviceable. Please advise.

85. The combined services drawing 204509-0100-GA does not clearly demonstrate compliance for location of power and telecom within the public or private access. In addition there are no typical road, private access cross-sections to demonstrate compliance either. Please provide relevant cross-sections.

Landscaping:

86. No detailed landscaping drawings have been provided to demonstrate how amenity will be included into the project. Council's Omokoroa street tree rules must also be considered.

Financial Contributions:

87. A specific assessment of water use to determine the level of financial contributions has not been supplied

88. A specific assessment of wastewater use to determine the level of financial contributions has not been supplied

89. A specific assessment of stormwater to determine the level of financial contributions has not been supplied

Draft Conditions

90. In order to assist in the pre-hearing planning, and without prejudice, prior to the hearing, it is recommended that the applicant consider furnishing a draft set of conditions which the applicant considers relevant and appropriate for the proposed development.

7.5 SECTION 92 REQUEST FOR FURTHER INFORMATION FOLLOWING CLOSE OF SUBMISSIONS - JACE INVESTMENTS LTD - 404 OMOKOROA ROAD, OMOKOROA

File Number: **A3995375**

Author: **Barbara Clarke, Senior Governance Advisor**

Authoriser: **Jan Pedersen, Group Manager People And Customer Services**

EXECUTIVE SUMMARY

This report provides the Section 92 Request for Further Information following the close of submissions, dated 29 July 2020 **(Attachment 1)**, and provides details of the further information requested **(Attachment 2)**, in relation to an application made by JACE Investments Ltd for Land Use and Subdivision Consent to establish a Mixed-Use Commercial Town Centre at 404 Omokoroa Road, Omokoroa. [RC11997L & RC2996S]

ATTACHMENTS

1. **Section 92 Request for Further Information Following Close of Submissions - dated 29 July 2020** ⇩
2. **Details of S92 Request for Further Information following Close of Submissions - dated 29 July 2020** ⇩

SECTION 92 RESPONSES TO REQUESTS

Please note that all Section 92 Responses to Requests can be viewed on Council's website using the following link:

https://www.westernbay.govt.nz/property-rates-and-building/district-plan-and-resource-consents/resource-consents/current-applications/404-omokoroa-road-public-notification

From: Anna Price
To: Richard Coles
Cc: Tom Watts; Vanessa Hamm (vanessa.hamm@hobec.co.nz); Chris Watt
Subject: 2020-07-29 - Further s92 request following close of submissions
Date: Wednesday, 29 July 2020 2:02:00 pm
Attachments: image001.png
2020-07-29 - Further s92 request as a result of submissions.pdf

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Good afternoon Richard,

Following the close of submission on the 17 July 2020, please find attached a further s92 request in addition to the outstanding S92 request sent on June 18th 2020.

It would be appreciated if you can please provide an indication of your current progress with the s92 request and an timeframe on the expected return of this information as well as todays additional request.

This will allow us to progress with expected timeframes, securing commissioners and a hearing date.

Regards

Anna Price
Senior Consents Planner | Kaiwhakamahere Matua
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29 July 2020

Further request pursuant to Section 92 of the Resource Management Act 1991, following the close of submissions

1. Continued focus on roading network, including heavy vehicles utilising the main internal road system's roundabout. Please provide further information and consideration around:
    a. pedestrian and cycle-links through the development, particularly from Kaimai Views to the proposed adjacent school site; and
    b. promotion of shared space, traffic calming opportunities; and
    c. removal of carparking from the main street to encourage safe pedestrian/ cycle dominance; and
    d. Also consideration to ebike and mobility scooters and reduction of car dominance.

2. Please provide further detail on the sustainable building/ environmental design elements and low-impact urban design and further consideration of District Plan objectives 12.2.1.3, 12.2.1.7 & policy 12.2.2.8.

3. To reduce the impact of traffic on Kaimai Views residents, has consideration been given to alternative options to further reduce or restrict a potential '*rat-run*' of traffic through Sentinel Avenue and the already narrow carriageway? Please discuss.

4. Please provide further details on the proposed recreation areas, including playground, mixed age groups' (elderly/ teenagers) greenspace and family meeting/ hangout areas which will enhance and support the local community

5. Please provide further options and analysis around Building "N" in relation to height, character & amenity and suitability of this scale of building at this location. Has a lower building height been considered to tie in better with the residential zone's height restriction of 8.0m?

6. CPTED – underground carpark and retail sleeve. Please provide a written assessment of CPTED principles on the carpark as it will be isolated from public surveillance.

7. Please provide an assessment on potential noise and amenity effects from the proposed supermarket service/ delivery yard on the proposed building "N" apartments and the adjoining dwellings at Kaimai views as noise is likely to travel down the eastern side of building "N".

8. Has consideration been given to how to achieve connectivity from the town centre the eastern side of Omokoroa Road? The Urban Design Assessment shows pedestrian linkages out to Omokoroa Road; however, no discussion has been provided on how links to the nearby subdivisions of Harbour Ridge and Te Awanui Waters. Has there been discussion with Council staff how connectivity will be achieved across the future multi-lane Omokoroa Road? Please provide further discussion and details.

9. Please provide a detailed assessment of effects on the residents in the Kaimai Views subdivision (ie. traffic through Sentinel Avenue), and those directly adjoin the Town Centre site (ie character and amenity, privacy, noise).

10. Please provide an assessment on how the proposal fits within the proposed structure plan framework Council has been working on through community workshops and the identification of preferred options for a Town Centre location. Please also provide comments on the proposed Structure Planning framework which has previously indicated the site would change to Residential Zone.

11. Please provide details on how the development will integrate with the Council's Public Art Policy.

12. While a civic space is proposed, please provide detail on integration with other community facilities, i.e. shared workspace, arts and cultural facilities, auditorium, movie theatre, swimming pool.

13. Please undertake consultation with and provide further feedback from "Power Co" and provide their confirmation on the capacity/ availability within the electricity distribution network for the development and any necessary upgrades. Please indicate on the scheme plan a suitable location for electricity distribution.

14. It appears the intention is to construct the supermarket and sleeve retail in the first stage of the development. Please provide details on how traffic/ deliveries, noise, light-spill, loss of residential amenity effects to Kaimai Views' residents will be mitigated until building "N" is constructed as a buffer.

15. The proposal will likely increase the vehicle movements through the intersection of Omokoroa Road and State Highway 2. The NZTA notes that the intersection is subject to capacity and safety constraints, which will be exacerbated by increased trip generation associated with further development within Omokoroa. Please provide an assessment of increases in trip generation, capacity and safety at the State Highway 2 intersection as a result of the proposed development which will drive the local rural/ Katikati community into Omokoroa. NZTA note that the NZ Upgrade Programme should remove this issue with a grade separated interchange at the intersection; however, there is still no project plan and no funding yet received. Please consult with NZTA further on this matter.

16. Please provide further details on the planned childcare centre including building location, carparking, play areas, noise and an assessment of the activity on adjoin neighbours.

17. NOTE: the applicant originally applied for a Land Use consent for Contaminated soil, which was returned. To date this application has not been resubmitted to Council