

24 June 2026

Job No: 1014358.3200-LTR-CN-001 v3

Beachlands South Limited Partnership
c/- Russell Property Group
PO Box 17254, Greenlane
Auckland 1540

Attention: Graeme Harvey

Dear Graeme

**Beachlands South
Fast-Track Application
Contamination Consent Considerations**

1 Statement of Qualifications and Experience

My name is Natalie Linda O'Rourke. I am a Senior Contaminated Land Consultant at Tonkin & Taylor Ltd (T+T). I have worked at T+T since 2019. I have 17 years' experience in the assessment and management of contaminated land and groundwater. I am a Certified Environmental Practitioner Site Contamination Specialist (CEnvP SC), awarded in 2021.

Recent relevant projects and services that I have been involved with include:

- Expert witness relating to contaminated land for the plan change for the Beachlands South project.
- Technical review and expert witness for hydrogeology relating to a discharge consent application for a construction and demolition landfill in Greymouth.
- Contamination lead and technical reviewer for consent inputs for Watercare's South Auckland (Hingaia) wastewater servicing scheme.

I confirm that, in my capacity as author of this report, I have read and abided by the Environment Court of New Zealand's Code of Conduct for Expert Witnesses contained in the Practice Note 2023.

2 Background

This report assesses land contamination aspects for the substantive application submitted by Beachlands South Limited Partnership ('BSLP') under the Fast-track Approvals Act ('FTAA'). The Project name is 'Beachlands South' and is included in Schedule 2 of the FTAA as a Listed Project with significant regional or national benefits. The Project location or Site is located across approximately 159.58 hectares of live zoned land and approximately 108.6 hectares Future Urban zoned land at 110 Jack Lachlan Drive, and 620, 712, 758 and 770 Whitford-Maraetai Road, Beachlands. The Site layout is presented in Figure 2.1.

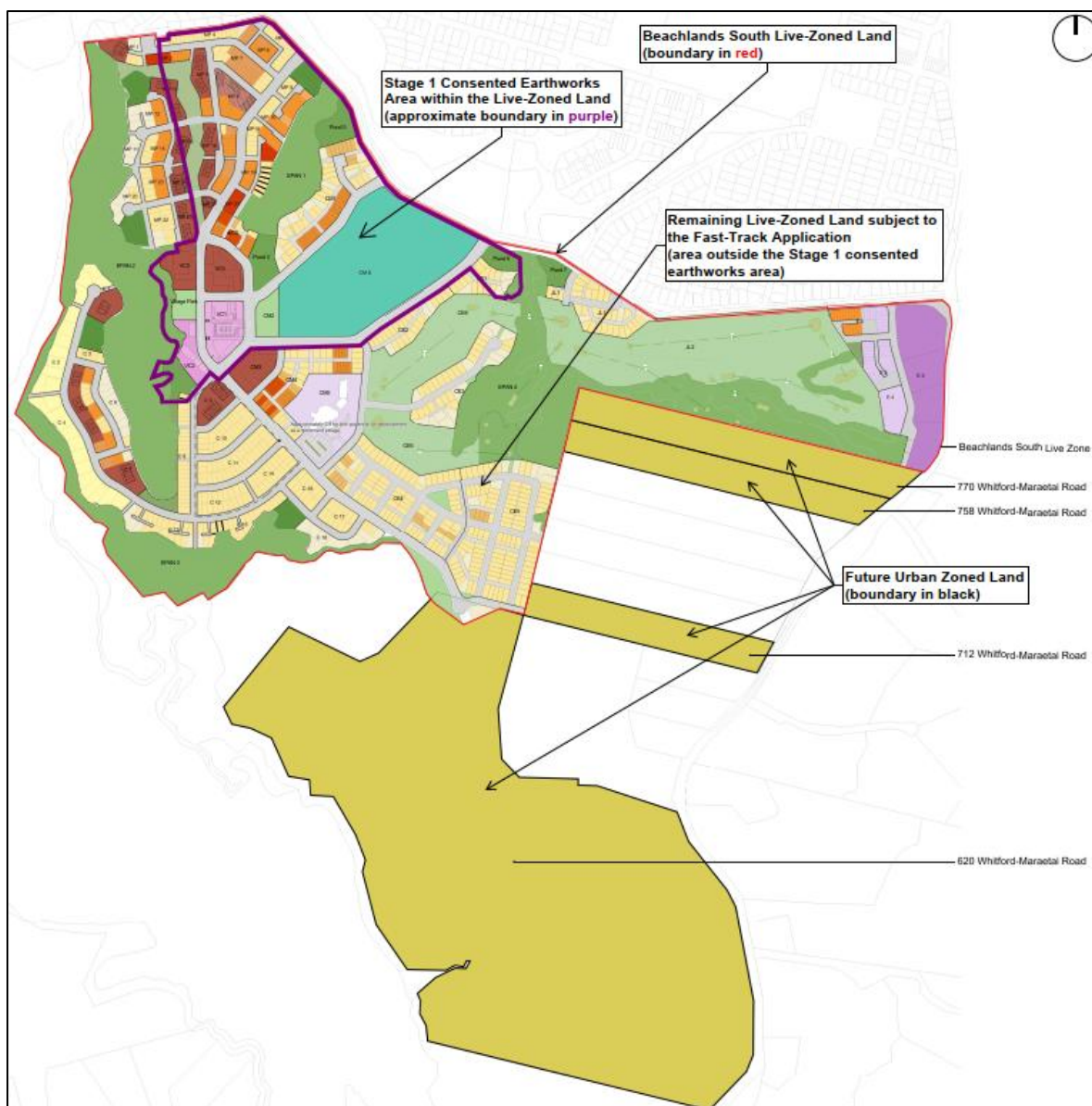


Figure 2.1: Site layout showing Stage 1 consented earthworks area, remaining live zone and Future Urban Zone land.

In summary, the Project will provide for the development of live zoned land at Beachlands into a comprehensively planned and public transport focussed community to achieve a well-functioning urban environment comprising residential dwellings, a hotel and conference venue, community and commercial activities, protected ecological restoration areas, walking and cycling networks, and community facilities, and enable the potential development of two schools, as well as all associated earthworks and all associated infrastructure including transport facilities, intersection upgrades and roading, telecommunications, power, and water supply, stormwater, and wastewater infrastructure (including any treatment or storage facilities, drainage, pipes, pump stations, outfalls and discharges).

Key elements of the Project include:

- Residential activities comprising approximately 2,200 dwellings in a variety of housing types, densities and vacant sites for future residential development;

- Establishment of a commercial local centre supported by employment opportunities within and around the periphery of the local centre and on the Whitford-Maraetai Road frontage comprising approximately 27,000 m² of commercial ground floor area (GFA) and 30,000 m² of light industrial GFA;
- Education facilities comprising the development of both primary and secondary schools;
- Establishment of an Ecological Protected Area Network (EPAN) comprising approximately 75 hectares of land being replanted, restored, maintained and enhanced including preservation of streams and their margins;
- A series of open spaces including a suburban park, neighbourhood parks, the Fairway Reserve, golf course, esplanade reserve and riparian margins;
- Provision of public access to and along the coastal marine area and the creation of a quality coastal pathway;
- Public transport enhancements and integrations including expanded ferry passenger capacity;
- Staged road upgrades including the provision of pedestrian and cycling facilities along Jack Lachlan Drive, the upgrade of Whitford roundabout, a series of intersection upgrades; and
- Establishment of infrastructure to service the project including wastewater, water supply, stormwater, telecommunications and power.

The properties at 620, 712, 758 and 770 Whitford-Maraetai Road are zoned Future Urban Zone (FUZ). Limited works are currently proposed within the FUZ:

- 1 620 Whitford-Maraetai Road will contain some of the wastewater discharge via drip feed irrigation.
- 2 712 Whitford-Maraetai Road will have an access road located on it to serve the development.
- 3 770 and 758 Whitford-Maraetai Road are proposed to be used for potential additional golf holes and an access way to the light industrial / work live units on the land fronting Whitford-Maraetai Road.

This letter report has been prepared by T+T to outline the approach for contamination-related consents for the Site. It has been prepared in accordance with our proposal dated 2 December 2025 and our variation approved on 9 June 2026.

3 Supporting contamination reports

The contamination reports to be used for the substantive application for Project are as follows:

- T+T, November 2022. Detailed Site Investigation¹ (the DSI)
 - This report was prepared to support the private plan change and was used in support of the resource consent application for Stage 1 earthworks² within 110 Jack Lachlan Drive (consented separately to the substantive application).
 - This report presents preliminary site investigation (PSI) information for 110 Jack Lachlan Drive, 620 Whitford-Maraetai Road and 712 Whitford-Maraetai Road.
 - This report presents a detailed site investigation (DSI), i.e. intrusive site investigation, for 110 Jack Lachlan Drive and 620 Whitford-Maraetai Road.
- T+T, June 2026. Desktop Ground Contamination Investigation, 758 and 770 Whitford-Maraetai Road³.

¹ T+T, November 2022. Detailed Site Investigation - 110 Jack Lachlan Drive and 620 Whitford-Maraetai Road, 1014358.v5

² Resource consent was granted for earthworks in this area by Auckland Council in 2025 (LUC60453761 and LUS60459682).

³ T+T, June 2026. Desk-based Ground Contamination Investigation, 758 and 770 Whitford-Maraetai Road

- This report presents an initial desktop assessment for 758 and 770 Whitford-Maraetai Road comprising review of historical aerial imagery and a high-level implications assessment.
- T+T, June 2026. Contamination Site Management Plan⁴ (the CSMP)
 - The CSMP has been prepared to support the Fast Track application and to provide procedures to manage potential ground contamination effects on human health and the environment during ground disturbance activities associated with the proposed development.

A summary of the contamination conditions is provided in the following section.

4 Contamination conditions

The contamination conditions for the site are summarised by property in Table 4.1 below. Please refer to the DSI and the desk-based ground contamination assessment for detailed information. The soil results from the DSI are included in the CSMP.

The summary of contamination conditions set out in Table 4.1 also includes notes regarding consent triggers under the NESCS⁵ and Auckland Unitary Plan (AUP). As background:

- Activities with the potential for ground contamination are defined in the Ministry for the Environment (MfE) Hazardous Activities and Industries List (HAIL)⁶. The NESCS⁷ applies to specific activities on land where a HAIL activity has or is more likely than not to have been undertaken. Activities covered under the NESCS include soil disturbance, soil sampling, fuel systems removal, subdivision and land use change.
- Chapter E30 of the AUP sets out permitted activity standards for discharges from disturbing soil on land containing elevated levels of contaminants as well as permitted activity soil acceptance criteria (Table E30.6.1.4.1). If soil concentrations do not exceed the permitted activity soil acceptance criteria (also referred to as discharge criteria) and separate phase hydrocarbons are not present, then the land would not be considered to contain “elevated levels of contaminants”.

Site plans showing the HAIL areas and T+T sampling locations are included in Appendix A. The requirements for contamination-related consents in relation to the proposed development are discussed in Section 5.

⁴ T+T, June 2026. Contamination Site Management Plan, Beachlands South - Fast-Track Consent. Prepared for Beachlands South Limited Partnership c/- Russell Property Group. T+T ref: 1014358.3200 v3.

⁵ Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.

⁶ Ministry for the Environment, October 2011. Hazardous Activities and Industries List (HAIL).

⁷ Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.

Table 4.1: Summary of contamination conditions

Property	PSI findings	DSI findings
110 Jack Lachlan Drive (excluding Stage 1)	Potential HAIL activities were identified relating to: • Filling during development with fill of unknown origin (Activity I) • Application or storage of persistent pesticides at the golf course (Activity A10) • Buildings built or demolished during time when asbestos containing material and lead based paints in use (Activity I) • On-site wastewater treatment plant and effluent disposal (Activity G6), relating to the existing on-site wastewater treatment plant (and associated neighbouring disposal areas), hereafter collectively referred to as the 'WWTP'.	Soil was investigated at 18 locations for the DSI. All results were within the published background range concentrations for non-volcanic soils in Auckland, and did not exceed the NESCS soil contaminant standard (SCS) for residential land use (consumption of 10% home grown produce scenario) or the AUP discharge criteria. On this basis, potential HAIL activities I and A10 were not “more likely than not” to have occurred. The only HAIL activity occurring is the existing WWTP, which was not investigated by the DSI. The existing WWTP remains operational under a discharge consent from Auckland Council (DIS60353629). Soil testing would be expected to be required prior to soil disturbance of the WWTP.
620 Whitford-Maraetai Road	Potential HAIL activities were identified relating to: • Filling of gullies with fill of unknown origin (Activity I) • Livestock drip or spray race operations associated with sheep and beef farming (Activity A8) • Storage of fuel for farm equipment in drums or mobile tankers (Activity A17)	As discussed in the DSI, Fraser Thomas⁸ had previously investigated soil in an infilled gully and in the location of a former spray race: • Concentrations of dieldrin, an insecticide, in surface soil in the location of the former spray race exceeded Auckland background concentrations, but did not exceed the residential NESCS SCS or the AUP discharge criteria. • During the site investigations in 2011, Fraser Thomas observed some refuse (farm and building waste) in the gully area including small pieces of potential asbestos-containing material (ACM). Soil samples were collected in this area. Arsenic concentrations in four samples of fill from the gully exceeded the NESCS SCS of 20 mg/kg. Zinc concentrations exceeded the AUP discharge criteria in three of the samples. In addition to arsenic and zinc, cadmium, chromium and copper concentrations exceeded background ranges. Fraser Thomas noted that fuel for farming equipment was historically stored in 44 gallon drums. At the time of their investigation, mobile tankers were in use. Fraser Thomas stated that no visual or olfactory evidence of hydrocarbon

⁸ Fraser Thomas Consultants, December 2012. Proposed Ahuareka rural subdivision at 650 Whitford-Maraetai Road Environmental assessment, #31883

Property	PSI findings	DSI findings
		contamination was observed. As noted in the DSI, there is low potential for contamination of surface soils from the fuel storage. For the DSI, in 2021 T+T inspected the gully area and did not observe surface or buried refuse that had been previously identified by Fraser Thomas. Soil samples were collected from five additional locations (HA01 to HA05) and were tested for asbestos by the semi-quantitative method. Asbestos was not detected. The Fraser Thomas investigation results confirm HAIL activities I and A8 have been undertaken on 620 Whitford-Maraetai Road, and that the rules of the NESCS and Chapter E30 of the AUP would apply to future redevelopment in identified HAIL areas.
712 Whitford-Maraetai Road	Potential HAIL activities were identified relating to: • Buildings built or demolished during time when asbestos containing material and lead based paints in use (Activity I). • Potential filling of gully and filling during residential dwelling development with fill of unknown origin (Activity I).	A DSI has not been undertaken.
758 Whitford-Maraetai Road	Potential HAIL activities were identified relating to: • Buildings built or demolished during time when asbestos containing material and lead based paints in use (Activity I).	A DSI has not been undertaken
770 Whitford-Maraetai Road	Potential HAIL activities were identified relating to: • Buildings built or demolished during time when asbestos containing material and lead based paints in use (Activity I).	A DSI has not been undertaken

Further to the DSI findings noted above, T+T note that unexpected contamination has been encountered during Stage 1 earthworks on 110 Jack Lachlan Drive in 2026 (under the separate consent). On that basis, even if there is not a specific contamination consent trigger for earthworks on the remainder of 110 Jack Lachlan Drive, there is still potential for unexpected contamination, given the size of the property.

5 Proposed development and consent considerations

The Infrastructure Report⁹ describes six stages of bulk earthworks across the site, with secondary earthworks for superlot and multi-storey development areas to be undertaken at a later stage by future development partners.

T+T has been supplied with a draft cut/fill plan dated 25 May 2026¹⁰ (refer Appendix B) which indicates cut and fill contours on 110 Jack Lachlan Drive and for the new access road on 712 Whitford-Maraetai Road with a new road intersection on 620 Whitford-Maraetai Road. Further to the draft cut/fill plan, T+T understand that earthworks will also be undertaken on:

- 620 Whitford-Maraetai Road for the development of the new wastewater drip irrigation fields; and
- 758 and 770 Whitford-Maraetai Road as part of Stage 6 of the staged development framework, with works relating to golf course reconfiguration and an access way.

With respect to earthwork intersecting HAIL areas, T+T note that:

- Based on the cut/fill plan, future earthworks **will intersect with the existing WWTP on 110 Jack Lachlan Drive**. Parts of the existing WWTP overlap “ecological areas” where no earthworks are planned. The remainder of the existing WWTP will be filled and re-developed for residential use; however, as part of site preparation a topsoil strip is expected where earthworks are planned.
- Based on the description of work, earthworks **are not anticipated to intersect with the former spray race or infilled gully on 620 Whitford-Maraetai Road**.
- Based on the description of work, earthworks **are not anticipated to intersect with the potential HAIL activities on 712 Whitford-Maraetai Road**.
- Based on the description of work, earthworks **may intersect with the potential HAIL activities on 758 and 770 Whitford-Maraetai Road**.

As part of site preparation, a topsoil strip is expected where earthworks are planned. On this basis, T+T consider it is possible that soil disturbance within the identified HAIL area on 110 Jack Lachlan Drive and the potential HAIL areas 758 and 770 Whitford-Maraetai Road could exceed the NESCS and AUP permitted activity limits. Soil investigation has not been undertaken within the identified or potential HAIL areas to assess contaminant levels. The CSMP sets out pre-works investigations for the existing WWTP and potential HAIL areas on 758 and 770 Whitford-Maraetai Road to be undertaken prior to earthworks to establish health and safety controls for construction and confirm soil disposal requirements.

With respect to the proposed subdivision and change of use of the existing WWTP to residential land use, T+T note if contamination is present, future occupants will not come into contact with soil following the proposed topsoil strip and filling. Thus, it is highly unlikely that the proposed

⁹ Harrison Grierson, June 2026. Beachlands South Fast Track, Infrastructure Report.

¹⁰ Harrison Grierson, 25 May 2026. Beachlands Fast Track Consent Package, Beachlands South, Cut/Fill Volume. DRAFT. Drawing No. A2515591.00-HG-S1-SK-C-037.

subdivision and change of land use will harm human health. On this basis, subdividing or change of use is a permitted activity under Regulation 8(4) of the NESCS and consent is not required.

It is also highly unlikely that the change in use for 758 and 770 Whitford-Maraetai Road from rural residential use to recreational use (golf course) will harm human health. While not shown on the cut/fill plan, it is anticipated that the reconfiguration of the golf holes will comprise stripping of surface material and landscaping. If contamination is present, future users will not come into contact with soil following earthworks. The change in use for 758 and 770 Whitford-Maraetai Road is also a permitted activity under Regulation 8(4) of the NESCS.

Contamination-related consents **will be required** for the development on the basis that:

- soil disturbance of an identified HAIL area (the existing WWTP on 110 Jack Lachlan Drive) is planned; and
- soil disturbance of potential HAIL areas on 758 and 770 Whitford-Maraetai Road may occur (earthwork plans are not currently available).

The DSI includes 110 Jack Lachlan Drive, but not 758 and 770 Whitford-Maraetai Road. From the work to date it has not been confirmed that the NESCS and AUP would apply to proposed soil disturbance on 758 and 770 Whitford-Maraetai Road. In the absence of confirmation, it is **assumed** that the NESCS and AUP will apply to soil disturbance on 758 and 770 Whitford-Maraetai Road.

As a DSI has not been undertaken for 758 and 770 Whitford-Maraetai Road, soil disturbance for the Site will be a **discretionary activity** under the NESCS (per Regulation 11). Discharges from the soil disturbance will require consent as a **discretionary activity** under Chapter E30 of the AUP (Table E30.4.1 A7).

The potential human health and environmental effects from the soil disturbance will be negligible if appropriate controls are implemented during soil disturbance and impacted soil is removed off-site to an appropriate facility or capped. The draft CSMP outlines procedures for the management of potential ground contamination effects during the proposed works and includes protocols for the management of unexpected contamination. Implementation of the CSMP, including pre-works investigations, will be a condition of the consent.

6 Summary and next steps

Based on the proposed earthworks, contamination-related consents will be required for:

- Soil disturbance as a discretionary activity under Regulation 11 of the NESCS; and
- Discharges from soil disturbance as a discretionary activity under Table E30.4.1 A7 of the AUP.

A draft CSMP has been prepared to assess the Fast Track application, and outlines procedures for the management of potential ground contamination effects. The potential human health and environmental effects from the soil disturbance will be negligible if appropriate controls are implemented during soil disturbance and impacted soil is removed off-site to an appropriate facility or capped if soil is retained on-site. Implementation of the CSMP, including pre-works investigations, will be a condition of the consent.

The next steps are summarised as follows:

- 1 Submit the supporting contamination reports (the DSI, the desktop ground contamination assessment and draft CSMP) as part of the resource consent application.
- 2 Post-consent, when the organisations that will be involved in implementing the CSMP are confirmed, finalise CSMP and provide to Council before commencing earthworks.

- 3 Prior to future earthworks in the vicinity of the existing WWTP, but after the WWTP ceases operation, undertake pre-works investigation, update CSMP based on the findings and provide to Council.
- 4 Prior to future earthworks that intersect potential HAIL areas on 758 and 770 Whitford-Maraetai Road, undertake pre-works investigation, update CSMP based on the findings and provide to Council.

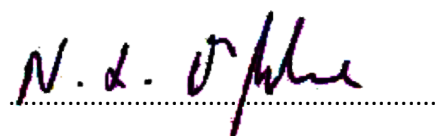
7 Applicability

This report has been prepared for the exclusive use of our client BSLP, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

We understand and agree that our client will submit this report as part of an application under the FTAA and that an Expert Panel will use this report for the purpose of assessing that application. We understand and agree that this report will be used by the Expert Panel in undertaking its regulatory functions.

Tonkin & Taylor Ltd

Report prepared by:



Natalie O'Rourke
Senior Contaminated Land Consultant

Authorised for Tonkin & Taylor Ltd by:



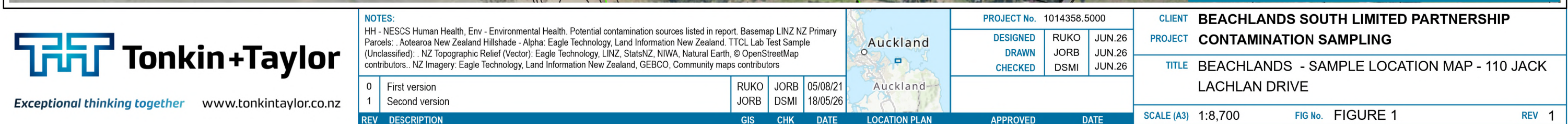
Mark Thomas
Project Director

Technical review by Sarah Schiess – Technical Director

24-Jun-26

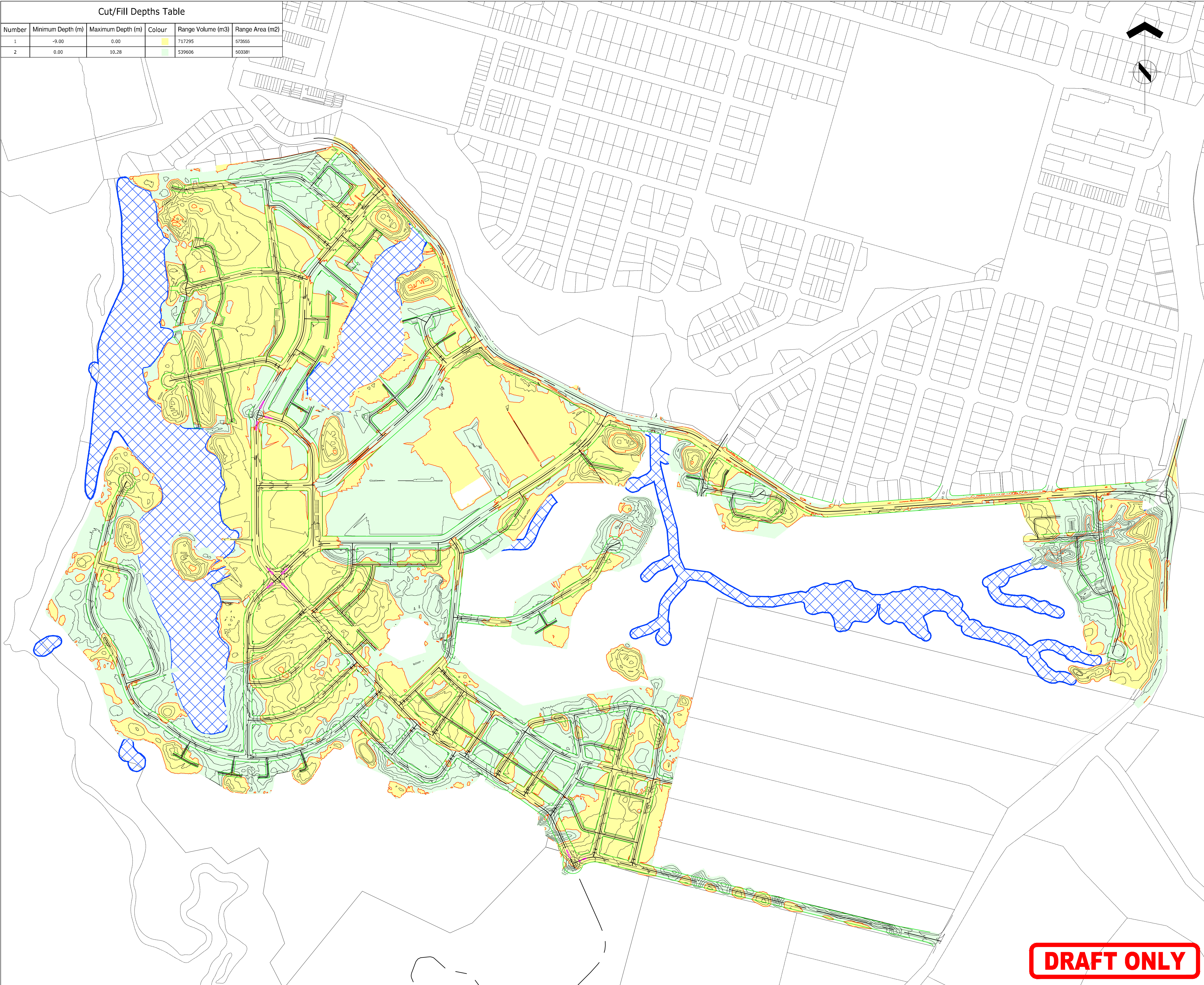
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Appendix A Site plans



Appendix B Draft cut/fill plan

Cut/Fill Depths Table					
Number	Minimum Depth (m)	Maximum Depth (m)	Colour	Range Volume (m3)	Range Area (m2)
1	-9.00	0.00	Yellow	717295	573555
2	0.00	10.28	Green	539606	503381





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NOTES:

1. EARTHWORKS VOLUMES (EXISTING SUBGRADE VS PROPOSED SUBGRADE):
CUT VOLUME = 717,000m³
FILL VOLUME = 540,000m³

STRIPPED TOPSOIL VOLUME = 215,400m³
RESPREAD TOPSOIL VOLUME = 107,700m³

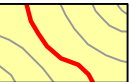
2. EARTHWORKS AREA :
TOTAL AREA = 1,077,000m²

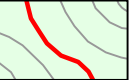
NOTE: TOPSOIL STRIP ASSUMED 200mm ACCORDING TO THE GEOTECH REPORT RECEIVED FROM TONKIN AND TAYLOR ON 12.06.2025.

3. VOLUMES INDICATED ABOVE ARE A COMPARISON BETWEEN EXISTING GROUND AFTER TOPSOIL/UNSUITABLE REMOVAL (200mm DEPTH), AND THE SUBGRADE DESIGN LEVELS (100mm LOWERED FROM FINISHED GROUND DESIGN LEVELS FOR ALL AREAS). THIS EXCLUDES VOLUMES FOR ROAD GULLETS, SERVICE TRENCHING, TEMPORARY BATTER SLOPES AND ANY OTHER GEOTECHNICAL FINDINGS ON SITE. ACTUAL VOLUMES ARE SUBJECT TO CHANGE BASED ON THE GROUND CONDITIONS ENCOUNTERED DURING EARTHWORKS OPERATIONS.

4. VOLUMES PRESENTED ARE IN SOLID MEASURE WHICH IS THE MATHEMATICAL DIFFERENCE BETWEEN TWO SHAPES. VOLUMES DO NOT ACCOUNT FOR COMPACTION OR BULKING.

LEGEND:

 CUT CONTOURS SHOWN AT 1m INTERVALS

 FILL CONTOURS SHOWN AT 1m INTERVALS

A	FOR INFORMATION	PZS	24.05.26
REF	REVISIONS	BY	DATE

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PROJECT:

BEACHLANDS
FAST TRACK CONSENT PACKAGE
BEACHLANDS SOUTH, AUCKLAND

TITLE:

CUT/FILL VOLUME

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
PZS	05.2026		PZS
DRAWN:	DATE:	SIGNED:	PLOT DATE:
PZS	05.2026		25.05.26
CHECKED:	DATE:	SIGNED:	SURVEY BY:
CJM	05.2026		
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
CJM	05.2026		

ISSUE STATUS:

FOR INFORMATION

PROJECT No: A2515591.00	SCALES: A1 1:3500 A3 1:7000	A1
DRAWING No: A2515591.00-HG-S1-SK-C-037		REV A

DRAFT ONLY

REFER TO APPROVED MASTER DRAWINGS FOR ORIGINAL SIGNATURES File: LATE C:\AUTODESK\ACCDOS\ACCDOS\HARRISON GRIERSON_US\BEACHLANDS SOUTH FAST TRACK CONSENT\PROJECT FILES\01_DESIGN\02_CIVIL\05_SKETCHES\SK037-CUT FILL VOLUME (PROPOSED VS EXISTING).DWG