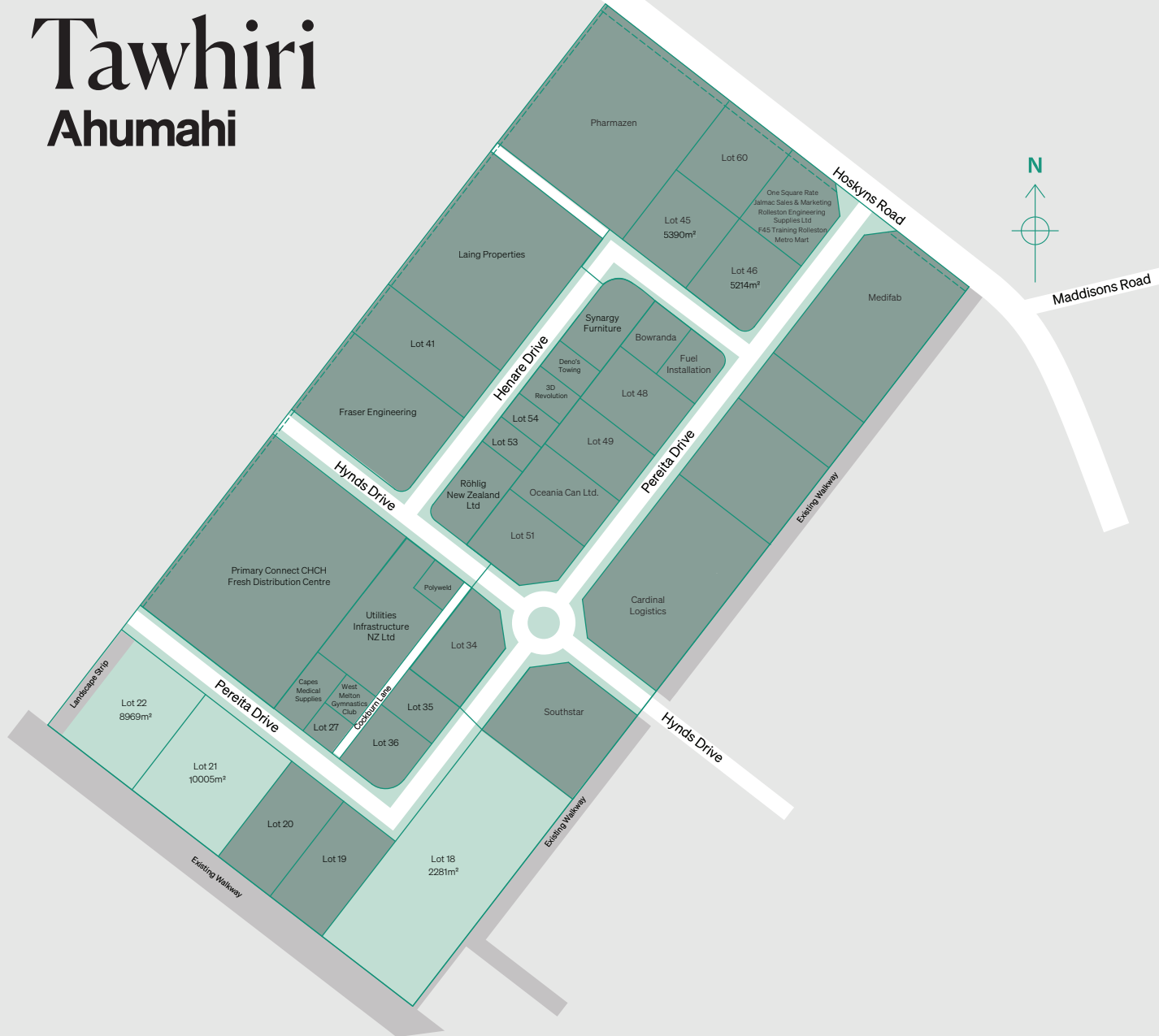


Tawhiri Ahumahi



Ahumahi Technical Specifications

ahumahi.nz

NGĀI TAHU Property

Contents

Infrastructure and Geotechnical 3

Greendale Fault 4

Planning Information..... 5

Further Information and Disclaimer 11

Tawhiri

Meaning and narrative of the name Tawhiri

In 1868 Tawhiri Henare Pereita, a leading chief from Kaiapoi, claimed lands between Christchurch the Selwyn River (Waikirikiri) as a mahinga kai on behalf of the Kaiapoi Ngāi Tahu.

While there were no other claimants, the claim was dismissed because the land had already been sold by the Crown. Henare Pereita was also a key informant to Pākehā ethnographers as they were recording histories from Kaiapoi Māori for some of the first published texts on Te Waipounamu Māori history.

Henare had knowledge of mahinga kai throughout the Canterbury plains/Kā Pakihi Whakatekateka I Waitaha.

The Ngāi Tahu Property development in Rolleston provides an opportunity to further acknowledge Henare’s rangatiratanga and claim to the area.

Ahumahi

Ahumahi means Industrial in Te Reo, reflecting our unique approach to property development.

To find out more about the industrial developments visit ahumahi.nz



Infrastructure and Geotech

Water Supply

The watermain is designed to comply with SNZ PAS 4509:2008 New Zealand Fire Service Firefighting Water Supplies Code of Practice.

All works comply with the Selwyn District Council Code of Practice and all lots have been provided with a meter at their boundary.

Sewer

The development is serviced with a gravity sewer. All works comply with the Selwyn District Council Code of Practice.

Stormwater

Stormwater is discharged to ground via soakage systems. All lots drain to individual soakpits through treatment devices contained within lot boundaries. Stormwater from roads is directed from the kerb and channel and discharged to ground via rapid soakage chambers.

Secondary flow paths within the sites are directed to the road network which has been graded to convey the secondary flow path towards the designated stormwater treatment and discharge system.

All stormwater infrastructure designs comply with Selwyn District Councils Code of Practice: Part 5 Stormwater and Land Drainage and the CCC Waterways and Wetlands Drainage Guide Part B Design Guide (2003).

Geotechnical

Geotechnical engineer (ENGEO) consider the development to have a Technical Category 1 (TC1) future land performance classification. Whereby future land damage from liquefaction is unlikely, and ground settlements are expected to be within normally accepted tolerances. They have also considered the risk to the site from fault rupture, liquefaction, flooding and tsunami, and have assessed the risk from these hazards to be low.

Foundations for future proposed commercial buildings within the development may comprise pad or slab foundations. An Ultimate Bearing Capacity of 200 kPa may be assumed for foundations bearing on native sandy, silty or gravelly soils, or engineered fill, below any topsoil. This is to be confirmed by site specific geotechnical investigation during the building consent stage.



Greendale Fault

Planning

Following the September 2010 event and to help land use planning, GNS Science was commissioned by Environment Canterbury on behalf of Selwyn District Council to investigate the Greendale fault.

GNS Science estimate the most recent rapture event pre-September 2010 was 20,000 to 30,000 years ago. GNS Science updated earlier estimates of the recurrence interval (5,000 to 10,000 years) for the Greendale fault to 10,000 to 20,000 years.

Mapping by GNS Science shows that part of the development land is located within the Greendale fault trace, this zone has been mapped at 300m in width. As such, an awareness area has been adopted by GNS Science using The Ministry for the Environment guidelines for development of land on, or near fault lines. Refer to grey area in Figure One.



Structural Engineering

The geotechnical characteristics of deep gravels underlying the site provide a dense, low compressibility material to support building foundations and infrastructure. Environment Canterbury's assessment of liquefaction risk is low. The risk of building damage due to land deformation (e.g. lateral spread and significant differential settlement) is low.

Buildings are required to be designed to meet the building code (i.e. designed to 100% New Building Standard) and require building consent. For buildings within the fault zone, any additional structural design over and above building code is at the discretion of the building developer/owner.

Building Consent

Selwyn District Council advised that buildings are to be designed and constructed to the requirements of the Building Code and there will no additional mandatory requirements. Any additional design over and above building code is at the discretion of the building developer/owner.

Insurance

The development has been pre-approved for insurance by Aon. We are happy to connect you with our broker to discuss your insurance queries.

Planning Information

The following information is a summary of the relevant rules and standards contained within the Selwyn District Plan that apply to Business 2A Zone in Rolleston. This information is for a guide only, and readers should refer directly to the District Plan which can be found at:

<http://eplan.selwyn.govt.nz>

This site is located within the Business 2A Zone under the Selwyn District Plan.

Activities

Permitted Activities

Any activity which complies with all of the provisions of the District Plan are permitted activities, provided they comply with all of the conditions for permitted activities in Rules 14 to 23 and are not listed below.

Controlled Activities

The following activities are Controlled Activities in the Business 2A Zone:

1. Any activity specified in Rules 14 to 23 as a controlled activity.

2. The following activities shall be controlled activities, irrespective of whether they comply with the conditions for permitted activities in Rules 14 to 23.

- a) Meat processing
- b) Cement manufacture
- c) Hot mix, asphalt paving manufacture
- d) Glass or fiberglass manufacture
- e) Foundry processes, electroplating works, melting of metal, steel manufacture and galvanising
- f) Natural gas, oil or petroleum distillation or refining
- g) Manufacture of hardboard, chipboard or particle board
- h) Timber treatment
- i) Thermal power generation
- j) Any other industry using the combustion of coal, wood or any other bio-mass for space heating or as a source of energy

Matters that the Council has reserved control over are:

- The conditions for permitted activities in Rules 14 to 23.
- Any potential nuisance effects arising from dust, odour, smoke and noise.

Discretionary Activities

The following activities shall be Discretionary Activities in the Business 2A Zone:

1. Any activity which is specified in Rules 14 to 23, as a discretionary activity.
2. Any of the activities listed in (a) to (g) below, irrespective of whether they comply with the conditions for permitted activities in Rules 14 to 23
 - a) Any activity that requires an offensive trade licence issued under the Health Act 1956.
 - b) Audible bird-scaring devices
 - c) Forestry
 - d) Mineral exploration
 - e) Composting or disposal on to land of any organic matter (This rule does not apply to the application of compost or organic fertilizers to fertilise gardens or land).

- f) Visitor accommodation
- g) Hospitality activities
- h) Tannery, fellmongering or hide curing, wool scouring or washing in the Business 2A Zone
- i) Scrap yards – including automotive dismantling or wrecking yard or scrap metal yard in the Business 2A Zone

Non-Complying Activities

The following activities shall be Non-complying Activities in Business 2A Zone:

1. Any activity which is specified in Rules 14 to 23 as being a non-complying activity.
2. Any of the activities listed in (a) to (c) below, irrespective of whether they comply with the conditions for permitted or discretionary activities in Rules 14 to 23.
 - a) Mining or quarrying
 - b) Correction facility
 - c) Treatment or disposal of solid or liquid waste delivered or conveyed onto the site.

Planning Information

Standards

The main Selwyn District Plan standards to be aware of are set out below. However, there are many other controls that are of a standard nature for an industrial zone that apply

If any of the following Selwyn District Plan standards are not complied with resource consent is required.

Noise

Any activity conducted on any day, except any residential activity, shall be a permitted activity, provided that the following noise limits are not exceeded with the time-frames stated.

Business 2A Zone

Applying at any point within the **boundary of any site in the Rural Zone**, excluding road, waterway and railway reserves:

The above applies whether or not the site in question adjoins the Rural Zone. This noise limit does not apply to the use of sirens or warning devices associated with emergency service facilities.

Light Spill

7.30 am – 8.00pm	60dBA L10
8.00 pm – 7.30am	40dBA L10
7.30 am – 8.00pm	80dBA Lmax
8.00 pm – 7.30am	65dBA Lmax

- a) 10 lux spill on to any part of any adjoining property within the same Business Zone.
- b) 3 lux spill (horizontal or vertical) on to any part of any adjoining property in the Rural Zone which has a common boundary with the Business 2A Zone.

Any lighting in the Business 2A Zone shall be designed so that:

- a) all outdoor lighting shall be shielded from above [in such a manner that the light source is not visible from the] outside of the Business 2A Zone;
- b) all fixed outdoor lighting shall be directed away from adjacent roads outside of the Business 2A Zone.

Landscaping

Any principal building in the Business 2A Zone shall be a permitted activity if the following standards are met:

- a) A landscaping strip of at least 3 metres width shall be planted along every road frontage, except along the frontage of Hoskyns Road. The landscaping shall meet the following standards:
 - The landscaping shall consist of only those species listed in Appendix 21 of the District Plan. Planting for each allotment shall include:
 - a minimum of two trees from Group A for every 10 metres of road frontage. For boulevard roads the species selected shall match any Group A species in the adjacent road;
 - at least 35% of the required area shall be planted in species from Group C;
 - at least 10% of the required area shall be planted in species from Group D;
 - Group B and C species shall be used when screening tall blank walls and vehicle courts.
 - All plants shall be of the following maximum spacings:
 - Group B – 1.5 metre centres;
 - Group C – 1.5 metre centres;
 - Group D – 700mm centres.
- The landscaping planted shall be maintained and if dead, diseased or damaged, shall be removed and replaced.
- No fences or structures shall be erected within the 3 metre landscaping strip. Footpaths of up to 1.5m in width and generally at right angles to the road frontage may be provided in the landscape strip.
- All new planting areas shall be mulched.

Vehicle Access and Vehicle Crossings

- a) Each site shall have legal access to a formed, legal road.
- b) Each vehicle crossing shall be designed and sited to comply with the relevant requirements in Appendix 13 of the District Plan.



Planning Information

Retailing

Any retail activity undertaken from an allotment in the Business 2A Zone shall only occupy up to 20% of the Gross Floor Area of building on that allotment or 2,000m², whichever is the lesser.

Building – Height and Reflectivity

- a) Any building or structure shall have a height of not more than:
- Buildings 15 metres
 - Structures 25 metres (This refers to a structure, as defined by the section 2 of the RMA that is less than 10m² in area.)
- b) Any building which is greater than 15m in height but does not exceed 20m in height requires resource consent as a restricted discretionary activity, provided that the exterior building materials on all parts of the building above 15m in height do not exceed a reflectivity value of 40%.

Note: Any resource consent application for a building that complies with the conditions prescribed in (b) above and

is setback at least 150m from Railway Road or Hoskyns Road shall not be notified and shall not require the written approval of affected parties.

Building Recession Planes

Any building shall comply with the relevant recession plane requirements set out in Appendix 11 of the District Plan:

- a) Recession Plane A – applies along the common boundary of the Business 2A Zone and the Rural Zone.

Note: No recession plan applies to the internal boundaries within the Business 2A zone.

Building Setbacks

- a) Any building shall comply with the minimum setback distances from site boundaries as set out below:
- **Road boundaries:** 10 metres
 - **Internal boundaries adjoining a rural zoned property:** 10 metres

Building Site Coverage

There are no site coverage controls for the Business 2A zone.

Parking

Any activity which provides for car parking, cycle parking, vehicle loading and parking access in accordance with the following conditions shall be a permitted activity:

- a) The number of car parks provided complies with the relevant requirements for the activity as listed in Appendix E13.1.1, Appendix E13.1.2 and Appendix E13.1.3; and
- b) All car parking spaces and vehicle manoeuvring areas are designed to meet the criteria set out in Appendix E13.1.5.2, Appendix E13.1.7, Appendix E13.1.8, Appendix E13.1.9, Appendix E13.1.10, Appendix E13.1.11 and Appendix E13.1.12 for all activities; and
- c) Each site that is used for an activity which is not a residential activity and which generates more than 4 heavy vehicle movements per day has one on-site loading space which complies with the requirements set out in Appendix E13.1.5. The loading space does not count as a car parking space for the purpose of Rule 17.5.1.1; and
- d) Each site that is used for an activity other than a residential activity has one car park space for mobility impaired persons for up to 10 car parking spaces provided, and one additional car park space for a mobility impaired person for every additional 50 car parking spaces provided or part there-of; and
- e) Car parking spaces for mobility impaired persons are:
- Sited as close to the entrance to the building or to the site of the activity as practical; and
 - Sited on a level surface; and
 - Clearly marked for exclusive use by mobility impaired persons; and
- f) Cycle parking spaces are provided in accordance with the standards in Appendix 13.1.4.

Planning Information

(Environment Canterbury Requirements)

Earthworks

1. Excavation for the development of the industrial subdivision has been obtained from ECan (CRC201467). The following is a summary of the consent conditions. A copy of the consent conditions is attached in Appendix A.

- A pre-construction meeting needs to be conducted with ECan and all other relevant parties including contractor prior to the commencement of works. The list of what needs to be covered in the meeting is detailed in Condition 2.
- ECan needs to be informed in writing of works commencing at least 5 working days following the commencement of each stage works and at least 5 working days following the completion of each stage works (Condition 3).
- All personnel working on the site shall be made aware of and have access to this consent document and the construction stormwater consent (CRC201464) (Condition 4).
- All practicable measures shall be undertaken to prevent oil and fuel leaks from vehicles and machinery. No storage of fuel or refuelling of

vehicles or machinery shall occur within 20m of open excavations, a dedicated stormwater soakage device or the water race. Fuel shall be stored securely or removed from site overnight (Condition 6).

- A spill kit needs to be kept on site at all times. Any spills need to be cleaned up as soon as practicable and the stormwater system shall be inspected and cleaned and measures taken to prevent a recurrence. ECan shall be informed within 24 hours of a spill event with information required under Condition 7.
- Removal of any material from the site shall be disposed of to an authorised facility.
- In the event unexpected material is uncovered Condition 9 details the procedures which need to be followed.
- In the event archaeological material is discovered Condition 10 details the procedures which need to be followed.
- Within 2 weeks of completion of each stage works all disturbed areas need to be stabilised or revegetated, all spoil and waste materials shall be removed (Condition 12).

Stormwater

2. The discharge of **Construction-Phase Stormwater** is to be to ground via soakpits identified on Plan CRC201464B of consent number CRC201464 (Appendix B). The following is a summary of the consent conditions.

- Discharge shall be in accordance with the erosion and sediment control plan and discharged via the soak pits on Plan CRC201464B of the consent (note that the plan states these locations are indicative only) (Condition 2).
- All personnel working on the site shall be made aware of and have access to this consent document and the earthworks consent (CRC201467) (Condition 3).
- A pre-construction meeting needs to be conducted with ECan and all other relevant parties including contractor prior to the commencement of works. The list of what needs to be covered in the meeting is detailed in Condition 4.
- ECan needs to be informed in writing of works commencing at least 5 working days following the commencement of each stage works and at least 5

working days following the completion of each stage works (Condition 5).

- Construction phase development shall occur in accordance with the Erosion and Sediment Control Plan (Condition 6). Details of what needs to be included in the Erosion and Sediment Control Plan are in Condition 7.
- The ESCP needs to be submitted to ECan for certification 10 working days prior to works commencing (Condition 8). Works cannot commence until certification has been received. If you haven't received certification within 10 working days then you can commence (Condition 8(b)).
- All practicable measures shall be undertaken to avoid discharge of sediment laden stormwater beyond the site boundaries and into the water race. Suggested measures are included in Condition 10.
- Erosion and Sediment Control measures need to be installed prior to earthworks commencing (Condition 11).
- Exposed surfaces shall be stabilised once works are complete or if they aren't to be worked for longer than 14 days (Condition 12).



Planning Information

(Environment Canterbury Requirements)

Stormwater (continued)

- If works are abounded then preventative and remedial measures shall be undertaken to control sediment discharges (Condition 13).
 - Decommissioning of ESC measures shall only be undertaken once the matters in Condition 14 are completed.
 - Inspections and maintenance shall be in accordance with Condition 15.
 - Accidental Discovery Protocol of contaminants needs to be done in accordance with Condition 16.
 - Measures to be taken in case of spillage of fuel and hazardous material need to be in accordance with Condition 17.
3. The discharge of **Construction-Phase Stormwater** is to be to ground within each individual lot as set out in the ECan consent CRC202877 (Appendix C). The following is a summary of the consent conditions.
- Stormwater shall be discharged in accordance with an Erosion and Sediment Control Plan and onto and into land within the individual lots (Condition 2).
 - An erosion and sediment control plan (ESCP) shall be prepared in accordance with the requirements of Conditions 5 and 6. The ESCP can be amended at any time provided they are for the purposes outlined in Condition 8. Any amendments to the ESCP need to be submitted to ECan prior to the amendment being implemented.
 - The ESCP needs to be submitted to ECan for certification 10 working days prior to works commencing (Condition 7). Works cannot commence until certification has been received. If you haven't received certification within 10 working days then you can commence (Condition 7(b)).
 - Erosion and Sediment Control measures need to be installed prior to earthworks commencing (Condition 9).
 - All erosion and sediment control measures shall be inspected at the end of every day as well as after a rainfall event. Any accumulated sediment shall be removed as necessary to ensure the effectiveness of the measures (Condition 10).
 - Exposed surfaces shall be stabilised once works are complete or if they aren't to be worked for longer than 14 days (Condition 12).
 - If works are abounded then preventative and remedial measures shall be undertaken to control sediment discharges (Condition 12).
 - Accidental Discovery Protocol of contaminants needs to be done in accordance with Condition 13.
 - Measures to be taken in case of spillage of fuel and hazardous material need to be in accordance with Condition 14.
4. The discharge of **Operation-Phase Stormwater** from roads and secondary flow paths is to be via soakpits, sumps and proprietary devices as set out in ECan consent CRC201466 (Appendix D). The following is a summary of the consent conditions.
- Stormwater is to be discharged to land within the site boundaries via soakpits. Stormwater shall be collected via kerb and channel and be directed to sumps and then receive treatment via a proprietary treatment device (Conditions 1 -3).
 - The proprietary device shall be a Hynds Downstream Defender or equivalent performing device. The device needs to be designed and installed in accordance with the manufacturers specifications. The device needs to have the capacity to treat the water quality design flow resulting from the first 25mm of rainfall generated from the contributing catchment during any rainfall event or the flow rate resulting from all storms up to 5mm per hour rainfall intensity before bypass flows are initiated to soakage devices. The device needs to be capable of retaining at least 60 litres of hydrocarbons. (Condition 4).
 - Soakpits and sumps need to be designed and constructed as per Conditions 5 and 6.
 - No direct discharge to the water race (Condition 7).
 - At least 1 month prior to installation of stormwater system design plans and certification by a CPENG needs to be provided to ECan (Condition 8).
 - Within 20 working days of installation a certificated signed by a CPENG needs to be provided to ECan (Condition 9).
 - Inspections and maintenance shall be in accordance with the Table appended to the decision (Conditions 10, 11 and 12).
 - Records of maintenance and inspections need to be in accordance with Condition 13.



Planning Information

(Environment Canterbury Requirements)

Stormwater *(continued)*

5. The discharge of **Operation-Phase Stormwater** from individual lots roofs, rights of way, hardstand areas and previous areas is to be via soakpits, sumps and proprietary devices as set out in ECan consent CRC201465 (Appendix E). The following is a summary of the consent conditions.
 - Stormwater generated from roofs and landscaped areas from individual lots shall be discharged to land via soakage pits. Stormwater from internal roads (right of way) and hardstand areas shall be collected in sumps and discharged into soakage pits after receiving treatment from either a vegetated swale or proprietary treatment device. Condition 2.
 - Discharge of stormwater shall not arise from sites where activities or industries occur that are listed in Schedule 1 of this consent; copper building material used on the exterior of any structure; or unpainted galvanised sheet materials. Condition 3.
 - The stormwater systems (swale, soakpit, proprietary device) shall be designed and constructed in accordance with Conditions 4, 5, 6 and 7.
- Stormwater in rainfall events exceeding the 24.2% AEP shall be directed to the road reserve. Condition 8.
- All sumps shall be fitted with submerged or trapped outlets capable of trapping at least 60 litres of hydrocarbons (Condition 9).
- At least 1 month prior to installation of stormwater system design plans and certification by a CPENG needs to be provided to ECan (Condition 10).
- Within 20 working days of installation a certificated signed by a CPENG needs to be provided to ECan (Condition 11).
- Treatment and infiltration devices shall not be constructed prior to confirmation from ECan that it meets the requirements of this resource consent (Condition 12).
- Inspections and maintenance shall be in accordance with Conditions 13, 14, 15 and 16
- Records of maintenance and inspections need to be in accordance with Condition 17.
- Measures to be taken in case of spillage of fuel and hazardous material need to be in accordance with Condition 18.



Further Information

Please contact Jason Steed Jason.Steed@ngaitahu.iwi.nz for further information.

- Detailed geotechnical investigations report
- LIM
- Subdivision Plan
- Land Covenants
- Sale and Purchase Agreement Template

Disclaimer

The specifications, details and information (including size and layout) set out on this plan are indicative only and may be subject to change.

Recipients of this information are responsible for their own independent assessment of the information. Ngāi Tahu Property makes no warranty or representation that the information is correct and is not liable if the information is inaccurate or incomplete in any way.

Mō tātou, ā, mō kā uri ā muri ake nei – For us and our children after us

NGĀI TAHU Property