

GLENORCHY PLANNING AUTHORITY
ATTACHMENTS
WEDNESDAY, 20 APRIL 2022



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300 Risdon Rd, Lutana

6-Apr-2022

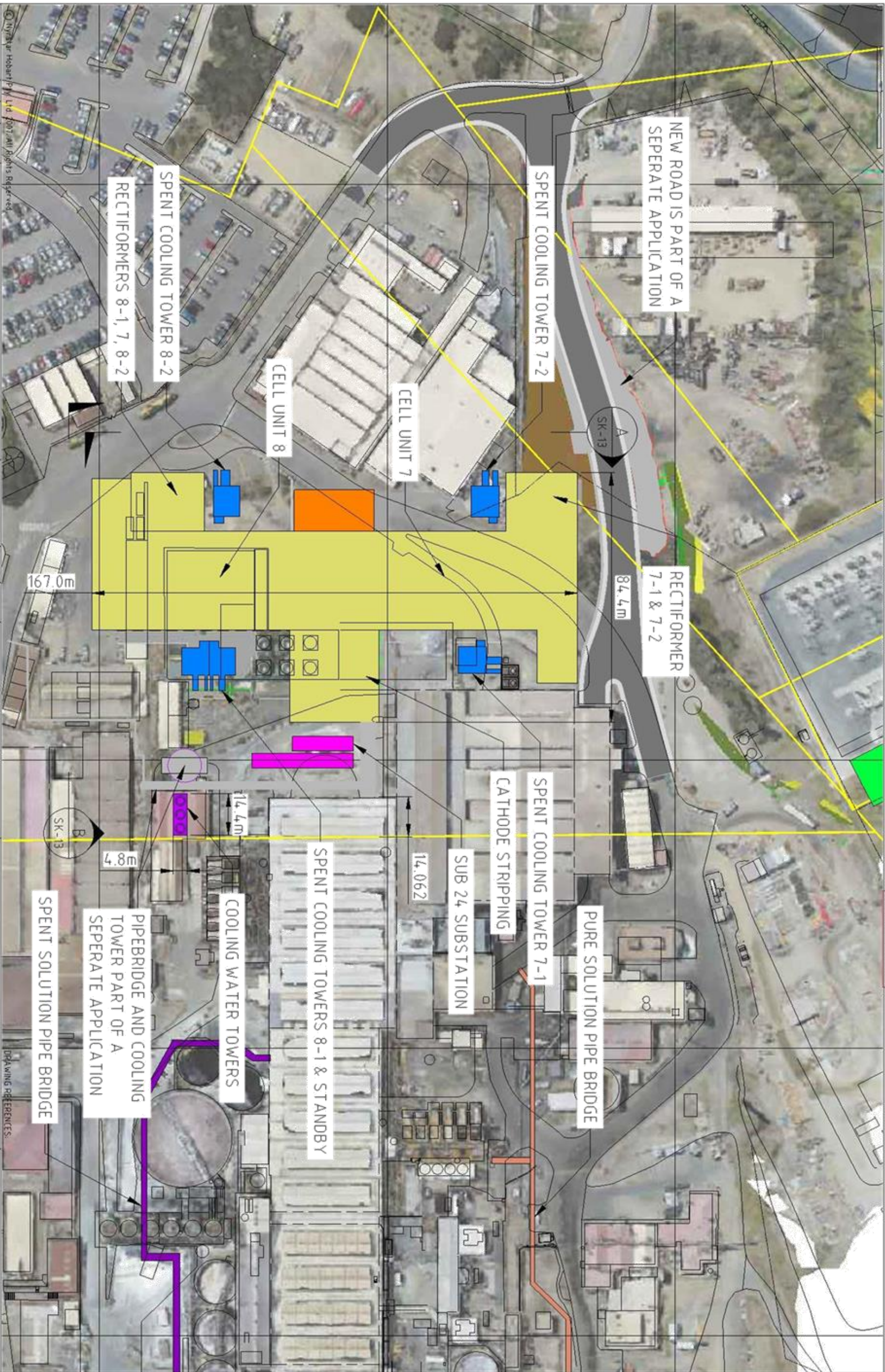


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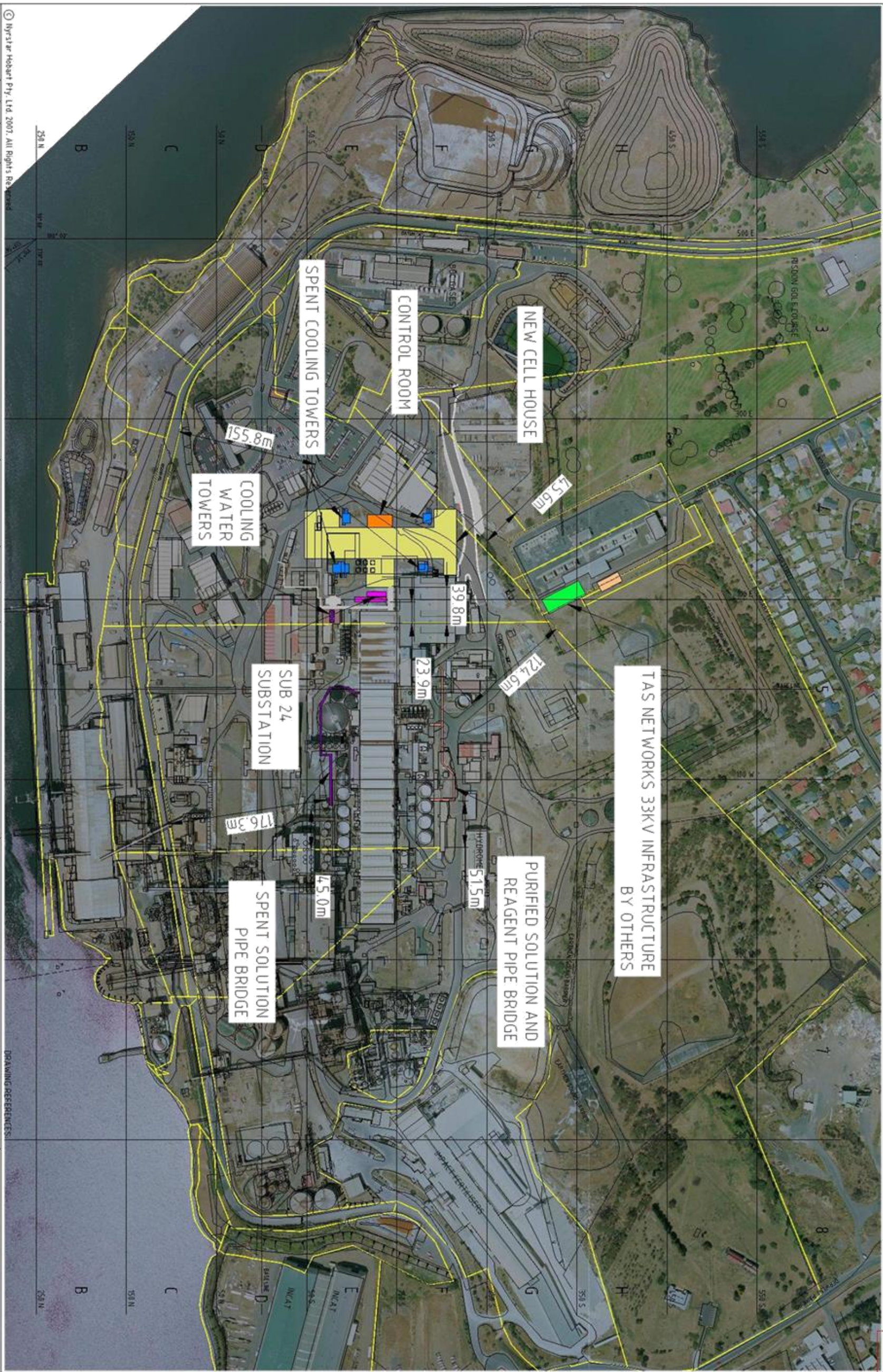
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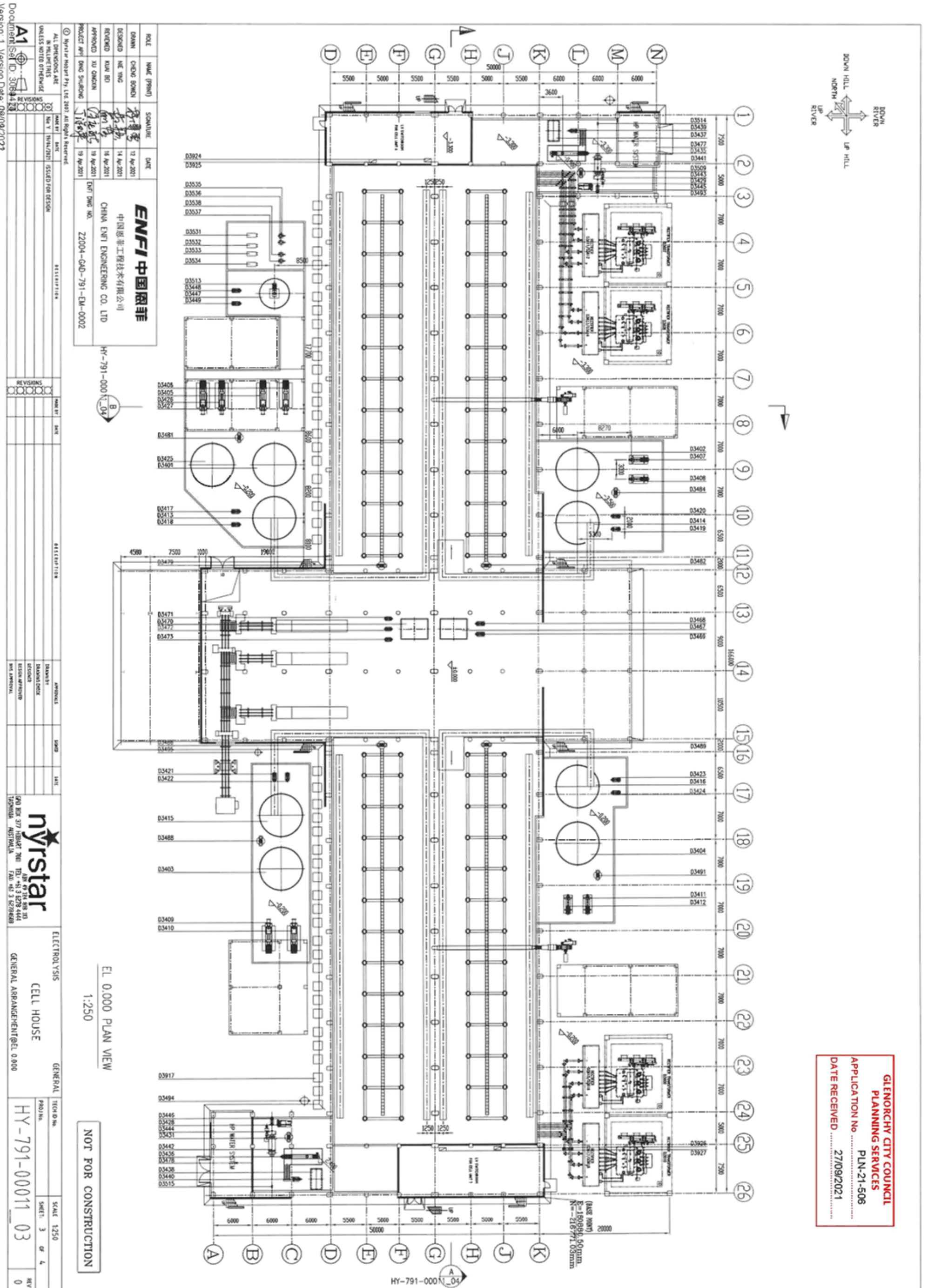
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GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION NO. PLAN 21-009
DATE RECEIVED 27/04/2021



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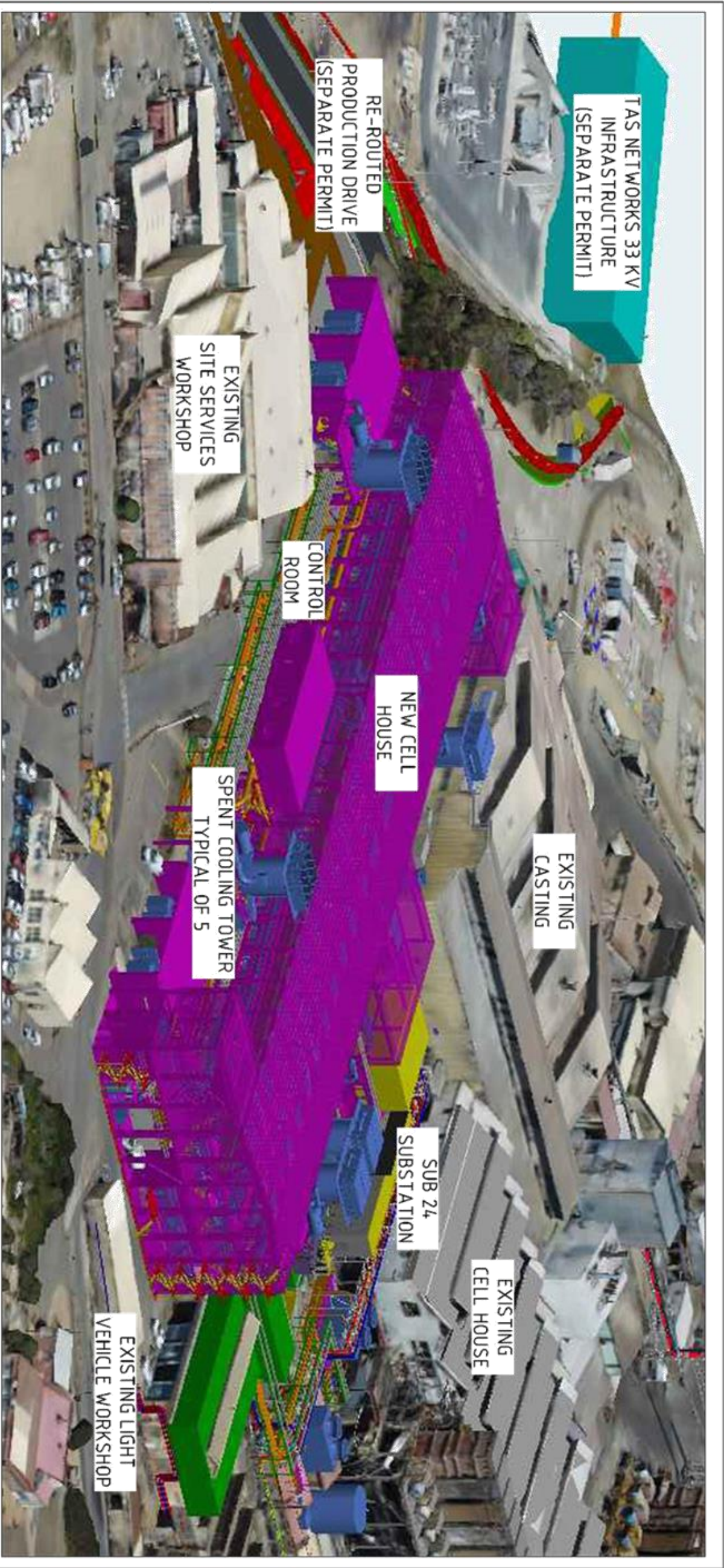


GLENORCHY CITY COUNCIL PLANNING SERVICES APPLICATION No PLN-21-506 DATE RECEIVED 27/09/2021



SECTION B
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 GPO BOX 377 HOBART 7001 TASMANIA AUSTRALIA TEL: +613 6278 4444 FAX: +613 62784608 ABN 49 124 819 113			NYRSTAR HOBART SMELTER PROPOSED SITE PLAN SECTIONS		
TECH ID No.			Scale: 1:500		
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ISOMETRIC VIEW - FOR REFERENCE ONLY
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ABN 69 024 818 113

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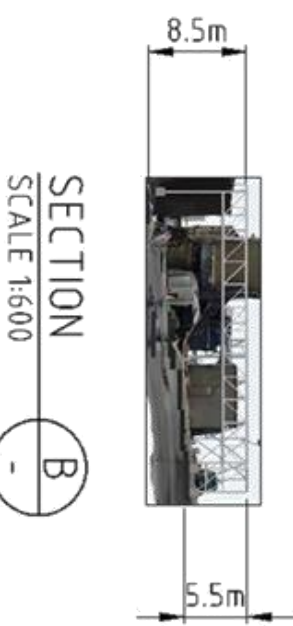
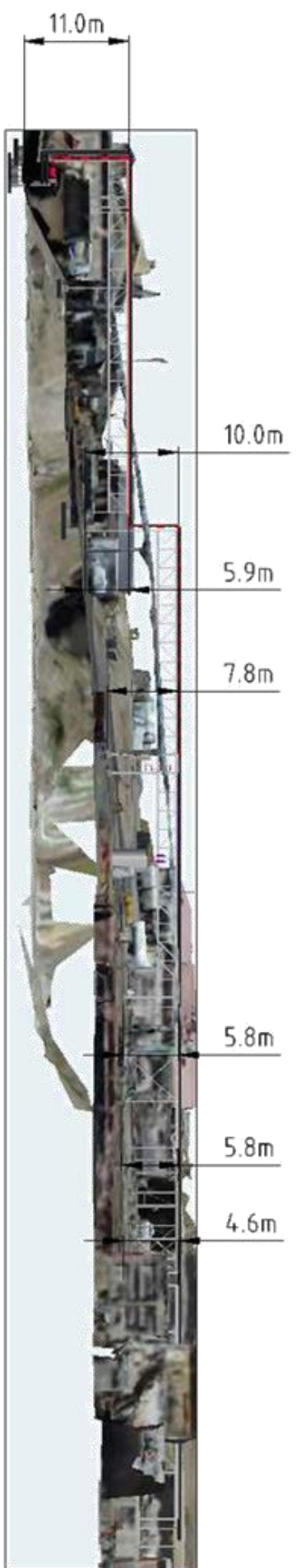
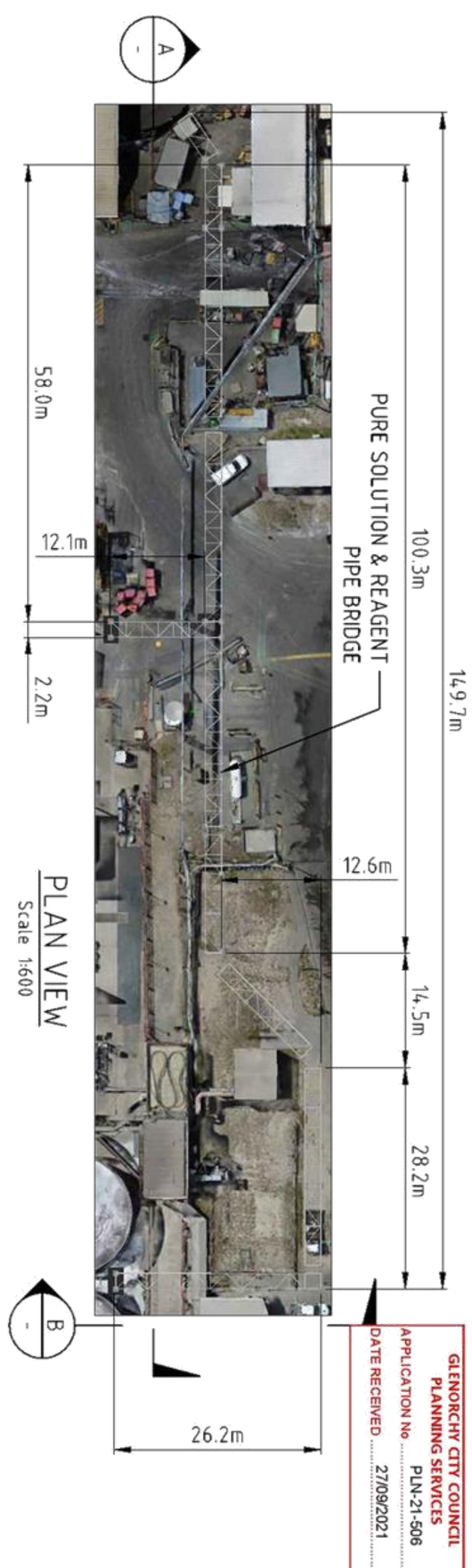
NYRSTAR HOBART SMELTER
PROPOSED SITE PART PLAN
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GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No. PLN-21-506
DATE RECEIVED 27/09/2021

Document Set ID: 3089428
Version: 1 - Version Date: 04/09/2021

Attachments - Glenorchy Planning Authority - 20 April 2022



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 GPO BOX 377 HOBART 7001 TASMANIA AUSTRALIA					PURIFIED SOLUTION AND REAGENT PIPE BRIDGE ARRANGEMENT		
TEL: +613 6278 4444 FAX: +613 6278 4608					TECH ID No.		
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Submission to Planning Authority Notice

Council Planning Permit No.	PLN-21-506	Council notice date	27/10/2021
TasWater details			
TasWater Reference No.	TWDA 2021/01864-GCC	Date of response	05/11/2021
TasWater Contact	Anthony Cengia	Phone No.	0474 933 293
Response issued to			
Council name	GLENORCHY CITY COUNCIL		
Contact details	gccmail@gcc.tas.gov.au		
Development details			
Address	300 RISDON ROAD, LUTANA	Property ID (PID)	7855159
Description of development	Mineral Processing (Manufacturing and Processing) (128862/1, 123530/1 & 148502/1)		
Schedule of drawings/documents			
Prepared by	Drawing/document No.	Revision No.	Date of Issue
Nyrstar	CA07750- Sheets SHK10, SK12	B	04/08/2021
Nyrstar	CA07750- Sheets SK13, SK14	A	04/08/2021
ENFI	HY-791-00011-03	0	19/04/2021
ENFI	HY-791-00047-03	0	12/04/2021
Nyrstar	HRT-450-00240 Environmental Impact Statement		28/07/2021
Conditions			
SUBMISSION TO PLANNING AUTHORITY NOTICE OF PLANNING APPLICATION REFERRAL			
Pursuant to the <i>Water and Sewerage Industry Act 2008</i> (TAS) Section 56P(1) TasWater imposes the following conditions on the permit for this application:			
CONNECTIONS, METERING & BACKFLOW			
1. A suitably sized water supply with metered connections and sewerage system and connection to the development must be designed and constructed to TasWater's satisfaction and be in accordance with any other conditions in this permit. Advice: TasWater will not accept direct fire boosting from the network unless it can be demonstrated that the periodic testing of the system will not have a significant negative effect on our network and the minimum service requirements of other customers serviced by the network. To this end break tanks may be required with the rate of flow into the break tank controlled so that peak flows to fill the tank do not also cause negative effect on the network.			
2. Any removal/supply and installation of water meters and/or the removal of redundant and/or installation of new and modified property service connections must be carried out by TasWater at the developer's cost.			
3. Prior to commencing construction/use of the development, any water connection utilised for construction/the development must have a backflow prevention device and water meter installed, to the satisfaction of TasWater.			
DEVELOPMENT ASSESSMENT FEES			
4. The applicant or landowner as the case may be, must pay a development assessment fee of \$363.57			



to TasWater, as approved by the Economic Regulator and the fee will be indexed, until the date paid to TasWater.

The payment is required within 30 days of the issue of an invoice by TasWater.

Advice

General

For information on TasWater development standards, please visit <https://www.taswater.com.au/building-and-development/technical-standards>

For application forms please visit <https://www.taswater.com.au/building-and-development/development-application-form>

Declaration

The drawings/documents and conditions stated above constitute TasWater's Submission to Planning Authority Notice.

Authorised by

A handwritten signature in black ink, appearing to read "J. Taylor".

Jason Taylor
Development Assessment Manager

TasWater Contact Details

Phone	13 6992	Email	development@taswater.com.au
Mail	GPO Box 1393 Hobart TAS 7001	Web	www.taswater.com.au

PCE 10449 (r1)

1/17

PERMIT PART B
PERMIT CONDITIONS - ENVIRONMENTAL No. 10449

Issued under the *Environmental Management and Pollution Control Act 1994*

Activity: **The construction and operation of electrolysis plant (ACTIVITY TYPE:
Chemical Works - manufacture (through chemical reaction) of any inorganic
chemical)
HOBART ZINC SMELTER, 300 RISDON ROAD
LUTANA TAS 7010**

The above activity has been assessed as a level 2 activity under the *Environmental Management and Pollution Control Act 1994*.

Acting under Section 25(5)(a)(i) of the EMPCA, the Board of the Environment Protection Authority has required that this Permit Part B be included in any Permit granted under the *Land Use Planning and Approvals Act 1993* with respect to the above activity.

Municipality: **GLENORCHY**
Permit Application Reference: **PLN-21-506**
EPA file reference: **261831**

Date conditions approved: 5th April 2022

Signed:



DEPUTY CHAIRPERSON, BOARD OF THE
ENVIRONMENT PROTECTION AUTHORITY

DEPUTY CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

5-4-2022

PCE 10449 (r1)

2/17

DEFINITIONS

Unless the contrary appears, words and expressions used in this Permit Part B have the meaning given to them in **Schedule 1** of this Permit and in the EMPCA. If there is any inconsistency between a definition in the EMPCA and a definition in this Permit Part B, the EMPCA prevails to the extent of the inconsistency.

ENVIRONMENTAL CONDITIONS

The person responsible for the activity must comply with the conditions contained in **Schedule 2** of this Permit Part B.

INFORMATION

Attention is drawn to **Schedule 3**, which contains important additional information.

DEPUTY CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

5-4-2022

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PCE 10449 (r1)

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Attachments

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DEPUTY CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

5-4-2022

Document Set ID: 3101820
Version: 1 Version Date: 06/04/2022

Schedule 1: Definitions

In this Permit Part B:-

Activity means any environmentally relevant activity (as defined in Section 3 of EMPCA) to which this document relates, and includes more than one such activity.

Air Dispersion Model Report means the *Hobart Smelter Air Dispersion Model Report H363729 Rev 6* prepared by Hatch and dated 21 July 2021.

Assessment of Site Contamination Report means the document titled *Nyrstar Hobart Assessment of Site Contamination*, by Nyrstar Hobart Pty Ltd, date 28 October 2021 and includes any amendment to or substitution of this document approved in writing by the Director.

Commissioning means the testing of major items of equipment and is taken to be completed 6 months after notification of the commencement of commissioning, as required by these conditions, or on a date otherwise specified in writing by the Director.

Construction means activities associated with the construction phase of the activity, including but not limited to, activities associated with the clearance of vegetation, site works to create a level site, rock breaking, installation of fences and other infrastructure whether on land or in water.

Control Location (Noise) means a location chosen to represent the general ambient sound without contribution from noise sources at the activity.

Controlled Waste has the meaning described in Section 3(1) of EMPCA.

Decommissioning and Rehabilitation Scope of Works means the document titled *Decommissioning and Rehabilitation - Scope of Works*, prepared by Nyrstar Hobart Pty Ltd, dated 10 May 2019, and includes any amendment or substitution of this document approved in writing by the Director.

Director means the Director, Environment Protection Authority holding office under Section 18 of EMPCA and includes a delegate or person authorised in writing by the Director to exercise a power or function on the Director's behalf.

DRP means the report for the Nyrstar Hobart Metallurgical Site required by condition DC4 of Permit 3314, as varied by Environment Protection Notice 7043/5, or any subsequent version of, as issued by the Director.

East Risdon Community area means the area of that name defined in Attachment 7 of Permit 3314, as varied by Environment Protection Notice 7043/5, or any subsequent version of, as issued by the Director.

Effluent Treatment Plant means the effluent treatment plant located on the Nyrstar Hobart Metallurgical Site.

Emission Testing Report 2009 means the report titled *Emission Testing - August 2009*, prepared by Emission Testing Consultants, dated 28 September 2009.

EMPCA means the *Environmental Management and Pollution Control Act 1994*.

Environmental Harm and Material Environmental Harm and Serious Environmental Harm each have the meanings ascribed to them in Section 5 of EMPCA.

PCE 10449 (r1)

6/17

Environmental Nuisance and **Pollutant** each have the meanings ascribed to them in Section 3 of EMPCA.

Environmentally Hazardous Material means any substance or mixture of substances of a nature or held in quantities which present a reasonably foreseeable risk of causing serious or material environmental harm if released to the environment and includes fuels, oils, waste and chemicals but excludes sewage.

Hobart Smelter Air Dispersion Model Report means the Hobart Smelter Air Dispersion Model Report Rev 6, prepared by Hatch, dated 21 July 2021.

Noise Sensitive Premises means residences and residential zones (whether occupied or not), schools, hospitals, caravan parks and similar land uses involving the presence of individual people for extended periods, except in the course of their employment or for recreation.

Nominated community noise monitoring locations means the nominated community noise monitoring locations defined in Permit 3314, as varied by Environmental Protection Notice 7043/5, or any subsequent version of, as issued by the Director.

Nyrstar Hobart Metallurgical Site means the zinc smelter and associated metallurgical works located at 300 Risdon Road, Lutana, Tasmania, operating pursuant to Permit 3314, as varied by Environment Protection Notice 7043/5, or any subsequent version of, as issued by the Director. The Nyrstar Hobart Metallurgical Site includes roasting, casting, electrolysis, leaching and sulphuric acid plants, concentrate storage, retention ponds, effluent treatment plant, administration buildings and wharf.

Person Responsible is any person who is or was responsible for the environmentally relevant activity to which this document relates and includes the officers, employees, contractors, joint venture partners and agents of that person, and includes a body corporate.

Pollutant has the meaning ascribed to it in Section 3 of EMPCA.

Reporting Period means the 12 months ending on 31 December of each year.

Stormwater means water traversing the surface of The Land as a result of rainfall.

Stormwater Strategy Report means the document titled Stormwater Strategy Report prepared by Nyrstar Hobart Pty Ltd, dated September 2010, and includes any amendment to or substitution of this document approved in writing by the Director.

The Land means the land on which the activity to which this document relates may be carried out, and includes: buildings and other structures permanently fixed to the land, any part of the land covered with water, and any water covering the land. The Land is within the Nyrstar Hobart Metallurgical Site and specifically being the area delineated by corner coordinates as shown in Attachment 1.

Wastewater means spent or used water (whether from industrial or domestic sources) containing a pollutant and includes stormwater which becomes mixed with wastewater.

Schedule 2: Conditions

Maximum Quantities

Q1 Regulatory limits

- 1** The activity must not exceed the following limits:
 - 1.1** No limit has been set for the purposes of the Environmental Management and Pollution Control (General) Regulations 2017.

General

G1 Access to and awareness of conditions and associated documents

A copy of these conditions and any associated documents referred to in these conditions must be held in a location that is known to and accessible to the person responsible for the activity. The person responsible for the activity must ensure that all persons who are responsible for undertaking work on The Land, including contractors and sub-contractors, are familiar with these conditions to the extent relevant to their work.

G2 Incident response

If an incident causing or threatening environmental nuisance, serious environmental harm or material environmental harm from pollution occurs in the course of the activity, then the person responsible for the activity must immediately take all reasonable and practicable action to minimise any adverse environmental effects from the incident.

G3 No changes without approval

- 1** The following changes, if they may cause or increase the emission of a pollutant which may cause material or serious environmental harm or environmental nuisance, must only take place in relation to the activity if such changes have been approved in writing by the EPA Board following its assessment of an application for a permit under the *Land Use Planning and Approvals Act 1993*, or approved in writing by the Director:
 - 1.1** a change to a process used in the course of carrying out the activity; or
 - 1.2** the construction, installation, alteration or removal of any structure or equipment used in the course of carrying out the activity; or
 - 1.3** a change in the quantity or characteristics of materials used in the course of carrying out the activity.

G4 Change of ownership

If the owner of The Land upon which the activity is carried out changes or is to change, then, as soon as reasonably practicable but no later than 30 days after becoming aware of the change or intended change in the ownership of The Land, the person responsible must notify the Director in writing of the change or intended change of ownership.

G5 Change of responsibility

If the person responsible for the activity intends to cease to be responsible for the activity, that person must notify the Director in writing of the full particulars of any person succeeding him or her as the person responsible for the activity, before such cessation.

G6 Complaints register

- 1** A public complaints register must be maintained. The public complaints register must, as a minimum, record the following detail in relation to each complaint received in which it is alleged that environmental harm (including an environmental nuisance) has been caused by the activity:

- 1.1 the date and time at which the complaint was received;
 - 1.2 contact details for the complainant (where provided);
 - 1.3 the subject matter of the complaint;
 - 1.4 any investigations undertaken with regard to the complaint; and
 - 1.5 the manner in which the complaint was resolved, including any mitigation measures implemented.
- 2 Complaint records must be maintained for a period of at least 3 years.

G7 Annual Environmental Review

- 1 Unless otherwise specified in writing by the Director, a publicly available Annual Environmental Review for the activity must be submitted to the Director each year within three months of the end of the reporting period.
- 2 Without limitation, each Annual Environmental Review must include the following information:
 - 2.1 a statement by the General Manager, Chief Executive Officer or equivalent for the activity acknowledging the contents of the Annual Environmental Review;
 - 2.2 subject to the *Personal Information Protection Act 2004*, a list of all complaints received from the public during the reporting period concerning actual or potential environmental harm caused by the activity and a description of any actions taken as a result of those complaints;
 - 2.3 details of environment-related procedural or process changes that have been implemented during the reporting period;
 - 2.4 a summary of the amounts (tonnes or litres) of both solid and liquid wastes produced and waste treatment methods implemented during the reporting period. Initiatives or programs planned to avoid, minimise, re-use, or recycle such wastes over the next reporting period should be detailed;
 - 2.5 a summary of the quantities of controlled wastes being held on The Land;
 - 2.6 details of all non-trivial environmental incidents and/or incidents of non compliance with permit or environment protection notice conditions that occurred during the reporting period, and any mitigative or preventative actions that have resulted from such incidents;
 - 2.7 a summary of the monitoring data and record keeping required by these conditions. This information should be presented in graphical form where possible, including comparison with the results of at least the preceding reporting period. Special causes and system changes that have impacted on the parameters monitored must be noted. Explanation of significant deviations between actual results and any predictions made in previous reports must be provided;
 - 2.8 identification of breaches of limits specified in these conditions and significant variations from predicted results contained in any relevant management plan, an explanation of why each identified breach of specified limits or variation from predictions occurred and details of the actions taken in response to each identified breach of limits or variance from predictions;
 - 2.9 a list of any issues, not discussed elsewhere in the report, that must be addressed to improve compliance with these conditions, and the actions that are proposed to address any such issues;
 - 2.10 a summary of fulfilment of environmental commitments made for the reporting period. This summary must include indication of results of the actions implemented and explanation of any failures to achieve such commitments; and

- 2.11** a summary of any community consultation and communication undertaken during the reporting period.

G8 Notification prior to commissioning

At least 14 days prior to the commencement of commissioning of the cellhouse, the person responsible for the activity must notify the Director of the date on which commissioning is expected to commence.

Atmospheric

A1 Survey of air emissions

- 1** A survey of air emissions from the activity must be undertaken within 3 months of completion of commissioning of the activity.
- 2** The survey must include sampling of emissions from the activity for the following:
 - 2.1** SO₂ and SO₃;
 - 2.2** PM10 and PM2.5; and
 - 2.3** Metals listed on page 36 of the Emission Testing Report 2009.
- 3** The survey of air emissions must be conducted by personnel or laboratories approved by the Director.

A2 Air Emissions Survey Report

- 1** Air emission survey results must be submitted to the Director within 30 days of the completion of the survey, in the form of a written Air Emissions Survey Report.
- 2** The Air Emissions Survey Report must include:
 - 2.1** the location and operational characteristics of all emission sources;
 - 2.2** sampling plane details;
 - 2.3** sampling parameters;
 - 2.4** test method used;
 - 2.5** information about plant operating conditions at the time of the test;
 - 2.6** measured concentration and emission rates for all pollutants identified in the emission survey;
 - 2.7** a comparison of the measured parameters with the relevant inputs used in the air quality modelling presented in the Air Dispersion Model Report;
 - 2.8** a discussion of potential for exceedance of relevant limits and criteria specified in the Air Quality EPP;
 - 2.9** details of any proposed mitigation measures relating to exceedances; and
 - 2.10** any other additional information relevant to the survey.

A3 Maintain an atmospheric model

- 1** Unless otherwise approved in writing by the Director, an atmospheric model for the activity must be maintained.
- 2** The model must be updated upon replacement, repair or addition of equipment that is a significant source of atmospheric emissions and where replacement, repair or addition of equipment may increase or adversely alter the level or character of the atmospheric emissions from the activity.
- 3** It is not necessary to re-measure atmospheric emissions unless emission characteristics have changed since a previous measurement accepted by the Director. New or modified atmospheric emission sources must be measured within 6 months of commissioning or re-commissioning the emission sources.

A4 Odour management

The person responsible must institute such odour management measures as are necessary to prevent odours causing environmental nuisance beyond the boundary of the Nyrstar Hobart Metallurgical Site.

Construction**CN1 Control of dust emissions during construction**

- 1 Construction activities must be managed using such measures as are necessary to prevent dust emissions causing environmental nuisance. Such measures may include but are not limited to:
 - 1.1 using a dust suppression method such as watering dust generating surfaces; and
 - 1.2 ceasing construction activities in windy weather when dust may be blown in the direction of residences.

CN2 Construction Environmental Management Plan

- 1 At least 30 days prior to the commencement of construction activities, or by a date otherwise specified in writing by the Director, a publicly available Construction Environmental Management Plan ('Construction EMP') must be submitted to the Director for approval.
- 2 The Construction EMP must contain a detailed description of the proposed timing and sequence of the major construction activities and of the proposed management measures to be implemented to avoid or minimise environmental impacts during the construction phase.
- 3 The Construction EMP must include, but is not limited to, a description of management measures for the following:
 - 3.1 prevention of impacts upon surface water and waterways;
 - 3.2 groundwater encountered during construction;
 - 3.3 erosion and sediment control;
 - 3.4 noise control, including measures to ensure that sensitive receivers in the surrounding community are aware of upcoming noisy works before they occur;
 - 3.5 dust control;
 - 3.6 management of environmentally hazardous materials;
 - 3.7 quality control arrangements including supervision by appropriately qualified and experienced persons, detailed construction specifications for key items of environmental management infrastructure, documented site procedures, quality control testing and the keeping of appropriate records; and
 - 3.8 waste management including measures for any controlled wastes and contaminated materials including soils.
- 4 Construction must not commence until the Construction EMP has been approved by the Director.
- 5 The person responsible must not implement the Construction EMP until the Director has approved the Construction EMP. Once approved the person responsible must act in accordance with the approved Construction EMP.

- 6 In the event that the Director, by notice in writing to the person responsible, either approves a minor variation to the approved plan or approves a new Construction EMP in substitution for the Construction EMP originally approved, the person responsible must implement and act in accordance with the varied Construction EMP or the new Construction EMP, as the case may be. The varied Construction EMP must not be implemented until it is approved.

Controlled Waste

CW1 Testing of soil

Unless otherwise approved by the Director in writing, any excavated soils must be sampled, analysed and classified in order to determine appropriate options for its use or disposal.

Decommissioning And Rehabilitation

DC1 Notification of cessation

Within 30 days of becoming aware of any event or decision which is likely to give rise to the permanent cessation of the activity, the person responsible for the activity must notify the Director in writing of that event or decision. The notice must specify the date upon which the activity is expected to cease or has ceased.

DC2 Temporary suspension of activity

- 1 Within 30 days of becoming aware of any event or decision which is likely to give rise to the temporary suspension of the activity, the person responsible for the activity must notify the Director in writing of that event or decision. The notice must specify the date upon which the activity is expected to suspend or has suspended.
- 2 During temporary suspension of the activity:
 - 2.1 The Land must be managed and monitored by the person responsible for the activity to ensure that emissions from The Land do not cause serious environmental harm, material environmental harm or environmental nuisance; and
 - 2.2 If required by the Director a Care and Maintenance Plan for the activity must be submitted, by a date specified in writing by the Director, for approval. The person responsible must implement the approved Care and Maintenance Plan, as may be amended from time to time with written approval of the Director.
- 3 Unless otherwise approved in writing by the Director, if the activity on The Land has substantially ceased for 2 years or more, rehabilitation of The Land must be carried out in accordance with the requirements of these conditions as if the activity has permanently ceased.

DC3 Decommissioning and Rehabilitation Plan

- 1 Unless otherwise approved in writing by the Director, a Decommissioning and Rehabilitation Plan (DRP) must be submitted to the Director within 180 days of the notification of permanent cessation of the activity.
- 2 The DRP must:
 - 2.1 be written in accordance with any guidelines provided by the Director; and
 - 2.2 include details of contamination from the most recently approved Assessment of Site Contamination Report, and relevant actions proposed by the most recently approved Decommissioning and Rehabilitation Scope of Works.

DC4 Implementation of the DRP

Following permanent cessation of the activity, the decommissioning of the activity and the rehabilitation of The Land must be carried out in accordance with the most recent Decommissioning and Rehabilitation Plan (DRP) approved by the Director, as may be amended from time to time with written approval of the Director.

Effluent Disposal**E1 Stormwater management**

- 1 Unless otherwise approved in writing by the Director, the activity must operate in accordance with the approved Stormwater Strategy Report, as amended from time to time with written approval of the Director.
- 2 Where reasonably required by the Director, the Stormwater Strategy Report must be revised within the timeframe specified in writing by the Director.
- 3 The person responsible must not implement the Report until the Director has approved the Report. Once approved the person responsible must act in accordance with the approved Report.
- 4 In the event that the Director, by notice in writing to the person responsible, either approves a minor variation to the approved Report or approves a new Report in substitution for the Report originally approved, the person responsible must implement and act in accordance with the varied Report or the new Report, as the case may be. The varied Report must not be implemented until it is approved.

E2 Management of wastewater

Unless otherwise specified in these conditions all wastewater and contaminated or potentially contaminated stormwater must be directed to the Effluent Treatment Plant for treatment prior to discharge via the River Derwent.

E3 Discharge of sewage

Sewage generated on The Land must not be combined with wastewater or stormwater from the activity, and must be directed to an approved external sewage system.

Groundwater**GW1 Management of groundwater**

Unless otherwise specified in these conditions all groundwater encountered during construction must be directed to a Contaminated Water Pond prior to treatment at the Effluent Treatment Plant.

Hazardous Substances**H1 Storage and handling of hazardous materials**

- 1 Unless otherwise approved in writing by the Director, environmentally hazardous materials held on The Land must be:
 - 1.1 stored within impervious bunded areas, spill trays or other containment systems; and
 - 1.2 managed to prevent unauthorised discharge, emission or deposition of pollutants:
 - 1.2.1 to soils within the boundary of The Land in a manner that is likely to cause serious or material environmental harm;
 - 1.2.2 to groundwater;
 - 1.2.3 to waterways; or

1.2.4 beyond the boundary of The Land.**H2 Spill kits**

Spill kits appropriate for the types and volumes of materials handled on The Land must be kept in appropriate locations and maintained in a functional condition to assist with the containment of spilt environmentally hazardous materials.

H3 Inventory of hazardous materials

An inventory must be kept of all environmentally hazardous materials stored and handled on The Land. The inventory must specify the location of storage facilities and the maximum quantities of each environmentally hazardous material likely to be kept in storage and must include safety data sheets for those environmentally hazardous materials.

Monitoring**M1 Samples and measurements for monitoring purposes**

- 1** Any sample or measurement required under these conditions must be taken and processed in accordance with the following:
 - 1.1** sampling and measuring must be undertaken by a person with training, experience, and knowledge of the appropriate procedure;
 - 1.2** the integrity of samples must be maintained prior to delivery to a testing facility;
 - 1.3** sample analysis must be conducted by a testing facility accredited by the National Association of Testing Authorities (NATA), or a testing facility approved in writing by the Director, for the specified test;
 - 1.4** details of methods employed in taking samples and measurements and results of sample analysis, and measurements must be retained for at least three (3) years after the date of collection; and
 - 1.5** sampling and measurement equipment must be maintained and operated in accordance with manufacturer's specifications and records of maintenance must be retained for at least three (3) years.

M2 Exceedance of emission limits

- 1** In the event that any of the emission limits specified in these conditions are exceeded:
 - 1.1** The Director must be notified within 24 hours of the person responsible becoming aware of the exceedance;
 - 1.2** A report must be forwarded to the Director within 30 days of becoming aware of the exceedance. The report must include, but not necessarily be limited to, the following:
 - 1.2.1** the reported concentration;
 - 1.2.2** an explanation as to whether the exceedance is likely to have caused or threatens environmental harm and or nuisance;
 - 1.2.3** an explanation as to why the emission limit was exceeded;
 - 1.2.4** prompt actions that were undertaken to control the exceedance;
 - 1.2.5** the results of re-sampling of the monitoring point/s at which the exceedance was recorded;
 - 1.2.6** proposed actions to limit the likelihood of a recurrence of the exceedance; and
 - 1.2.7** any other information that would assist the Director to understand the exceedance.

- 1.3** Unless otherwise approved in writing by the Director, the proposed actions to limit the likelihood of a recurrence must be implemented once approved by the Director. These actions may be amended from time to time with the written approval of the Director.

Noise Control

N1 Noise emission limits

- 1** Noise emissions from the activity when measured at any noise sensitive premises in other ownership not located in the East Risdon Community area and expressed as the equivalent continuous A-weighted sound pressure level must not exceed 52 dB(A).
- 2** Noise emissions from the activity when measured at any noise sensitive premises in other ownership located in the East Risdon Community area and expressed as the equivalent continuous A-weighted sound pressure level must not exceed 56 dB(A).
- 3** Noise emissions from the activity when measured at any neighbouring industrial or commercial activity in other ownership and expressed as the equivalent continuous A-weighted sound pressure level must not exceed 65 dB(A).
- 4** Where the combined level of noise from the activity and the normal ambient noise exceeds the noise levels stated above, this condition will not be considered to be breached unless the noise emissions from the activity are audible and exceed the ambient noise levels by at least 5 dB(A).
- 5** The time interval over which noise levels are averaged must be 10 minutes or an alternative time interval specified in writing by the Director.
- 6** Measured noise levels must be adjusted for tonality, impulsiveness, modulation and low frequency in accordance with the Tasmanian Noise Measurement Procedures Manual.
- 7** All methods of measurement must be in accordance with the Tasmanian Noise Measurement Procedures Manual.

N2 Community monitoring of noise emissions

- 1** Unless otherwise approved in writing by the Director, the person responsible must maintain three continuous community noise monitors at the Nominated Community Noise Monitoring Locations.
 - 1.1** The community noise monitors may be temporarily removed from operations for maintenance and/or calibration purposes. The Director must be advised of the need to temporarily remove the community noise monitors for a time period that is greater than eight (8) hours.
- 2** The continuous community noise monitors must be able to create an uninterrupted record of the noise level results of community noise monitoring to the maximum extent reasonable and practicable.
- 3** Noise emissions from the activity measured by the continuous community noise monitors, when expressed as a monthly median A-weighted L_{90} sound pressure level must not exceed:
 - 3.1** 52 dB(A) at the Birch Road location;
 - 3.2** 52 dB(A) at the Delwood Drive location; and
 - 3.3** 56 dB(A) at the Saundersons Road location.

N3 Noise survey requirements

Unless otherwise approved in writing by the Director, a noise survey must be completed within 6 months after completion of commissioning of the activity to verify modelled noise impacts. The noise survey must be undertaken in accordance with the requirements of condition N4 with results used to update the noise model required by condition N5.

Schedule 3: Information**Legal Obligations****LO1 EMPCA**

The activity must be conducted in accordance with the requirements of the *Environmental Management and Pollution Control Act 1994* and Regulations thereunder. The conditions of this document must not be construed as an exemption from any of those requirements.

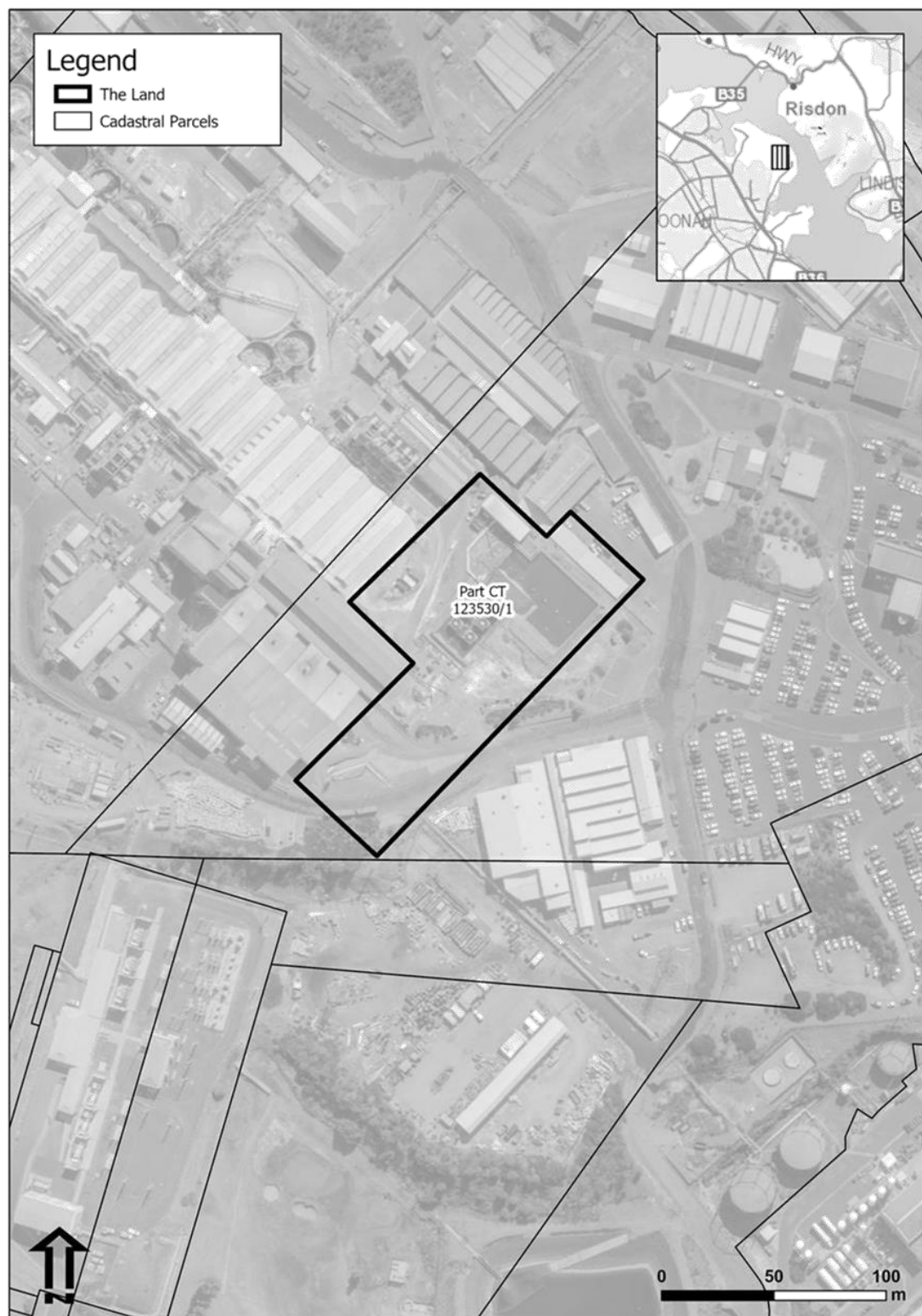
Other Information**OI1 Waste management hierarchy**

- 1** Wastes should be managed in accordance with the following hierarchy of waste management:
 - 1.1** waste should be minimised, that is, the generation of waste must be reduced to the maximum extent that is reasonable and practicable, having regard to best practice environmental management;
 - 1.2** waste should be re-used or recycled to the maximum extent that is practicable; and
 - 1.3** waste that cannot be re-used or recycled must be disposed of at a waste depot site or treatment facility that has been approved in writing by the relevant planning authority or the Director to receive such waste, or otherwise in a manner approved in writing by the Director.

OI2 Notification of incidents under section 32 of EMPCA

Where a person is required by section 32 of EMPCA to notify the Director of the release of a pollutant, the Director can be notified by telephoning **1800 005 171** (a 24-hour emergency telephone number).

Attachment 1: Attachment 1 the Land PCE 10449



DEPUTY CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

5-4-2022

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Environmental Assessment Report

Proposed New Electrolysis Plant (Cellhouse)

300 Risdon Road, Lutana
Nyrstar Hobart Pty Ltd

April 2022





Environmental Assessment Report

Proponent	Nyrstar Hobart Pty Ltd
Proposal	Proposed New Electrolysis Plant (Cellhouse)
Location	300 Risdon Road, Lutana
NELMS no.	PCE 10449
Permit Application No.	PLN-21-506 (Glenorchy City Council)
Electronic Folder No.	EN-EM-EV-DE-261831-001.014
Document No.	D22-81050
Class of Assessment	2B

Assessment Process Milestones

22/06/2020	Notice of Intent lodged
17/07/2020	Guidelines Issued
27/10/2021	Permit Application submitted to Council
20/12/2021	Case accepted for assessment
15/01/2022	Start of public consultation period
15/02/2022	End of public consultation period
24/03/2022	Date draft conditions issued to proponent
13/04/2022	Statutory period for assessment ends



Acronyms	
Board	Board of the Environment Protection Authority
CEMP	Construction Environmental Management Plan
DRP	Decommissioning and Rehabilitation Plan
EIA	Environmental impact assessment
EIS	Environmental Impact Statement
EMPC Act	<i>Environmental Management and Pollution Control Act 1994</i>
EMPCS	Environmental management and pollution control system
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i>
GLC	Ground Level Concentrations
LUPA Act	<i>Land Use Planning and Approvals Act 1993</i>
NGER	<i>National Greenhouse and Energy Reporting Act 2007</i>
RMPS	Resource management and planning system
NRE	Department of Natural Resources and Environment Tasmania
SD	Sustainable development
TSPM	Total suspended particulate matter



Report Summary

This report provides an environmental assessment of a proposal by Nyrstar Hobart Pty Ltd to construct and operate a new electrolysis plant (cellhouse) at the existing Nyrstar Hobart Metallurgical Site in Lutana. The new electrolysis plant will be constructed adjacent to the existing electrolysis plant and will replace this plant once commissioned. The proposed facility will produce up to 300,000 tonnes per annum of cathode zinc, which is consistent with the capacity of the existing plant.

This report has been prepared based on information provided in the permit application and Environmental Impact Statement (EIS). Relevant government agencies and the public were consulted, and their submissions, representations and comments considered as part of the assessment.

Further details on the assessment process are presented in section 1 of this report. Section 2 describes the statutory objectives and principles underpinning the assessment. Details of the proposal are provided in section 3. Section 4 reviews the need for the proposal and considers the proposal, site, and design alternatives. Section 5 summarises the public and agency consultation process and the key issues raised in that process. The detailed evaluation of key issues is in section 6, and other issues are evaluated in section 7. Issues not assessed by the Board are discussed in section 8. The report's conclusions are provided in section 9.

Appendix 1 contains details of matters raised by the public and referral agencies during the consultation process. Appendix 2 contains a table of proponent commitments. Appendix 3 contains the environmental permit conditions for the proposal.



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I Approval Process

The Board of the Environment Protection Authority (the Board) received a Notice of Intent for this proposal on 22 June 2022.

The proposal is defined as a 'level 2 activity' by clause 1(a)(i), of Schedule 2 of the *Environmental Management and Pollution Control Act 1994* (EMPC Act), being a Chemical Works.

The Board required information to support the proposal be provided in the form of an Environmental Impact Statement (EIS) prepared in accordance with guidelines issued by the Board on 17 July 2020. Several drafts of the EIS were submitted to the EPA for review against the guidelines before it was finalised and accepted on behalf of the Board on 20 December 2021.

An application for a permit under the *Land Use Planning and Approvals Act 1993* (LUPA Act) for the proposal was submitted to Glenorchy City Council on 27 October 2021. Council referred the application to the Board for assessment under section 25(1) of the EMPC Act.

The final EIS was submitted to Council with the permit application. The EIS was released for public inspection for 28 days commencing on 15 January 2022. Advertisements were placed in *The Mercury* and on the EPA website. The EIS was also referred to relevant government agencies for comment. Two representations were received.



2 SD Objectives and EIA Principles

The proposal must be considered by the Board in the context of the objectives of the Resource Management and Planning System of Tasmania (RMPS), and in the context of the objectives of the Environmental Management and Pollution Control System (EMPCS) (both sets of objectives are specified in Schedule 1 the EMPC Act). The functions of the Board are to administer and enforce the provisions of the Act, and in particular to use its best endeavours to further the RMPS and EMPCS objectives.

The Board must assess the proposal in accordance with the Environmental Impact Assessment Principles defined in section 74 of the EMPC Act.



3 The Proposal

The main characteristics of the proposal are summarised in Table 1. A detailed description of the proposal is provided in Section 2 of the EIS.

The proposal is for a new cellhouse to replace the existing cellhouse at Nyrstar Hobart's zinc smelter operations (the Nyrstar Hobart Metallurgical Site). The proposal only relates to the electrolysis stage of existing operations and does not alter upstream or downstream processes undertaken at the site. The cellhouse site (the Land) is entirely contained within the existing boundaries of the Nyrstar Hobart Metallurgical Site. Materials inputs and products produced remain unchanged and production at the Nyrstar Hobart Metallurgical Site is limited by Permit 3314 as varied by EPN 7043/5 to 600,000 tonnes per year of raw materials processed. No changes to Permit 3314 as varied by EPN 7043/5 are required as a result of the proposal. In the short term, the EPA intends to regulate both Permit 3314 as varied by EPN 7043/5 and the proposed PCE 10449 for the new cellhouse. A new EPN that integrates the permit for the proposed activity with the permit for the current activity may be issued in future.

The current assessment is limited to construction and operation of the proposed new cellhouse. The proposed cellhouse integrates into existing infrastructure that is discussed for context but does not form part of the activity being assessed.

The existing cellhouse is adjacent to the site of the new cellhouse and will be demolished once commissioning is complete. Demolition of the existing cellhouse is not within the scope of the current assessment and may be regulated under the conditions of Permit 3314 as varied by EPN 7043/5, or may require separate assessment by the Board. The EPA cannot provide further guidance on demolition until information on the scope of works is provided by Nyrstar Hobart.

Table 1: Summary of the proposal's main characteristics

Activity	
Chemical works: manufacture through chemical reaction of cathode zinc.	
As the new cellhouse will be part of the existing metallurgical process, and will not receive material inputs from other sources, production at the cellhouse will be controlled by the regulatory limit for the metallurgical works, as set by condition Q1 of Permit (former Licence to Operate Scheduled Premises) No. 3314, as varied by Environment Protection Notice No. 7043/5.	
It is therefore not necessary to impose a regulatory limit on the new cellhouse.	
Location and planning context	
Location	The new cellhouse site is adjacent to the existing cellhouse and lies within the Nyrstar Hobart Metallurgical Site at 300 Risdon Road, Lutana. Refer to Figures 1, 2 and 3.
Land zoning	General Industrial under the <i>Glenorchy Interim Planning Scheme 2015</i> .
Land tenure	Private Freehold
Existing site	
Land Use	The site is part of an existing industrial facility and has been heavily modified through historical use.
Topography	The site has a northeasterly aspect and is located at approximately 25 to 40 m AHD.
Geology	The geology beneath the proposed cellhouse site comprises fill to varying depths, underlain by Triassic quartz sandstone (Parmeener Supergroup).
Soils	Soils are typically light brown sandy clays through to brown and black high plasticity clays.

Environmental Assessment Report – Nyrstar Hobart – Proposed new electrolysis plant (cellhouse), Lutana



Hydrology	There are no naturally occurring drainage lines and all surface water is directed to the Nyrstar Hobart Metallurgical Site surface water drainage infrastructure for treatment before discharge to the Derwent Estuary (Figure 4).
Site Contamination	Significant soil and groundwater contamination is present across the Nyrstar Hobart Metallurgical Site from more than 100 years of industrial operations. Zinc, cadmium, mercury, and lead have been identified as the contaminants of most concern and significant contamination is associated with the existing cellhouse. A grout curtain has been installed and groundwater extraction is undertaken in an effort to minimise discharge of contaminated groundwater to the Derwent estuary.
Natural Values	The EIS states there have been no threatened species, communities or critical habitat identified within the area to be disturbed.
Local region	
Climate	Average rainfall is between 600 and 660 mm per annum. Wind direction is predominantly north-northwest to northwest, following the topographic elevation surrounding the Derwent River. The historical average mean minimum and maximum temperatures vary between 4 and 26 °C in the region.
Surrounding land zoning, tenure and uses	Land immediately surrounding the cellhouse site is part of the Nyrstar Hobart Metallurgical Site. The facility uses a roast, leach, and electrolysis process to produce zinc from concentrate. Products include special high grade zinc galvanising alloys and zinc die casting alloys. The site process flow is shown in Figure 5 and Figure 6. The Nyrstar Hobart Metallurgical Site is largely private freehold land however, some parts of the wharf operation are on Crown Land. Areas surrounding the Nyrstar Hobart Metallurgical Site are zoned as General Residential, Port and Marine, Recreational (New Town Bay Golf Course), Utilities (Risdon TasNetworks Sub Station), Open Space and Environmental Management zone (Derwent River). Sensitive receptors surrounding the site include residential land, sporting grounds, retail sites, woodland reserve, and a golf club (refer Figure 7).
Species of conservation significance	The 87 ha, publicly managed East Risdon State Reserve is approximately 400 m to the east, on the eastern (opposite) side of the Derwent estuary. The reserve contains species of conservation significance including areas of <i>Eucalyptus risdonii</i> and <i>Eucalyptus morrisbyi</i> .
Proposed infrastructure	
Major equipment	The proposal includes construction and installation of buildings, equipment and systems as required to replace the existing cellhouse, including: • The cellhouse building, with basement drainage and sumps to collect and return process liquors to the production circuit • Electrolysis cells containing 120 cathodes per cell • Transformers/rectifiers (rectiformers) and busbars • Five spent electrolyte cooling towers • Process Control Systems • Two anode cleaning facilities • Two cathode stripping machines • Four insulated cell gantry cranes • Acid mist extraction system A comprehensive list of major equipment is provided in Table 2-1 of the EIS.



Other infrastructure	The proposal will tie into existing infrastructure on the Nyrstar Hobart Metallurgical Site including the existing pure and spent solution system, reagent system and supply systems.
Inputs	
Water	Scrubber water, wash water, process water and demineralised water sourced from the Nyrstar Hobart Metallurgical Site.
Energy	An upgrade to TasNetworks Risdon Substation will be required, including three new 110/33 kV 90 MVA transformers providing four new 33 kV feeders into a new switching station to be located adjacent to the Risdon substation. Power supply from the switching station will be provided via an overhead gantry and a tunnel under the roadway to the south-eastern end of the proposed cellhouse.
Other raw materials	A number of other inputs to the process are listed in table 2-3 of the EIS. These include reagents, inhibitors and solutions manufactured at the Nyrstar Hobart Metallurgical Site. The new cellhouse will use anodes sourced off-site.
Wastes and emissions	
Liquid	Stormwater runoff will report to the Nyrstar Hobart Metallurgical Site for collection and treatment. Spent electrolyte solution will report to the Nyrstar Hobart Metallurgical Site for reuse.
Solid	General refuse including food scraps, paper and packaging will be produced. Construction waste will be generated during the construction phase.
Controlled wastes	Manganese dioxide is produced as a by-product of the electrolysis process. This is reused in smelting at the Nyrstar Hobart Metallurgical site. No other process wastes are produced. The existing ablution and equipment maintenance facilities at the Nyrstar Hobart Metallurgical Site will be used. No new ablution or equipment maintenance facilities are proposed.
Air	Dust will be generated from earthworks and construction. During operation air emissions will be generated by the spent cooling towers and the electrolytic cells, which produce acid mist.
Noise	Construction noise will be generated by plant and machinery used for earthworks, steel fabrication and mobile power generation. During operation, noise will be generated from cooling towers, the acid mist extraction system, anode cleaning, cathode stripping and rectifiers.
Greenhouse gases	Electricity use is the main source of greenhouse gas emissions from the proposal. The EIS states these are Scope 2 (indirect) emissions generated by the energy producer.
Construction, commissioning, and operations	
Proposal timetable	Construction is proposed between September 2022 and May 2024, and commissioning from August 2023 to July 2024.
Operating hours (ongoing)	The cellhouse is proposed to operate 24 hours a day, 365 days a year. This is consistent with existing Nyrstar Hobart Metallurgical Site operational hours permitted under Permit 3314 as varied by EPN 7043/5.

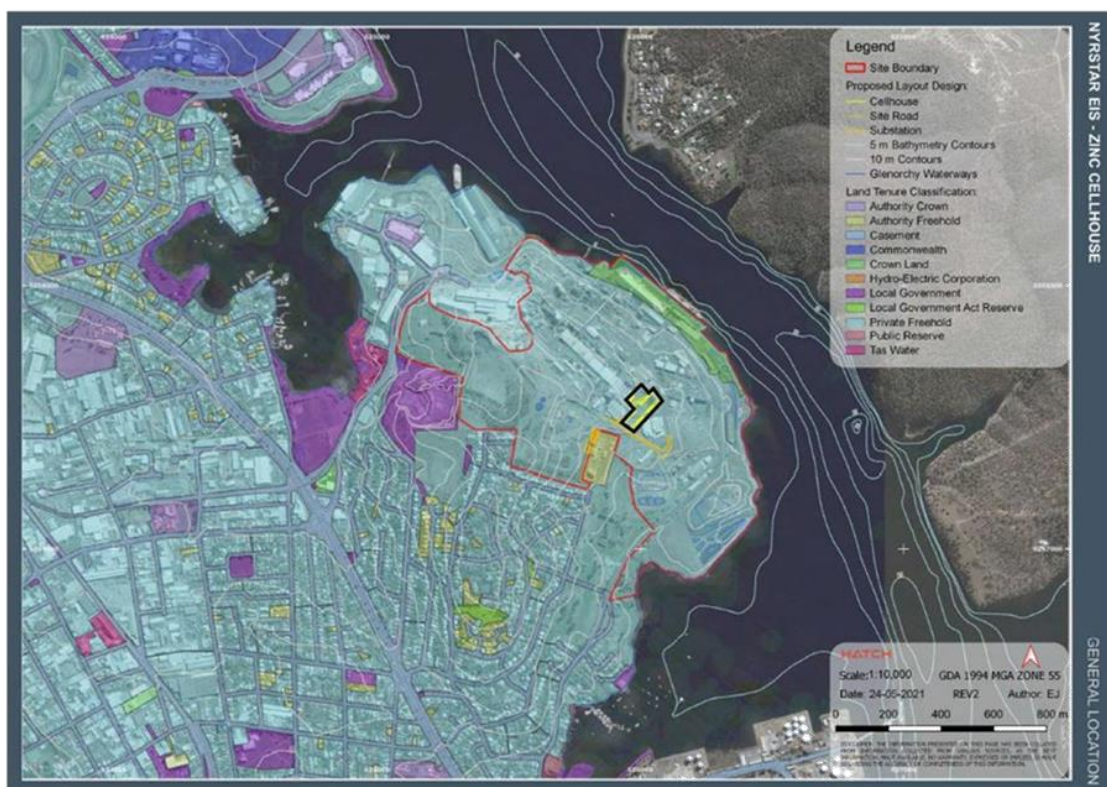
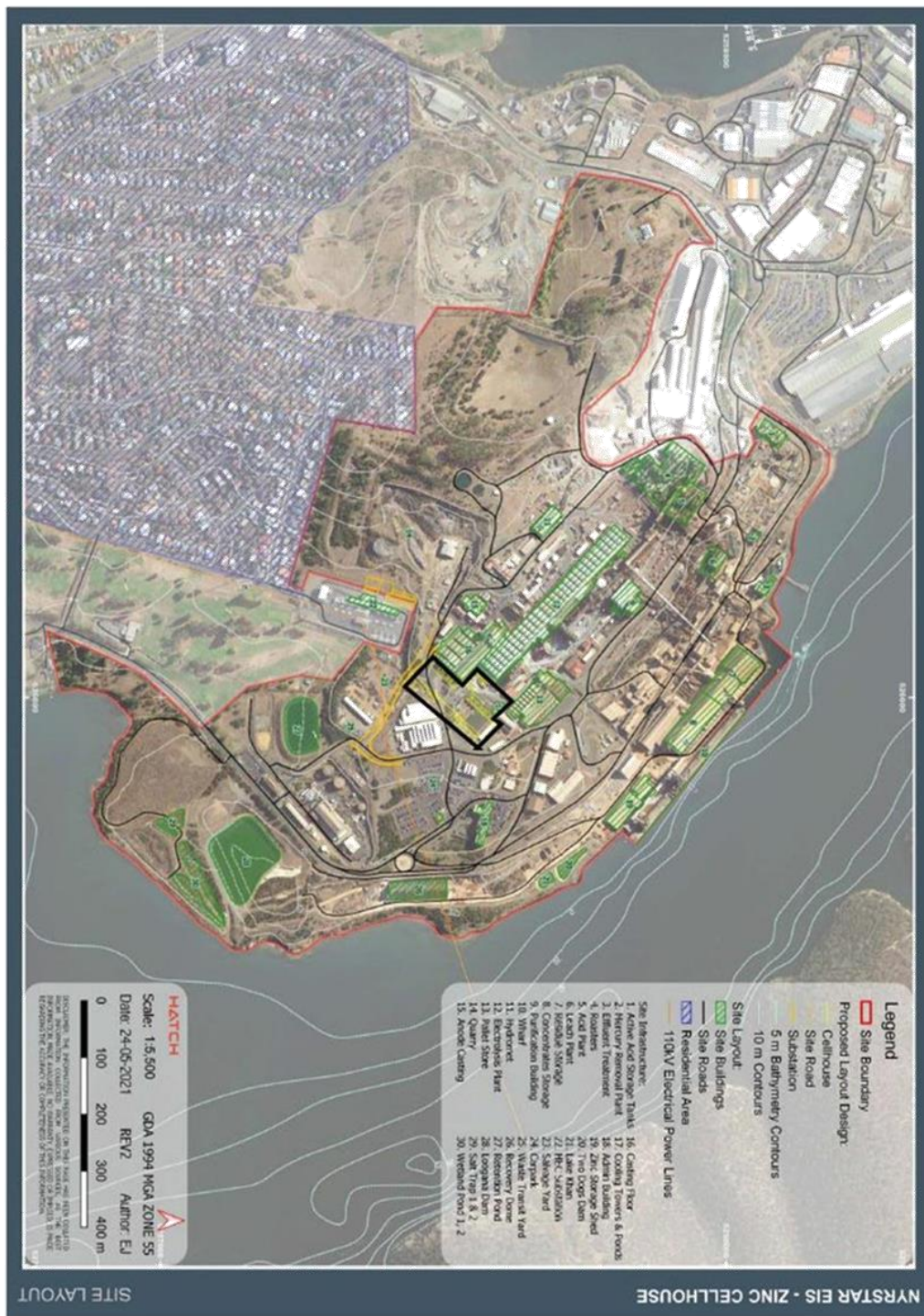


Figure 1: General location with cellhouse (the Land) outlined in black and Nyrstar Hobart Metallurgical Site outlined in red (adapted from figure 2-7 of the EIS).

Figure 2: Nyrstar site layout with cellhouse outlined in black (adapted from figure 2-9 of the EIS).



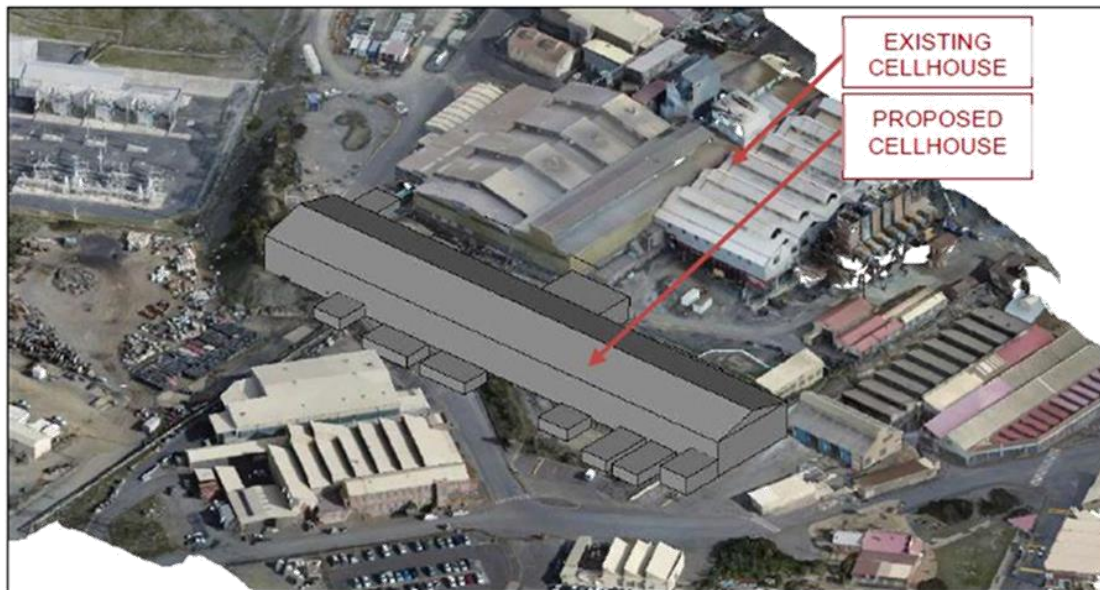
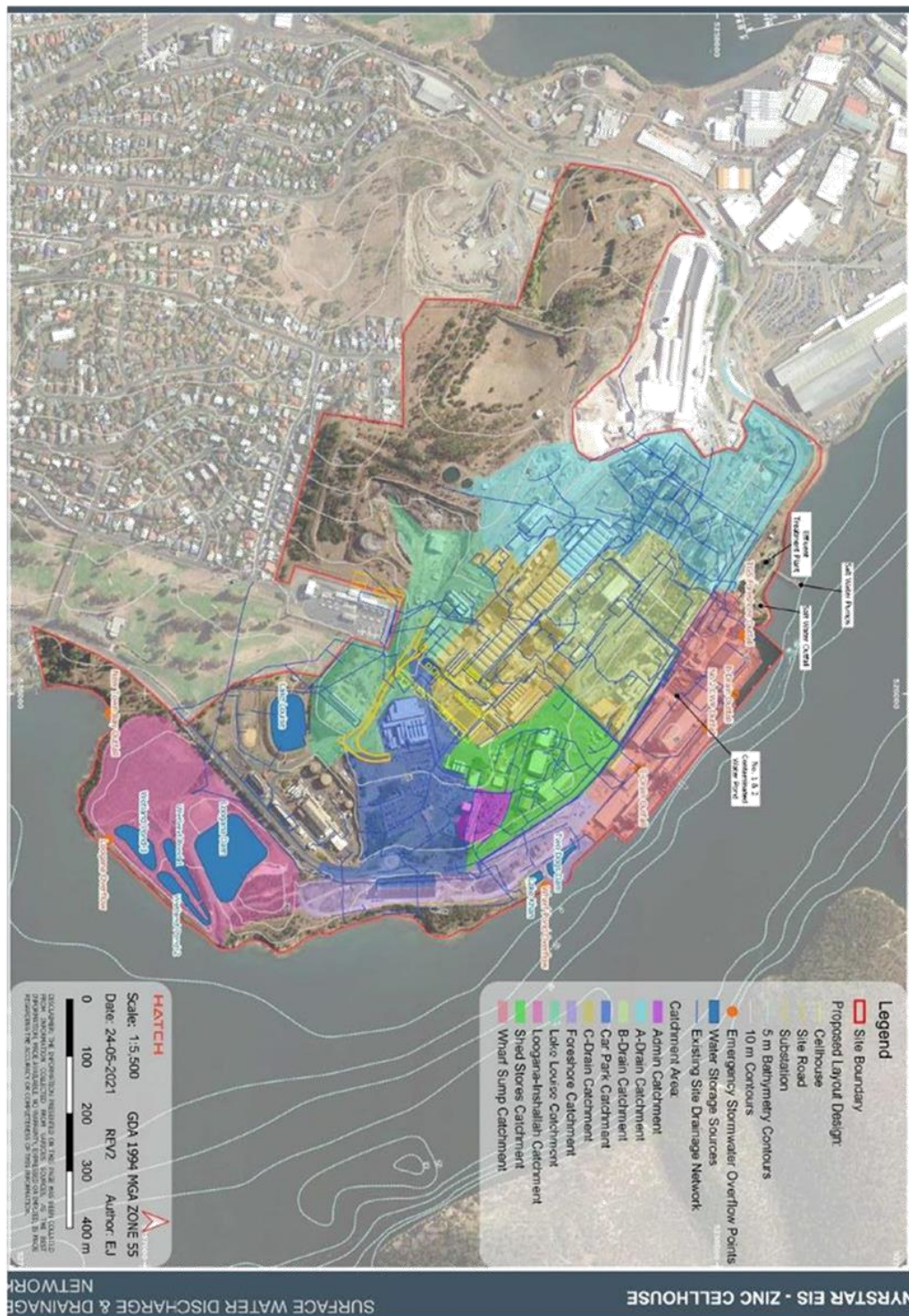


Figure 3: Location of existing and proposed cellhouses (figure 2-1 of the EIS).

Figure 4: Stormwater catchments and drainage infrastructure (figure 6-8 of the EIS).



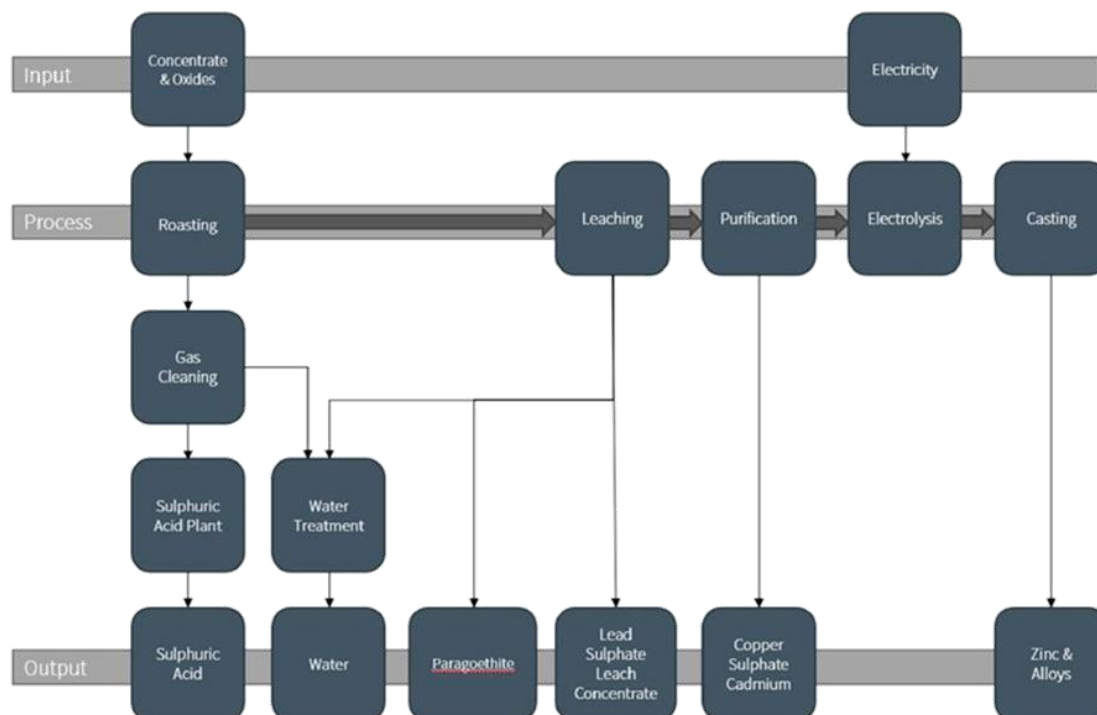


Figure 5: Nyrstar Hobart Metallurgical Site process overview (figure I-1 of the EIS).

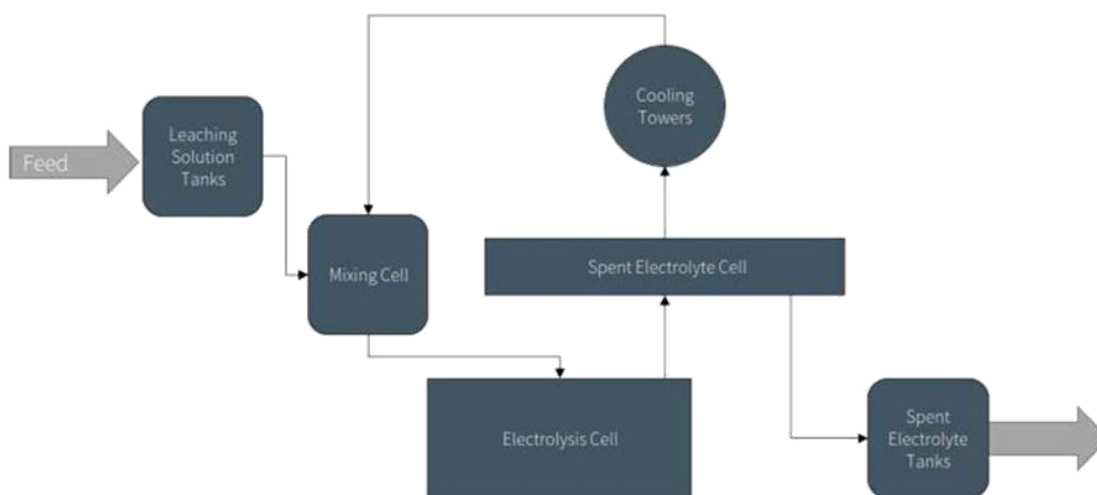


Figure 6: Cellhouse (electrolysis) process overview (figure 2-3 of the EIS).

Legend

- Site Boundary
- Proposed Layout Design
- Cellhouse
- Site Road
- Substation
- 5 m Battery Contours
- 10 m Contours
- Air Quality Receptor Location
- Sensitive Receptors
- Department of Education
- DPiPWE (Crown Land Services)
- Housing Tasmania
- Local Government Authority
- Parks and Wildlife Service
- TasWater

HATCH

Scale: 1:5,000

Date: 22-09-2021

REV2

Author: EJ

0 100 200 300 400 m

YARRSTARA EIS - ZINC CELLHOUSE

SITE SENSITIVE RECEPTORS



4 Need for the Proposal and Alternatives

The existing cellhouse dates to the early 1900s. Although it has undergone periodic upgrades, the facility is deteriorating and lacks the efficiencies of a modern cellhouse.

The EIS states that the existing cellhouse also presents a range of environmental, health, safety, economic and social challenges that affect the long-term viability of the Nyrstar Hobart operation. Ongoing and costly minor and major maintenance is required to ensure electrical safety and structural integrity, and to minimise process spills and leaks.

The EIS further states that construction of a new cellhouse would address a number of existing environmental issues relating to the Nyrstar Hobart site, including:

- Contamination of soil and groundwater resulting from spills.
- Emissions of acid mist from electrolytic cells.
- Emissions of acidic water from cooling towers.
- Generation of controlled wastes as a result of maintenance of the existing cellhouse needed to sustain safe working conditions.

Several alternatives were assessed by Nyrstar Hobart in a concept study, including different locations, designs and process layouts. The location and layout of the proposed new cellhouse was selected based on:

- A location that has been previously disturbed by site works.
- A two-cell arrangement that will limit the need to reconfigure significant supply systems or change pumping systems allowing for easier integration with upstream and downstream plant.
- Limiting transport of cathode sheets and, thereby, potential for related spills.
- Automation of process components to reduce high-risk human interaction.
- Capture of acid mist to reduce fugitive emissions.
- Placement of cooling towers that will reduce visual impact.
- Minimising earthworks and volumes of waste materials.
- Minimising interruption to ongoing site operations.

5 Public and Agency Consultation

A summary of the two public representations that were received is contained in Appendix I of this report. The main issues raised included:

- Public consultation
- Socio-economic impacts

A supplement to the EIS was not requested. No Government agency submissions were received.

Advice was also provided by the following:

- Noise Specialist EPA
- Air Specialist EPA
- Regulator EPA



6 Evaluation of Key Issues

The key environmental issues relevant to the proposal that were identified for detailed evaluation in this report were:

- Air emissions
- Noise

Each of these issues are discussed in the following subsections.

General conditions

The following general conditions will be imposed on the activity:

- G1: Access to and awareness of conditions and associated documents
- G2: Incident response
- G3: No changes without approval
- G4: Change of ownership
- G5: Change of responsibility
- G6: Complaints register
- G7: Annual Environmental Review
- G8: Notification prior to commissioning

6.1 Key Issue 1: Air emissions

6.1.1 Description

Air emissions are discussed in section 6.1 of the EIS.

Nyrstar Hobart Metallurgical Site existing environment

Permit 3314 as varied by EPN 7043/5 identifies twelve point discharges (stacks) that must undergo regular emissions testing. A number of additional point sources are not required to undergo regular testing, including 10 cooling towers at the existing cellhouse. Some of these are relatively low risk, while the mode of operation of other emissions sources makes accurate testing for these extremely difficult.

The EIS states that the existing cellhouse is a source of fugitive sulphuric acid (H_2SO_4) emissions as the cells are open and have no dedicated acid mist capture and collection system. A foaming agent is added to the cell electrolyte to mitigate acid mist production; however, levels are high enough to require the constant and ongoing use of respiratory protection in the cellhouse. The existing cellhouse is ventilated through roof and wall vents under natural convection.

Section 6.1.1.1 states Ground Level Concentrations (GLCs) of sulphur dioxide (SO_2) are continuously monitored at three community locations (Technopark, Dowsings Point in Goodwood; Tennis Courts, Risdon Road in Lutana; and near Birch Road, Lutana as shown in Figure 8). The EIS states that GLCs of SO_2 remained within regulatory limits for all monitors over the 2020 reporting period.

Dust concentration and composition is measured at three locations (two on-site and one off-site) with high volume air sampling (HVAS) units that capture total suspended particulate matter (TSPM) samples (refer Figure 8). The EIS states that the Risdon Road North site receives the highest dust load, although TSPM levels are consistently below accepted standards.



GLCs for lead are also regulated at community locations although compliance isn't discussed in the EIS. The EPA Regulatory Officer has advised there were no lead GLC non compliances for the 2020 reporting period.

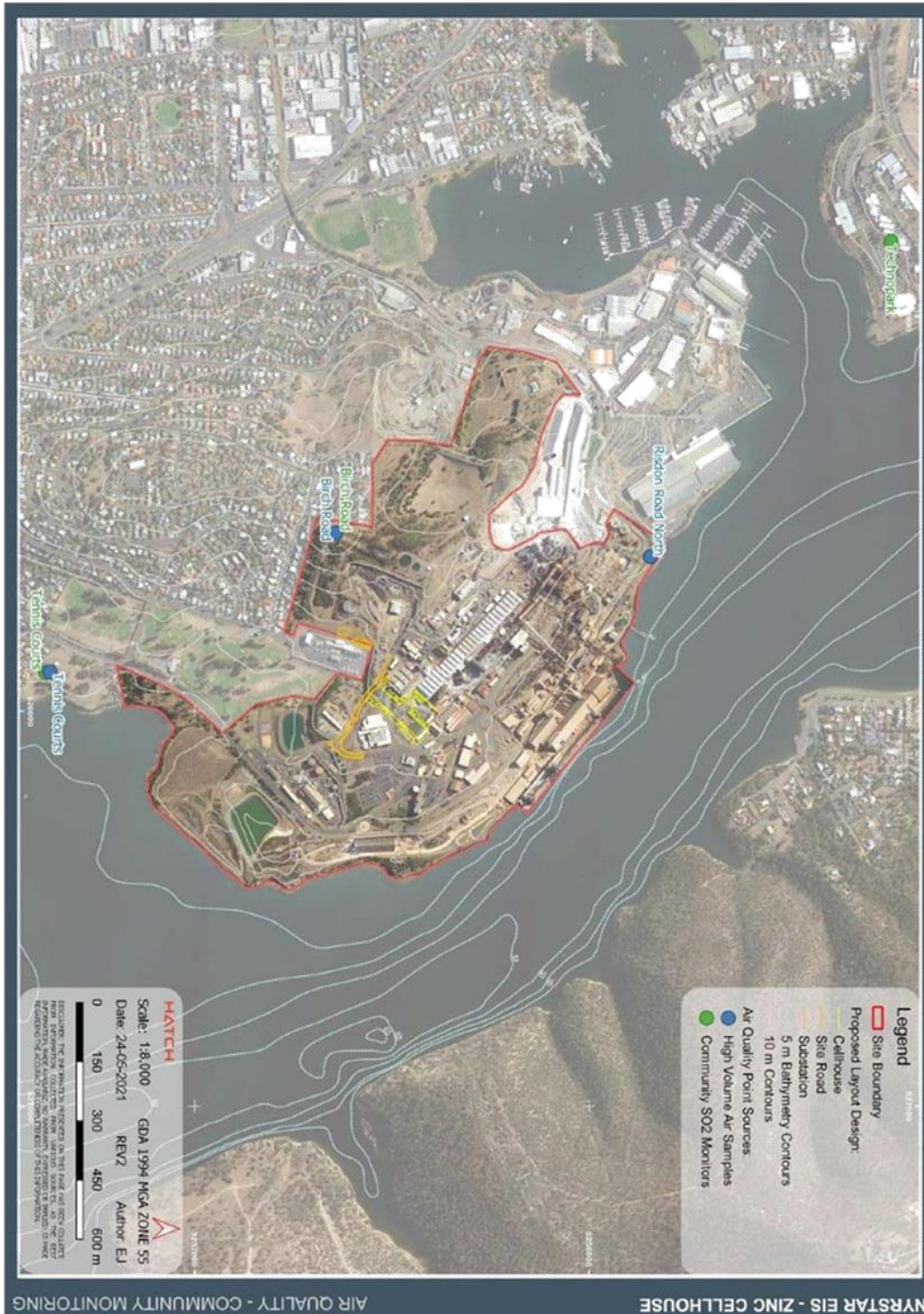


Figure 8: Location of Community SO₂ and High Volume Air Samplers (Figure 6-3 of the EIS).

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Air emissions from the proposal

Construction

Movement of heavy machinery and excavation of soil may generate dust during construction. Exposed ground may also generate dust during windy conditions. The EIS states that only a small quantity of equipment, including fixed items such as generators, will be located on the site at any one time. Works areas will generally be hardstand, with bitumen or asphalt installed as a base. The EIS further states that emissions from construction are expected to be highly variable and short-term.

Operation

According to the EIS, the two main sources of air emissions from the new cellhouse will be discharge from the spent cooling towers and acid mist emitted from the electrolytic cells. Section 6.1.4 of the EIS states that the new cellhouse will employ modern, high-efficiency cooling towers and incorporate a dedicated acid mist management system. The towers will use a high-efficiency heat transfer system that allows the number of operational cooling towers to be reduced from ten to four, with one additional standby unit. The emission rate from high-efficiency spent cooling towers is stated to be 0.0002% of solution flow rate, compared to 0.001% from conventional cooling towers such as those used in the existing cellhouse.

An acid mist management system will be installed to remove acid mist, by creating a laminar movement of air across the top of the cells to carry the acid mist to exhaust fans for scrubbing prior to discharge. The exhaust will be scrubbed in multiple scrubbing units, which are expected to remove 93% of the acid mist into scrubber liquor. The scrubber liquor will then be recycled in the zinc production process.

Section 6.1.3 of the EIS states neither the existing nor the proposed cellhouse is a source of SO₂.

Atmospheric dispersion modelling results

Air dispersion modelling was undertaken to quantify contaminant concentrations associated with the existing cellhouse and the new cellhouse, to enable the impact of the proposal on the airshed to be determined. Air dispersion modelling is summarised in section 6.1.3 of the EIS, with the air dispersion modelling report provided as attachment I to the EIS.

Both the existing and proposed cellhouse sites are located within the Nyrstar Hobart Metallurgical Site. Because there are other emissions sources located on the site, it was not possible to model the cellhouses in isolation. As such emissions from the site were modelled. Two models were run, one with the existing cellhouse and one with the new cellhouse, to compare the potential effects on sensitive receptors.

The EIS states that a total of 28 sources of emissions at the Nyrstar Hobart Metallurgical Site were modelled. This included the 10 spent cooling towers from the existing cellhouse. To determine the changes in emissions associated with the new cellhouse, the 10 existing spent cooling towers were replaced in the model by the 4 proposed spent cooling towers (noting that the proposal includes 5 cooling towers in total with only 4 operational at any one time). The acid mist crossflow system was also included. The cumulative emissions from both the existing and proposed new cellhouses have not been considered as they will not be operating simultaneously.

The modelling parameters and emission rates for these sources are included attachment I of the EIS.

Air dispersion modelling included the following contaminants:

- Sulphur dioxide - SO₂
- Sulphuric Acid H₂SO₄ or SO₃ converted to H₂SO₄



- Nitrogen dioxide - NO₂
- Carbon monoxide - CO
- Particulate Matter: Total (PM), fine (PM₁₀) and respirable (PM_{2.5})
- Metals: Antimony, Cadmium, Lead and Mercury

Emission rates for all sources except the existing cellhouse spent cooling towers were determined based on sampling completed in 2019 as part of routine testing at the Nyrstar Hobart Metallurgical Site. Emissions from the existing cellhouse spent cooling towers were determined based on monitoring conducted in 2009. The EIS states emission rates are conservative because maximum measured concentrations were used. Where a concentration value was below the detection threshold, the threshold value was used. For particulate matter, when there were no sampling results for PM₁₀ or PM_{2.5}, the value for Total PM was used.

For the new cellhouse, the EIS states that the sulphuric acid emission rates were determined using a conservative efficiency for the cooling towers and acid mist control based on similar technology installed at the Nyrstar Balen plant in Belgium. The total particulate matter measured in the cooling towers at the Balen plant were also used to determine PM₁₀ and PM_{2.5} emission rates for the new cellhouse spent cooling towers. The EIS states that particulate matter concentrations estimated for the proposed cellhouse are conservative as the PM₁₀ and PM_{2.5} concentrations were set equal to the total particulate matter concentration measured at the Balen plant in Belgium (noting that PM₁₀ and PM_{2.5} would only comprise a portion of measured total particulate matter).

While results for all emissions are provided in the Air Dispersion Report (attachment 1 of the EIS), the EIS highlights that the majority of results are significantly below emission limits. Presentation and discussion of results in the body of the EIS therefore focusses on sulphuric acid (H₂SO₄) and particulates, which are present in appreciable concentrations. Section 6.1.3 of the EIS states that the existing and new cellhouses are not a source of SO₂.

Table 1: Modelling results for Nyrstar Hobart Metallurgical Site with existing cellhouse (Table 6-5 in the EIS)

Contaminant	Period	Criteria (µg/m ³)	Background concentration (µg/m ³)	Max. Concentration at or beyond the boundary of the land (µg/m ³)	% of Criteria	Cumulative Concentration at or beyond the boundary of the land (µg/m ³)	% of Criteria
H ₂ SO ₄ (based on SO ₃)	3 minutes	33	-	206	624%	206	624%
	1hr	-	-	89.0	-	89.0	-
	24hr	-	-	11.7	-	11.7	-
	Annual	-	-	2.1	-	2.1	-
PM	24hr	-	-	30.6	-	30.6	-
	Annual	-	-	5.77	-	5.8	-
PM ₁₀	24hr	50	18	25.4	51%	43.4	87%
	Annual	25	10	4.7	19%	14.7	59%
PM _{2.5}	24hr	25	12	24.4	98%	36.4	146%
	Annual	8	5	4.5	57%	9.5	119%



Table 2: Modelling results for Nyrstar Hobart Metallurgical Site with new cellhouse (Table 6-6 in the EIS)

Contaminant	Period	Criteria (µg/m³)	Background concentration (µg/m³)	Max. Concentration at or beyond the boundary of the land (µg/m³)	% of Criteria	Cumulative Concentration at or beyond the boundary of the land (µg/m³)	% of Criteria
H ₂ SO ₄ (based on SO ₃) ⁴	3 minutes	33	-	31 ⁵	95%	31	95%
	1hr	-	-	13.5	-	13.5	-
	24hr	-	-	3.2	-	3.2	-
	Annual	-	-	0.6	-	0.6	-
PM	24hr	-	-	22.7	-	22.7	-
	Annual	-	-	2.3	-	2.3	-
PM ₁₀ ⁶	24hr	50	18	4.9	10%	22.9	46%
	Annual	25	10	0.5	2%	10.5	42%
PM _{2.5} ^{7*}	24hr	25	12	2.4	10%	14.4	58%
	Annual	8	5	0.3	3%	5.3	66%

*Relevant Air EPP criteria are applied for reference.

⁴ Schedule 2 Design Criteria, Environmental Protection Policy (Air Quality) 2004

⁵ The result presented is the maximum concentration at or beyond property limit, which is the worst case possible. Using the 99.9 percentile is to overcome the need to place reliance on a single predicted hourly value calculated using an extreme set of meteorological conditions. Since the result is compliant even when extreme meteorological conditions are met, the maximum is presented.

⁶ Criteria from NEPM Ambient Air Quality Standards

⁷ Criteria from NEPM Ambient Air Quality Standards

Section 6.1.4 of the EIS includes Table 1 and 2 (tables 6-5 and 6-6 of the EIS) but does not specifically discuss the data presented. Isoleths for sulphuric acid for the 3-minute averaging period are shown for the existing and new cellhouse in Figure 9 and Figure 10 respectively.

The following can be summarised from Table 1,

Table 2, Figure 9 and Figure 10:

- Predicted GLCs of H₂SO₄ are significantly elevated for the existing cellhouse, at over 600% of the relevant Air EPP criteria.
- The location of modelled H₂SO₄ above the Air EPP criteria is restricted to land that currently houses the Nyrstar Hobart Metallurgical Site TasNetworks Substation.
- Predicted GLCs of PM_{2.5} for the existing cellhouse are also elevated and exceed the relevant Air EPP criteria for the 24-hour and annual averaging periods, at nearly 150% and 120%, respectively. This is mainly due to the contribution of the background concentrations of PM_{2.5} (see below).
- Predicted GLCs for all contaminants modelled (H₂SO₄ based on SO₃, PM, PM₁₀ and PM_{2.5}) were within the Air EPP criteria for the new cellhouse.



The Air Dispersion Report (attachment I of the EIS) states that the background concentrations for particulate matter presented are very conservative as they were calculated using data from 2019, which included a number of high intensity bushfire events. The report also notes that the cumulative results at sensitive receptors do not exceed the relevant Air EPP criteria, with most of the high concentration results predicted to occur close to the Nyrstar Hobart Metallurgical Site boundary.

The EIS states that the replacement of the cellhouse will result in a net reduction of all nominated contaminants. The main improvements will arise from the construction of high-efficiency cooling towers and the proposed acid mist capture and scrubbing system.



Figure 9: Maximum predicted concentrations for sulphuric acid Nyrtar Hobart Metallurgical Site with existing cellhouse (Figure 6-5 in the EIS).

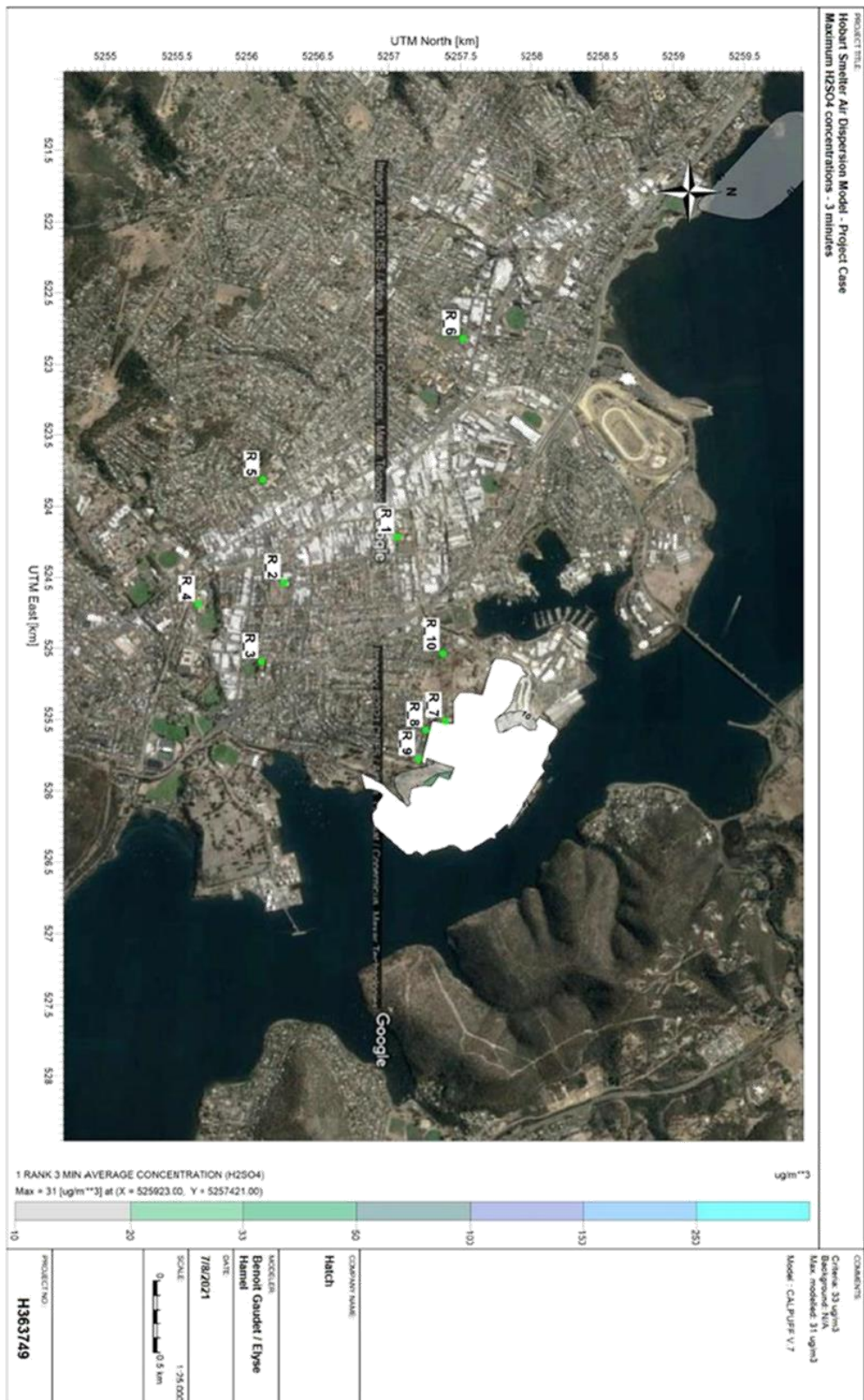


Figure 10: Maximum predicted concentrations for sulphuric acid Nyrtstar Hobart Metallurgical Site with proposed new cellhouse (Figure 6-6 in the EIS).



6.1.2 Management measures

Construction

Table 9-1 of the EIS includes the following proposed management measures:

- Planned works to avoid double handling and movement of materials;
- Limiting the area of disturbed/exposed soil at any one time where possible;
- Covering any aggregate or dusty material storage piles where possible;
- Maintenance of equipment, machinery and vehicles;
- Use of dust suppression methods where applicable, such as watering of unpaved construction access roads, and pre-wetting the working area prior to moving the excavated material; and
- Completing visual inspections and amending control measures if they are not sufficient.

Section 6.1.5 of the EIS states that dust management measures to be implemented during construction will be detailed in a CEMP to be implemented by the construction contractor.

Operation

Table 9-1 of the EIS includes the following proposed management measures:

- Construction of proposed cooling towers.
- Installation of acid mist management system to remove/ reduce acid mist from inside the cellhouse.
- Post-commissioning testing of acid mist emissions from the proposed cellhouse and cooling towers to confirm accuracy of the modelling. Should acid mist emissions be higher than those used for input into the original model, the model will be re-run using the measured acid mist results to confirm the cellhouse is still within the air quality limits, with adjustments to operations made if necessary.
- Continuation of community air quality monitoring in accordance with the requirements of Permit 3314 as varied by EPN 7043/5 for the Nyrstar Hobart Metallurgical Site.
- Maintenance of a complaints register.

The EIS states that there is no proposed change to the established TSPM monitoring program and that the proposal does not alter the direction, change the loadings of dust, or increase the likelihood of transport to sensitive receptors. The EIS states that TSPM monitoring will continue as per the requirements of Permit 3314 as varied by EPN 7043/5.

6.1.3 Public and agency comment and responses

No public or agency comments received.

6.1.4 Evaluation

It is noted that the most recent NEPM values have been referenced. This is consistent with the EPA Director's determination on updates to the air pollutant design criteria issued in January 2022.

It is noted that modelling for the existing cellhouse suggests emissions of H₂SO₄ and particulates at or beyond the boundary of the Nyrstar Hobart Metallurgical Site are well above relevant ground level concentration criteria. The EPA Air Specialist has confirmed that modelling was conservative



and is likely to have overestimated emissions for the existing cellhouse, particularly for H_2SO_4 , where 10 cooling towers were modelled at maximum emissions.

Based on the results of modelling presented in the EIS it is agreed that replacement of the existing cellhouse with the proposed new cellhouse should result in a decrease in air emissions. Post-commissioning air sampling to confirm actual emissions from the new cellhouse cooling towers is required by condition **A1**. Although it is agreed that air emissions from the cellhouse are not likely to be a source of SO_2 or metals, they are included in sampling requirements as a precautionary measure.

Condition **A2** requires the results of the post-commissioning air sampling to be outlined in an Air Emissions Survey Report to be submitted to the Director. Condition **A2** further requires the Air Emissions Survey Report to include a comparison of the results of the sampling with the air modelling results presented in the EIS, for verification.

Condition **M1** specifies the requirements for collection and processing of measurements and samples, to ensure scientific validity.

The commitment to updating the air emissions model if emissions sampling results are higher than modelled inputs is supported. This will be required by Condition **A3**, which requires maintenance of an atmospheric model and update of the model upon replacement, repair or addition of equipment that is a significant source of air emissions. Condition **A3** is consistent with a condition included in Permit 3314 as varied by EPN 7043/5 for the Nyrstar Hobart Metallurgical Site, as it is practical to maintain one combined model for the airshed.

Management of odour to prevent environmental nuisance will be required by Condition **A4**. Condition **A4** references the boundary of the Nyrstar Hobart Metallurgical Site rather than the cellhouse site boundary because the cellhouse is surrounded by the Nyrstar Hobart Metallurgical Site and there are other potential odour sources within that site. The maintenance of a complaints register is supported and will be required by condition **G6**.

It is understood that while particulates will be emitted from the cellhouse cooling towers, the cooling towers are not a major source of particulates reporting to the airshed, with other more significant sources being located on the Nyrstar Hobart Metallurgical site. Although there is an established TSPM monitoring program undertaken by Nyrstar Hobart, no particulate limits are set in Permit 3314 as varied by EPN 7043/5. At present, there is little value in setting off-site emission limits for particulates from the new cellhouse at new or existing monitoring locations, as the contribution of the new cellhouse cannot be differentiated from the contribution of the broader Nyrstar Hobart Metallurgical Site. The EPA Regulatory Officer has advised that limits for particulates will be considered during future reviews of Permit 3314 as varied by EPN 7043/5 and PCE No. 10449.

Control of dust emissions during construction is supported and will be required by condition **CN1**. It is appropriate to include dust mitigation in a CEMP and this will be required by condition **CN2**, which also includes a requirement for the CEMP to be submitted to the Director for approval.

6.1.5 Conclusions

The proponent will be required to comply with the following conditions:

- G6** Complaints register
- A1** Survey of air emissions
- A2** Air Emissions Survey Report



- A3** Maintain an atmospheric model
- A4** Odour management
- M1** Samples and measurements for monitoring purposes
- CN1** Control of dust emissions during construction
- CN2** Construction Environmental Management Plan

6.2 Key Issue 2: Noise

6.2.1 Description

Noise emissions are discussed in section 6.4 of the EIS.

Nyrstar Hobart Metallurgical Site existing environment

Sources of noise from existing operations include the following:

- Vehicles including heavy vehicles and forklift trucks.
- Fans on cooling and ventilation systems.
- Conveyors such as rubber belts, walking beams, and chain conveyors.
- Materials handling such as stacking zinc or excavating concentrates.
- Minor explosions from the cellhouse from hydrogen gas build up and roast boiler cleaning.
- Power tools including grinders, impact guns, and construction equipment.
- Steam emissions from heating and venting operations.
- Warning alarms or PA announcements for safety or process (including from the existing cellhouse).
- Sirens during emergencies or emergency drills.

Noise from site operations is monitored continuously at three locations within the neighbouring community: Birch Road (Lutana), Delwood Drive (Lutana) and Saundersons Road (East Risdon) (Figure 11). The EIS states that the average monthly median L90 noise results are within the limits set for the site in Permit 3314 as varied by EPN 7043/5 (Table 3).

Table 3: Long term measured average community noise levels (table 6-11 in the EIS).

Location	L ₁₀	L ₅₀	L _{eq}	EPN Limit Monthly Mean L ₉₀
Delwood Drive	49	41	45	52
Birch Road	49	40	45	52
Saundersons Road	53	49	51	56



Figure 11: Noise monitoring locations (figure 6-11 of the EIS)



Noise emissions from the proposal

Nyrstar Hobart commissioned an acoustic assessment of noise emissions from the new cellhouse. It compared the existing noise levels at the three community noise monitoring locations with the noise levels predicted to be generated during construction and operation of the new cellhouse. It was noted that there would be a period where both construction of the new cellhouse and operation of the existing cellhouse occur concurrently and this scenario was also assessed. The acoustic assessment is presented in attachment 2 of the EIS and summarised in section 6.4.3 of the EIS.

The EIS states that the Nyrstar Hobart Metallurgical Site is compliant with the existing limits set for noise emissions from the site in Permit 3314 as varied by EPN 7043/5 and that the proposed cellhouse will need to operate at the same noise level or a lower noise level to maintain compliance. The resulting design criteria for the proposed cellhouse are presented in Table 4.

Noise sources are described in section 6.4.3.1 and 6.4.3.2 of the EIS.

Construction activities are proposed to include earthworks, steel fabrication and mobile power generation for the following activities:

- Removal of Unit 1 to 4 Cooling Towers and replacement with temporary units.
- Bulk earthworks.
- Excavation for the proposed cellhouse building.
- Construction and commissioning of the proposed cellhouse building.

Noise sources associated with the operation of the proposed new cellhouse include:

- Five spent cooling towers (4 operational, 1 on standby).
- Acid mist 'Crossflow' extraction system.
- Anode cleaning high pressure water system.
- Cathode stripping machines.
- Four rectifiers.

Further reductions to noise emissions from the site would result from decommissioning of the following after the new cellhouse is commissioned:

- Unit 5 and 6 spent cooling towers
- Anode washing and repair station
- Anode casting shop and associated scrubber fan

The model inputs, including sound power levels for components and equipment, are outlined in attachment 2 of the EIS.

Noise modelling results

The new cellhouse was assessed against design criteria set to ensure operation would be the same or quieter when compared to the existing cellhouse, as described above. The design criteria for the existing cellhouse were extracted from the noise model for the Nyrstar Hobart Metallurgical Site. The EIS states that this is appropriate because long-term noise monitoring shows compliance with the limits set for the site in Permit 3314 as varied by EPN 7043/5. The results in Table 4 indicate that predicted noise levels for the new cellhouse are below the design criteria.

Different scenarios were modelled to determine the noise impacts to sensitive receivers (as measured at existing community noise monitoring locations at Birch Road, Delwood Drive and Saundersons Road):

- Current scenario – Nyrstar Hobart Metallurgical Site with existing cellhouse.



- Proposed cellhouse - Nyrstar Hobart Metallurgical Site with the new cellhouse.
- Construction - Nyrstar Hobart Metallurgical Site with the new cellhouse under construction and the existing cellhouse operational. All sources assumed to be operating simultaneously.

Table 4: Noise modelling results (table 6-15 in the EIS)

Location	Monitoring Criteria	Monitoring Period	Sound Pressure Level, dBA		
			Delwood Drive	Birch Road	Saundersons Road
Whole Site	Measured	Current Long Term	45	45	51
	Predicted	Currently	46	46	50
		Proposed Cellhouse	46	46	48
		Construction	48	47	50
	Criteria	Site EPN	52	52	56
Cellhouse	Predicted	Proposed Cellhouse	42	36	33
		Construction	45	41	39
	Criteria	Proposed Cellhouse	43	40	44

Section 6.4.3.3 of the EIS includes Table 4 (table 6-15 of the EIS) but does not specifically discuss the data provided.

The following can be summarised from Table 4:

- The long-term average sound pressure levels measured are similar to those predicted by the model.
- The new cellhouse will result in similar sound pressure levels to current at Delwood Drive and Birch Road and lower levels at Saundersons Road.
- During cellhouse construction sound pressure levels will be higher than current measurements at Delwood Drive (48 dBA compared to 45 dBA) and Birch Road (47 dBA compared to 45 dBA) and lower at Saundersons Road (50 dBA compared to 51 dBA current).
- The predicted sound pressure levels for all scenarios are below those currently specified in Permit 3314 as varied by EPN 7043/5.

The EIS states that once operational there is no expected increase in the noise profile from the site in comparison to existing noise. The EIS further states the East Risdon area (Saundersons Road) is likely to experience a lower level of noise once commissioning of the new cellhouse is complete.



6.2.2 Management measures

The following management measures are outlined in table 9-1 of the EIS:

Construction

- Main construction works will occur between approximately 7 a.m. and 5 p.m., 6 days a week. Night shift works will be completed only as required. In the event that night shift is required, construction planning will schedule major works to occur during day shift, with only minor works to occur during the night shift.
- Placement of loud equipment (e.g., generators) away from sensitive noise receptors.
- Prior notification to local residents of works which generate short term localised noise impacts.

Operation

- Install equipment that has a quieter noise profile than existing equipment.
- Equip main noise sources with silencers where required.
- No requirement for PA system for operational communications.

At all times

- Continuous noise monitoring at community noise monitoring locations.
- Community complaints register in place.
- Restriction of significant noise generating activities to operational hours.

6.2.3 Public and agency comment and responses

No public or agency comments received.

6.2.4 Evaluation

It is appropriate to reference the limits specified in Permit 3314 as varied by EPN 7043/5 as these will continue to be the limits for the Nyrstar Hobart Metallurgical Site and the construction and operation of the cellhouse should not compromise Nyrstar Hobart's ability to comply with regulatory limits.

Based on the results of the modelling presented in Table 4, it is agreed that noise levels from the proposal are expected to be similar to noise levels currently experienced. Modelling indicates that cellhouse construction noise levels at Delwood Drive (45 dBA) and Birch Road (41 dBA) were above the cellhouse design criteria for these locations (43 dBA and 41 dBA for Delwood Drive and Birch Road respectively). The EPA Noise Specialist notes that the criteria were derived for the purpose of informing cellhouse design and are not applicable as construction criteria, and that the potential impacts from cellhouse construction are adequately captured in the modelling for the construction scenario.

Modelling indicates an increase in sound power level of between 2 and 3 dBA at Delwood Drive and Birch Road during the construction period. Although it is noted that predicted levels will remain below the limits specified in Permit 3314 as varied by EPN 7043/5 for these locations, the change may result in an increase in complaints during the two-year construction period. Condition **G6** requiring the maintenance of a complaints register is discussed under Key Issue 1: Air quality and is relevant here. The requirement for a CEMP (condition **CN2** required under Key Issue 1: air quality) is also relevant. The CEMP will require prior notification of noisy works, as well as measures to mitigate noise impacts including placement of equipment to avoid noise propagation.



Noise emission limits for the activity are specified in condition **N1**, which specifies noise limits according to location and receiver, and specifies methods of measurement. Condition **N2** requires continuous noise monitoring at the three community monitoring locations (Birch Road, Delwood Drive and Saundersons Road) and specifies the sound pressure level limits. The requirements of conditions **N1** and **N2** mirror conditions specified in Permit 3314 as varied by EPN 7043/5. This is appropriate as these will continue to be requirements for the Nyrstar Hobart Metallurgical Site.

Condition **N3** requires a noise survey to be completed within six months of cellhouse commissioning to verify predicted noise impacts and condition **N4** specifies the methods and reporting requirements for the survey. Condition **N5** specifies that a noise model must be maintained for the activity. This condition mirrors the requirement for maintenance of a noise model in Permit 3314 as varied by EPN 7043/5 as it is practical to maintain one combined model for the site.

Condition **M1**, which specifies the requirements for collection and processing of measurements and samples, is discussed in Key Issue 1: Air emissions, and is also relevant to noise monitoring. Condition **M2** specifies the requirements for reporting of any noise limit exceedance.

6.2.5 Conclusions

The proponent will be required to comply with the following conditions:

- N1** Noise emission limits
- N2** Community monitoring of noise emissions
- N3** Noise survey requirements
- N4** Noise survey method and reporting requirements
- N5** Maintain a noise model
- M2** Exceedance of emission limits



7 Other Issues assessed by the Board

In addition to the key issues, the following environmental issues are considered relevant to the proposal and have been evaluated in this section:

1. Surface water
2. Groundwater
3. Waste management
4. Dangerous goods and environmentally hazardous materials
5. Biodiversity and natural values
6. Marine and coastal
7. Greenhouse gas and climate change
8. Decommissioning and rehabilitation
9. Social and economic issues



Issue 1: Surface water

Description of potential impacts

Section 6.2 of the EIS describes water quality at the site. The Nyrstar Hobart Metallurgical Site is divided into eight sub-catchments with a surface water drainage system to collect all stormwater generated across the site. Stormwater is directed through the site via a network of pits, pipes, drains, pumps, detention basins and overland flow with discharge into two concrete-lined contaminated water ponds with a storage capacity of about 3.4 ML each. The contaminated water ponds direct flows to the Nyrstar Hobart Metallurgical Site Effluent Treatment Plant before discharge into the Derwent estuary. The EIS states that the effluent treatment plant treats water from the contaminated water ponds, as well as process liquors. Operational procedures are employed to control extreme stormwater events that may exceed the capacity of the drainage and treatment system.

The location of the stormwater infrastructure is indicated in Figure 4. The EIS states there will be no change to the existing Nyrstar Hobart Metallurgical Site drainage and treatment systems as a result of the new cellhouse proposal. Stormwater volumes are not anticipated to change and there are no planned additional discharge points.

Earthworks during construction will result in soil disturbance and changes to stormwater drainage paths through the work areas. Disturbance of contaminated soil may result in contamination of stormwater if not managed adequately. The EIS states that surface water flows during construction will be captured within existing drainage systems at the site. The EIS states that stormwater drainage and treatment will be managed through existing operational procedures and there is therefore limited potential for migration of contaminants into the surrounding environment to increase as a result of the proposal.

During construction, a temporary increase in volume of sewage is expected as a result of the increased workforce. All sewage is directed to the Prince of Wales Bay sewage treatment plant subject to an existing Trade Waste Agreement with the sewage treatment plant operator.

There is no expected ongoing change to the volume of sewage during the operational phase of the proposal compared to current.



Management measures proposed in EIS

The following measures to manage surface water are listed in table 9-1 of the EIS:

Construction

- Limiting the area of soil disturbed/exposed at any one time. Avoiding exposure of large areas, or stockpiling of soil, during months where high rainfall is typically expected. Where this is not practical, implementing emergency response measures to ensure material can be contained within the existing system.
- Sediment control measures to protect stormwater pits.
- Dust control measures (refer Key Issue 1: Air emissions).
- Service trenching kept open for a limited time only.
- Installing diversion drains up-slope or sediment fences down-slope of working areas.
- Demarcated wheel wash site to prevent sediment from being tracked off the site.
- Implementation of Materials Movement Procedure, including inspection and approval for equipment to leave site to ensure cleanliness.
- Accidental spills of soil or other materials onto roads or drains to be removed as soon as they are observed.
- Erosion and sediment control measures to be included within the CEMP.
- Contaminated spoil to be stored in a manner that protects onsite drainage systems.

Operation

Contain all surface water within the onsite drainage system;

- Maintenance requirements of the Stormwater system in line with the existing Stormwater Operations Maintenance Manual (HP-821-00004).
- Rain Event Strategy (HP-620-01221) to be implemented during rain events.

Public and agency comment

No public or agency comments received.

Evaluation

It is appropriate to include surface water and sediment management requirements in the construction management documentation for the works and it is important that those requirements reflect Nyrstar Hobart's existing obligations under Permit 3314 as varied by EPN 7043/5. Condition **CN2** includes a requirement to outline appropriate management in the CEMP (condition CN2 is described under Key Issue 1: air quality).

It is noted that the proponent intends to manage stormwater from the proposed cellhouse site in accordance with existing procedures for the Nyrstar Hobart Metallurgical site. These procedures are set out in a Stormwater Strategy Report approved by the Director under Permit 3314 as varied by EPN 7043/5. This is considered appropriate given the limited area available for stormwater management within the new cellhouse site and the existing stormwater management infrastructure at the Nyrstar Hobart Metallurgical Site. Condition **E1** requires the activity to be managed in accordance with the approved Stormwater Strategy Report.

Treatment and disposal of contaminated stormwater and wastewater at the Nyrstar Hobart Metallurgical Site is supported. This will be required by condition **E2**. Condition **E3** requires sewage generated at the proposed cellhouse site to be directed to an approved external sewage system.

**Conclusion**

The proponent will be required to comply with the following conditions:

- CN2** Construction Environmental Management Plan
- E1** Stormwater management
- E2** Management of wastewater
- E3** Discharge of sewage



Issue 2: Groundwater

Description of potential impacts

Section 6.3.1 of the EIS states there has been significant soil and groundwater contamination across the Nyrstar Hobart site during the 100 years of refinery operations. Sources include leakage of process solutions in operational areas, ground infiltration of contaminated surface water, stormwater infiltration through stockpiles and residues, and leaks from storage tanks and pipes.

Groundwater is monitored for standing water level and quality across the site at over 90 monitoring bores and nine individual groundwater extraction systems in accordance with Permit 3314 as varied by EPN 7043/5. The location of bores in relation to the new cellhouse are indicated in Figure 6-9 and Figure 6-10 of the EIS. The results from this monitoring system inform the management and remediation of groundwater contamination across the Nyrstar Hobart Metallurgical Site.

The EIS states contaminants of most concern are zinc, cadmium, mercury and lead and that monitoring will continue during both the construction and operational phases of the proposed cellhouse.

During construction there is unlikely to be significant interaction with groundwater due to the depth of groundwater at the site and relatively shallow excavation depths, however, piling and excavation work may require some de-watering.

A number of existing groundwater bores will require decommissioning due to their location within the proposed cellhouse footprint. The EIS states these bores were installed opportunistically following a geotechnical assessment, may present a risk of cross-aquifer contamination and should be decommissioned regardless of the necessity to do so for the cellhouse construction. None of the bores identified for decommissioning are used for regulatory sampling at the Nyrstar Hobart Metallurgical Site.

The EIS states the existing cellhouse has contributed significantly to existing groundwater contamination, and the replacement with a modern cellhouse facility will result in an improvement in groundwater quality in the long term.



Management measures proposed in EIS

The following measures to manage ground water are listed in table 9-1 of the EIS:

Construction

- Identification of designated areas specific to activities that pose a high risk of contamination, such as refuelling.
- Set up of high-risk areas to include bunding, impermeable hardstand area, drainage to an appropriate treatment location.
- Appropriate handling of potentially contaminated excavated material and disposal methods.
- Control of any extracted groundwater from piling and excavation work via pumps, drainage system and redirection into the Contaminated Water Pond or a suitable vessel for treatment.

Operation

- Basement system will capture process liquors and prevent them from seeping into the groundwater system.
- Implement the existing groundwater management plan.

Section 6.3.4 of the EIS states that the proposed cellhouse design includes a sealed and fully contained basement and associated drainage system, including impervious membranes to limit release of contaminants into soils or groundwater.

Public and agency comment

No public or agency comments received.

Evaluation

It is noted that any groundwater encountered during site excavations for the proposed cellhouse will be directed to the Nyrstar Hobart Metallurgical site drainage system for storage and treatment. Condition **GW1** requires any groundwater encountered during construction to be directed to a contaminated water pond or other suitable vessel within the Nyrstar Hobart Metallurgical Site.

It is appropriate to include construction groundwater management requirements in the construction management documentation for the works and it is important that those requirements reflect Nyrstar Hobart's obligations under Permit 3314 as varied by EPN 7043/5. Condition **CN2** includes a requirement to outline appropriate groundwater management in the CEMP (condition CN2 is required under Key Issue 1: air quality).

Conclusion

The proponent will be required to comply with the following conditions:

GW1 Management of groundwater



Issue 3: Waste management

Description of potential impacts

Excavated materials

Section 2.3.2 of the EIS states that approximately 32,000 m² of materials are expected to be excavated from the new cellhouse site. An underground fuel storage facility will also be decommissioned and removed. Operation of the existing cellhouse is known to have resulted in significant soil and groundwater contamination in the vicinity of the new cellhouse site.

Any contaminated materials such as soils are designated as contaminated non-process wastes and managed under an approved Non-process Waste Management Plan submitted pursuant to conditions of Permit 3314 as varied by EPN 7043/5. This may include disposal in the Nyrstar Hobart Site roaster, or disposal to a suitably licensed off-site facility. A bonded facility is located at the Nyrstar Hobart Metallurgical Site for the storage and testing of materials prior to disposal.

General construction waste

Waste during the construction is expected to include:

- General and construction office waste, including amenities waste;
- Packaging, delivery boxes and offcuts;
- Waste concrete, metal from reinforcing and wire ties;
- Flagging and temporary barricading, and
- Empty chemical containers and contaminated washdown water.

The EIS states that the volumes and types of waste generated over the two year construction period will vary significantly and will be dependent on the types of work being undertaken at the time.

Operational waste

The EIS states that ongoing maintenance works relating to the existing cellhouse result in large volumes of contaminated timber, soils, and bitumen (contaminated non-process wastes). Table 6-17 in the EIS indicates 430 tonnes of contaminated non-process wastes were produced in 2019. The EIS states there will be a significant reduction in the generation of contaminated wastes due to the improved containment systems in the new cellhouse and removal of the need for continual upgrades and repairs to the old facility.

No new waste streams are expected from the new cellhouse.



Management measures proposed in EIS

The following measures to manage waste are listed in table 9-1 of the EIS:

Construction

- Fabrication, or partial fabrication, to be completed off-site where possible, minimising the need for on-site workshops and generation of scrap materials;
- Reuse of contaminated soil in fill material where possible and where it will not result in further environmental impact;
- Returning packaging to suppliers where possible;
- Planning to restrict material purchases to the volume required and avoid over-consumption;
- Ensure materials are delivered only when required, to avoid being degraded or damaged on-site prior to use;
- Establish waste segregation and storage areas to ensure that different types of waste and construction materials are not mixed at any point; and
- Ensure general waste, recycling, contaminated non-process waste and process waste storage areas are clearly delineated.

Operations

- Waste management to comply with the site Waste Management Procedure HP-825-03612, which covers management of contaminated soil.
- All volumes of waste will be monitored and recorded and will be reported in the Annual Environmental Review.

Section 6.5.3 of the EIS states that waste management measures for demolition and construction waste will be developed as a part of the CEMP for the proposal.

Public and agency comment

No public or agency comments received.

Evaluation

Contaminated materials likely to be encountered during site excavations for the proposed cellhouse will be moved directly to the Nyrstar Hobart Metallurgical Site as contaminated non-process waste. Handling and disposal of contaminated non-process waste is considered to be sufficiently regulated under the conditions of Permit 3314 as varied by EPN 7043/5, which requires management and disposal of waste as per the approved Non-process Waste Management Plan. Sampling of excavated soil to determine appropriate disposal options will be required by condition **CW1**.

It is appropriate to include construction waste management requirements in the construction management documentation for the works. Condition **CN2** requiring the submission of a CEMP (Issue 1: surface water) is also relevant to waste management.

Monitoring and reporting of waste volumes in the Annual Environment Review is supported and will be required by condition **G7**.

**Conclusion**

The proponent will be required to comply with the following conditions:

CWI Testing of soil

G7 Annual Environmental Review

The proponent is made aware of the following:

OII Waste management hierarchy



Issue 4: Dangerous goods and environmentally hazardous materials

Description of potential impacts

The Nyrstar Hobart Metallurgical Site is designated as a 'Major Hazard Facility' under the Tasmanian *Work, Health and Safety Act 2012*. Of the five major risks which would cause a major event or failure, one risk is associated with cellhouse operations: a Liquefied Petroleum Gas (LPG) explosion or fire. The EIS states this arises from the use of mobile equipment as the primary means of transporting electrodes in the existing cellhouse facility. The EIS further states the automated systems proposed for the new cellhouse will reduce LPG use and lower the risk of LPG explosion or fire.

During construction, sealants, paints, welding gases, concrete and associated additives will be required. The volume and composition of these chemicals will change as construction progresses. During construction, fuels and oils, concrete, grouting materials, chemical markers, sealants, welding gases, paints and corrosion resistant coatings will be used. The volumes will generally be small, and they will only be required for short periods.

During the commissioning phase, pure and spent solution will be moved from the existing storage tanks to the new units through a new pumping system.

The EIS states there is no change to the dangerous goods and hazardous substances proposed to be used during the operational phase of the new cellhouse compared to existing operations. The profile of the site and associated 'Major Hazard Facility' designation will not change, as the proposal does not add to the inventory of existing Schedule 15 substances.

Management measures proposed in EIS

Table 9-1 of the EIS lists the following mitigation measures to be implemented during both the construction and operation phases of the proposal.

- Appropriate handling, storage and disposal of chemicals and hydrocarbons.
- Ensure all workers are trained in chemical handling and spill management.
- Undertake work area safety inspections.
- All handling of materials in line with the requirements outlined in the SDS.
- Ensure SDS are up to date and available for all personnel.
- Undertake job safety and environmental analysis on specific jobs and risks associated with job execution.
- Ensure standard operating procedures are implemented across site.
- Ensure all dangerous goods and environmental hazardous materials are located at the appropriate storage areas. Management of the storage of this material to prevent unauthorised discharge, emission, or deposition of pollutants to the surrounding environment.

Public and agency comment

No public or agency comments received.

Evaluation

The appropriate storage and handling of hazardous materials is supported and will be required by condition **H1**. The provision of spill kits will be required by **H2**. It is acknowledged that proposal will not change the 'Major Hazard Facility' designation of the Nyrstar Hobart site and the maintenance of a hazardous materials inventory will be required by condition **H3**.

**Conclusion**

The proponent will be required to comply with the following conditions:

- H1** Storage and handling of hazardous materials
- H2** Spill kits
- H3** Inventory of hazardous materials



Issue 5: Biodiversity and natural values
Description of potential impacts
The EIS states the majority of the Nyrstar Hobart site has been previously cleared and comprises hardstand and paved surfaces. There is a 90 ha buffer zone between the smelter and the surrounding residential areas where some areas of natural vegetation occur. The new cellhouse site does not impact on the buffer zone. The EIS states some minor areas of planted vegetation may be disturbed during works associated with site access. The East Risdon State Reserve will not be impacted by the proposal.
Management measures proposed in EIS
Section 6.7.4 of the EIS states management requirements for flora and fauna will be addressed in the CEMP.
Public and agency comment
No public or agency comments received.
Evaluation
Construction and operation of the new cellhouse will occur in a previously cleared area surrounded by the Nyrstar Hobart site. No impacts to biodiversity or natural values are anticipated.
Conclusion
No specific conditions are required.



Issue 6: Marine and coastal
Description of potential impacts
The Nyrstar Hobart Metallurgical Site is adjacent to the Derwent estuary and section 6.8.1 of the EIS describes this part of the estuary as relatively deep and microtidal with large and steady freshwater inputs from the Derwent River. The site of the proposed cellhouse is located approximately 300m from the banks of the estuary and all site stormwater and wastewater is proposed to be directed through the Nyrstar Hobart Metallurgical Site water treatment system for treatment prior to discharge into the estuary (refer Issue 1: surface water). The EIS states the new cellhouse construction and operation will not increase discharge volume or alter the discharge quality at the existing Nyrstar Hobart Metallurgical Site discharge locations. The EIS states the marine and coastal impact profile from the Nyrstar Hobart Metallurgical Site is expected to remain the same as current.
Management measures proposed in EIS
Table 9-1 of the EIS includes the following: • Contain all surface water within the Nyrstar Hobart drainage system. • Maintenance requirements of the Stormwater system in line with the existing Stormwater Operations Maintenance Manual (HP-821-00004). • Rain Event Strategy (HP-620-01221) to be implemented during rain events.
Public and agency comment
No public or agency comments received.
Evaluation
As wastewater and stormwater from the proposal will report to the Nyrstar Hobart Metallurgical Site for treatment and are not expected to change the nature of discharges to the estuary, it is agreed impacts on marine and coastal values from the new cellhouse are unlikely.
Conclusion
No specific conditions are required.



Issue 7: Greenhouse gas and ozone depleting substances
Description of potential impacts
Section 6.9 of the EIS states electricity usage (scope 2 indirect emissions) is the main contributor to greenhouse gas emissions from the site. This is a Scope 2 (indirect) emission generated by the energy producer. The EIS also states the proposal will see an improvement in energy efficiency at the new cellhouse. Nyrstar Hobart reports its energy consumption and greenhouse gas emissions annually under the National Greenhouse and Energy Reporting (NGER) Act 2007. Areas for improvement are identified through the Annual Environmental Report and the Public Environmental Report. Scope 1 (direct) emissions from construction activities associated with the proposal (fuel usage for machinery and vehicles) will be calculated and reported in the annual NGER report.
Management measures proposed in EIS
The following measures are outlined in section 6.9.4 of the EIS: • Sourcing of hydro generated power (as per existing process). • The use modern systems that are more energy efficient than the existing cellhouse facility.
Public and agency comment
No public or agency comments received.
Evaluation
There is currently no requirement under Federal or State legislation for industry to demonstrate offsetting of emissions generated.
Conclusion
No specific conditions are required.



Issue 8: Decommissioning and rehabilitation
Description of potential impacts
Section 8 of the EIS discusses decommissioning and rehabilitation. Nyrstar Hobart has a Decommissioning and Rehabilitation Plan (DRP) to guide the ultimate closure of the Nyrstar Hobart Metallurgical Site. The EIS states the new cellhouse is unlikely to result in a significant change to the existing decommissioning and rehabilitation liabilities. The EIS states demolition of the existing cellhouse will follow commissioning of the new cellhouse and will be the subject of a demolition permit application to Glenorchy City Council. Consultation with EPA regarding site contamination in accordance with the requirements of the Nyrstar Hobart DRP will be required, however decommissioning of the existing cellhouse is not within the scope of the current assessment as it is regulated under Permit 3314 as varied by EPN 7043/5.
Management measures proposed in EIS
The EIS states the DRP will be updated to include the proposed new cellhouse and may include revision of aspects such as: • OHS requirements • Site contamination assessment • European heritage.
Public and agency comment
No comment was received.
Evaluation
The proponent will be required by condition DC1 to notify the Director of any cessation of the activity. Condition DC2 requires the Director to be notified of any temporary cessation of the activity. Condition DC2 also requires ongoing management and monitoring of the site and allows for the development of a care and maintenance plan if required. Update of the Nyrstar Hobart Metallurgical Site DRP is supported. Condition DC3 requires a plan to be submitted to the Director within 180 days of the notification of permanent cessation of the activity. The decommissioning of the proposed cellhouse may need to consider contamination from the Nyrstar Hobart Metallurgical Site as well as decommissioning actions for that site. Condition DC3 therefore requires that relevant details of the Assessment of Site Contamination Report and relevant actions from the Decommissioning Scope of Works for the Nyrstar Hobart Metallurgical Site be included in the DRP. Condition DC4 requires the DRP to be implemented.
Conclusion
The proponent will be required to comply with the following conditions: DC1 Notification of cessation DC2 Temporary suspension of activity DC3 Decommissioning and Rehabilitation Plan DC4 Implementation of the DRP



Issue 9: Social and economic issues
Description of potential impacts
The EIS states the primary impact on local, state, and national economies is through the ongoing viability and sustainability of the operation. The output of the new cellhouse will increase production by 11%, resulting in an increase in revenue over the long term. The EIS states there will be a significant temporary increase in indirect employment during construction, which requires 200 temporary construction jobs over the 24 to 30 month construction period. There will also be additional temporary employment during the period of commissioning. Due to automation, the new cellhouse will result in a decrease in direct employment and contracted labour in the long term. The EIS states this reduction in employment is offset by the extended safe and sustainable life of operations as a result of the new cellhouse.
Management measures proposed in EIS
Section 6.10.4 of the EIS includes the following: • Workforce Transition and Change Management processes and relevant Enterprise Agreements will be followed to minimise the impact on personnel from any future reduction in employed workers. • The continuation of community programs to provide education and training opportunities. • Continuation of community partnerships. • Where possible, locally source raw materials and fabrication, creating indirect local investment in plant, equipment, skills and training.
Public and agency comment
One representation was received. The representor supported the proposal and stated the replacement cellhouse infrastructure was required to secure the plant's long-term future. The representor also states the facility results in 500 direct workers being employed and is connected to many other businesses.
Evaluation
The objectives of Tasmania's Resource Management and Planning System encompass the social and economic aspects of resource use and development as well as the environmental aspects. It is therefore appropriate for the Board to consider the social and economic aspects of a proposal in its assessment process, and note the likely economic and employment benefits of the proposal.
Conclusion
No specific conditions are required.



8 Issues not assessed by the Board

The following issue was raised during the assessment process but is not the Board's responsibility under the EMPC Act, and is more appropriately addressed by another regulatory agency.

Issue 1: Traffic
Description of potential impacts
A traffic impact assessment was completed in December 2020, refer to section 6.16 and the Traffic Impact Report Annexure in the EIS for details. The EIS states no adverse traffic impacts are expected from operation. There is potential for localised traffic impacts during construction of the proposed cellhouse due to additional light and heavy vehicle movements.
Management measures proposed in EIS
Management measures outlined in section 6.16.5 of the EIS are as follows: • Installing additional temporary parking spaces to meet the expected peak demand and to prevent parking on the council public street network. • Install temporary short-term parking spaces. • Using Derwent Park Road for heavy vehicle deliveries and installing an entry system to ensure that workers are not waiting to enter site on public roads. These measures are proposed to be included in the CEMP.
Public and agency comment
No public or agency comments received.
Conclusion
Construction is planned to occur within daylight hours, from 6 am to 6 pm, limiting potential traffic noise impacts at night. The operational phase of the project is likely to have little impact on traffic. The Board does not have responsibility for traffic management issues and cannot impose relevant permit conditions.



9 Report Conclusions

This assessment has been based on the information provided by the proponent, Nyrstar Hobart Pty Ltd, in the permit application and the case for assessment (the EIS).

This report incorporates specialist advice provided by EPA scientific specialists and regulatory staff, other Divisions of NRE and other government agencies, and has considered issues raised in public submissions.

It is concluded that:

1. the RMPS and EMPCS objectives have been duly and properly pursued in the assessment of the proposal;
2. the assessment of the proposal has been undertaken in accordance with the Environmental Impact Assessment Principles; and
3. the proposal is capable of being managed in an environmentally acceptable manner such that it is unlikely that the RMPS and EMPCS objectives would be compromised, provided that the Permit Conditions - Environmental No. 10449 appended to this report are imposed and duly complied with.



10 Report Approval

Environmental Assessment Report and conclusions, including environmental conditions, adopted:

A handwritten signature in black ink, appearing to read 'Belinda Hazell', with a long, sweeping underline.

Belinda Hazell

**DEPUTY CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION
AUTHORITY**

Meeting date: 5 April 2022



II References

Nyrstar Hobart Pty Ltd (2021); *Construction of the Proposed Electrolysis Plant (Cellhouse) at Nyrstar Hobart* (dated 28 July 2021); Hobart, Tasmania.



12 Appendices

Appendix 1 Summary of public and agency submissions

Appendix 2 Table of proponent commitments

Appendix 3 Permit conditions

Appendix I - Summary of public representations and agency submissions

Representation No. / Agency	EIS Section/ page no.	Comments and Issues	Further info	EPA comments
1	4.1	Representor requests information on when public and ratepayer consultation will occur. Representor suggests the local community should be consulted on whether the site should continue operation.	No	Community engagement is addressed in Section 4.1 of the EIS.
2	6.10	Representor supports the application and states the replacement of the cellhouse infrastructure is required to secure the plant's long term future. Representor states the operation employs 500 direct workers and is interconnected with many other businesses	No	Socio-economic impacts addressed in Section 6.10 of the EIS.

Appendix 2 – Table of proponent commitments



Aspect	Management Measures
Air Quality	Construction - Plan works to avoid double handling and movement of material; - Limiting the area of disturbed/exposed soil at any one time where possible; - Covering of any aggregate or dusty material storage piles where possible; - Maintenance of equipment, machinery and vehicles; - Use dust suppression methods where applicable, such as unpaved construction access roads, and pre-wet the working area prior to moving the excavated material; and - Complete visual inspections and amend control measure if they are not sufficient. Operation - Installation of proposed cooling towers, and acid mist management system, which has a 93% efficiency in removing acid mist from inside the Cellhouse. - Post commissioning testing of the proposed Cellhouse and cooling towers for acid mist to confirm accuracy of the Air Dispersion Model. Should acid mist emissions be higher than those used for input into the original model, the model shall be re-run using the measured acid mist results to confirm the Proposal is still within the air quality limits outlined within section 6.1.2. General - Community air quality monitoring to be completed - Community complaints register in place
Water Quality	Construction - Limiting the area of disturbed/exposed soil at any one time. Avoid exposure of large areas, or stockpiling of soil, during months where high rainfall is typically expected. Where this is not practical, emergency response measures should be enacted and on standby to ensure material can be contained within the existing system; - Sediment control measures to protect stormwater pits; - Dust control measures; - Service trenching kept open for a limited time only; - Install diversion drains up-slope or sediment fences down-slope; - Demarcated wheel wash site to prevent sediment from being tracked off the site; - Implementation of NH's Materials Movement Procedure, including inspection and approval for equipment to leave site to ensure cleanliness, and - Accidental spills of soil or other materials onto roads or drains should be removed as soon as they are observed; and - Erosion and sediment control measures as identified within the CEMP. Operation: - Contaminated spoil will be stored in such a way that it doesn't not enter the drainage system on site. - Contain all surface water within the onsite drainage system; - Maintenance requirements of the Stormwater system in line with the existing Stormwater Operations Maintenance Manual (HP-821-00004); and



Aspect	Management Measures
Groundwater	• Rain Event Strategy (HP-620-01221) to be implemented during rain events. Construction: • Identification of designated areas specific to activities with high risk of contamination such as refuelling; • Appropriate set up of high-risk areas to include bunding, impermeable hardstand area, appropriate drainage infrastructure from this area to the appropriate treatment location. • No drilling muds used in installation of piles • Appropriate handling of excavated material and disposal methods • Management of any extracted groundwater from piling and excavation work via pumps, drainage system and redirection into the onsite CMP, or a suitable vessel for treatment. • Infrastructure provided to direct the collected groundwater discharge to appropriate treatment location Operation • Basement system will capture process liquors and prevent them from seeping into the groundwater system. • Implement the existing groundwater management plan
Noise	Construction • Management of construction and operation hours within reasonable timeframes (see Section 2.3.4); • Placement of loud equipment (e.g., generators) away from sensitive noise receptors; and • Prior notification of works which generate short term localised noise pollution. Operations • Install equipment which has a quieter noise profile than existing equipment; • Equip main noise sources on proposed Cellhouse with silencers where required; and • No requirement for PA system for operational communications. At all times • Community noise monitoring to be completed • Community complaints register in place • Restriction of significant noise generating activities to operational hours.
Waste	Construction • Fabrication, or partial fabrication, to be completed off site where possible, minimising the need for onsite workshops and generation of scrap materials; • Reuse of contaminated soil in fill material where possible and where it will not result in further environmental impact; • Returning packaging to suppliers where possible; • Planning works, orders of materials and only purchasing the volume required. Specify requirements to avoid over consumption of materials; • Ensure materials are delivered only when required, to avoid being damaged by site climatic conditions, and not being usable; • Establish waste segregation and storage areas to ensure that different types of waste and construction materials are not mixed at any point; and • Ensure waste disposal areas are identified clearly around site for general waste, recycling, contaminated non-process waste and process waste. Operations

N4 Noise survey method and reporting requirements

- 1** Noise surveys must be undertaken in accordance with a survey method approved in writing by the Director, as may be amended from time to time with written approval of the Director.
- 2** Without limitation, the survey method must address the following:
 - 2.1** measurements must be carried out at day, evening and night times (where applicable) at each location; and
 - 2.2** measurement locations, and the number thereof, must be specified, with one location established as a control location (noise).
- 3** Measurements and data recorded during the survey must include:
 - 3.1** operational status of noise producing equipment and throughput of the activity;
 - 3.2** subjective descriptions of the sound at each location;
 - 3.3** details of meteorological conditions relevant to the propagation of noise;
 - 3.4** the equivalent continuous (L_{eq}) and L_1 , L_{10} , L_{50} , L_{90} and L_{99} A-weighted sound pressure levels measured over a period of 10 minutes or an alternative time interval approved by the Director;
 - 3.5** one-third octave spectra over suitably representative periods of not less than 1 minute; and
 - 3.6** narrow-band spectra over suitably representative periods of not less than 1 minute.
- 4** A noise survey report must be forwarded to the Director within 30 days from the date on which the noise survey is completed.
- 5** The noise survey report must include the following:
 - 5.1** the results and interpretation of the measurements required by these conditions;
 - 5.2** a map of the area surrounding the activity with the boundary of The Land, measurement locations, and noise sensitive premises clearly marked on the map;
 - 5.3** any other information that will assist with interpreting the results and whether the activity is in compliance with these conditions and EMPCA; and
 - 5.4** recommendations of appropriate mitigation measures to manage any noise problems identified by the noise survey.

N5 Maintain a noise model

- 1** Unless otherwise approved by the Director in writing, the noise model for the activity must be maintained.
- 2** The model must be updated upon replacement, repair or addition of equipment that is a significant source of noise and where replacement, repair or addition of equipment may increase or adversely alter the level or character of the noise emitted from the activity.
- 3** It is not necessary to re-measure noise sources unless their noise output has changed since a previous measurement accepted by the Director. New or modified noise sources must be measured within 6 months of commissioning or re-commissioning the sources.



Aspect	Management Measures
	- Waste management to comply with the site Waste Management Procedure HP-825-03612, which covers management of contaminated soil. - All volumes of waste will be monitored and recorded in Annual Environmental Review.
Dangerous Goods	At all times - Appropriate handling, storage and disposal of chemicals and hydrocarbons; - Ensure all workers are trained in chemical handling and spill management; - Undertake work area safety inspections; - All handling of materials in line with the requirements outlined in the SDS; - Ensure SDS are up to date and available for all personnel; - Undertake job safety and environmental analysis on specific jobs and risks associated with job execution; - Ensure standard operating procedures are implemented across site; and - Ensure all dangerous goods and environmental hazardous materials are located at the appropriate storage areas. Management of the storage of this material to prevent unauthorised discharge, emission or deposition of pollutants to the surrounding environment.
Flora and Fauna	At all times - During construction, excavations will be checked for fauna at the beginning of every shift; - The environment team is to be notified in the event of finding fauna in the work areas; - Appropriate rodent and pest management practices in place; - Appropriate reporting to be undertaken if fauna are caught or killed as a result of construction or operational activities and
Marine and Coastal	At all times All stormwater from the site is captured and directed to the on-site Effluent Treatment Plant for treatment.
Greenhouse Gases	- Update to the existing Cellhouse technology to increase efficiency and reduce use of natural resources and energy. - Include construction related Scope 1 GHG emissions to NGRS reports for relevant years.
Traffic	Construction - Installation of additional temporary parking spaces within the development site to meet the expected peak demand and cause no overspill to the Council public street network; - Install temporary short-term parking spaces if required; - Planning heavy vehicle deliveries, and install an entry system to ensure that they are not waiting to enter site on public roads; - All traffic movements to and from site to be on established roads; - If required, parking inspector to ensure all personnel are abiding by the road rules and parking requirements when parking on site; and - Reduction to site road limits where appropriate, around construction areas and during peak site traffic conditions.



Appendix 3 – Permit conditions – Environmental



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Environment Protection Authority

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Our Ref: D22-100237



5 April 2022

Mr Dale Richards
Nyrstar Hobart Pty Ltd
GPO Box 377
HOBART TAS 7000

By Email Only: dale.richards@nyrstar.com

Dear Mr Richards

**ENVIRONMENTAL ASSESSMENT DECISION
CONSTRUCTION AND OPERATION OF A NEW ELECTROLYSIS PLANT (CELLHOUSE),
LUTANA**

I refer to application number PLN-21-506 to Glenorchy City Council for a permit under the *Land Use Planning and Approvals Act 1993* (the LUPA Act) for the above activity. The environmental impact assessment of the activity under the provisions of the *Environmental Management and Pollution Control Act 1994* (the EMPC Act) has been completed.

In accordance with Section 25(5) of the EMPC Act, Glenorchy City Council has been notified of certain conditions and restrictions to be contained in any permit granted for the activity under the LUPA Act. Reasons for the Board's decision are detailed in the Environmental Assessment Report (EAR), which is attached for your information. The Board's conditions and restrictions for the permit are at Appendix 3 of the EAR.

Glenorchy City Council will advise you of its determination on the above permit application, and of your appeal rights, in due course.

A once-off assessment fee is payable for the environmental assessment of the application. This fee has been determined in accordance with the *Environmental Management and Pollution Control (General) Regulations 2017* (the Fee Regulations). An invoice for this fee will be issued once a decision on the permit has been made by Glenorchy City Council.

If you have any questions regarding the above, please contact Edith O'Shea on (03) 6165 4514.

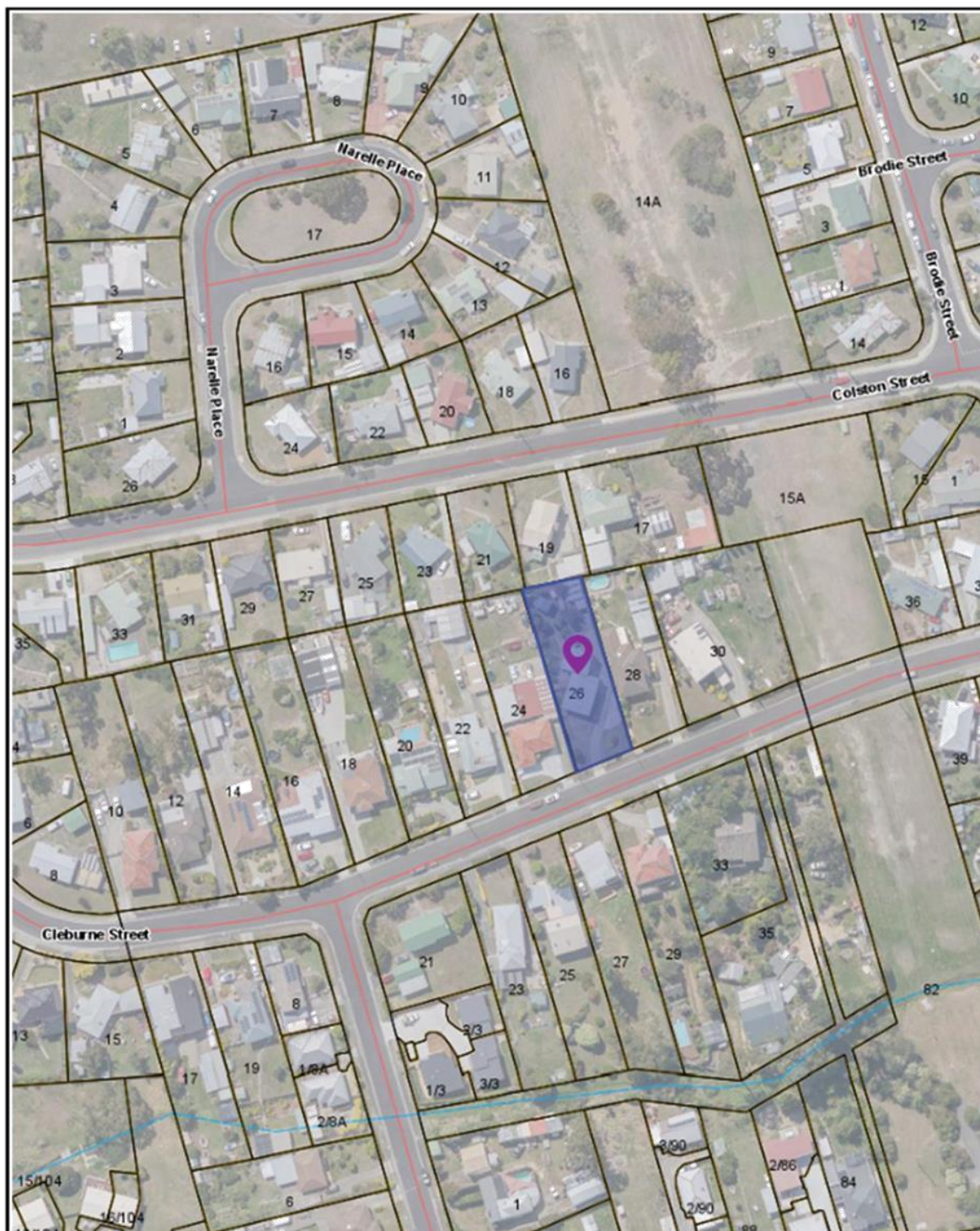
Yours sincerely

Belinda Hazell

DEPUTY CHAIRPERSON, ENVIRONMENT PROTECTION AUTHORITY

Encl: *Environmental Assessment Report (including Permit Part B).*

cc: Mr Tony McMullen, General Manager, Glenorchy City Council, gccmail@gcc.tas.gov.au
Ms Kylie Veale, Environment Principal, Nyrstar Hobart Pty Ltd, kylie.veale@nyrstar.com



© Glenorchy City Council



26 Cleburne Street, Claremont TAS 7011

6-Apr-2022



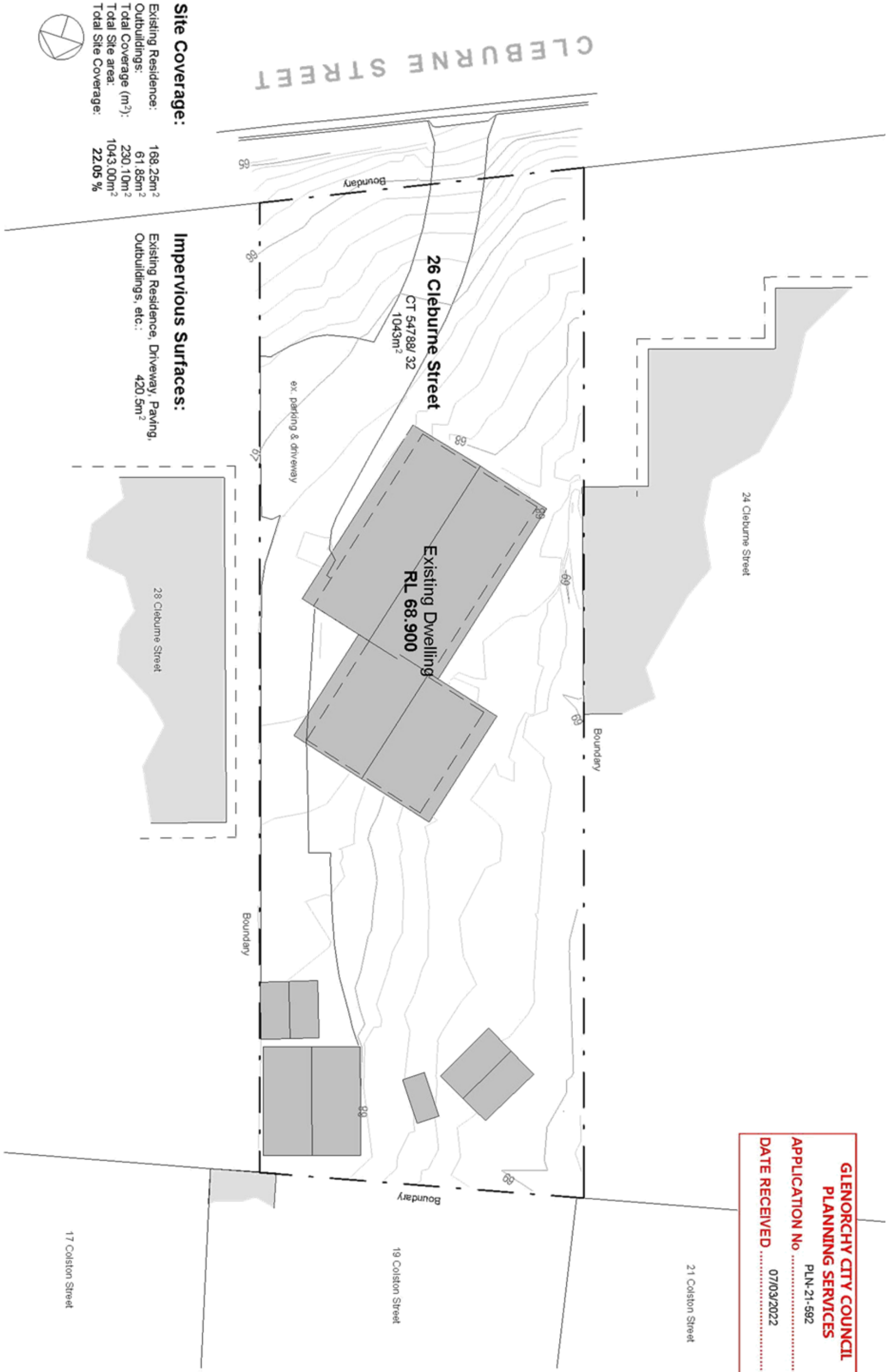
The graphic information on this map is produced by Glenorchy City Council. As errors or omissions may occur please verify data before any projects are commenced. The representation of roads or tracks is no evidence of right of way. This map is not to be used as a site plan for making an application to council.

50 m



Document Set ID: 3101868

Version: 1 Version Date: 06/04/2022



GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-21-592
DATE RECEIVED 07/03/2022

No Description

- A Drawings issued for client review
- B Preliminary DA/ client review
- C Issued for DA Submission

Date

- 25 August 2021
- 01 October 2021
- 11 November 2021

J & T McPhee

26 Cleburne St, Claremont

Existing site plan

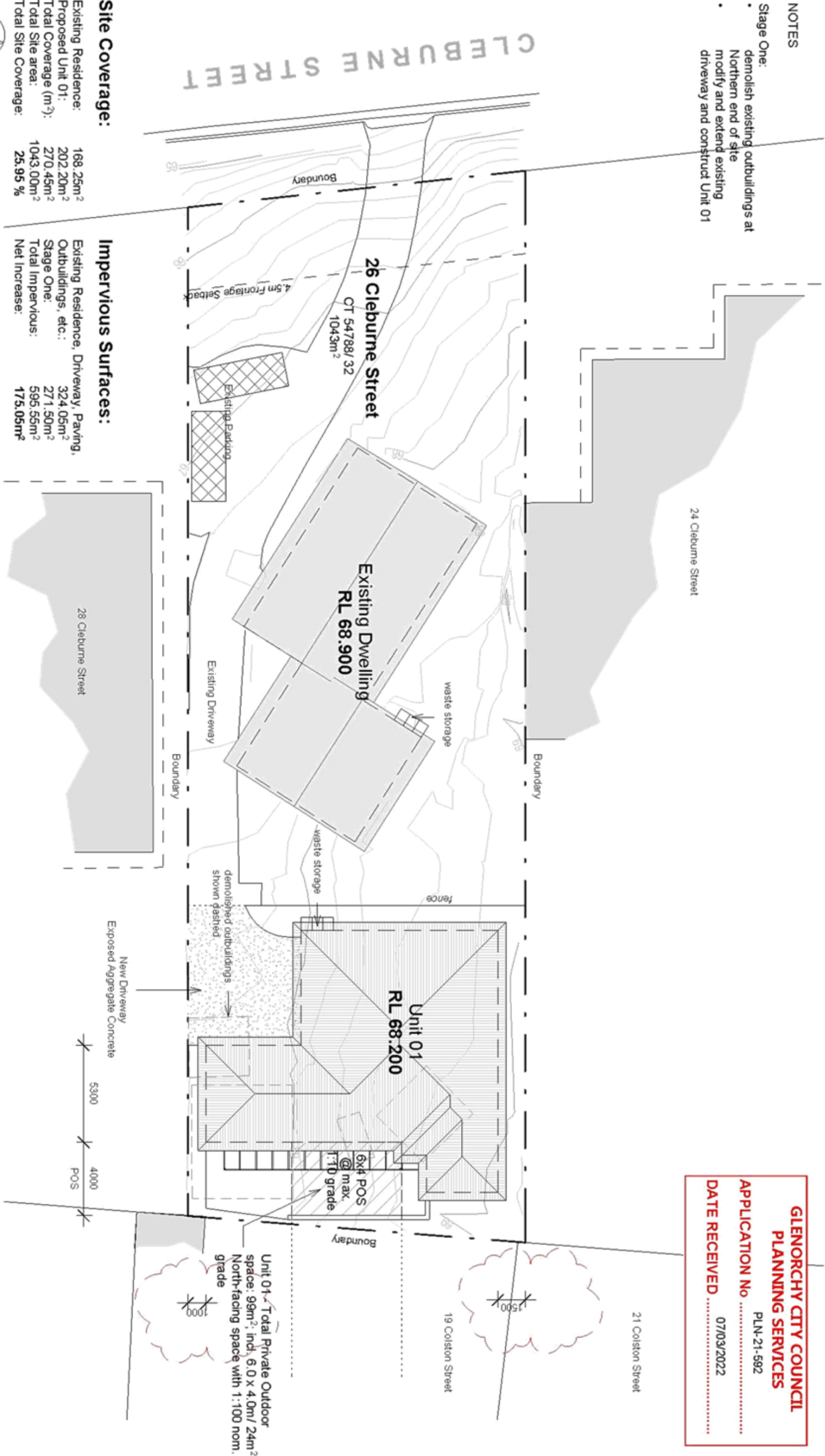
Project number KA 2107
Date December 2021
Drawn by BA
BSP Lic# CC 7294

A00.01

1:200 @A3

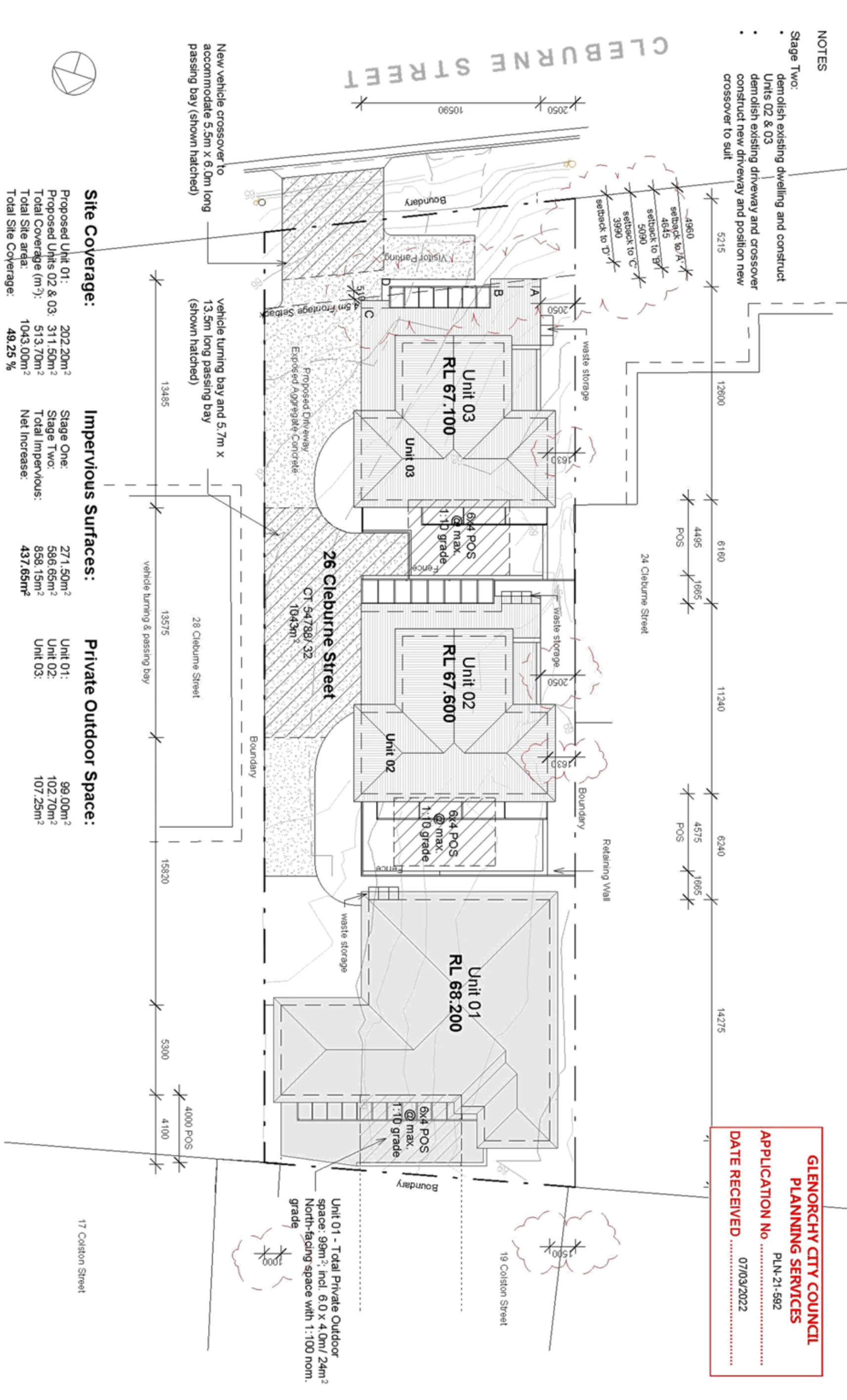
KUNAMA
ARCHITECTS

- NOTES
- Stage One:
 - demolish existing outbuildings at Northern end of site
 - modify and extend existing driveway and construct Unit 01



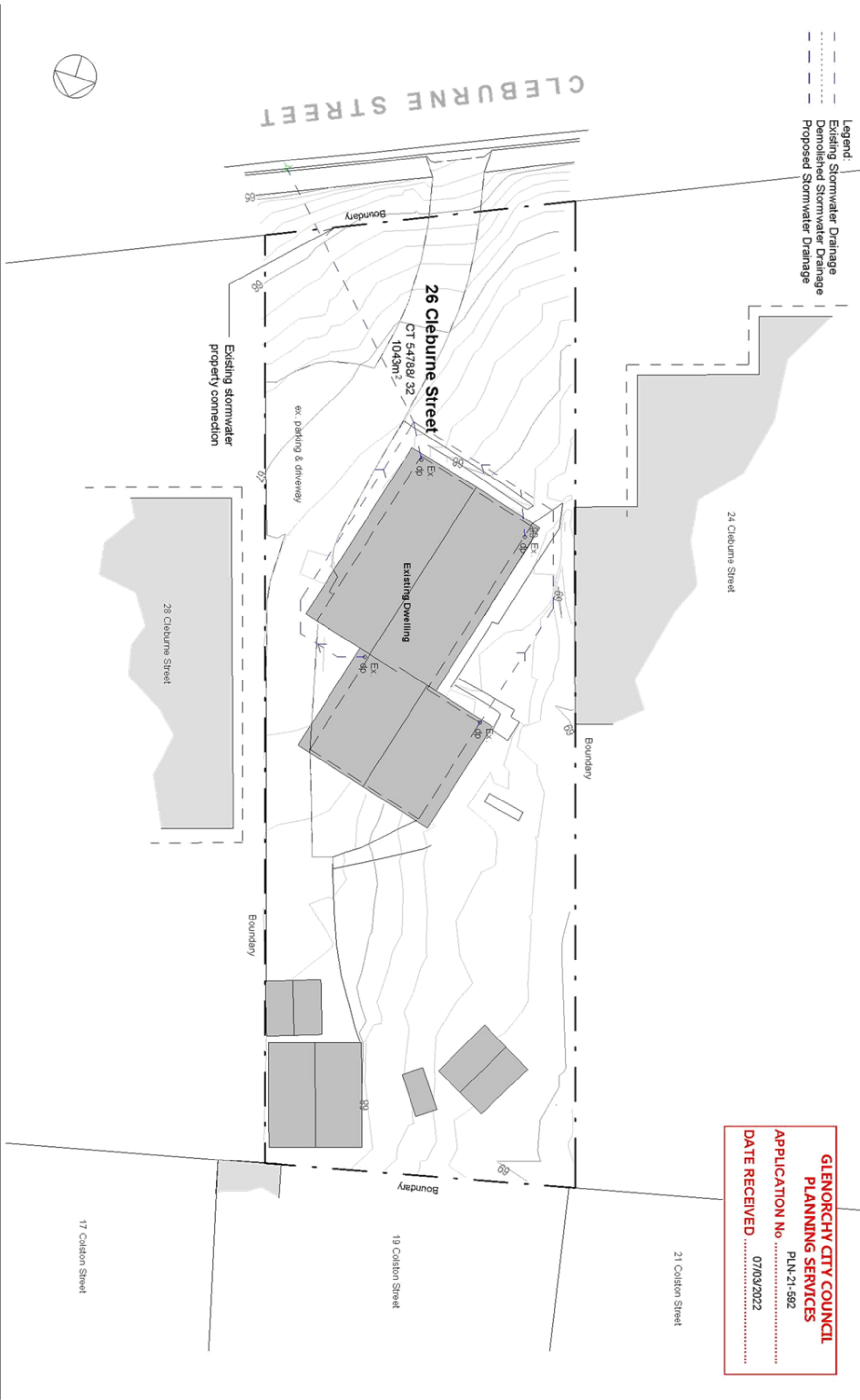
GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-21-592
DATE RECEIVED 07/03/2022

No Description		Date	J & T McPhee	Proposed Site Plan - Stage two	
A	Drawings issued for client review	25 August 2021		Project number	KA 2107
B	Preliminary DA/ client review	01 October 2021		Date	December 2021
C	Issued for DA Submission	11 November 2021		Drawn by	BA
D	RFI amendments	21 February 2022		BSP Uic#	CC 7294
Document Set ID: 3094898				Scale	1:200 @A3
Version: 1 Additional RFI		March 2022			



No	Description	Date	J & T McPhee	Ex. Stormwater Drainage	Project number	KA 2107	A00.04	KUNAMA ARCHITECTS
A	Drawings issued for client review	25 August 2021			Date	December 2021		
B	Preliminary DA/ client review	01 October 2021			Drawn by	BA		
C	Issued for DA Submission	11 November 2021			BSP Lic#	CC 7294	Scale	

Document Set ID: 3000888
Version: 1 Version Date: 08/02/2022

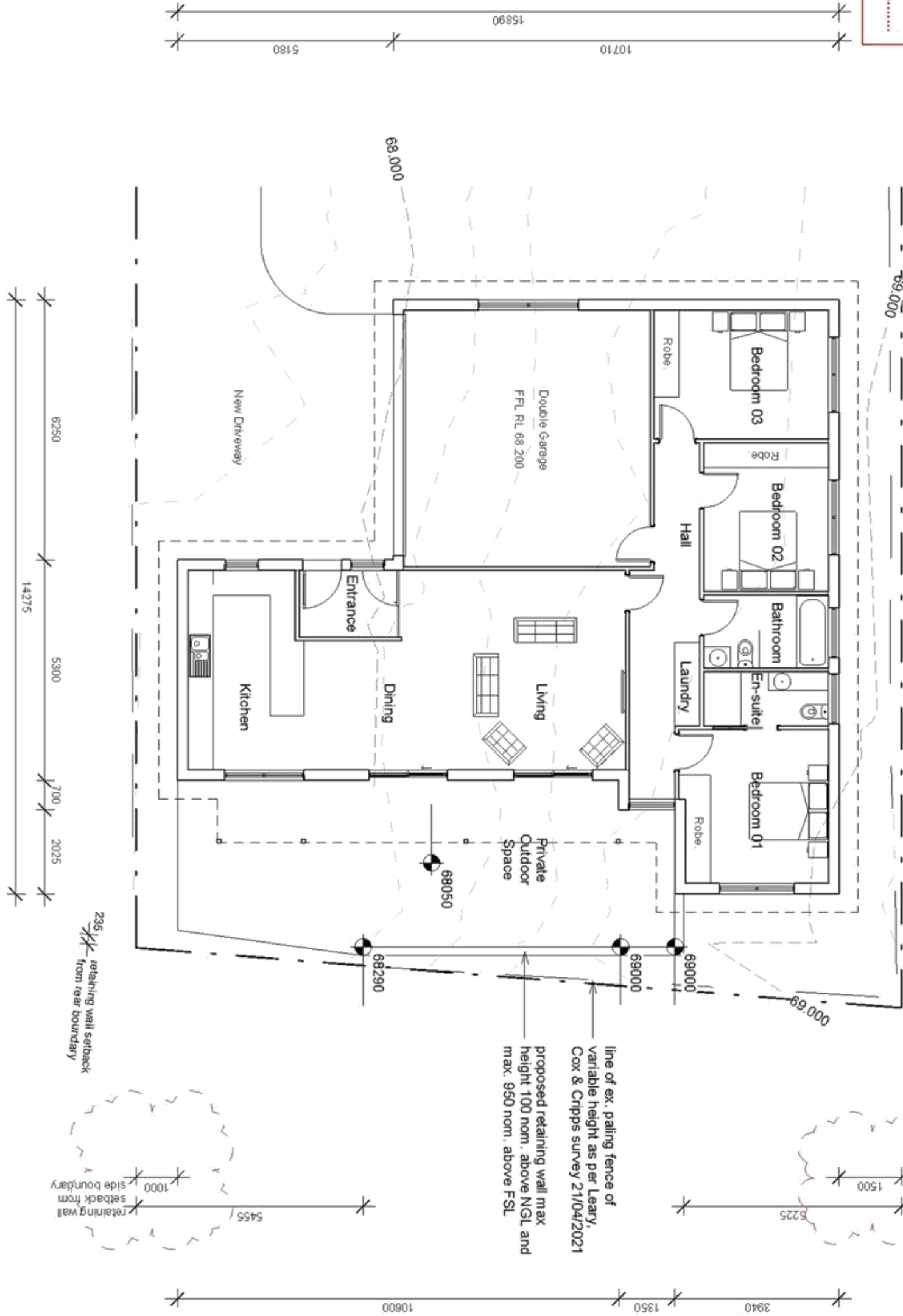


GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-21-592
DATE RECEIVED 07/03/2022

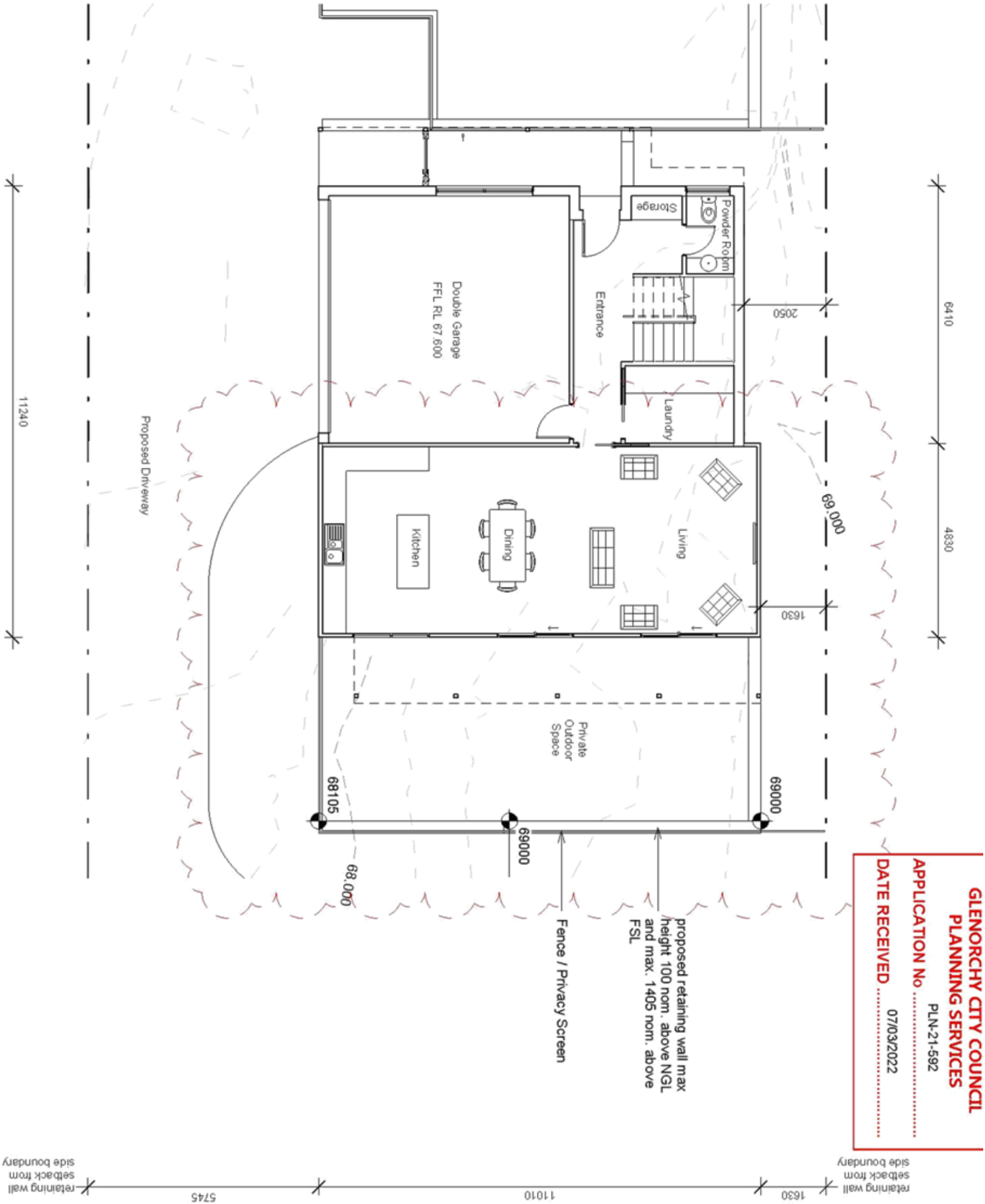
GLENORCHY CITY COUNCIL
PLANNING SERVICES

APPLICATION No
PLN-21-592

DATE RECEIVED
07/03/2022



No	Description	Date	J & T McPhee	Floor Plan - Unit 01
A	Drawings issued for client review	25 August 2021		Project number KA 2107
B	Preliminary DA/ client review	01 October 2021		Date December 2021
C	Issued for DA Submission	11 November 2021		Drawn by BA
D	RFI amendments	21 February 2022		BSP Lic# CC 7294
	Document Set ID: 3094898			Scale 1:100 @A3
	Version: 1	March 2022		



No Description

Date

J & T McPhee

Ground Floor Plan - Unit 02

KUNAMA ARCHITECTS

A Drawings issued for client review

25 August 2021

B Preliminary DA/ client review

01 October 2021

C Issued for DA Submission

11 November 2021

D RFI amendments

21 February 2022

Document Set ID: 3000888

Version: 1 Version Date: 08/02/2022

Project number

KA 2107

Date

December 2021

Drawn by

BA

BSP Lic#

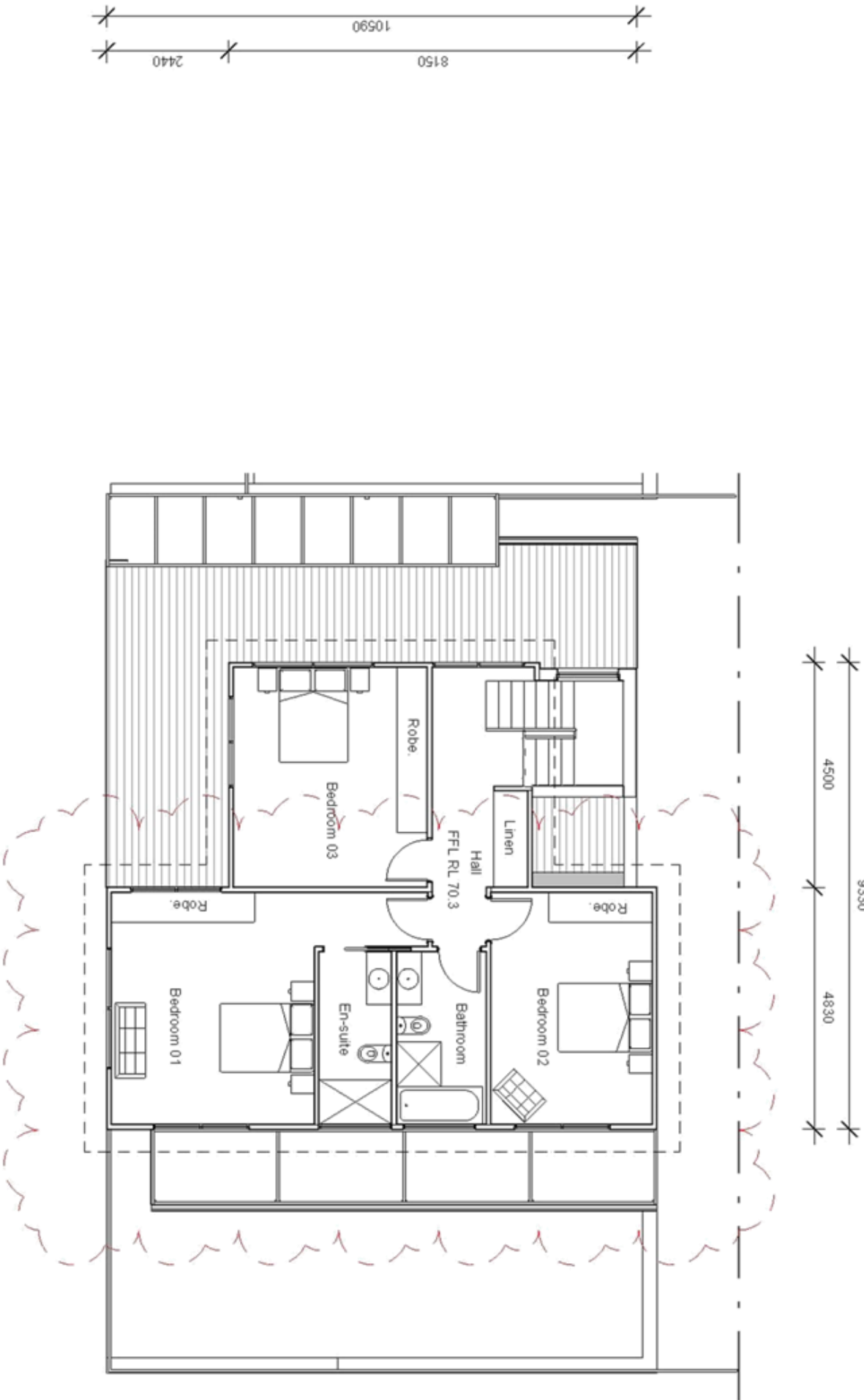
CC 7294

Scale

1:100 @A3

A01.02

GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-21-592
DATE RECEIVED 07/03/2022



No	Description	Date	J & T McPhee	First Floor Plan - Unit 02	Project number	KA 2107	A01.03	1:100 @A3
A	Drawings issued for client review	25 August 2021			Date	December 2021		
C	Issued for DA Submission	11 November 2021			Drawn by	BA		
D	RFI amendments	21 February 2022			BSP Lic#	CC 7294		

Document Set ID: 3000888
Version: 1 Version Date: 08/01/2022

Site plan showing the proposed residential development. The plan includes the following rooms and features:

- Living
- Dining
- Kitchen
- Double Garage (FFL RL 67.100)
- Laundry
- Hall
- Powder Room
- Office / Store
- Private Outdoor Space
- Visitor Parking
- 4.5m Frontage Setback
- Proposed Driveway

Key dimensions and setbacks:

- Setback from front boundary: 4.5m
- Setback from side boundary: 1280
- Setback from rear boundary: 12800
- Overall lot width: 11320
- Overall lot depth: 7640

Elevation markers: 65.000, 66.000, 67.000, 68.000, 67.790, 68.600.

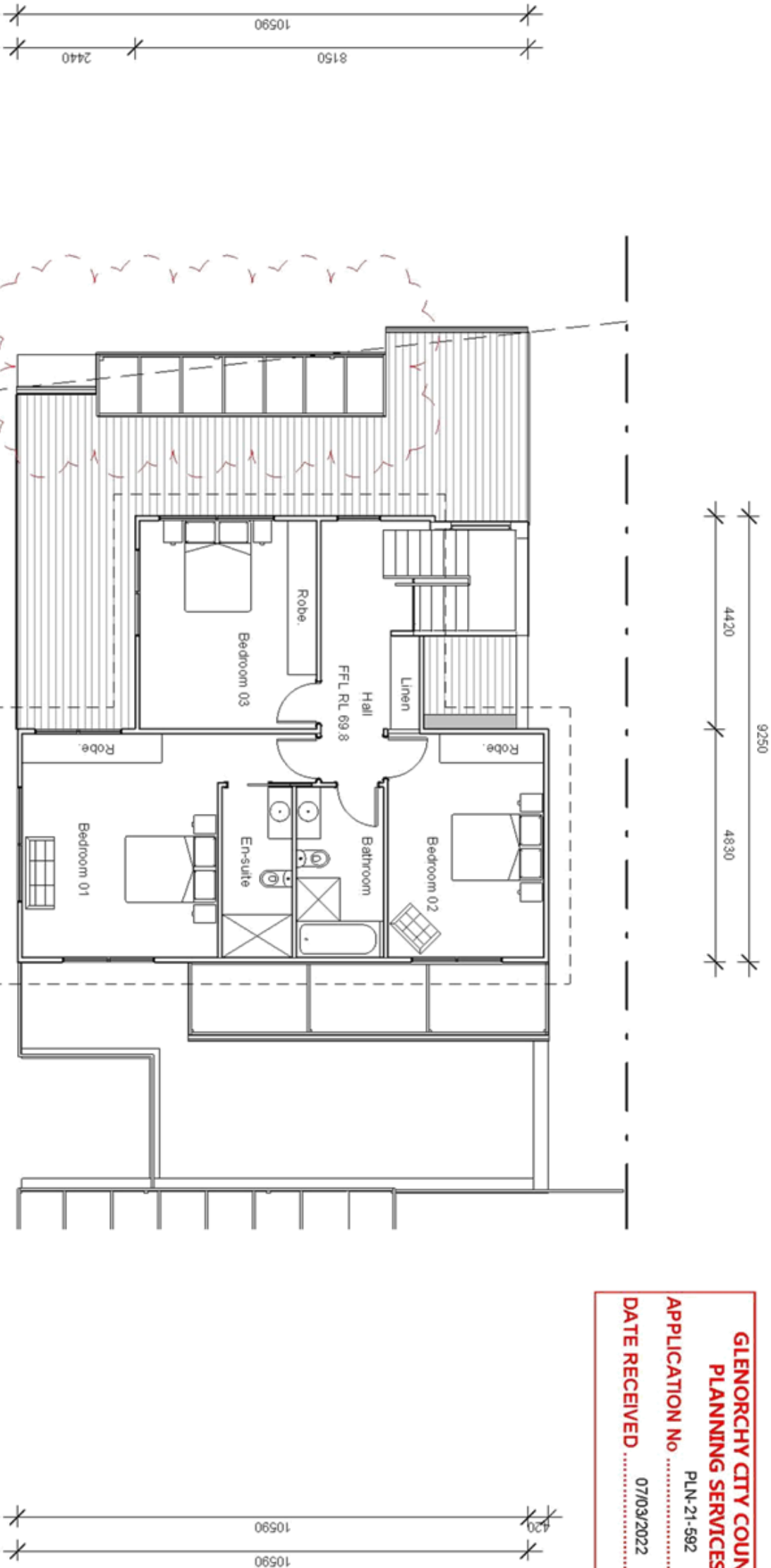
Proposed retaining wall max height 100 nom. above NGL and max. 1600 nom. above FSL.

Fence / Privacy Screen

retaining wall setback from side boundary 1630

retaining wall setback from side boundary

Application No. 07/03/2022
Date Received



GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-21-592
DATE RECEIVED 07/03/2022

No Description

Date

J & T McPhee

First Floor – Unit 03

A01.05

KUNAMA ARCHITECTS

A Drawings issued for client review

25 August 2021

B Preliminary DA/ client review

01 October 2021

C Issued for DA Submission

11 November 2021

D RFI amendments

21 February 2022

Document Set ID: 3094898
Version: 1 Additions/Revisions/RFI

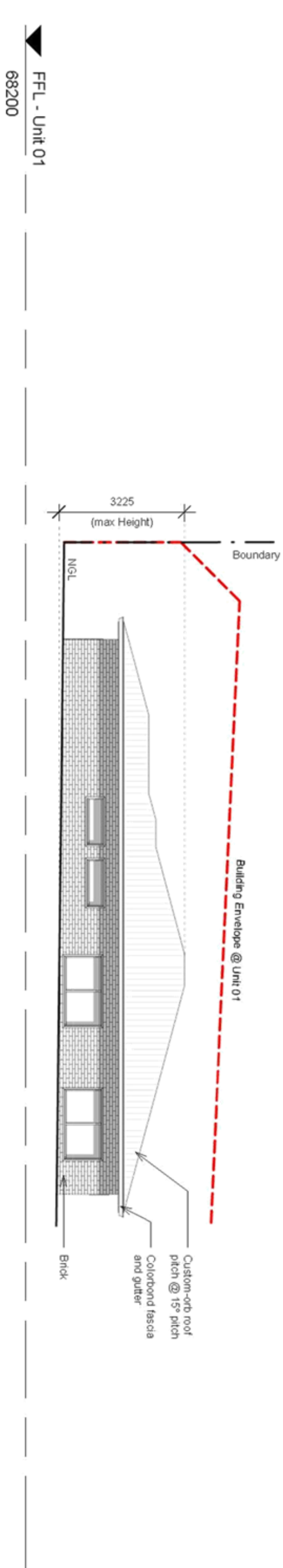
March 2022

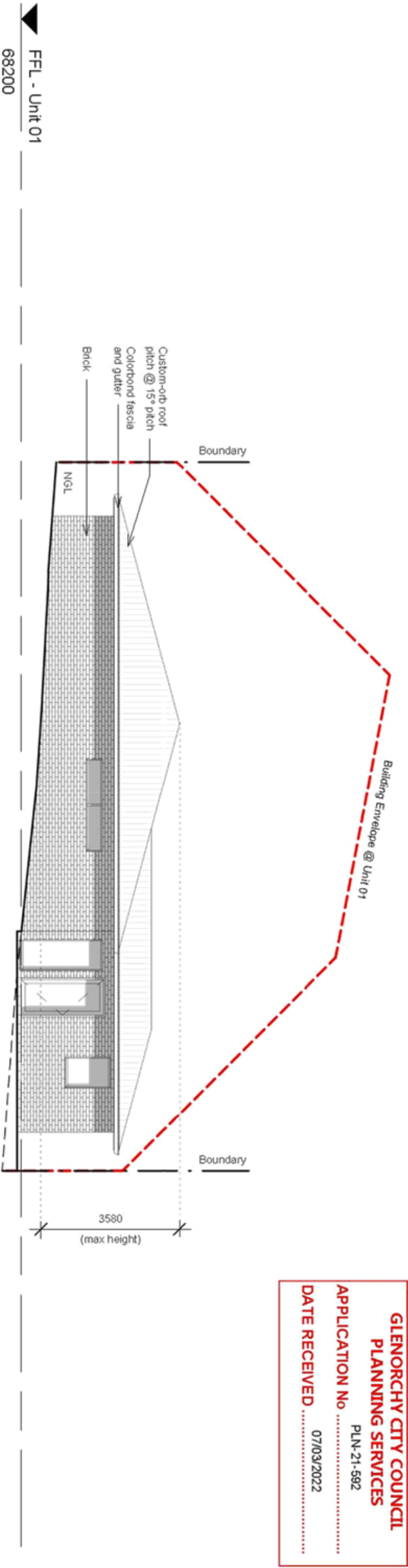
26 Cleburne St, Claremont

Project number KA 2107
Date December 2021
Drawn by BA
BSP Lic# CC 7294
Scale

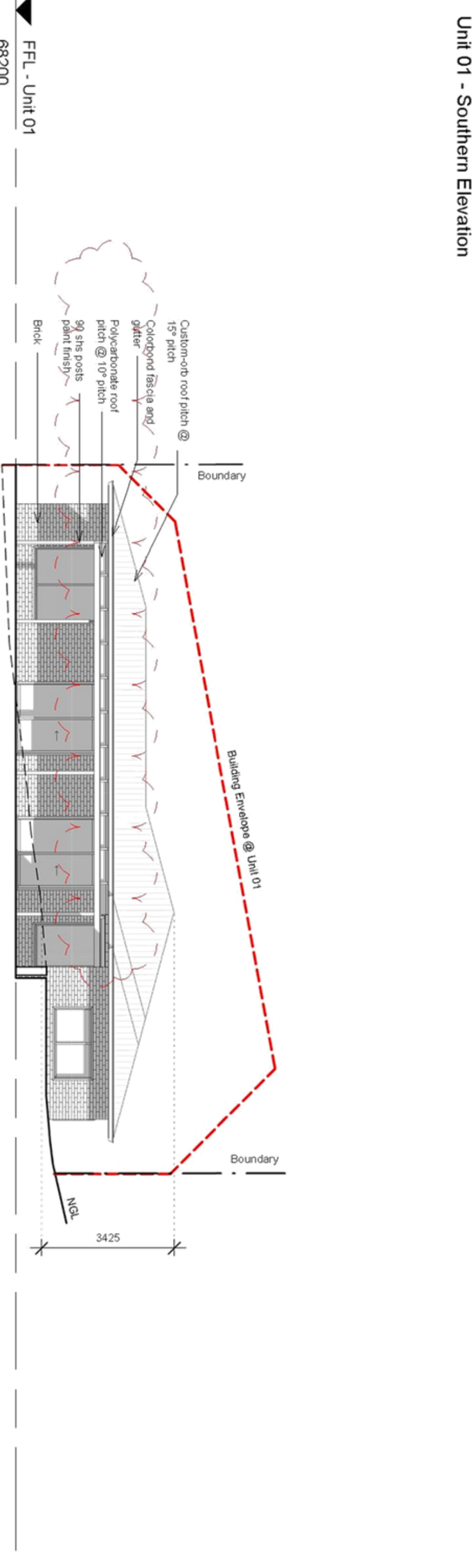
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GLENORCHY CITY COUNCIL
PLANNING SERVICES
PLN-21-592
APPLICATION No.
DATE RECEIVED 07/03/2022





GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-21-592
DATE RECEIVED 07/03/2022



Unit 01 - Northern Elevation

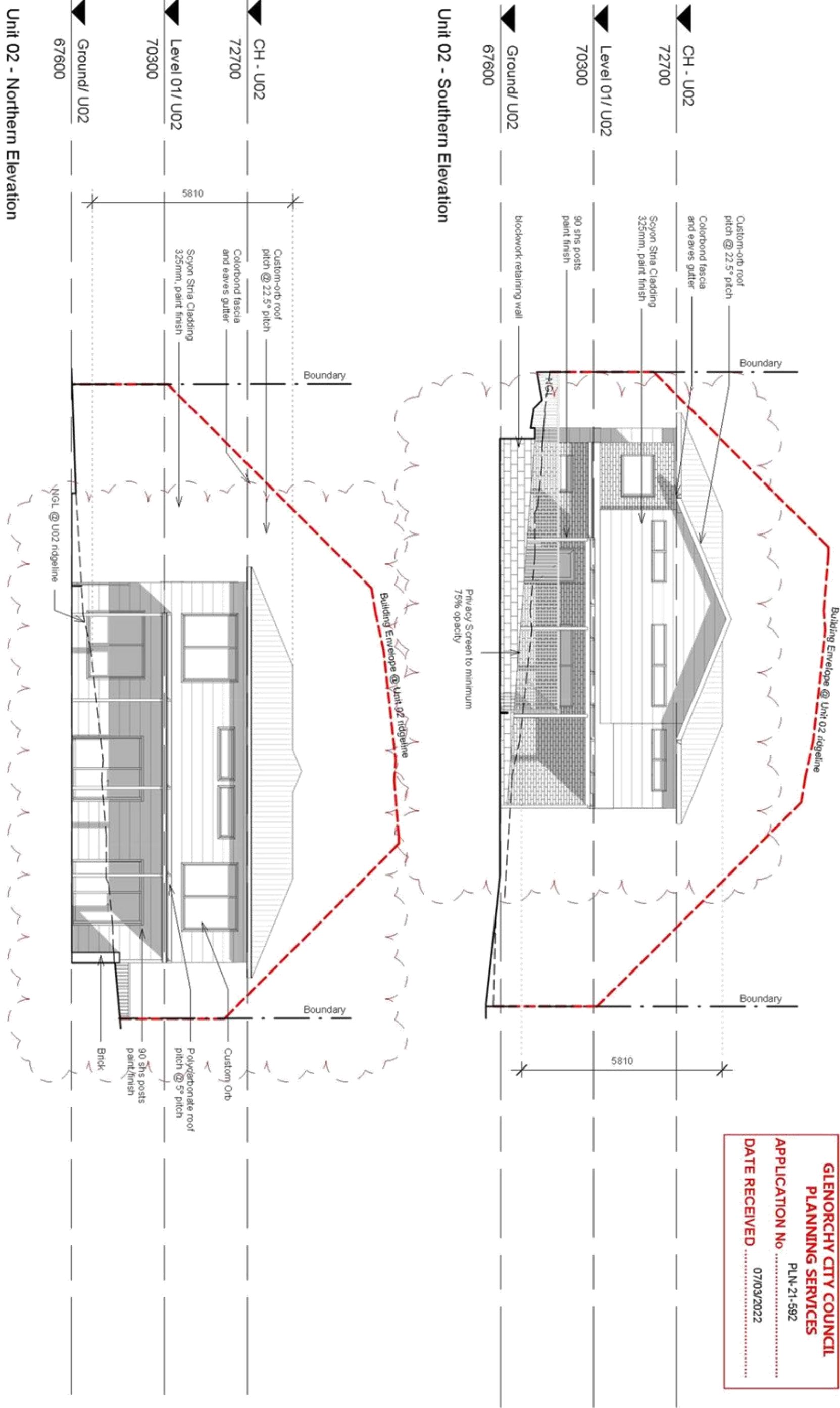
Unit 01 - Southern & Northern Elevation

No	Description	Date	J & T McPhee	Unit 01 - Southern & Northern Elevation
A	Drawings issued for client review	25 August 2021		
B	Preliminary DA/ client review	01 October 2021		
C	Issued for DA Submission	11 November 2021		
D	RFI amendments	21 February 2022		
Document Set ID: 3000898				
Version: 1 - Version Date: 08/03/2022				



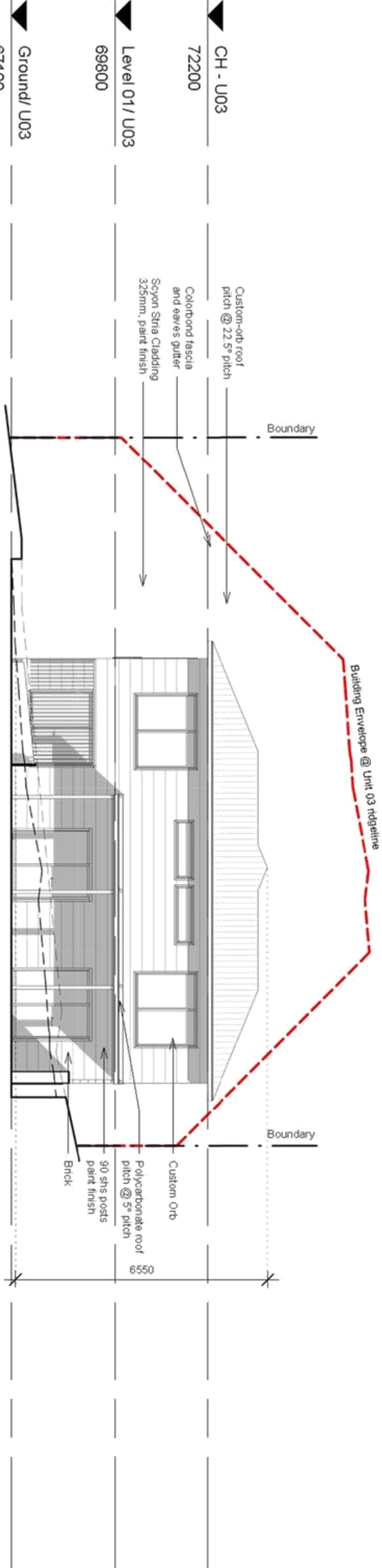
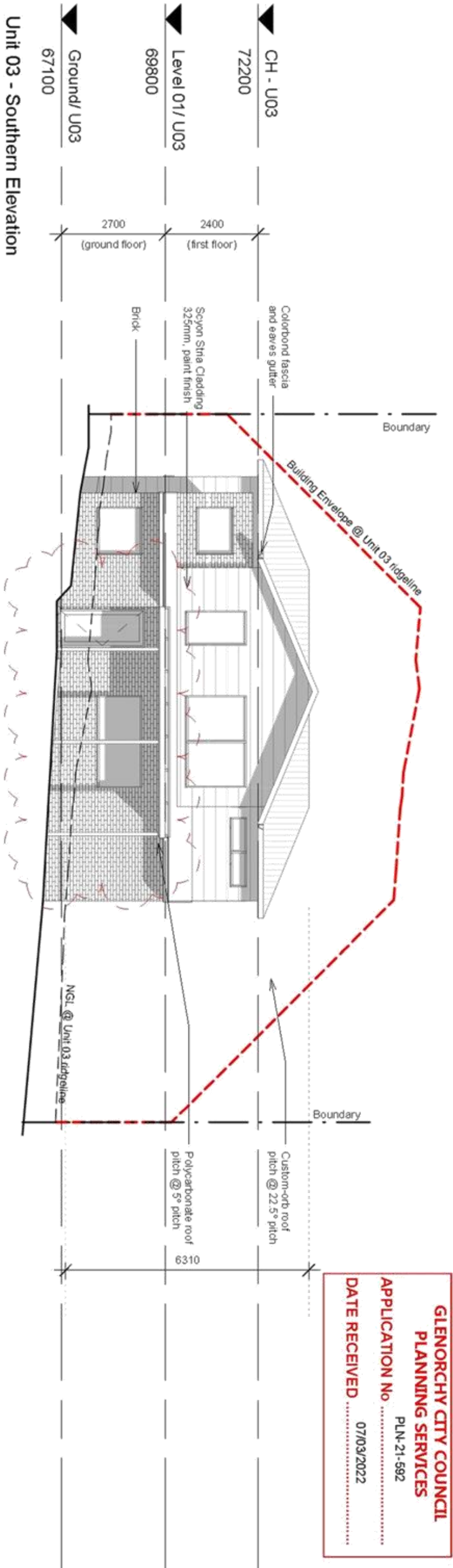
KUNAMA
ARCHITECTS

No	Description	Date	J & T McPhee	Unit 02 - Southern & Northern Elevation	Project number	KA 2107	Date	December 2021	BA	Scale	1:100 @A3	A02.03	ARCHITECTS
A	Drawings issued for client review	25 August 2021											
B	Preliminary DA/ client review	01 October 2021											
C	Issued for DA Submission	11 November 2021											
D	RFI amendments	21 February 2022											
Document Set ID: 3000808													
Version: 1 - Version Date: 08/02/2022													

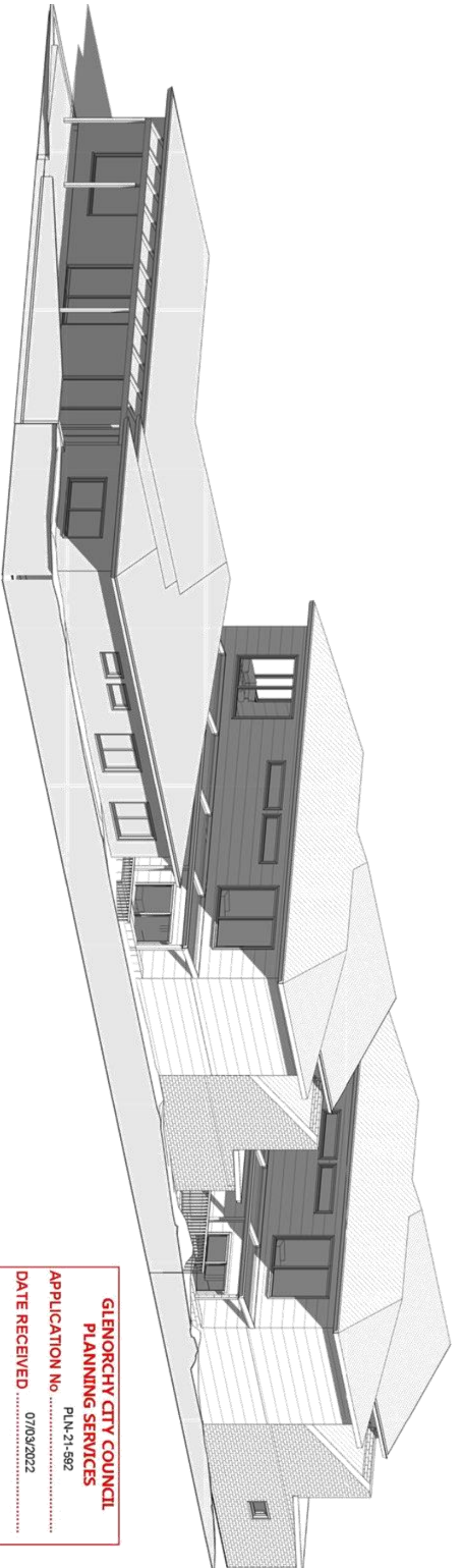


GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-21-592
DATE RECEIVED 07/03/2022

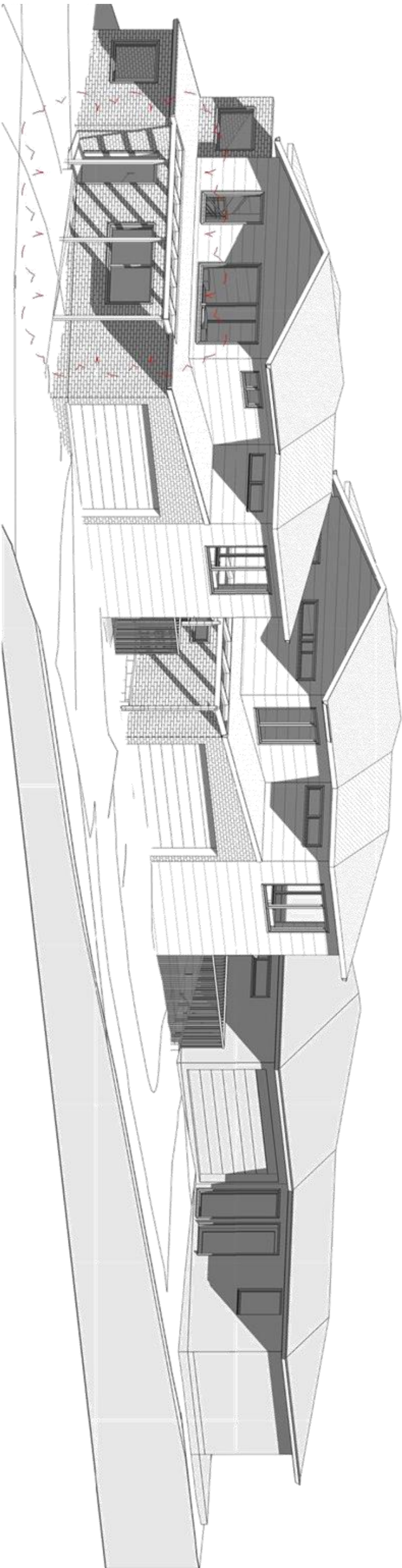
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A	Drawings issued for client review	25 August 2021						
B	Preliminary DA/ client review	01 October 2021						
C	Issued for DA Submission	11 November 2021						
D	RFI amendments	21 February 2022						
	Document Set D: 3094898							
	Version: 1 - Additional RFI's added	March 2022						



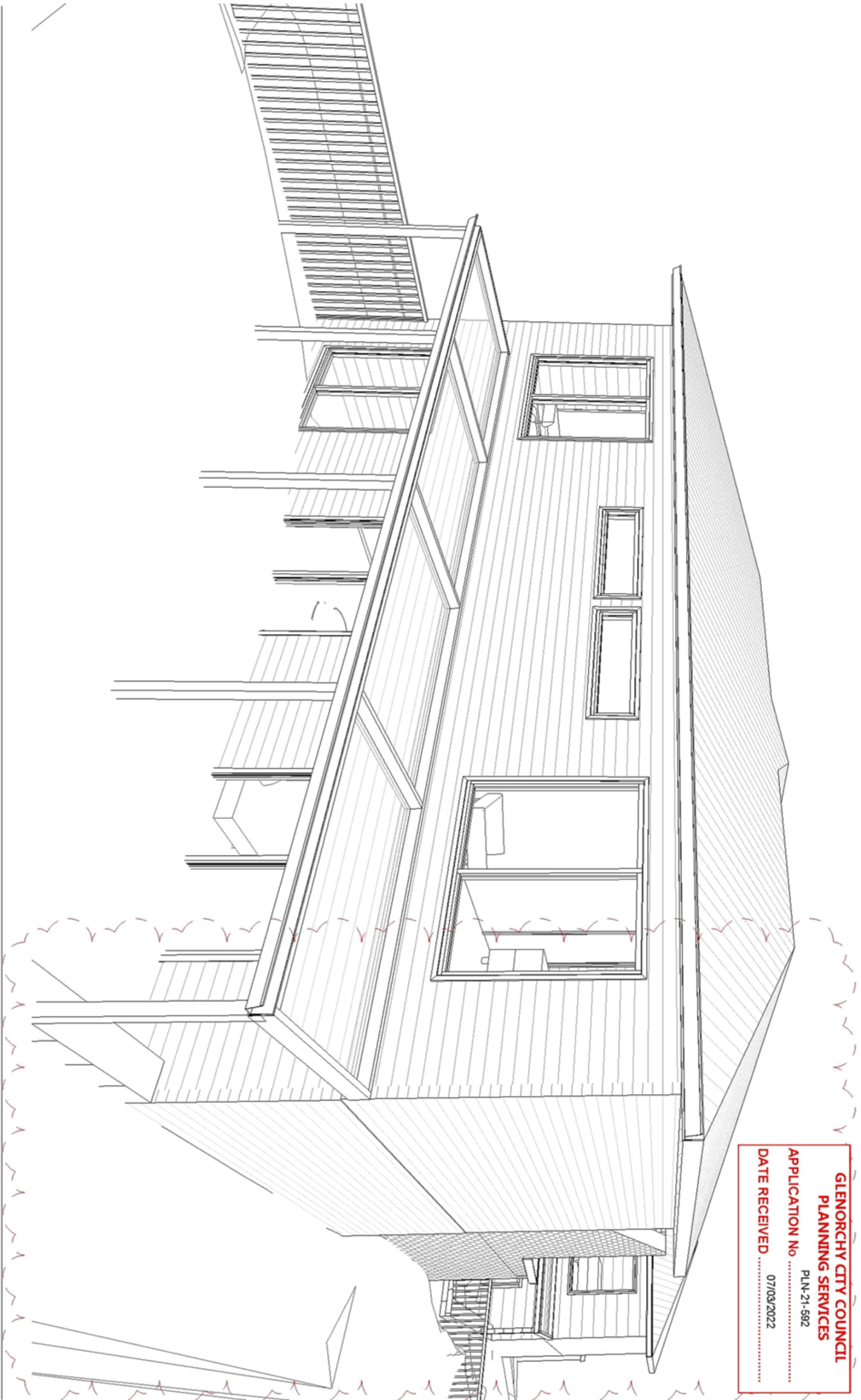
GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-21-592
DATE RECEIVED 07/03/2022



**GLENORCHY CITY COUNCIL
PLANNING SERVICES**
APPLICATION No PLN-21-592
DATE RECEIVED 07/03/2022



No	Description	Date	J & T McPhee	3D Perspectives 01	A07.00	KUNAMA ARCHITECTS
A	Drawings issued for client review	25 August 2021		Project number KA 2107		
B	Preliminary DA/ client review	01 October 2021		Date December 2021		
C	Issued for DA Submission	11 November 2021		Drawn by BA		
D	RFI amendments	21 February 2022		BSP Lic# CC 7294	Scale	
Document Set ID: 3094898						
Version: 1 - Additional RFI's for DA Submission		March 2022				



No Description

- A Drawings issued for client review
- B Preliminary DA/ client review
- C Issued for DA Submission

Date

- 25 August 2021
- 01 October 2021
- 11 November 2021

J & T McPhee

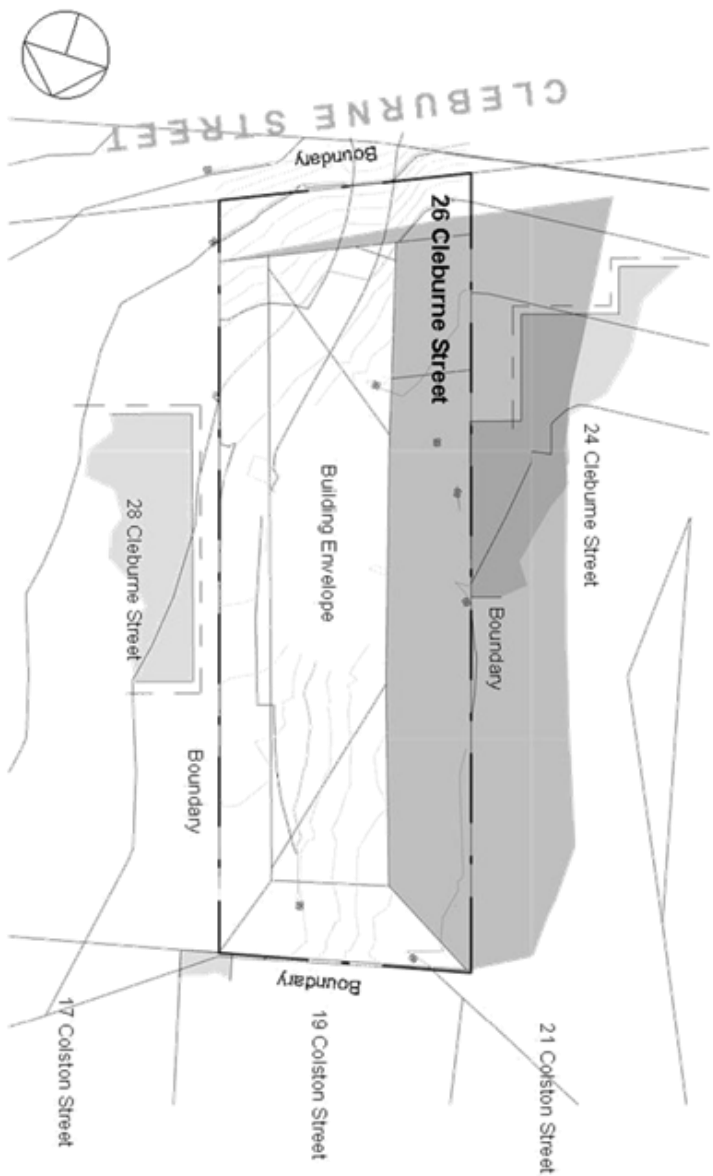
3D Perspectives 02

Project number KA 2107
Date December 2021
Drawn by BA
BSP Lic# CC 7294
Scale

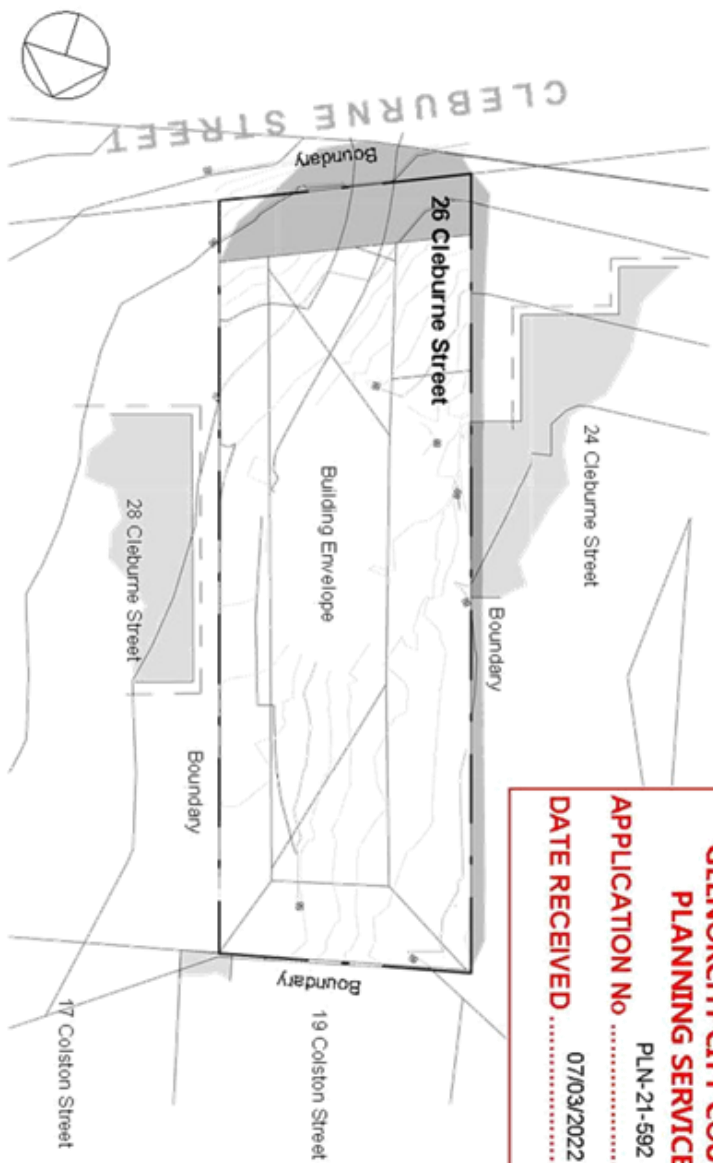
A07.01

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KUNAMA
ARCHITECTS

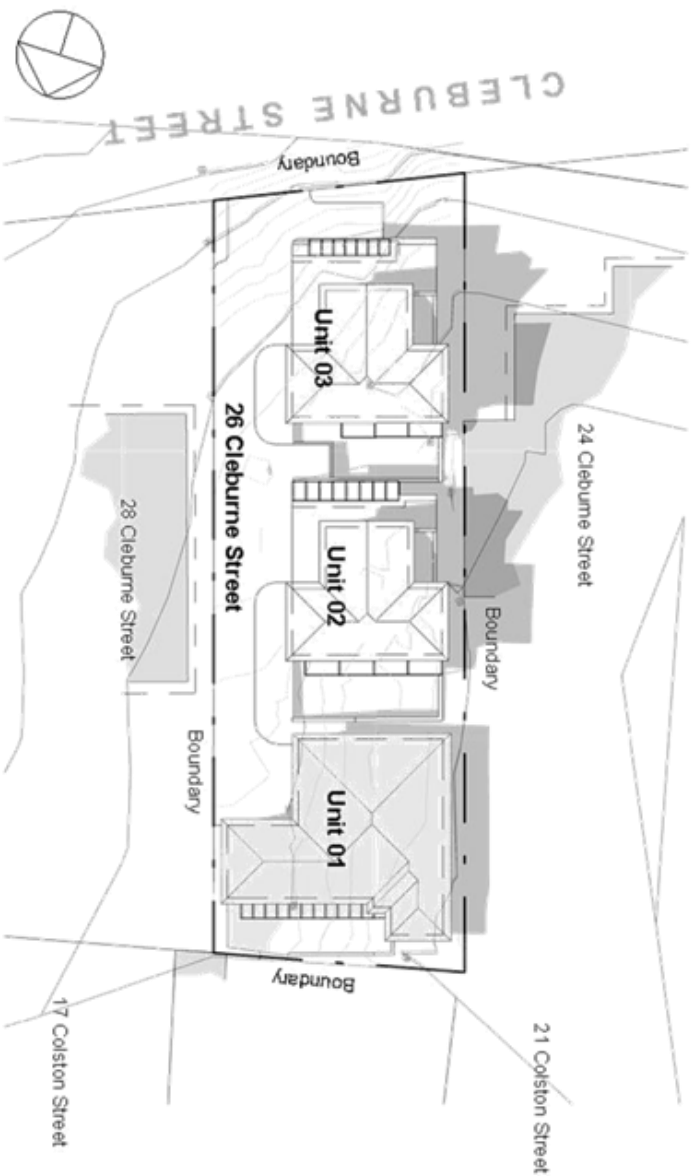


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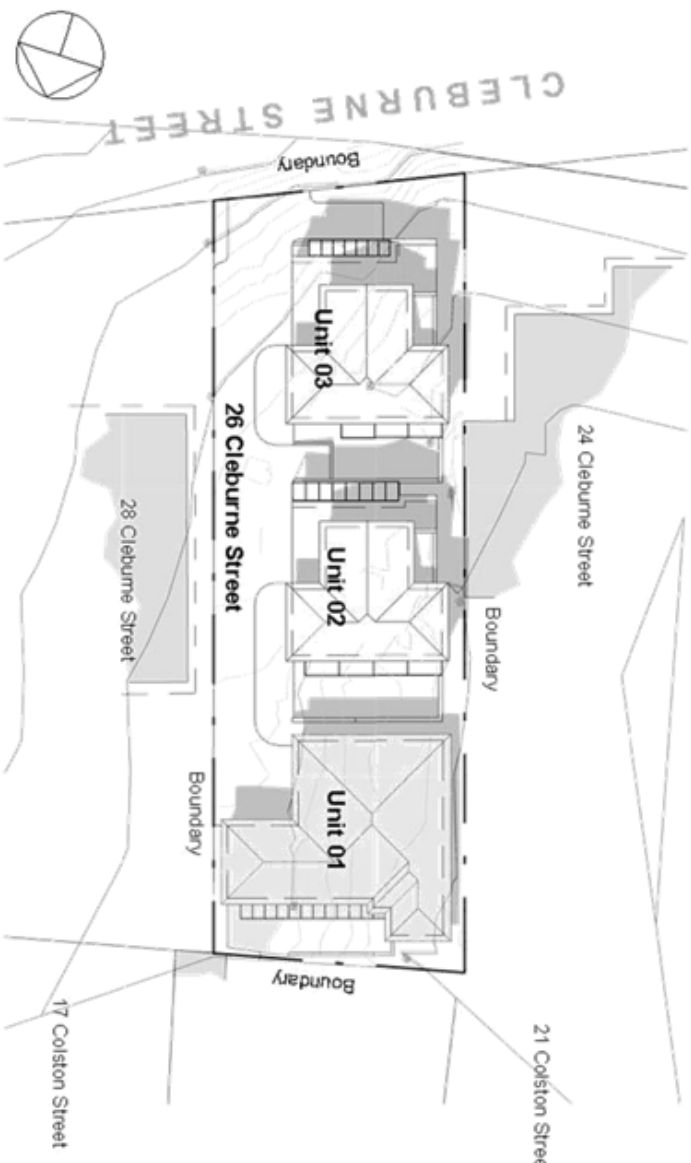


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GLENORCHY CITY COUNCIL
PLANNING SERVICES
PLN-21-592
APPLICATION No
DATE RECEIVED 07/03/2022



Proposed 20 March 9 am



Proposed 20 March 12 pm

No	Description	Date	J & T McPhee
B	Preliminary DA/ client review	01 October 2021	
C	Issued for DA Submission	11 November 2021	
D	RFI amendments	21 February 2022	

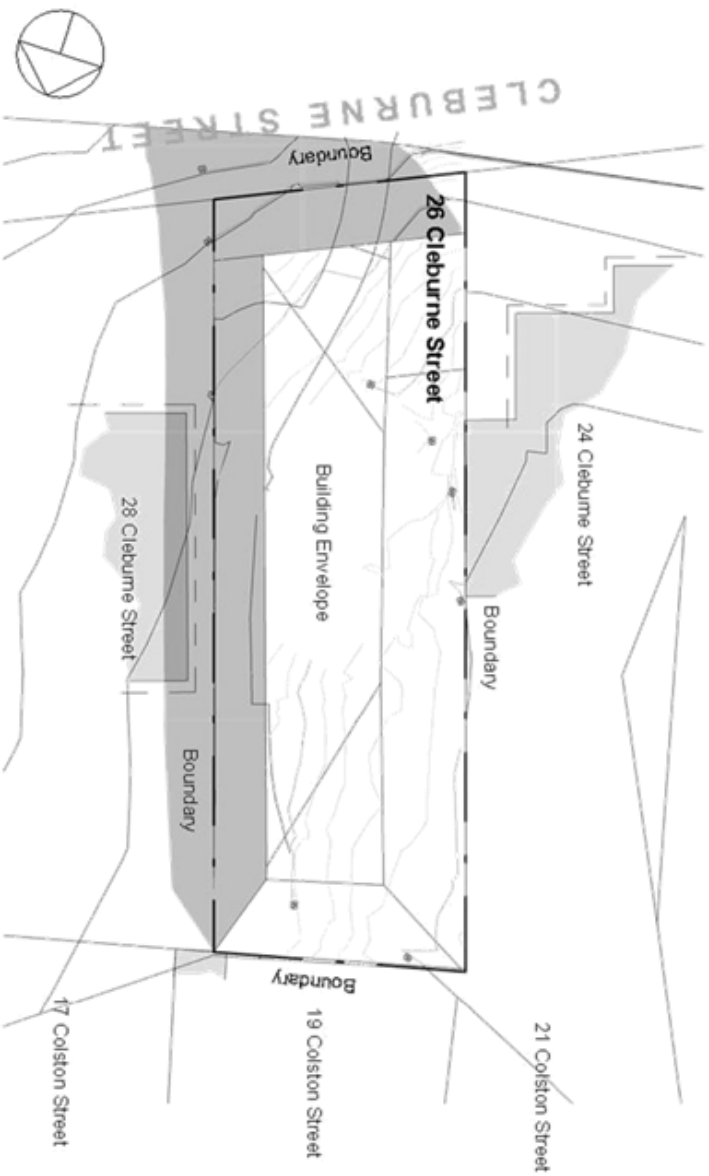
26 Cleburne St, Claremont

Shadow Diagram 01

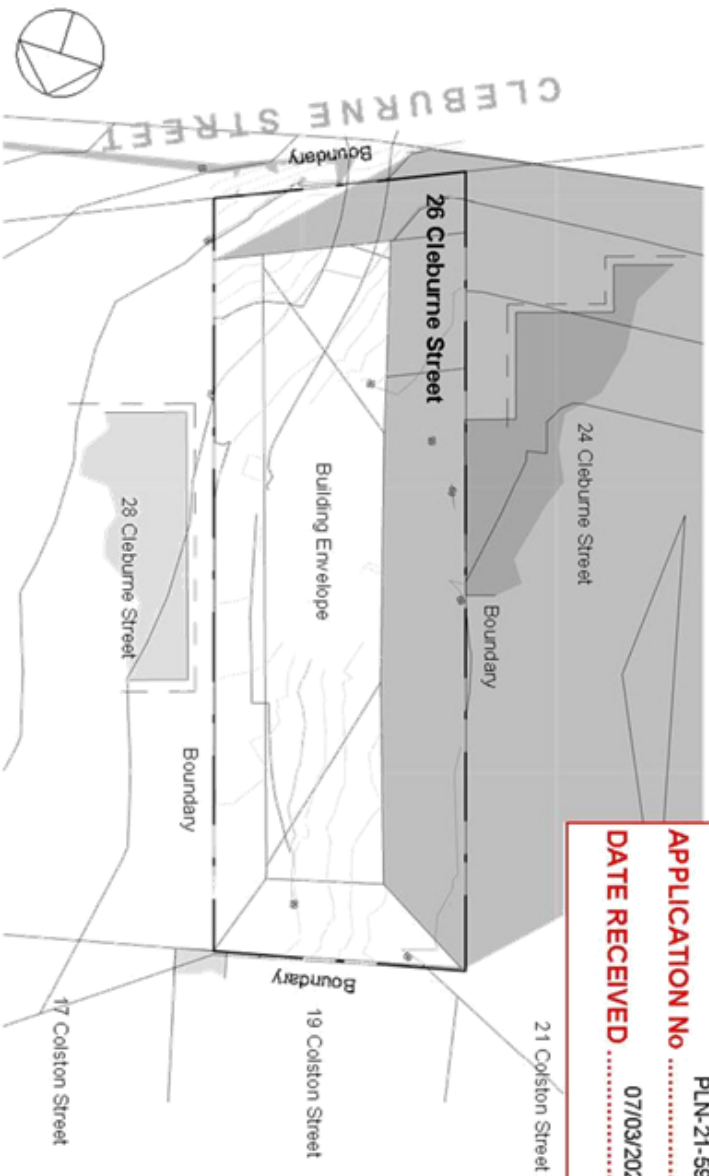
Project number KA 2107
Date December 2021
Drawn by BA
BSP Lic# CC 7294
Scale 1:500 @A3

A08.00

KUNAMA
ARCHITECTS

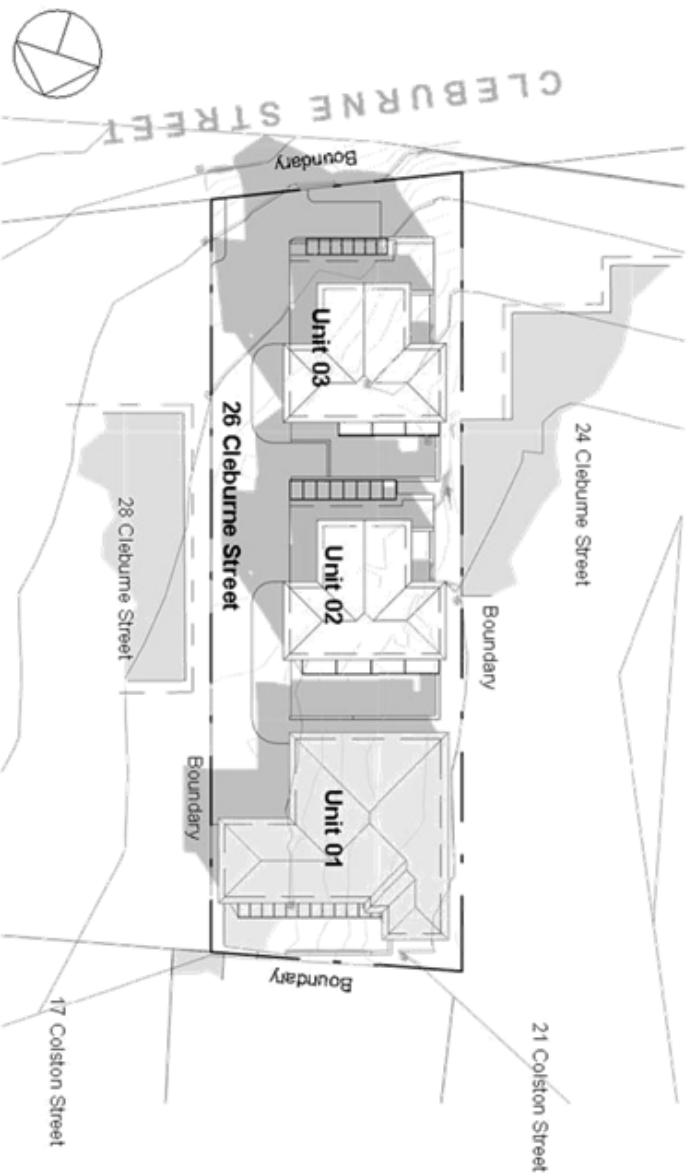


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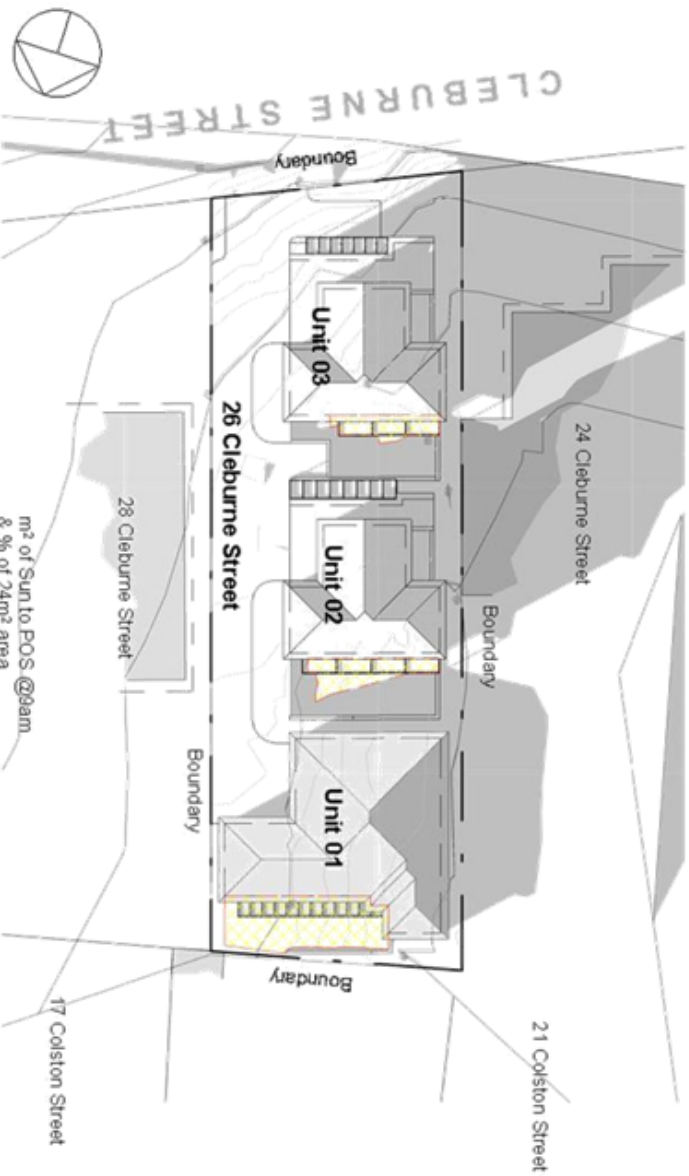


Max. Envelope 21 June 9 am

GLENORCHY CITY COUNCIL
PLANNING SERVICES
PLN-21-592
APPLICATION No
DATE RECEIVED 07/03/2022



Proposed 20 March 3 pm

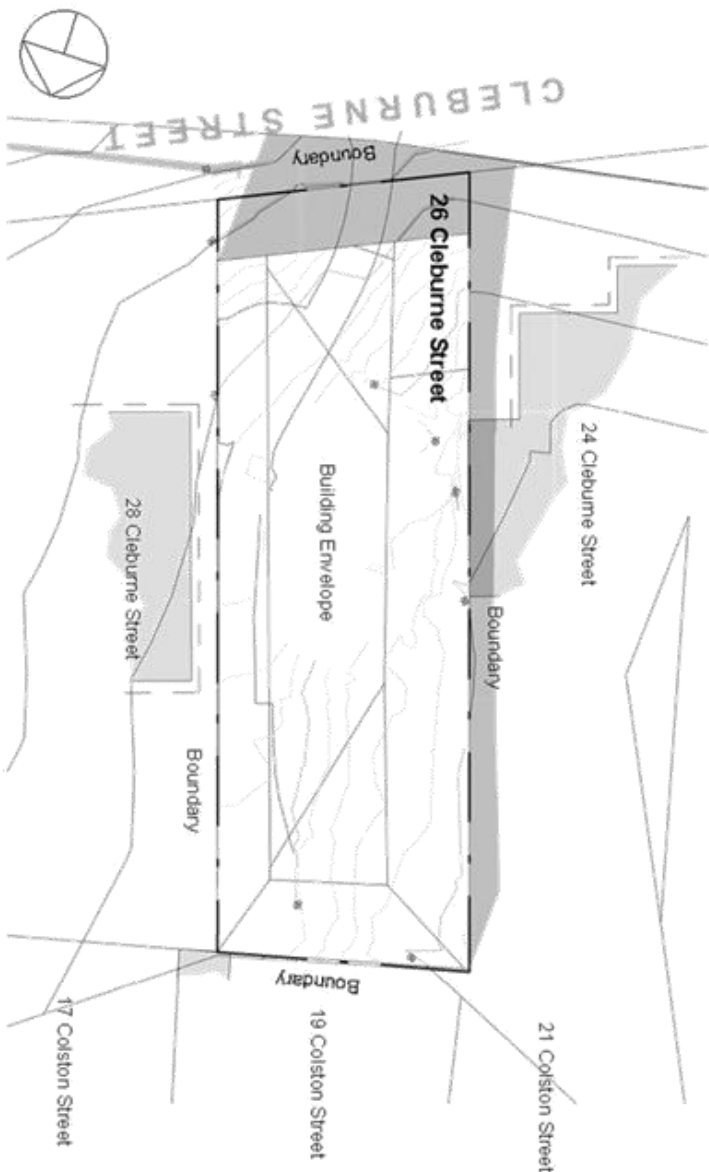


Proposed 21 June 9 am

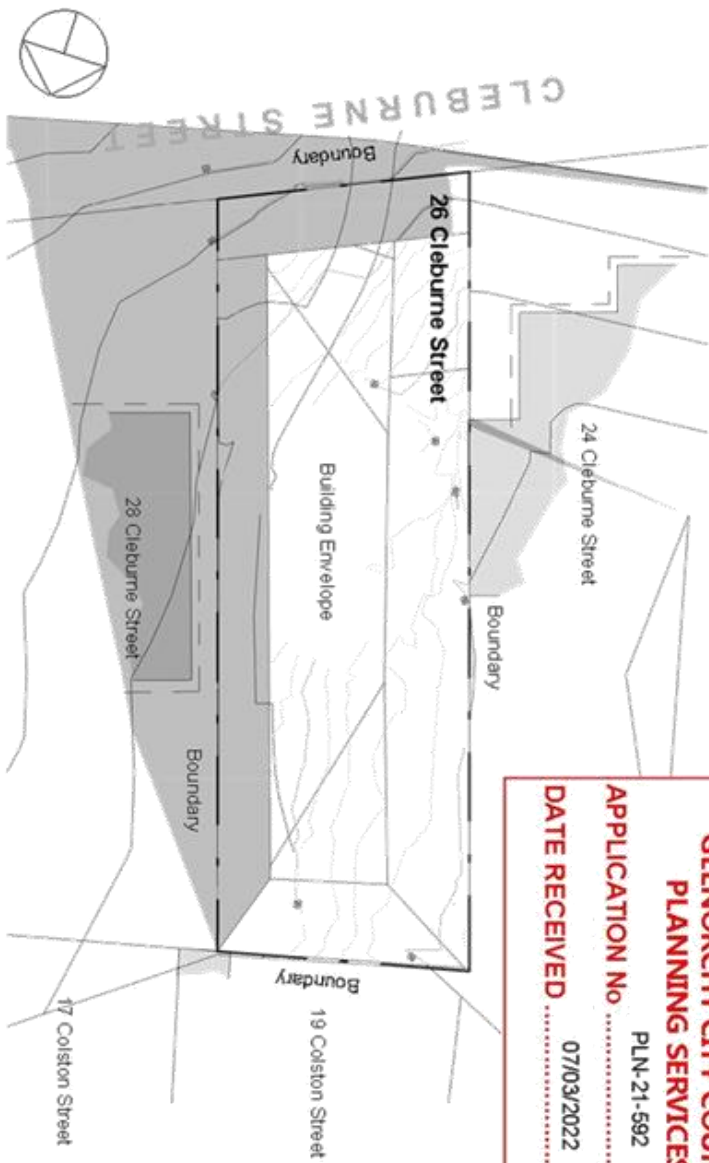
m² of Sun to POS @9am
& % of 24m² area
Unit 01 = 45m²/ 92%
Unit 02 = 17m²/ 50%
Unit 03 = 13m²/ 54%

No	Description	Date	J & T McPhee	Shadow Diagram 02	Project number	KA 2107	December 2021	BA	CC 7294	Scale	1 : 500 @A3	A08.01	KUNAMA ARCHITECTS
B	Preliminary DA/ client review	01 October 2021											
C	Issued for DA Submission	11 November 2021											
D	RFI amendments	21 February 2022											

Document Set ID: 3000898
Version: 1 Version Date: 08/03/2022

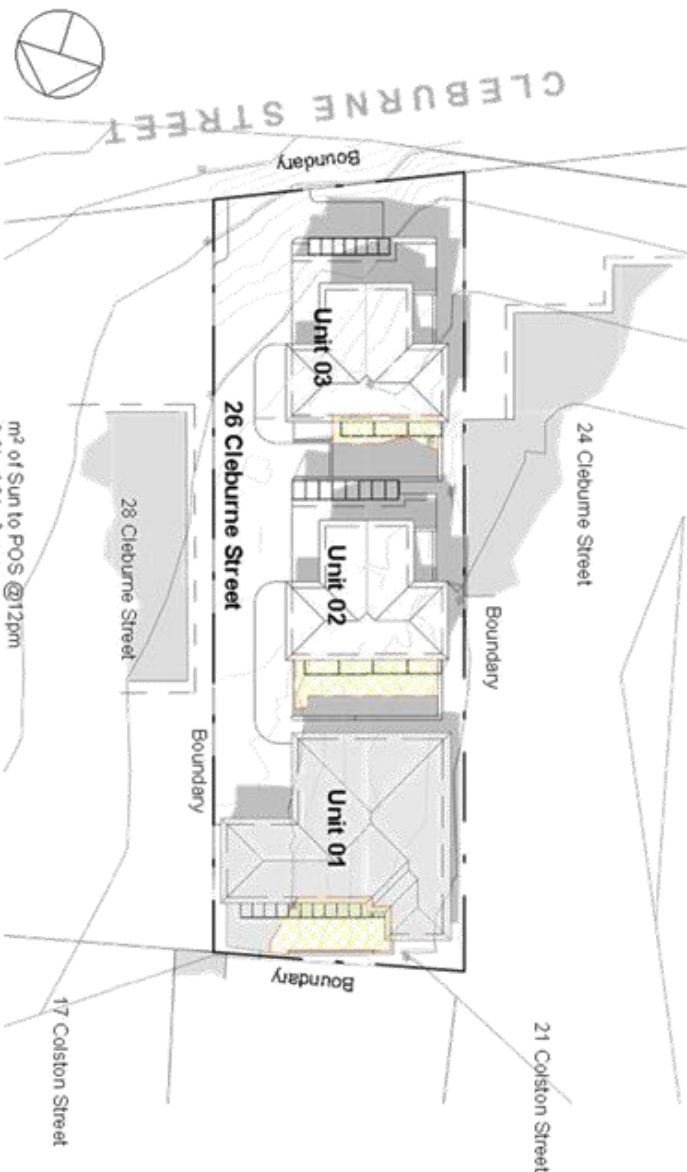


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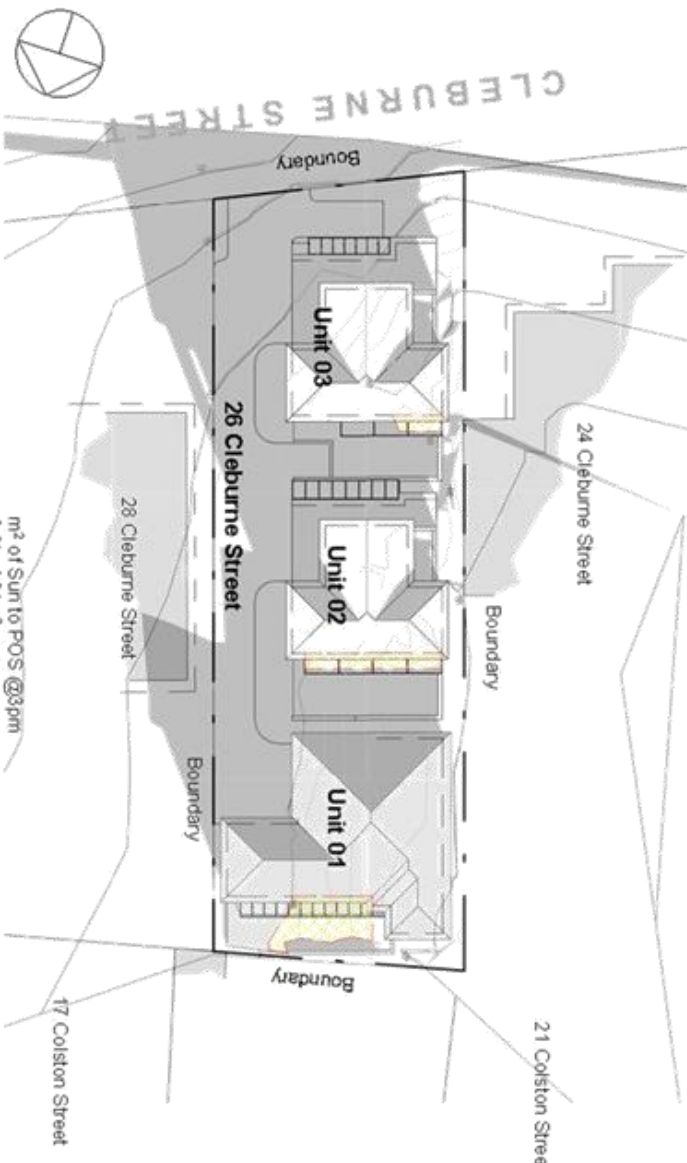


Max. Envelope 21 June 3 pm

GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-21-592
DATE RECEIVED 07/03/2022



Proposed 21 June 12 pm



Proposed 21 June 3 pm

m² of Sun to POS @12pm
& % of 24m² area
Unit 01 = 31m²/ 130%
Unit 02 = 28m²/ 115%
Unit 03 = 15m²/ 62.5%

m² of Sun to POS @3pm
& % of 24m² area
Unit 01 = 22m²/ 92%
Unit 02 = 12m²/ 50%
Unit 03 = 4m²/ 16.6%

No	Description	Date
B	Preliminary DA/ client review	01 October 2021
C	Issued for DA Submission	11 November 2021
D	RFI amendments	21 February 2022

J & T McPhee

Shadow Diagram 03

26 Cleburne St, Claremont

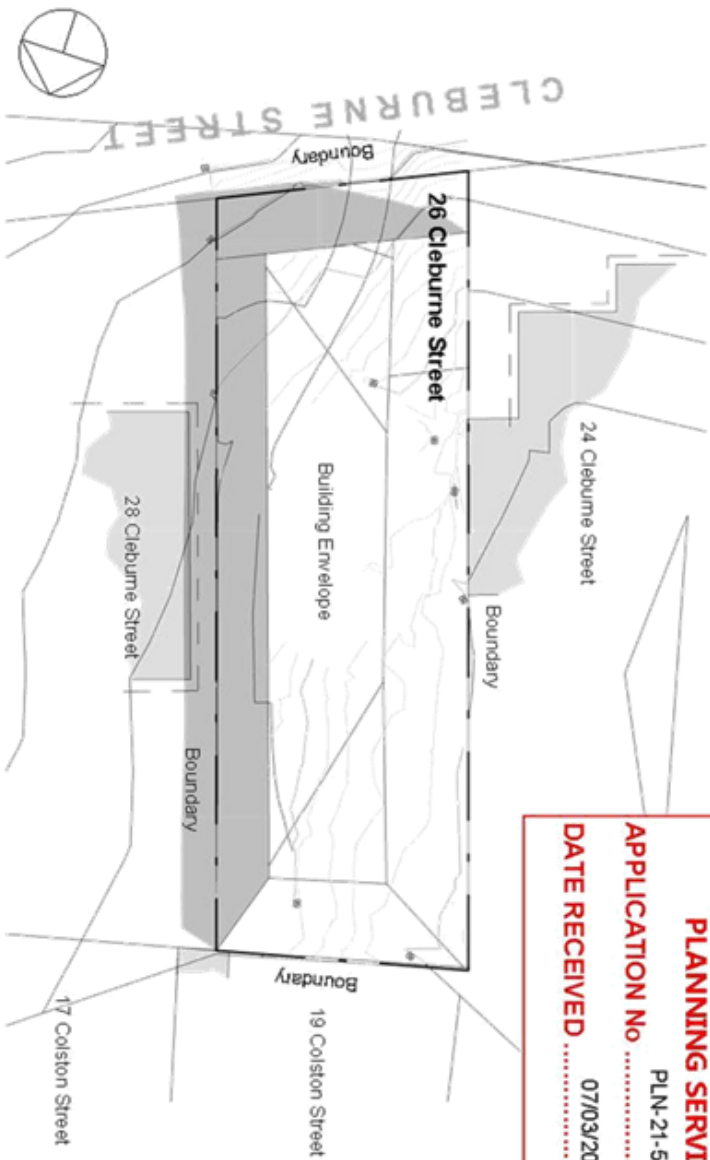
Project number KA 2107
Date December 2021
Drawn by BA
BSP Lic# CC 7294 Scale

A08.02

KUNAMA
ARCHITECTS

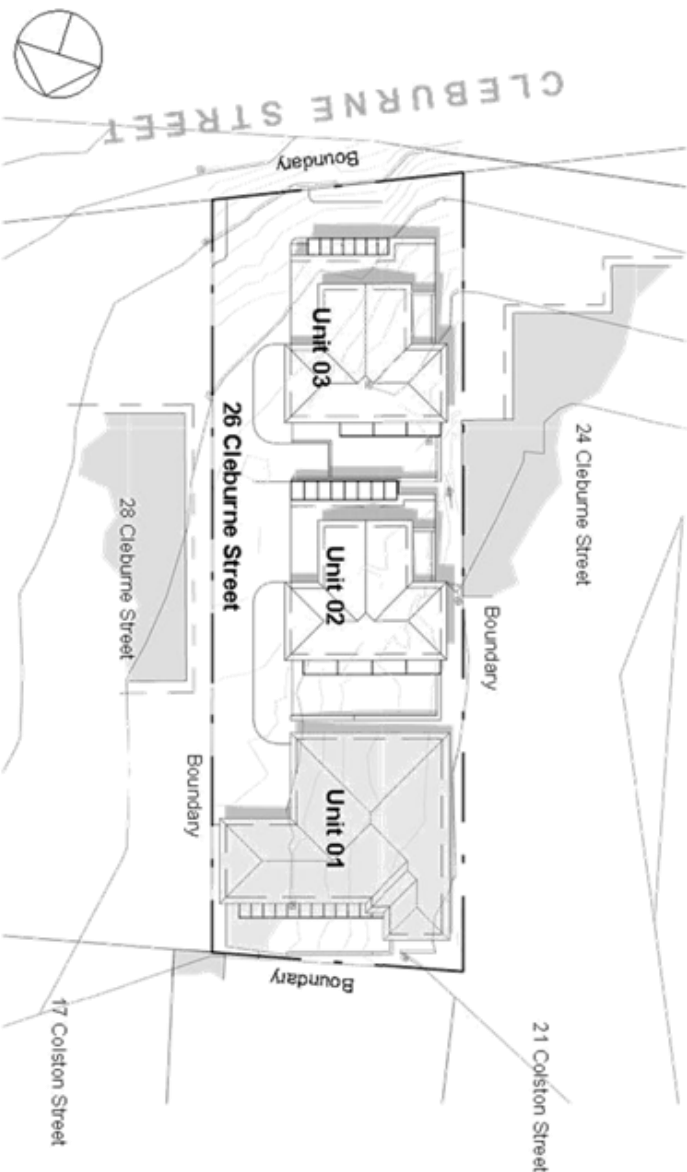


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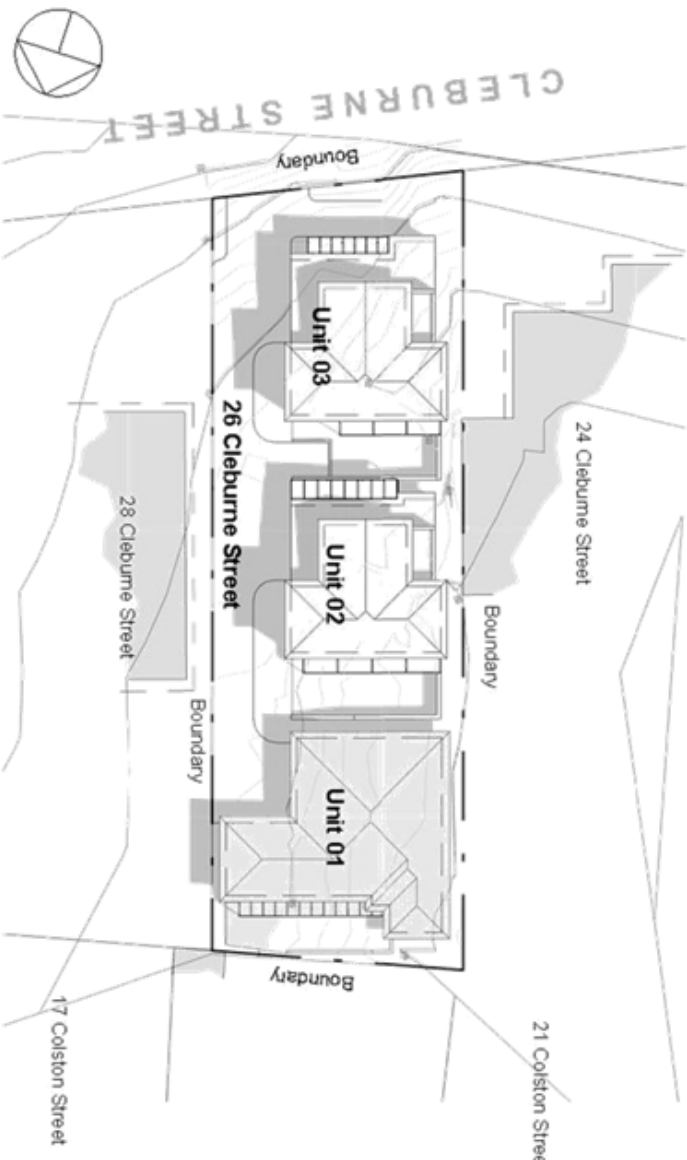


Max. Envelope 22 December 3 pm

GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-21-592
DATE RECEIVED 07/03/2022



Proposed 22 December 12 pm



Proposed 22 December 3 pm

No	Description	Date
B	Preliminary DA/ client review	01 October 2021
C	Issued for DA Submission	11 November 2021

J & T McPhee

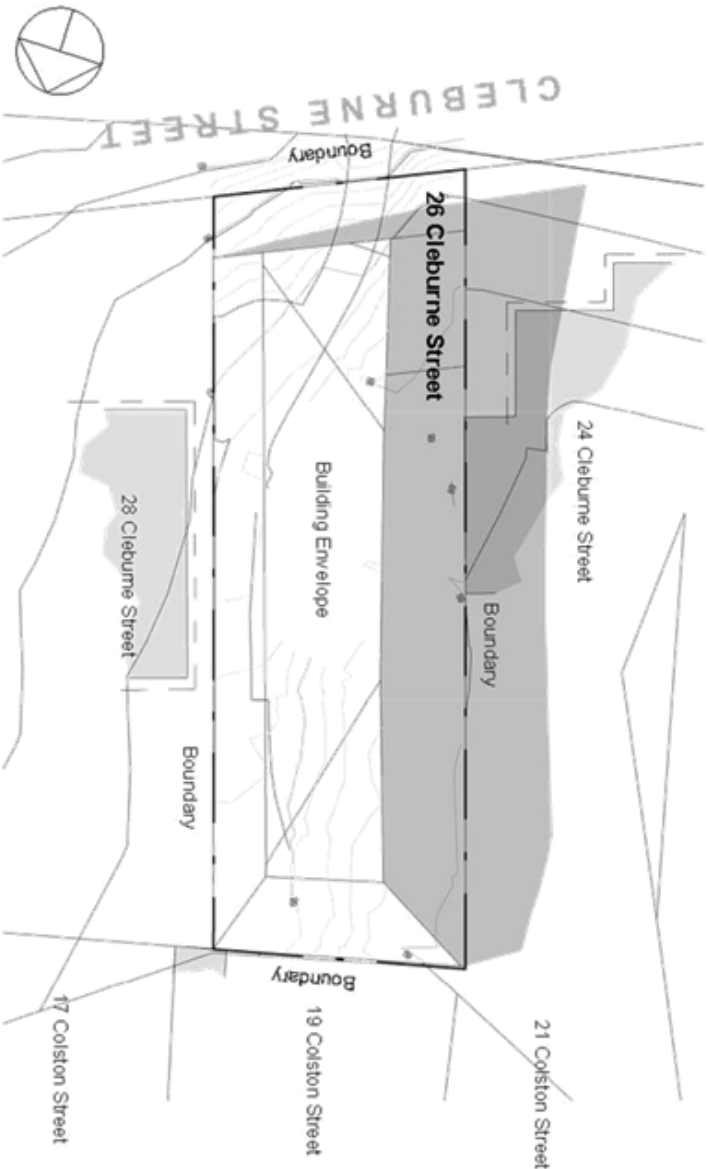
26 Cleburne St, Claremont

Shadow Diagram 06

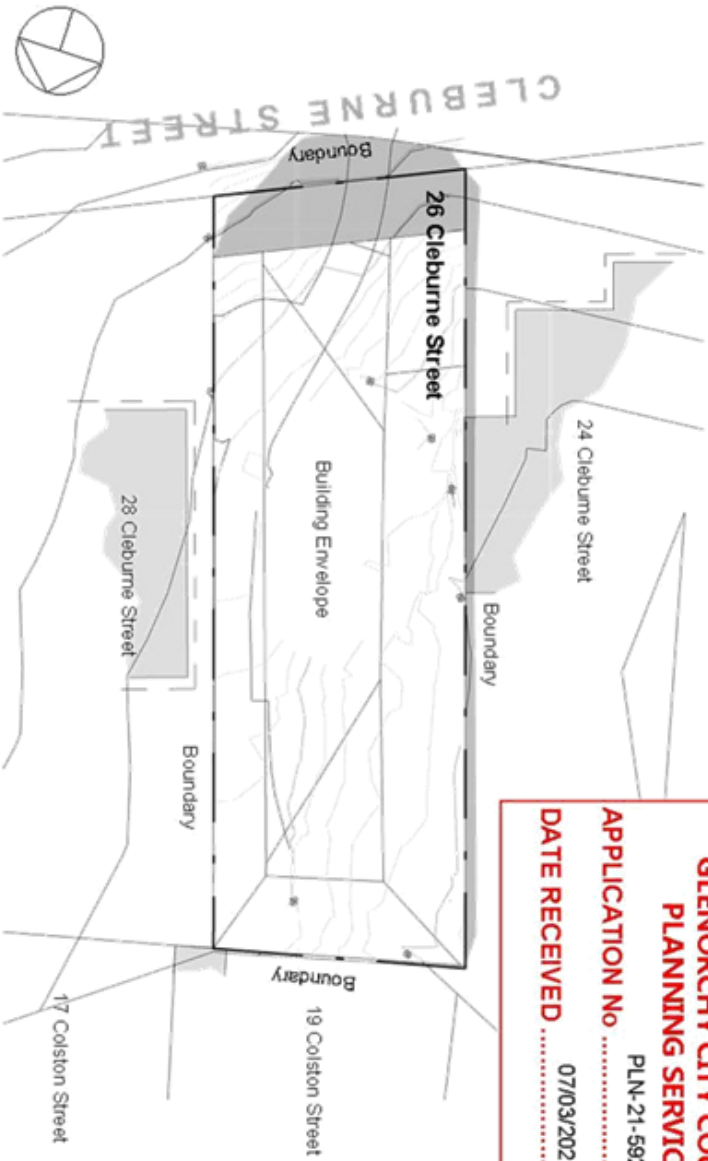
Project number	KA 2107
Date	December 2021
Drawn by	BA
BSP Lic#	CC 7294

A08.05

KUNAMA
ARCHITECTS

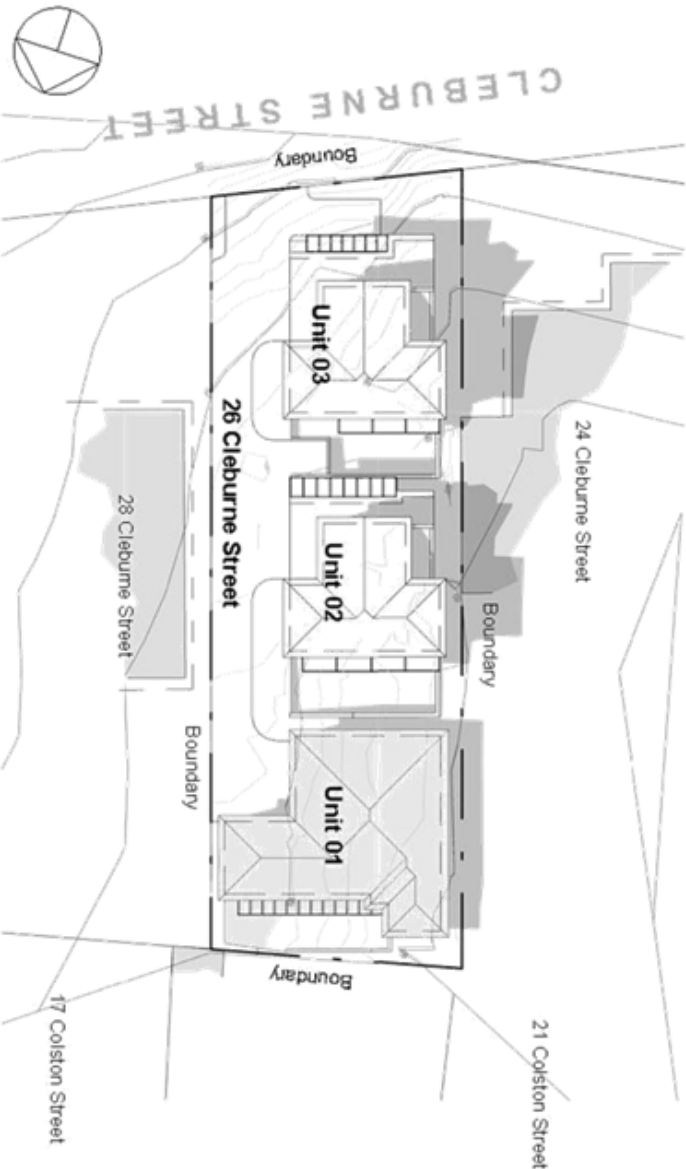


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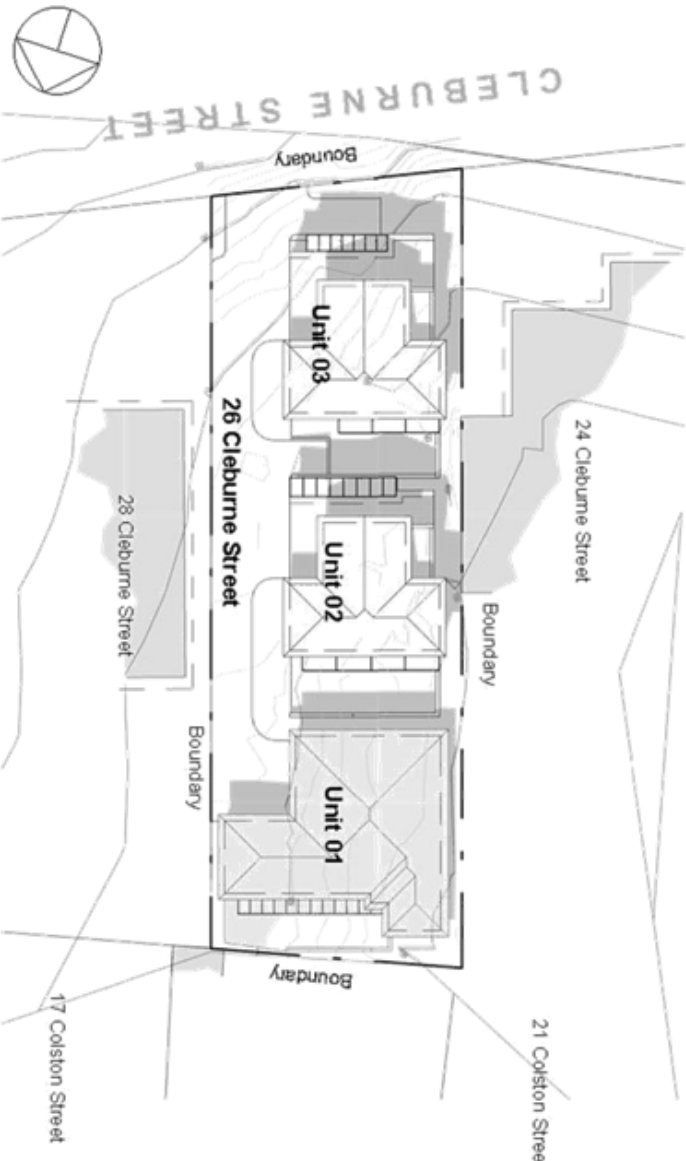


Max. Envelope 23 September 12 pm

GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-21-592
DATE RECEIVED 07/03/2022



Proposed 23 September 9 am



Proposed 23 September 12 pm

No	Description	Date
B	Preliminary DA/ client review	01 October 2021
C	Issued for DA Submission	11 November 2021

J & T McPhee

Shadow Diagram 04

26 Cleburne St, Claremont

Project number
Date
Drawn by
BSP Lic#

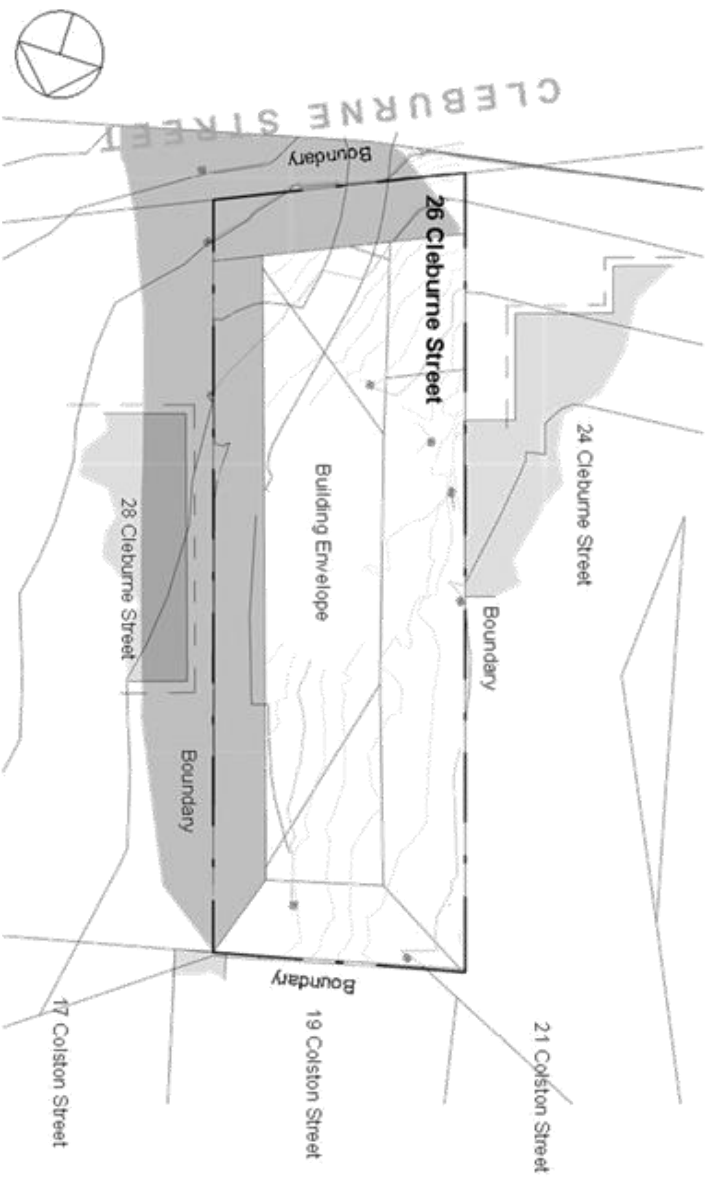
KA 2107
December 2021
BA
CC 7294

Scale

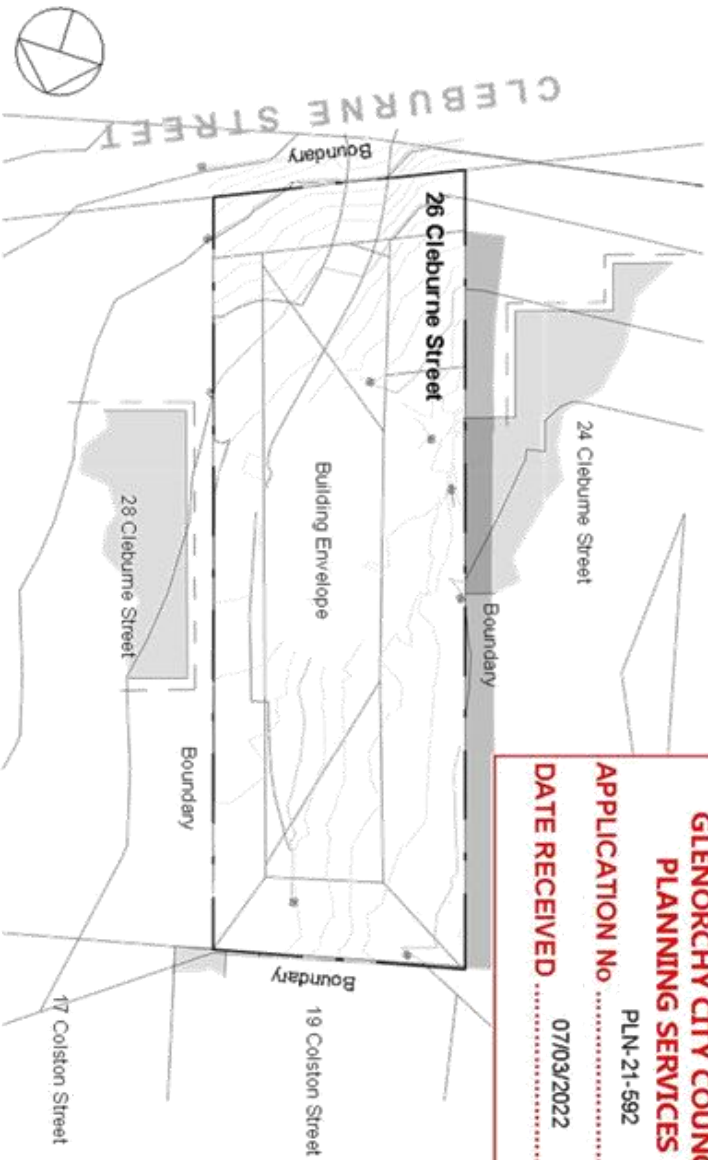
A08.03

1 : 500 @A3

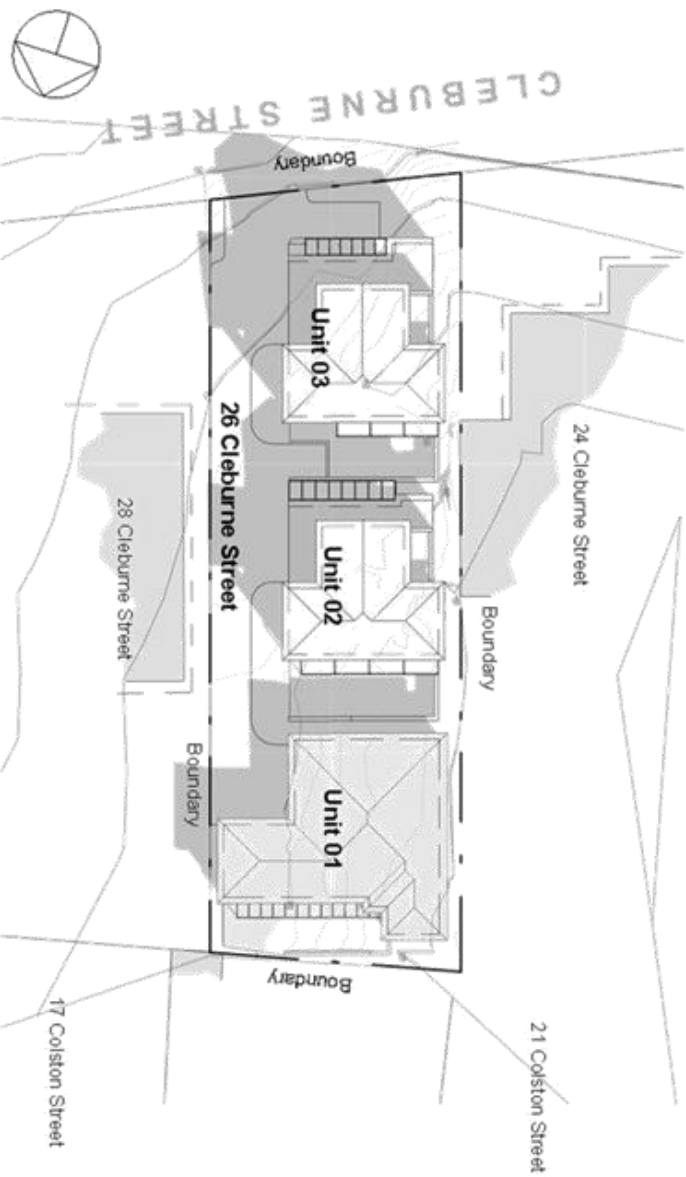
KUNAMA
ARCHITECTS



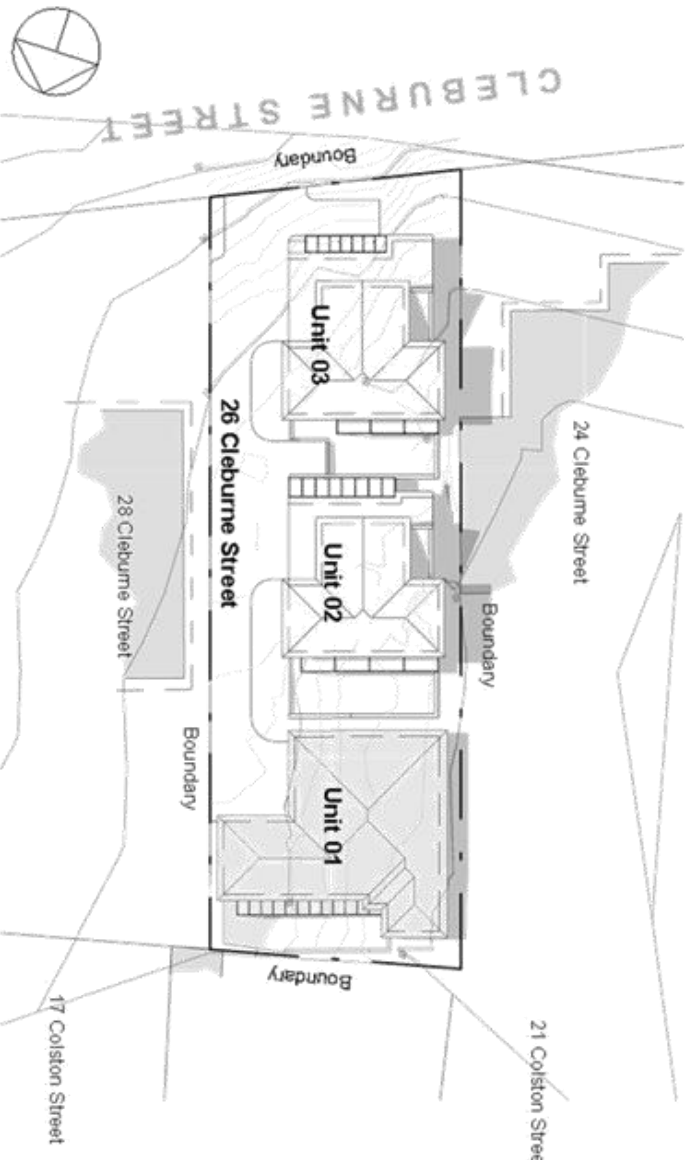
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Max. Envelope 22 December 9 am



Proposed 23 September 3 pm



Proposed 22 December 9 am

No	Description	Date	J & T McPhee
B	Preliminary DA/ client review	01 October 2021	
C	Issued for DA Submission	11 November 2021	

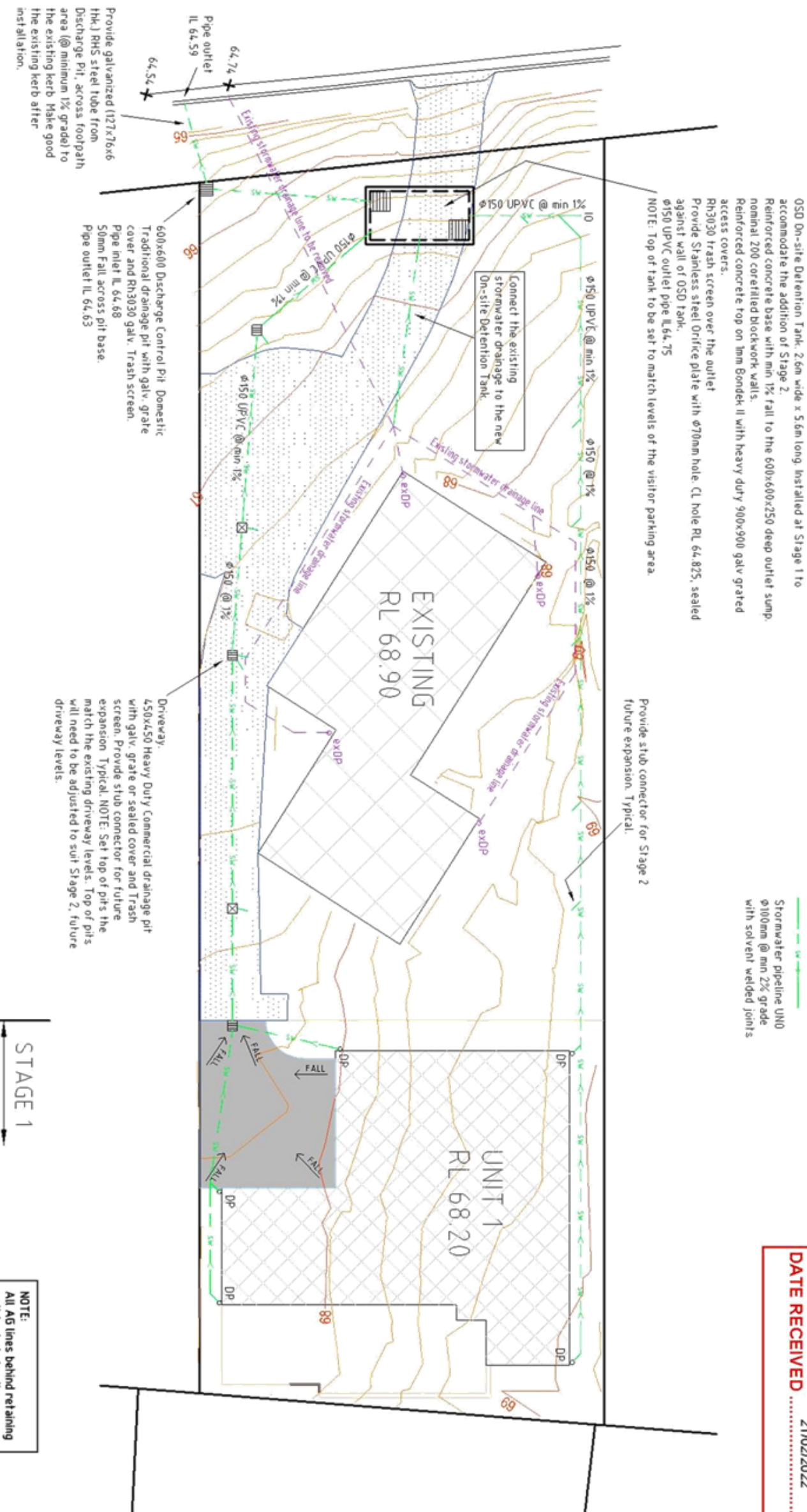
Shadow Diagram 05

Project number	KA 2107
Date	December 2021
Drawn by	BA
BSP Lic#	CC 7294

A08.04

KUNAMA
ARCHITECTS

GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-21-592
DATE RECEIVED 07/03/2022



Stormwater pipeline UN0
 Ø100mm @ min 2% grade
 with solvent welded joints

**GLENORCHY CITY COUNCIL
PLANNING SERVICES**

APPLICATION No **PLN-21-592**

DATE RECEIVED **21/02/2022**

THE LAYOUTS AND DETAILS SHOWN ARE SCHEMATIC ONLY - SCALE NOTED IS NOMINAL

NOTE:
OSD On-site Detention Tank and drainage to be installed at Stage 1 works.

NOTE:
All AG lines behind retaining wall to drain to pits.

STAGE 1

Note:



Copyright ©

Layout: Proposed Stage 1 Drainage

Architect: KUNAMA ARCHITECTS

DATE _____

Proposed RESIDENTIAL

UNITS at No. 26

Cleburne Street,
CLAREMONT, TAS

LOCATION OF
R.D.W.

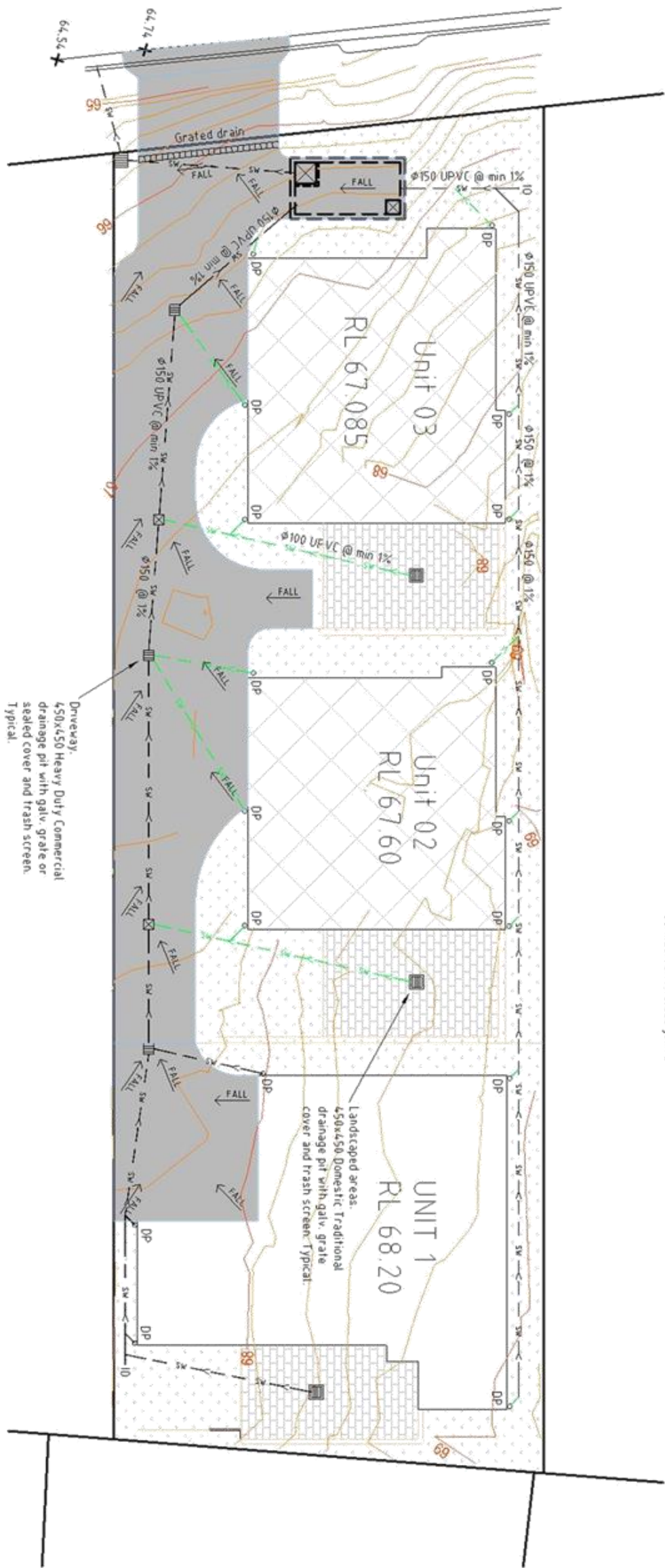
DE LAIT'S 61	FRANZ	1530C	-
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2022/443/3-1	DATE	February 2022
1:200	SCALES	

WILLIAMS CONSULTING ENGINEERS AUSTRALIA P/L
CONSULTING, CIVIL AND STRUCTURAL ENGINEERS

Unit 3/31 Arterial Road, Blandford, NSW 2716
5000 Central Highway, Box 604, 145 150B
Fleet Office Box 75, Middleton, TAS 7163

Email: raj@williams.com.au
Mobile Phone: 0425307531



Stormwater pipeline UN0
 Ø100mm @ min 2% grade
 with solvent welded joints

**GLENORCHY CITY COUNCIL
PLANNING SERVICES**

APPLICATION No PLN-21-562

DATE RECEIVED 21/02/2022

THE LAYOUTS AND DETAILS SHOWN ARE SCHEMATIC ONLY - SCALE NOTED IS NOMINAL

Note:



Copyright ©

Layout: Proposed Stage 2 Drainage

THIS DRAWING IS NOT TO BE USED FOR THE PRELIMINARY PURPOSES ONLY. SEE DATE

DATE _____

Proposed RESIDENTIAL

UNITS at No. 26

Cleburne Street,
CLAREMONT, TAS

STAGE 2	STAGE 1
---------	---------

STAGE 1

NOTE:
All AG lines behind retaining wall to drain to pits.

[illegible]



Submission to Planning Authority Notice

Council Planning Permit No.	PLN-21-592	Council notice date	19/11/2021
TasWater details			
TasWater Reference No.	TWDA 2021/02027-GCC	Date of response	26/11/2021
TasWater Contact	Timothy Carr	Phone No.	0419 306 130
Response issued to			
Council name	GLENORCHY CITY COUNCIL		
Contact details	gccmail@gcc.tas.gov.au		
Development details			
Address	26 CLEBURNE ST, CLAREMONT	Property ID (PID)	5311078
Description of development	Multiple Dwellings x 3 + demolition of existing dwelling		
Schedule of drawings/documents			
Prepared by	Drawing/document No.	Revision No.	Date of Issue
KUNAMA ARCHITECTS	Proposed Site Plan – Stage 2 – A00.03	-	November 2021
Conditions			
Pursuant to the <i>Water and Sewerage Industry Act 2008</i> (TAS) Section 56P(1) TasWater imposes the following conditions on the permit for this application: CONNECTIONS, METERING & BACKFLOW 1. A suitably sized water supply with metered connections and sewerage system and connections to the development must be designed and constructed to TasWater's satisfaction and be in accordance with any other conditions in this permit. 2. Any removal/supply and installation of water meters and/or the removal of redundant and/or installation of new and modified property service connections must be carried out by TasWater at the developer's cost. 3. Prior to commencing construction of the subdivision/use of the development, any water connection utilised for construction/the development must have a backflow prevention device and water meter installed, to the satisfaction of TasWater. DEVELOPMENT ASSESSMENT FEES 4. The applicant or landowner as the case may be, must pay a development assessment fee of \$363.57 to TasWater, as approved by the Economic Regulator and the fee will be indexed, until the date paid to TasWater. The payment is required within 30 days of the issue of an invoice by TasWater.			
Advice			
General For information on TasWater development standards, please visit https://www.taswater.com.au/building-and-development/technical-standards For application forms please visit https://www.taswater.com.au/building-and-development/development-application-form Service Locations Please note that the developer is responsible for arranging to locate the existing TasWater infrastructure			



and clearly showing it on the drawings. Existing TasWater infrastructure may be located by a surveyor and/or a private contractor engaged at the developers cost to locate the infrastructure.

The location of this infrastructure as shown on the GIS is indicative only.

(a) A permit is required to work within TasWater's easements or in the vicinity of its infrastructure.

Further information can be obtained from TasWater

(b) TasWater has listed a number of service providers who can provide asset detection and location services should you require it. Visit www.taswater.com.au/Development/Service-location for a list of companies

(c) TasWater will locate residential water stop taps free of charge

(d) Sewer drainage plans or Inspection Openings (IO) for residential properties are available from your local council.

Declaration

The drawings/documents and conditions stated above constitute TasWater's Submission to Planning Authority Notice.

Authorised by

Jason Taylor

Development Assessment Manager

TasWater Contact Details

Phone	13 6992	Email	development@taswater.com.au
Mail	GPO Box 1393 Hobart TAS 7001	Web	www.taswater.com.au



Document Set ID: 3103497
 Version: 1 Version Date: 11/04/2022







GLENORCHY CITY COUNCIL PLANNING SERVICES	
APPLICATION No	PLN-21-302
DATE RECEIVED	9 March 2022

DEVELOPMENT IMPACT ASSESSMENT

2 Beresford Place, Moonah

23/12/2021

For: INDIGENOUS TASMANIAN'S ABORIGINAL CORPORATION
PO BOX 690
MOONAH TAS 7009

Alister Hodgman
Diploma (Hort/Arb)
QTRA Register User: 3743

Element Tree Services
alister@elementtree.com.au

1. Terms of Reference

This report was requested by Nickeeta Masatora, of the Indigenous Tasmanian's Aboriginal Corporation, to assess potential impacts of proposed development on a mature tree of heritage significance at 2 Beresford Place, Moonah. An assessment of the site was undertaken on the 22nd of December 2021. The report will discuss those findings and provide management recommendations.

- The report references the proposed subdivision plan (3/12/21) by Rogerson & Birch Surveyors.

2. Site Findings

The mature English oak (*Quercus robur*) is situated on the northern side of the existing dwelling. It can be described as being of good health and form and did not present an elevated level of risk above acceptable¹.

The single stem appears stable in the ground and there was no sign of an elevated probability of windthrow. The crown appears to be influenced by prevailing winds from the north-west with a bias developing towards the existing dwelling.



Fig. 1 – the oak as seen looking to the east. Note the crown bias developing towards the dwelling.

¹ This assessment benchmarks against VALID methodology, obvious tree risk features, <https://www.validtreerisk.com/>

In its current situation, the tree does not require any maintenance and will likely contribute to the landscape in excess of a further 50 years.

3. Development Impacts

The trunk diameter of .71m results in a tree protection zone of 8.52m. This zone is important for the long term viability of the tree and can have a development incursion of <10% provided there is additional area to offset the damage. In this instance, it appears that the proposed driveway is outside of this zone and therefore the works are unlikely to impact on the tree².

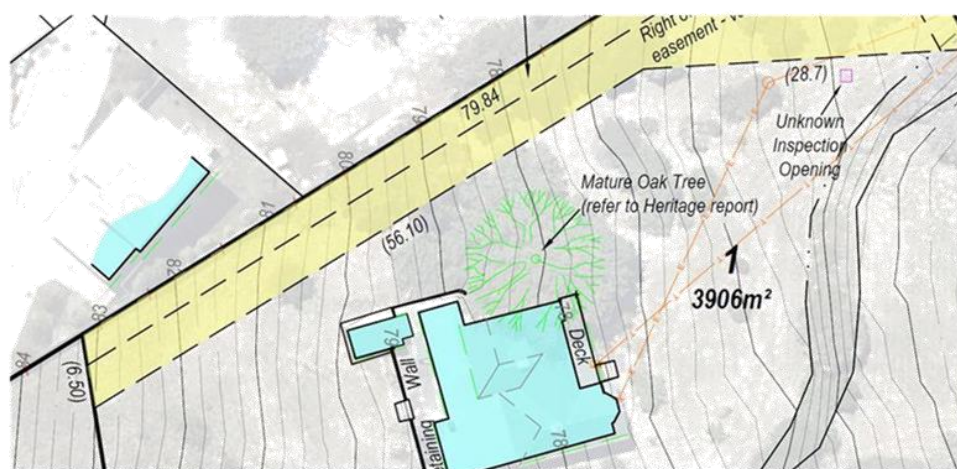


Fig. 1 – the proposed subdivision plan indicating the location of the tree relative to the driveway.

4. Tree protection

Although not directly impacted by the proposed driveway, a tree protection zone³ and fencing should be established and free from the following:

- Machine excavation including trenching;
- Excavation for silt fencing;
- Cultivation;
- Storage;
- Preparation of chemicals, including preparation of cement products;
- Parking of vehicles and plant;
- Refuelling;
- Dumping of waste;

² The scaled plan suggests that the edge of the work is ≈9m from the centre of the trunk. This correlates with my onsite measurement of 15.3m from the centre of trunk to the existing fence to the north.

³ The TPZ is 8.52m radius from the centre of trunk.

- Wash down and cleaning of equipment;
- Placement of fill;
- Lighting of fires;
- Soil level changes;
- Temporary or permanent installation of utilities and signs, and
- Physical damage to the tree(s).

If works is required within the TPZ, advice should be sought from a consulting arborist.

5. Conclusion

- The current design is unlikely to result in a negative impact on the tree of heritage significance at 2 Beresford Place, Moonah.
- Prior to the commencement of works, tree protection zone fencing should be established. This fencing should not be removed until all works have been completed.



Submission to Planning Authority Notice

Council Planning Permit No.	PLN-21-302	Council notice date	5/07/2021
TasWater details			
TasWater Reference No.	TWDA 2021/01113-GCC	Date of response	08/12/2021
TasWater Contact	Al Cole	Phone No.	0439605108
Response issued to			
Council name	GLENORCHY CITY COUNCIL		
Contact details	gccmail@gcc.tas.gov.au		
Development details			
Address	2 BERESFORD PL, MOONAH	Property ID (PID)	5408953
Description of development	Subdivision - 1 lot plus balance		
Schedule of drawings/documents			
Prepared by	Drawing/document No.	Revision No.	Date of Issue
Rogerson and Birch	Proposed Subdivision	A	26/07/2021
Gandy and Roberts	SiteWorks Plan/C020	C	28/09/2021
Conditions			
Pursuant to the <i>Water and Sewerage Industry Act 2008</i> (TAS) Section 56P(1) TasWater imposes the following conditions on the permit for this application: CONNECTIONS, METERING & BACKFLOW 1. A suitably sized water supply with metered connections and sewerage system and connections to each lot of the development must be designed and constructed to TasWater's satisfaction and be in accordance with any other conditions in this permit. 2. Any removal/supply and installation of water meters and/or the removal of redundant and/or installation of new and modified property service connections must be carried out by TasWater at the developer's cost. 3. Prior to commencing construction of the subdivision/use of the development, any water connection utilised for construction/the development must have a backflow prevention device and water meter installed, to the satisfaction of TasWater. ASSET CREATION & INFRASTRUCTURE WORKS 4. Plans submitted with the application for Engineering Design Approval must, to the satisfaction of TasWater show, all existing, redundant and/or proposed property services and mains. 5. Prior to applying for a Permit to Construct new infrastructure the developer must obtain from TasWater Engineering Design Approval for new TasWater infrastructure. The application for Engineering Design Approval must include engineering design plans prepared by a suitably qualified person showing the hydraulic servicing requirements for water and sewerage to TasWater's satisfaction. 6. Prior to works commencing, a Permit to Construct must be applied for and issued by TasWater. All infrastructure works must be inspected by TasWater and be to TasWater's satisfaction. 7. In addition to any other conditions in this permit, all works must be constructed under the supervision of a suitably qualified person in accordance with TasWater's requirements.			



8. The developer will be responsible for decommissioning and removing the existing DN50 Cu water main A325079 shown in purple on the attached infrastructure plan, by replacing it with the proposed DN100 water main shown on the plans prepared by Gandy and Roberts. Affected properties must be connected to the new main prior to any decommissioning works. All costs for this work will be borne by the developer.
9. Prior to the issue of a Consent to Register a Legal Document all additions, extensions, alterations or upgrades to TasWater's water and sewerage infrastructure required to service the development, are to be completed generally as shown on, and in accordance with, the plans listed in the schedule of drawings/documents and Condition 8, and are to be constructed at the expense of the developer to the satisfaction of TasWater, with live connections performed by TasWater.
10. After testing, to TasWater's requirements, of newly created works, the developer must apply to TasWater for connection of these works to existing TasWater infrastructure, at the developer's cost.
11. At practical completion of the water and sewerage works and prior to TasWater issuing a Consent to a Register Legal Document, the developer must obtain a Certificate of Practical Completion from TasWater for the works that will be transferred to TasWater. To obtain a Certificate of Practical Completion:
 - a. Written confirmation from the supervising suitably qualified person certifying that the works have been constructed in accordance with the TasWater approved plans and specifications and that the appropriate level of workmanship has been achieved;
 - b. A request for a joint on-site inspection with TasWater's authorised representative must be made;
 - c. Security for the twelve (12) month defects liability period to the value of 10% of the works must be lodged with TasWater. This security must be in the form of a bank guarantee;
 - d. Work As Constructed drawings and documentation must be prepared by a suitably qualified person to TasWater's satisfaction and forwarded to TasWater.
12. After the Certificate of Practical Completion has been issued, a 12 month defects liability period applies to this infrastructure. During this period all defects must be rectified at the developer's cost and to the satisfaction of TasWater. A further 12 month defects liability period may be applied to defects after rectification. TasWater may, at its discretion, undertake rectification of any defects at the developer's cost. Upon completion, of the defects liability period the developer must request TasWater to issue a "Certificate of Final Acceptance". The newly constructed infrastructure will be transferred to TasWater upon issue of this certificate and TasWater will release any security held for the defects liability period.
13. The developer must take all precautions to protect existing TasWater infrastructure. Any damage caused to existing TasWater infrastructure during the construction period must be promptly reported to TasWater and repaired by TasWater at the developer's cost.
14. Ground levels over the TasWater assets and/or easements must not be altered without the written approval of TasWater.
15. A construction management plan must be submitted with the application for TasWater Engineering Design Approval. The construction management plan must detail how the new TasWater infrastructure will be constructed while maintaining current levels of services provided by TasWater to the community. The construction plan must also include a risk assessment and contingency plans covering major risks to TasWater during any works. The construction plan must be to the satisfaction of TasWater prior to TasWater's Engineering Design Approval being issued.

FINAL PLANS, EASEMENTS & ENDORSEMENTS



16. Prior to the Sealing of the Final Plan of Survey, a Consent to Register a Legal Document must be obtained from TasWater as evidence of compliance with these conditions when application for sealing is made.
Advice: Council will refer the Final Plan of Survey to TasWater requesting Consent to Register a Legal Document be issued directly to them on behalf of the applicant.
17. Pipeline easements, to TasWater's satisfaction, must be created over any existing or proposed TasWater infrastructure and be in accordance with TasWater's standard pipeline easement conditions.
18. The Plan of Survey must include private service easements over the proposed private pipes located on Lot 1, servicing Lot 2. The easement must benefit Lot 2 and burden Lot 1.
19. Prior to the issue of a TasWater Consent to Register a Legal Document, the applicant must submit a .dwg file, prepared by a suitably qualified person to TasWater's satisfaction, showing:
 - a. the exact location of the existing water and sewerage infrastructure,
 - b. the easement protecting that infrastructure.

The developer must locate the existing TasWater infrastructure and clearly show it on the .dwg file. Existing TasWater infrastructure may be located by a surveyor and/or a private contractor engaged at the developers cost.

DEVELOPMENT ASSESSMENT FEES

20. The applicant or landowner as the case may be, must pay a development assessment fee of \$363.57, and a Consent to Register a Legal Document fee of \$154.42 to TasWater, as approved by the Economic Regulator and the fees will be indexed, until the date paid to TasWater.
The payment is required within 30 days of the issue of an invoice by TasWater.

Advice

General

For information on TasWater development standards, please visit <https://www.taswater.com.au/building-and-development/technical-standards>

For application forms please visit <https://www.taswater.com.au/building-and-development/development-application-form>

Service Locations

Please note that the developer is responsible for arranging to locate the existing TasWater infrastructure and clearly showing it on the drawings. Existing TasWater infrastructure may be located by a surveyor and/or a private contractor engaged at the developers cost to locate the infrastructure.

A copy of the GIS is included in email with this notice and should aid in updating of the documentation. The location of this infrastructure as shown on the GIS is indicative only.

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Further information can be obtained from TasWater
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**Declaration**

The drawings/documents and conditions stated above constitute TasWater's Submission to Planning Authority Notice.

Authorised by

A handwritten signature in black ink, appearing to read "J. Taylor".

Jason Taylor
Development Assessment Manager

TasWater Contact Details

Phone	13 6992	Email	development@taswater.com.au
Mail	GPO Box 1393 Hobart TAS 7001	Web	www.taswater.com.au

