Before the Independent Hearing Panel

Under	The Resource Management Act 1991
In the matter of	the hearing of submissions on the Variation to the Queenstown Lakes Proposed District Plan - Urban Intensification
	Queenstown Commercial Limited
	Submitter: #404

Statement of evidence of Jared Baronian

4 July 2025

Introduction

1 My full name is Jared Baronian.

2 I am the Chief Executive Officer of Sanderson Group and have been in this role since 2021. Sanderson Group has owned and operated retirement villages throughout the country for over 30 years, developing in excess of $1 billion dollars of infrastructure and buildings.

3 Sanderson Group has significant experience in the Queenstown-Lakes region. Since 2017, the group have developed more than 35 hectares of land on the southern side of Ladies Mile, including the Queenstown Country Club (retirement village), Kawarau Park (medical precinct including Central Lakes Southern Cross Hospital), Kawarau Heights (100 lot subdivision), and Alpine Views (accommodation precinct 11 buildings with 51 rooms).

4 Queenstown Commercial Limited (**QCL**) is a branch of Sanderson Group, a property development company focused on development in the Queenstown region.

5 Prior to working at Sanderson Group, I spent 25 years working overseas across energy, infrastructure, defence, technology and property sectors.

QCL's submission

6 This evidence is provided in support of QCL's submission on the Proposed Urban Intensification Variation (**Variation**) to the Queenstown Lakes Proposed District Plan (**PDP**).

7 QCL has an interest in land[1] known as Kawarau Heights (**the Site**). QCL generally supports the Variation but further seeks an extension of the Lower Density Suburban Residential Zone (**LDSRZ**) to include a portion of land within the same allotment that is rurally zoned, outside of the ONL, shaded in pink on Figure 1 below (**Rezoning Land**).

8 The rezoning sought is a small adjustment to the Urban Growth Boundary (rather than a satellite rezoning) and is a suitable extension of existing residential zoning of the Site which will assist to provide for intensification desired by the Queenstown Lakes District Council.

9 QCL is an experienced local developer with a proven track record. We understand the challenges of a fast-growing population and the need to make best use of available land. Importantly, rezoning to enable intensification through this process

[1] Legally described as Lot 305, 400-401 Deposited Plan 561673 and Section 2 Survey Office Plan 504524 and Section 1 Survey Office Plan 570191 held in Record of Title 1131639.

will provide housing when it is desperately needed. This evidence gives some context for development of the Site, provides an update on its development and explains why rezoning LDSRZ is a logical extension and should occur as part of this Variation.

10 I understand that "incidental or consequential" extensions of zoning changes proposed in a plan change are permissible where they are directly adjoining land which is being rezoned. This is exactly the situation here – given the area sought to be rezoned is *within* the allotment zoned LDSRZ.

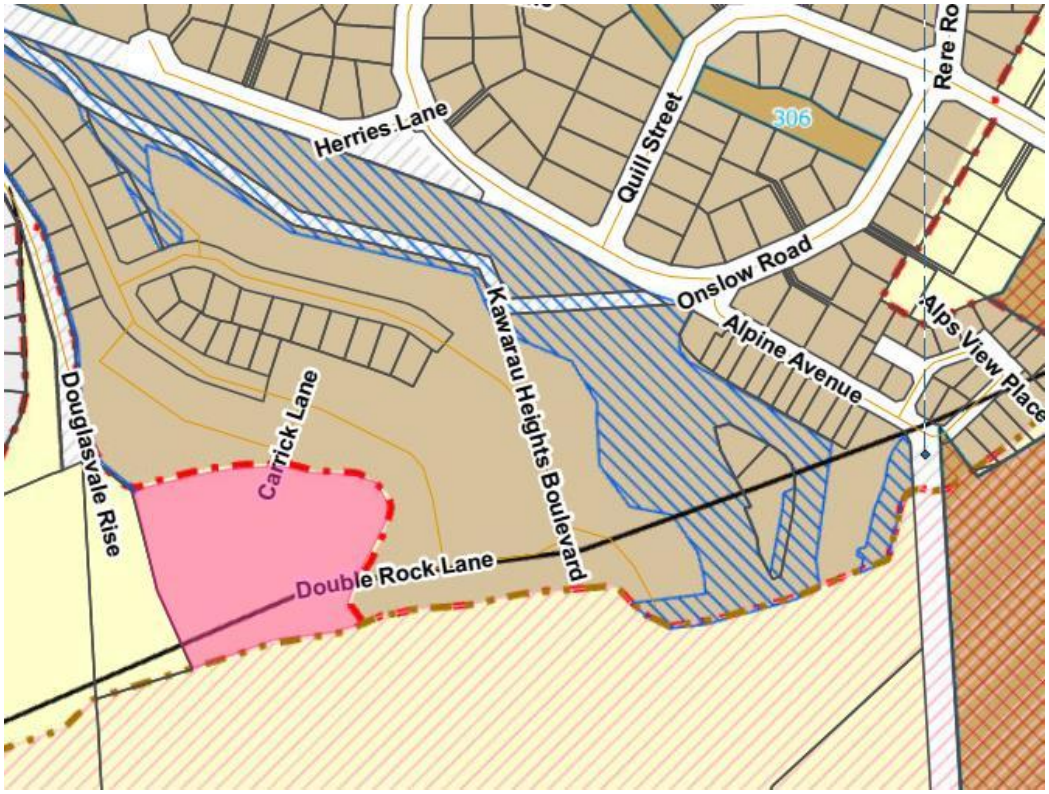


Figure 1

Background

11 Kawarau Heights stems from a bold vision: to produce one of the best residential communities in New Zealand. The Site was carefully chosen, for its breath-taking beauty and direct access to a vast range of Queenstown's activities, including being adjacent to the Kawarau River and the Twin River cycle trail. Adjacent and withing walking distance to Kawarau Heights is Kawarau Park, a medical / commercial / retail precinct providing this residential development an impressive range of amenities catering to day-to-day needs.

12 The Site was initially recognised as a Special Housing Area suitable for new housing, to boost housing supply and improve housing affordability by enabling development that meets the need of the growing population.

13 In April 2017 Queenstown Lakes District Council granted SH160140[2] to subdivide land and to develop a 332-unit retirement village and ancillary commercial activities and residential lots and units. This development included the residential development at Kawarau Heights and a café on the Rezoning Land. Approved plans for SH160140 are **attached**.

14 The café has not been constructed and the majority of the land (excluding the Rezoning Land) has been subsequently rezoned from Rural General to Lower Density Residential during resolution of appeals to the PDP, and the urban growth boundary and Outstanding Natural Landscape boundary adjusted accordingly.

Broader Site development update

15 Development of the Site commenced in May 2021. To date all civils and roading has been completed and vested to QLDC, 15 homes are sold, 3 homes remain complete and available, a further 10 homes are currently under construction, and designs have been completed for many more. Enquiry levels are high as the development's vision has taken shape and the quality of homes is now proven. Since marketing was launched in mid 2021 over 3,800 enquiries have been received including more than 1,500 first home buyers on our database all actively looking to buy.

Rezoned land development update

16 The rezoned land area being sought provides approx. 0.5 ha of good useable land. The Rezoning Land is 1.71 ha. Earthworks have been completed across this full area, and it is currently used as for construction site office, laydown area, storage yard, and plant nursery, and for all purposes appears to be part of the existing residential construction.

17 We are looking to develop the useable area for residential housing given its significant size will provide a good number of additional homes - between 10 to 20, pending final scheme plan.

18 Residential rezoning of this area is its only practical use given the area naturally sits in a pocket on the south side of the Site, is land locked into this pocket by the existing Kawarau Heights development immediately infront to the north, there is a large hill 80 meters in height rising above directly behind the area on the southern side (above the Kawarau river) and a small knoll 15 meters in height on the east.

19 Given these geographical and natural characteristic and that effectively it is a "bolt on" to the existing Kawarau Heights development, the area has no practical use for

[2] Under the Housing Accords & Special Housing Areas Act 2013

any other purpose. Further it is not economically viable to be repurposed for any other use.

Extension of the residential zone

20 QCL generally supports the Variation since it seeks to enable intensification in areas where there is demand for housing, recognising the need for housing in Queenstown.

21 In addition to the resource consent referred to above, the Rezoning Land is included within an Indicative Future Expansion Area within Chapter 4 of the PDP, and as a Future Urban Area within the QLDC Spatial Plan. The identification of the Rezoning Land in future planning documents supports the inclusion of the Rezoning Land within the Variation now, as a logical and coherent UGB extension.

22 From a development perspective, I consider that extending the LDSRZ to include the Rezoning Land would be a logical and coherent extension of the existing urban zoned land for the below reasons:

(a) logical expansion of residential development in an area of high demand for housing;

(b) compact and consolidated form, which adjoins existing residential zoned land;

(c) logical extension to existing infrastructure and services;

(d) strategically located and efficient extension of existing roading infrastructure and potential to support active transport connections to support walking and cycling in the community; and

(e) the potential to result in a quality environment with high amenity residential development.

Unlocking housing capacity

23 Policy 2 of the NPS-UD requires QLDC to provide at least sufficient development capacity to meet expected demand for housing and for business land over the short term, medium term, and long term. The 2021 Housing Development Capacity Assessment (HDCA) identified "a shortfall of housing in price bands below $500,000" and that, over time, "house price growth is expected to be faster than growth in real incomes in the district and housing affordability is projected to decline over the long term to a shortfall of 6,960 affordable dwellings by 2050 for non-

owner resident households".[3] Extending the LDSRZ and UGB to include the Rezoning Land would help meet demand for housing land and address the changes advanced by the Variation by increasing the availability of LDSRZ land in proximity to existing infrastructure, public transport networks, and commercial activities.

24 Policy 1 of the NPS-UD also recognises the need to create housing outcomes at all price levels. We are of a firm view that by delivering housing at all pricing levels when one home is sold to purchase another we initiate a selling chain that ultimately provides affordable housing at an entry level for the younger generations. 50% of our current Kawarau Heights sales are local people who have downgraded and have resold their local home in the process for a move to Kawarau Heights. These local buyers are a key market.

25 Infill capacity is often overstated as it does not consider important factors such as size, value, location and age of existing dwellings, which in reality limit the ability for land to be intensified. Further the current subdivision and RC process is extremely onerous, costly, and takes significant time along with additional complexity now added by natural hazards and modern building standards, and excessive consulting costs. In our experience these complications result in many infill site not being viable to subdivide or provide additional housing outcome as the subdivision cost + existing value is less than resell potential.

26 In my view, extensions to existing residential zones are a logical way of providing more housing in a shorter timeframe and should be enabled to provide sufficient capacity to meet the demand. Residential development of the Rezoning Land will benefit from single ownership, existing infrastructure and developer experience, enabling housing in the short to medium term.

Conclusion

27 Queenstown has the highest average house price in New Zealand, currently sitting at $1.8 million (Queenstown Lakes District – QV January 2025). The District is experiencing considerable growth pressure as well as a high demand for housing. Queenstown has a responsibility to plan, accommodate, and ensure sufficient supply is provided for all demand.

28 Rezoning to LDSRZ will enable increased density in a prime location, benefitting from existing infrastructure, access to transport connections and an impressive range of amenities. It is clear that enabling residential use of the Rezoning Land is the most appropriate and efficient use of the land than its current rural zoning, given

[3] https://www.qldc.govt.nz/media/5qpcibrp/3a-attachment-a-housing-development-capacity-assessment-2021-main-report.pdf at 5.

its history. This Variation presents QLDC with an opportunity to make that happen sooner rather than later.

Jared Baronian

Dated 4 July 2025

Supporting attachments

1. QCL Submission
2. RM220135
3. SH160140 Approved Plans

anderson lloyd.

Submission on notified variation to Queenstown Lakes Proposed District Plan

*Clause 6 of Schedule 1, Resource Management Act 1991 (**RMA**)*

To: Queenstown Lakes District Council
pdpsubmission@qldc.govt.nz

Name of Submitter: Queenstown Commercial Limited

1 This submission is made on behalf of Queenstown Commercial Limited (**Submitter**) in relation to the Proposed Urban Intensification Variation (**Variation**) to the Queenstown Lakes Proposed District Plan (**PDP**).

2 The Submitter could not gain an advantage in trade competition through this submission.

3 The Submitter is interested in the Variation in its entirety.

4 Without derogating from the generality of the above, the specific parts of the Variation that this submission relates to are:

(a) The Lower Density Suburban Residential Zone (**LDSRZ**) Chapter 7;

(b) The Residential Design Guide 2023;

(c) The notified Rural Zone zoning of part of the Submitter's land at Lot 401 DP 561673 identified in the PDP mapping (**Site**);

(d) The location of the Urban Growth Boundary (**UGB**) in relation to the Submitter's land at Lot 401 DP 561673;

(e) Related higher order and district-wide chapters of the PDP including chapters 3,4, and 27 relevant to the Site.

Background

5 The Submitter has an interest in land legally described as Lot 305, 400-401 Deposited Plan 561673 and Section 2 Survey Office Plan 504524 and Section 1 Survey Office Plan 570191 held in Record of Title 1131639 (**Site**) and demonstrated on the map attached as **Appendix 1**.

6 The Site is split-zoned, as follows and demonstrated on the map attached as **Appendix 2**:

(a) Lot 305 DP 561673 and Section 2 SO 504524 are zoned LDSRZ and included with the Building Restriction Specific Control (**BRA**);

(b) Lot 400 DP 561673 is zoned LDSRZ and partially included with the BRA;

(c) Section 1 SO 570191 is a stopped road;

(d) Lot 401 DP 561673 is zoned a combination of LDSRZ and Rural Zone. Part of the LDSRZ land is included within the BRA. Part of the Rural Zone land is included within the Outstanding Natural Landscape (**ONL**).

7 Parts of the Site is identified as containing Land Use Capacity (**LUC**) classes 2 and 6 soils on the Manaaki Whenua Landcare Research map, as demonstrated on the map attached as **Appendix 3**. Of note, the LUC class 2 land (arable) is predominantly zoned LDSRZ whereas the LUC class 6 land (non-arable) is predominantly zoned Rural Zone.

8 The Submitter generally supports the Variation, but seeks that the LDSRZ be extended to include the Rural Zone portion of the Site, outside of the ONL, and shaded in pink on Figure 1 below (**Rezoning Land**):

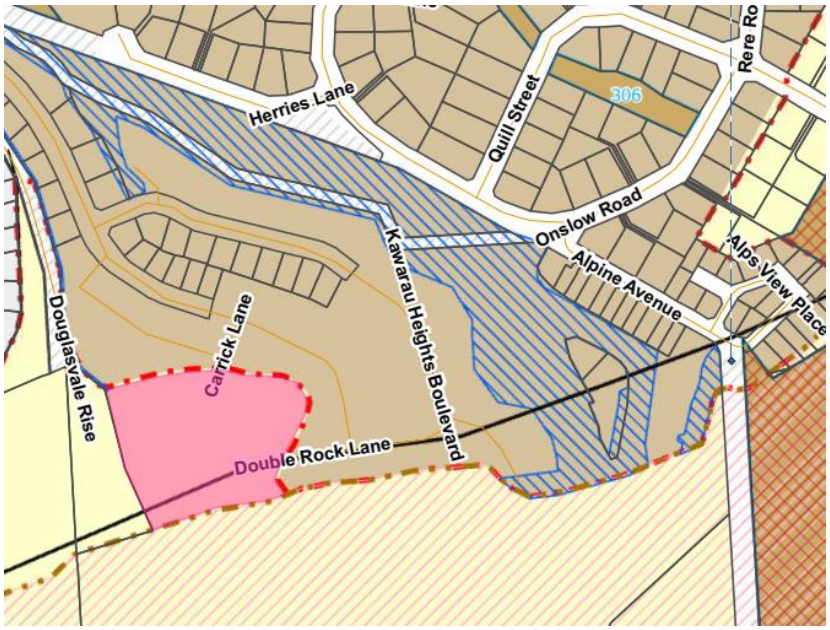


Figure 1 – Rezoning Land identified in pink

Reasons for the submission

9 Extending the LDSRZ over the Rezoning Land identified in this submission presents a logical and coherent extension of existing urban zoned land, which is:

(a) consistent with the principles of future urban planning and expansion within the QLDC Spatial Plan;

(b) consistent with the principles of urban expansion commensurate with infrastructure and connectivity in Chapter 4 of the PDP; and

(c) not inconsistent with the protection of outstanding natural landscapes (chapters 3 and 6 of the PDP, and Section 6b of the Act).

10 The relief sought in this submission will better give effect to the objectives of the Variation, in particular by creating an expanded LDSRZ area to enhance feasible development capacity of residential land.

11 Extending the LDSRZ over the Rezoning Land will better meet the requirements of Policy 5 of the NPSUD as compared to the notified mapping of the Variation and current (Rural) zoning of the Rezoning Land. It will better enable development that contributes to a 'well-functioning urban environment' and is not constrained for intensification by virtue of historic heritage, natural hazards, airport operations, or other mapping features.

12 The extension of LDSRZ over the Rezoning Land seeks to satisfy Policy 5, and in turn promote a compact urban form and enable the development of a diverse range of housing typologies.

Scope for rezoning through the Variation

13 The Variation provides scope for rezonings and upzonings of land across the District, and in particular in the location of this Rezoning Land, including because the Variation includes changes to the zoning around identified commercial areas and transport corridors across the District, including in areas similar to this Rezoning Land. This Rezoning provides for intensification of an existing urban area by seeking only a small adjustment to the UGB rather than a satellite rezoning.

14 The planning maps included in the Variation are the subject of various up-zonings from LDSRZ to MDSRZ. The Variation generally anticipates, and the objectives of the Variation seek to achieve, the intensification of zoning through PDP mapping as well as within planning provisions across the District to ensure the outcomes of housing and business zoned land supply in accordance with the National Policy Statement on Urban Development (**NPS-UD**) are achieved. Given the broad-reaching objectives of the Variation, and the notification of the PDP planning maps, the rezoning of this land is considered to be within scope and 'on' the Variation, or at the very least, an anticipated consequential outcome.

15 The Rezoning Land is adjacent with, and connected to, land that is included within the LDSRZ, within which general planning provisions of the PDP are sought to be amended. General planning provisions to be changed in this location include height limits, recession planes and density. Therefore, the receiving environment associated with the Rezoning Land is directly influenced and affected by the Variation, and consequently, rezoning extensions are anticipated within this area.

16 The NPS-UD and Draft National Planning Framework (**NPF**) provide strong support and national direction to ensure tier 1 and 2 local authorities are providing at least sufficient development capacity for residential and business zoned land, including through responsive planning and rezoning of greenfield (as well as brownfield) land.

17 Intensification and urban extension of the Rezoning Land is foreseeable by surrounding landowners and potential submitters given its proximity to the existing LDSRZ and its exclusion from the ONL. Any person not expecting rezoning / extension of urban zoning over this land will be on notice by the Variation and notified submissions, and would be able to make a further submission opposing the relief sought by the Submitter.

18 The section 32 assessment for the Variation states:

> The scope of the proposed variation is limited to existing urban areas within the Proposed District Plan, which meet the requirements of Policy 5 in terms of accessibility and/or relative demand and for which changes are proposed. This aligns with the Spatial Plan which seeks to provide for growth and intensification predominantly within existing urban areas through promotion of a compact urban form.
>
> A compact urban form can contribute to a well-functioning urban environment that reduces the demand for greenfield development and its adverse effects upon sensitive environments, landscape values and productive land supply as well as the inefficient expansion of infrastructure. Further, a compact urban form reduces reliance on private vehicle use; maximises the use and viability of public transport, walking and cycling; and improves the efficient operation of public

utilities which will reduce energy demand and minimise greenhouse gas emissions[1].

19 The relief sought in this submission is consistent with the intention and 'scope' set out in the s32 report given that the Rezoning Land is within the same land parcel as an existing urban area, is directly influenced and affected by the intensification of the LDSRZ through the Variation, and is effectively an existing urban area because of its connectivity to operative LDSRZ land. Furthermore, its identification as future urban land with the spatial plan and chapter 4 of the PDP (notified in the Variation), anticipates the rezoning of this land imminently, as a contribution to well-functioning urban environments.

National Policy Statement on Urban Development

20 Policy 2 of the NPS-UD requires QLDC to provide at least sufficient development capacity to meet expected demand for housing and for business land over the short term, medium term, and long term. Policy 5 of the NPS-HPL requires the PDP to enable heights and density of urban form commensurate with the greater of:

(a) the level of accessibility by existing or planned active or public transport to a range of commercial activities and community services; or

(b) relative demand for housing and business use in that location

21 Expected demand for development capacity is required to be assessed at regular intervals through the preparation of Housing and Business Capacity Assessments. The 2021 Housing Development Capacity Assessment (**HDCA**) identified "a shortfall of housing in price bands below $500,000" and that, over time, "house price growth is expected to be faster than growth in real incomes in the district and housing affordability is projected to decline over the long term to a shortfall of 6,960 affordable dwellings by 2050 for non-owner resident households".[2]

22 Extending the LDSRZ and UGB to include the Rezoning Land would help meet demand for housing land and address the changes advanced by the Variation by increasing the availability of LDSRZ land in proximity to existing infrastructure, public transport networks, and commercial activities. Section 80E(1)(b) of the RMA includes scope for related provisions including rezoning of land where this supports or is consequential on the Medium Density Residential Standards (**MDRS**) and policies 3 and 4 of the NPS-UD. The MDRS requires inclusion of a number of objectives and policies relating to a well-functioning urban environment, which could support the rezoning of the Site, which would otherwise become an outlier within a residential zoned area. The outcome of the rezoning/extension of zoning would support the broad intent of the MDRS and NPS-UD.

National Policy Statement for Highly Productive Land

23 The National Policy Statement for Highly Productive Land (**NPS-HPL**) directs territorial authorities to avoid the urban rezoning of highly productive land, except as provided in the NPS-HPL.

24 As part of the Rezoning Land is identified as containing LUC 2 class soils and not identified for future urban development or subject to a Council initiated, or an adopted, notified rezoning plan change, it is to be treated as "highly productive land" for the purposes of the interim definition of the NPS-HPL.

---

[1] Variation section 32 evaluation report, 16 May 2023 updated 21 August 2023, at page 5.

[2] https://www.qldc.govt.nz/media/5qpcibrp/3a-attachment-a-housing-development-capacity-assessment-2021-main-report.pdf at 5.

25 Clause 3.6 provides a pathway for urban rezoning of highly productive land where:

(a) the urban rezoning is required to provide sufficient development capacity to meet demand for housing or business land to give effect to the NPS-UD; and

(b) there are no other reasonably practicable and feasible options for providing at least sufficient development capacity within the same locality and market while achieving a well-functioning urban environment; and

(c) the environmental, social, cultural and economic benefits of rezoning outweigh the long-term environmental, social, cultural and economic costs associated with the loss of highly productive land for land-based primary production, taking into account both tangible and intangible values.

26 There is currently insufficient development capacity to meet demand for housing and business land within the Queenstown Lakes District, as discussed in the HDCA and as evidenced by this Variation and Te Pūtahi Ladies Mile Plan Variation.[3] Extending the LDSRZ and UGB to include the Rezoning Land would increase the availability of LDSRZ land to help meet that demand.

27 QLDC is already undertaking a number of options to meet at least sufficient development capacity within Ladies Mile locality.

28 The environmental, social, cultural and economic benefits of rezoning far outweigh the long-term environmental, social, cultural and economic costs associated with the loss of any highly productive land. In particular:

(a) The rezoning will enable a net developable area of 1.75ha of residential zoned land, enabling a number of new residential lots within an area suited for urban expansion, in order to provide at least sufficient development capacity to meet demand for housing or business land to give effect to the NPS-UD.

(b) The Rezoning Land is a discreet rural zoning, and would be an extension of an existing urban area;

(c) It is surrounded by:

(i) LDSRZ land, with potential for reverse sensitivity effects following development thereby restricting any viable production activities;

(ii) A 0.69 hectare lot[4], which the Submitter anticipates will eventually be developed for rural lifestyle living or further subdivided; and

(iii) LUC class 6 land.

(d) The use of the Rezoning Land for land-based primary production is not and will never be economically viable, meaning there will be no economic loss associated with the rezoning sought in this Submission.

---

[3] Housing Development Capacity Assessment 2021 Main Report https://www.qldc.govt.nz/media/5qpcibrp/3a-attachment-a-housing-development-capacity-assessment-2021-main-report.pdf and Housing Development Capacity Assessment 2021 Technical Report https://www.qldc.govt.nz/media/ur1fr4ar/3b-attachment-b-housing-development-capacity-assessment-2021-technical-report.pdf.

[4] Lot 1 DP 516376 held in Record of Title 807815.

(e) The wider area of LUC class 2 land is also geographically fragmented and is proposed to be further fragmented by the Te Pūtahi Ladies Mile Plan Change.

29 The relief set out in this submission is therefore not inconsistent with the NPS-HPL.

QLDC Spatial Plan and Chapter 4 of the PDP

30 The Rezoning Land is included within an Indicative Future Expansion Area within Chapter 4 of the PDP, and as a Future Urban Area within the QLDC Spatial Plan. The identification of the Rezoning Land in these statutory and non-statutory instruments presents a further logical reason to include the Rezoning Land within the Variation now, and presents a logical and coherent UGB extension.

31 Chapter 4 of the PDP in its entirety (including the mapping of Future Expansion Areas) is notified within the Variation and therefore amenable to submissions 'on' it from the public seeking further amendments:

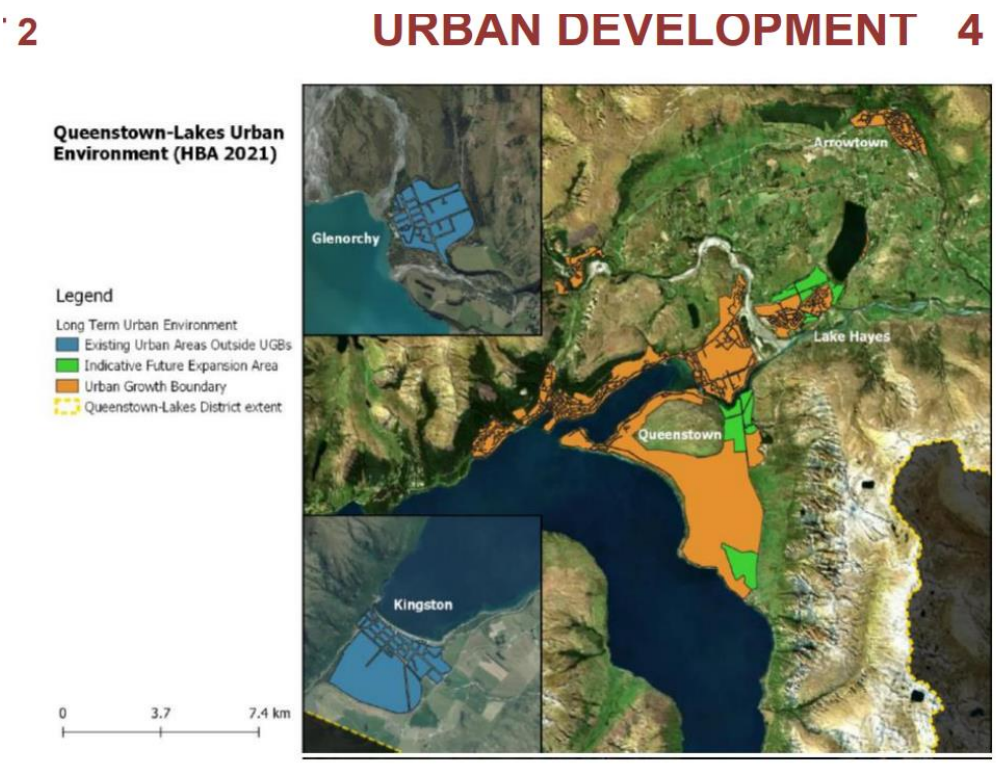


Figure 2 – Rezoning Land identified in green as an Indicative Future Expansion Area within chapter 4 PDP

Relief sought

32 The Submitter seeks the following relief:

(a) That the LDSRZ on the PDP planning maps be extended to include the Rezoning Land as identified in Figure 1 above;

(b) That the UGB be extended to include the Rezoning Land;

(c) Any other consequential, related, or necessary relief required to give effect to the intention of this Submission including but not limited to:

(i) Any alternative rezoning / extension of urban zoning over the Rezoning Land, such as MDSRZ or any rural living zone or special zone;

(ii) The application of any site-specific provisions in order to respond to specific planning constraints and opportunities for the Rezoning Land, within the LDSRZ, MDSRZ, and other rezoning option, and / or higher order and district wide chapters of the PDP.

33 The relief sought by the Submitter in this submission:

(a) will promote sustainable management of resources and achieve the purpose and principles of the RMA;

(b) represents the most appropriate way to achieve the objectives of the Variation, in terms of section 32 of the RMA;

(c) will assist the Council in carrying out its statutory duties under the RMA including the integrated management of the effects of the use, development, or protection of land; and

(d) will give effect to the NPS-UD;

(e) meet the reasonably foreseeable needs of future generations; and

(f) enable social, economic and cultural wellbeing.

Conclusion

34 Without derogating from the generality of the above, the Submitter seeks any additional, amended, consequential, or further relief in order to reflect the intent of the matters raised in this submission.

35 The Submitter wishes to be heard in support of this submission.

36 If others make a similar submission, the Submitter will consider presenting a joint case with them at the hearing.

Queenstown Commercial Limited

Signed by their duly authorised agents
Anderson Lloyd Per: Alex Booker
Address for service: alex.booker@al.nz

Appendix 1: Site map

Map Prepared

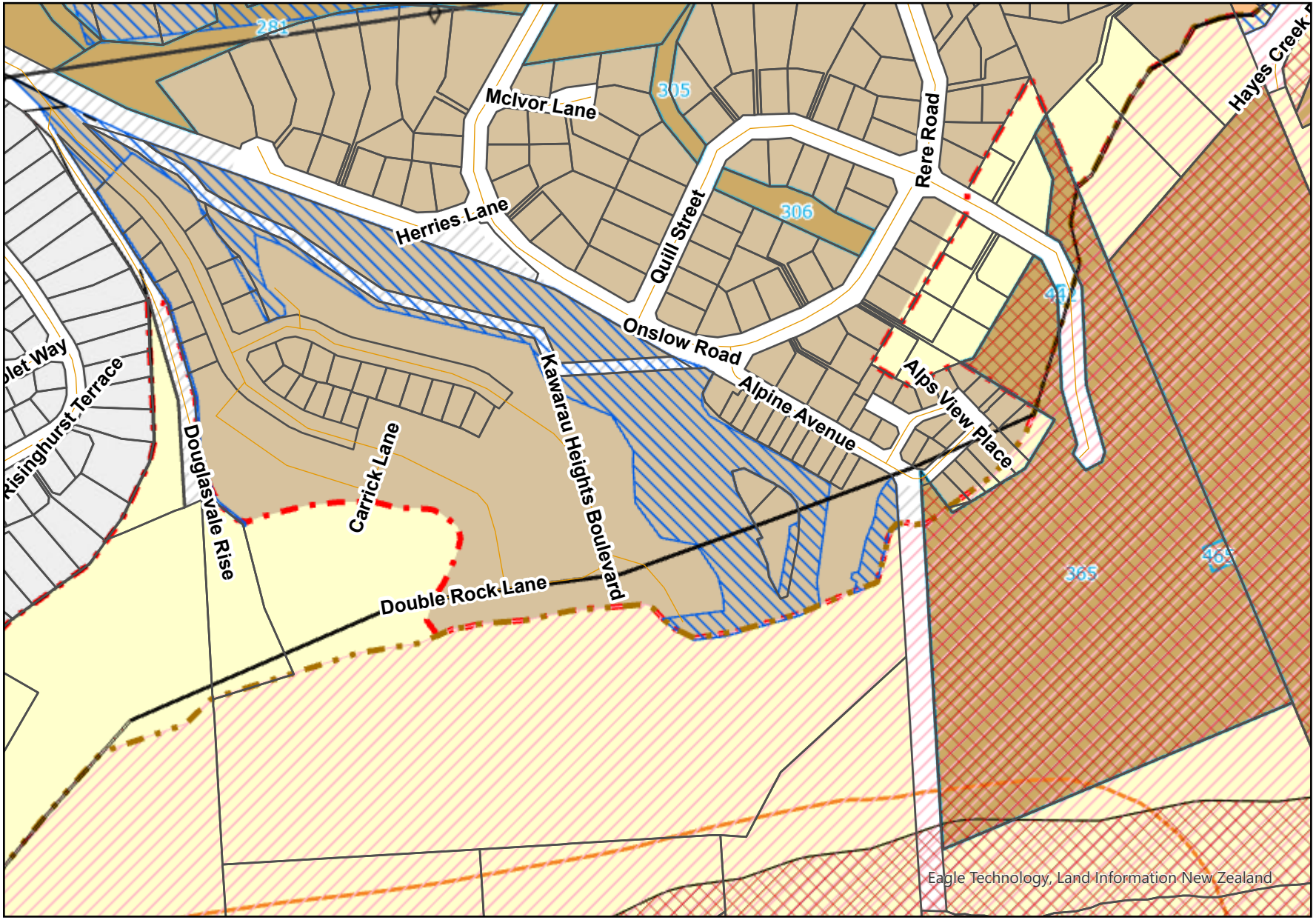
Site

1:5000 @ A4

25 September 2023

Appendix 2: Proposed District Plan Map

Proposed District Plan Map



Legend

- Roads
- Parcels and
- PDP

Zones

- Lower Density Suburban
- Medium Density
- Rura
- Informal
- Road
- Water (zone Rural unless otherwise

Overlay Polygons

- Landscape Classification
- Wāhi
- Urban Growth
- Queenstown
- Unformed
- Landscape Priority

Specific Controls

- Building Restriction
- Designations

Overlay Lines

- Landscape
- National Grid Tranmission

Overlay Points

- Transpower Line Support Structure (location

QUEENSTOWN LAKES DISTRICT COUNCIL

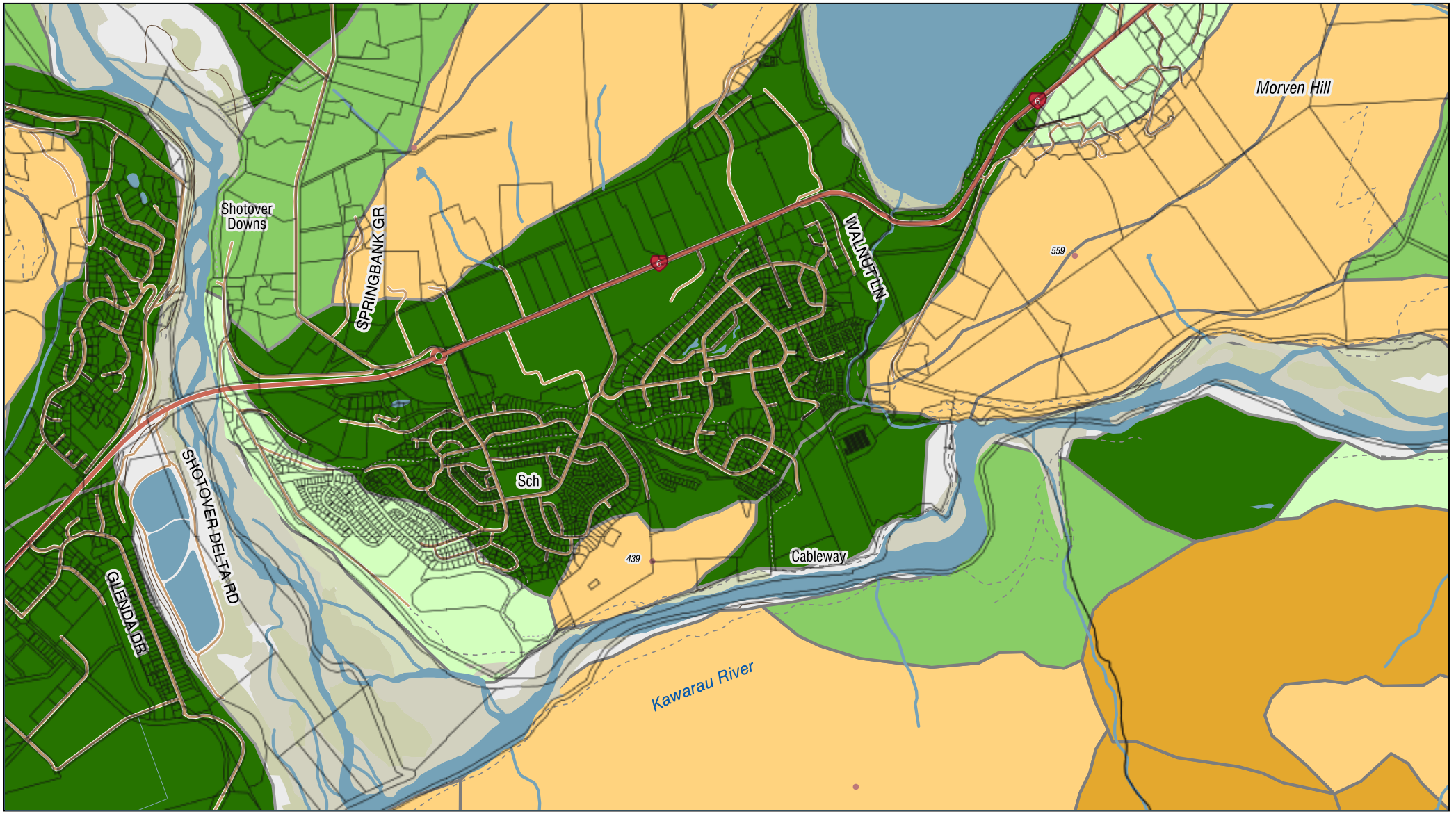
0 0.1 0.2 0.4 km

Scale: 1:4,514

Map Date: 25/09/2023

N

Appendix 3: Land Use Capability Map



OURENVIRONMENT

Manaaki Whenua
Landcare Research

Scale: 1:25,000

0 200 400 600 800m

The information depicted in this map has been derived from numerous sources. It may not be complete, correct or up to date. This map is licensed by Landcare Research NZ Limited on an "as is" and "as available" basis and without any warranty of any kind, either express or implied.

Landcare Research shall not be liable on any legal basis (including without limitation negligence) and expressly excludes all liability for loss or damage howsoever and whenever caused to a user of this map.

Printed: 16:21:28 PM Mon 25 Sep 2023

Legend

Land Use Capability

- LUC Class 1
- LUC Class 2
- LUC Class 3
- LUC Class 4
- LUC Class 5
- LUC Class 6
- LUC Class 7
- LUC Class 8

OURENVIRONMENT

Manaaki Whenua
Landcare Research

Printed: 16:21:28 PM Mon, 25 Sep 2023

QUEENSTOWN LAKES DISTRICT COUNCIL

www.qldc.govt.nz

DECISIONS OF THE QUEENSTOWN LAKES DISTRICT COUNCIL

NOTIFICATION UNDER s95A AND s95B AND DETERMINATION UNDER s104

OF THE RESOURCE MANAGEMENT ACT 1991

Applicant:	Queenstown Commercial Limited
RM reference:	RM220135
Application:	Application under Section 88 of the RMA[1] for land use consent for the proposed residential units on each of 8 identified Lots in the Kawarau Heights subdivision (RM210243 as amended by RM211116) to breach various PDP[1] Rules – Standards. Application under Section 127 of the RMA to change a condition on RM210243, as amended by RM211116, exempting dwellings on two Lots from a 4m north boundary setback.
Location:	Kawarau Heights, Jones Avenue, Lower Shotover, Queenstown 9304.
Legal Description:	Lot 2 DP 516376 held in Record of Title 807816
Zoning:	**ODP[1]:** Rural General **PDP:** Lower Density Suburban Residential – Kawarau Heights
Designation/Overlays:	Kawarau River ONL/ONF[1] (PDP)
Activity Status:	**Non-complying**
Decision Date:	**8 June 2022**
Reissue Date	**6 July 2022**

[1] RMA: Resource Management Act 1991, ODP: Operative District Plan, PDP: Proposed District Plan, ONL: Outstanding Natural Landscape, ONF: Outstanding Natural Feature.

SUMMARY OF DECISIONS

1. Pursuant to sections 95A-95F of the Resource Management Act 1991 (**RMA**) the application will be processed on a **non-notified** basis given the findings of Section 5 of the Section 95A and 95B report. This decision is made by Paula Costello, Independent Commissioner on 7 June 2022 under delegated authority pursuant to Section 34A of the RMA.

2. Pursuant to Section 104 of the RMA, consent is **GRANTED** to change conditions of RM210243 as per the conditions outlined in **Appendix 1** of the Section 104 decision. RM210243 (as amended by RM211116) can only be implemented if the conditions in Appendix 1 are complied with by the consent holder

3. Pursuant to Section 104 of the RMA, land use consent is **GRANTED SUBJECT TO CONDITIONS outlined in Appendix 2,** imposed pursuant to Section 108 of the RMA. This consent can only be implemented if the conditions are complied with by the consent holder.

   The decision to grant consent was considered (including the full and complete records available in Council's electronic file and responses to any queries) by Paula Costello, Independent Commissioner, under delegated authority pursuant to Section 34A of the RMA.

4. Pursuant to Section 133A of the RMA, this consent is being re-issued to correct minor errors / defects in this decision as the consent number was incorrectly referenced in four instances. The overall assessment undertaken has not changed. The corrections made do not change the nature of the application as applied for. These are considered to be a minor mistake or defect and therefore the consent can be re-issued pursuant to section 133A of the RMA. The decision was made and the re-issue authorised by Paul Costello, as delegate for Council on 6 July 2022.

1. SUMMARY OF PROPOSAL AND SITE DESCRIPTION

Section 127[2]
Approval is also sought under section 127 of the RMA to change Condition 42a on Consent RM210243 as amended by RM211116 to remove the requirement for a 4m setback from the north boundary as it relates to approved Lots 3 and 18 RM210243.

Land Use Consent[3]
Land use resource consent is sought under the PDP for the design of the proposed residential units (dwellings) on 8 identified Lots in the Kawarau Heights subdivision (Lots 03, 18, 39, 44, 50, 54, 94 and 96 approved under RM210243) to infringe the Rules – Standards of the PDP Lower Density Suburban Residential Zone controlling building height, building coverage, landscaped permeable surface coverage, recession planes, and minimum boundary setbacks.

The changes proposed are outlined in the AEE submitted, attached at Appendix 2.

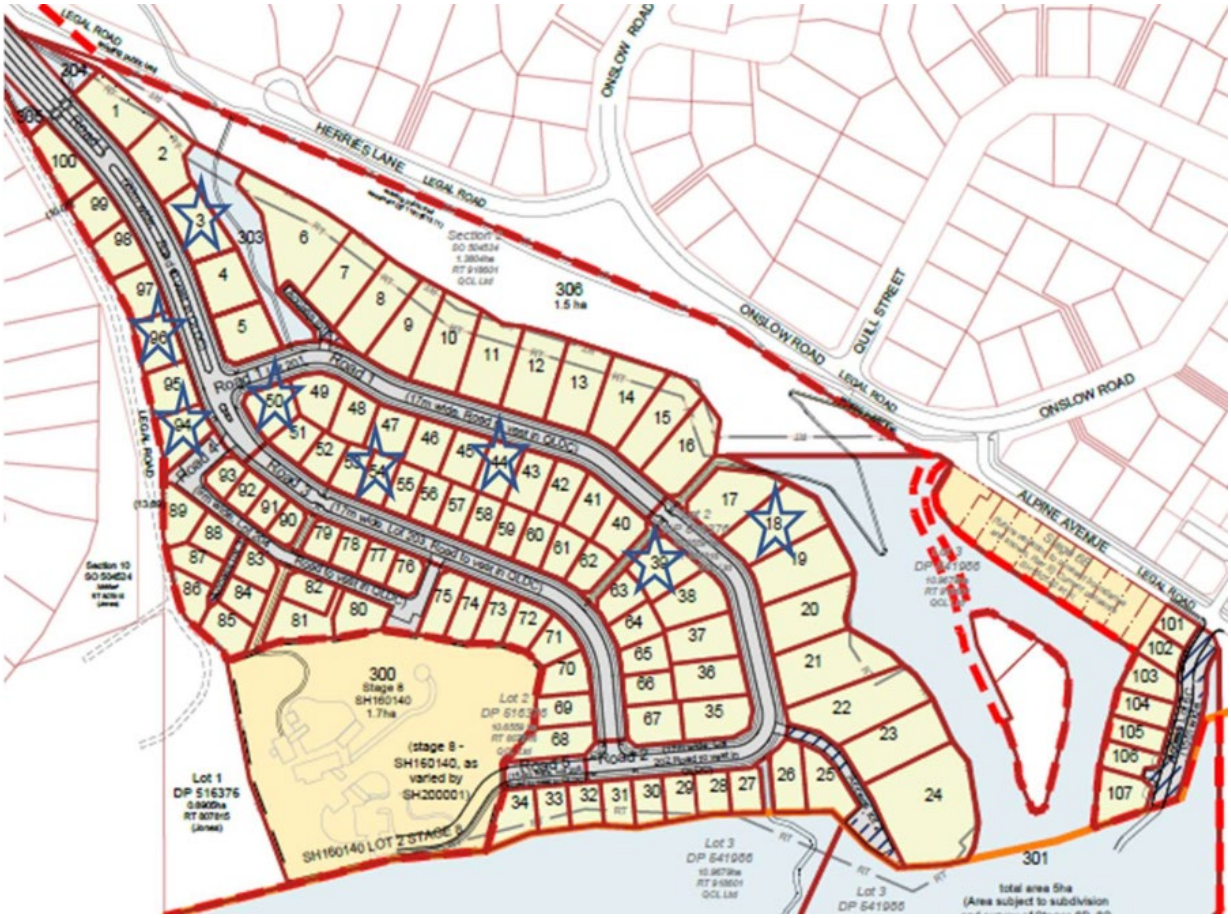


Figure 1: Location of the proposed dwellings within the approved subdivision (source: AEE & RM120243)

The applicant has provided a description of the proposal, the site and locality and the relevant site history in sections 1 to 3 of the report entitled '*Annex A. Assessment of Environmental Effects. Application for land use consent for dwellings at Kawarau Heights that breach performance standards and application to amend consent notice condition*', prepared by Jenny Carter of Carter Planning, dated February 2022[4], and submitted as part of the application (hereon referred to as the applicant's AEE and attached as **Appendix 2**). This description is considered adequate and is adopted for the purpose of this report.

[2] See decision A, section 7.1
[3] See decision B, section 7.2
[4] Please note the original AEE has been referenced as this includes Lot 96.

- Further additional amendments to conditions have occurred through the processing of this application and are saved on the planning file for RM220135.

It is noted that the AEE seeks approval under section 221 of the RMA to vary a Consent Notice condition relevant to the land use and subdivision conditions approved by RM210243 (Annex E to the application material) and as varied by RM211116 (see site history below). However, at the time the application was lodged the subject site remained under one title (Annex C to the application material), and the relevant survey plan/s have yet to be deposited and the relevant consent conditions have yet to be registered on the pertinent titles as Consent Notices. Accordingly, the changes sought under section 221 of the RMA are not available and they have instead been treated as applications under section 127 of the RMA to change existing consent conditions.

Site history
In April 2017 the QLDC granted SH160140 under the Housing Accords & Special Housing Areas Act 2013 to subdivide land (including creating the ~10.7ha subject site, Lot 2 DP 516376) and to develop a 332-unit retirement village and ancillary commercial activities and residential lots and units. SH160140 approved 88 retirement villas within the area that is subject to this application, identified as the 'southern site' at the time and now known as 'Kawarau Heights'.

The majority of the subject site was rezoned from Rural General to Lower Density Residential during resolution of appeals to the PDP, and the urban growth boundary and ONL boundary adjusted accordingly. The main exception is a roughly 1.7ha area of the subject site (Lot 300 in Figure 1 above, and as per 'Stage 8' SH160140) which is zoned Rural under the PDP and is the proposed 'café site'. Chapter 27 (subdivision & development) of the PDP includes objectives, policies, zone and location specific rules, and a structure plan for the Kawarau Heights area and refers to specific guidelines (the Kawarau Heights Design Guidelines 2020). PDP Chapter 7 (Lower Density suburban residential) includes policies, guidance, and a rule and a standard which refer to the structure plan and design guidelines in Chapter 27. Site development under SH160140 has progressed and includes installation of various power, water, wastewater and stormwater services, completion of various walkway/cycle connections, and commencement roading and earthworks.

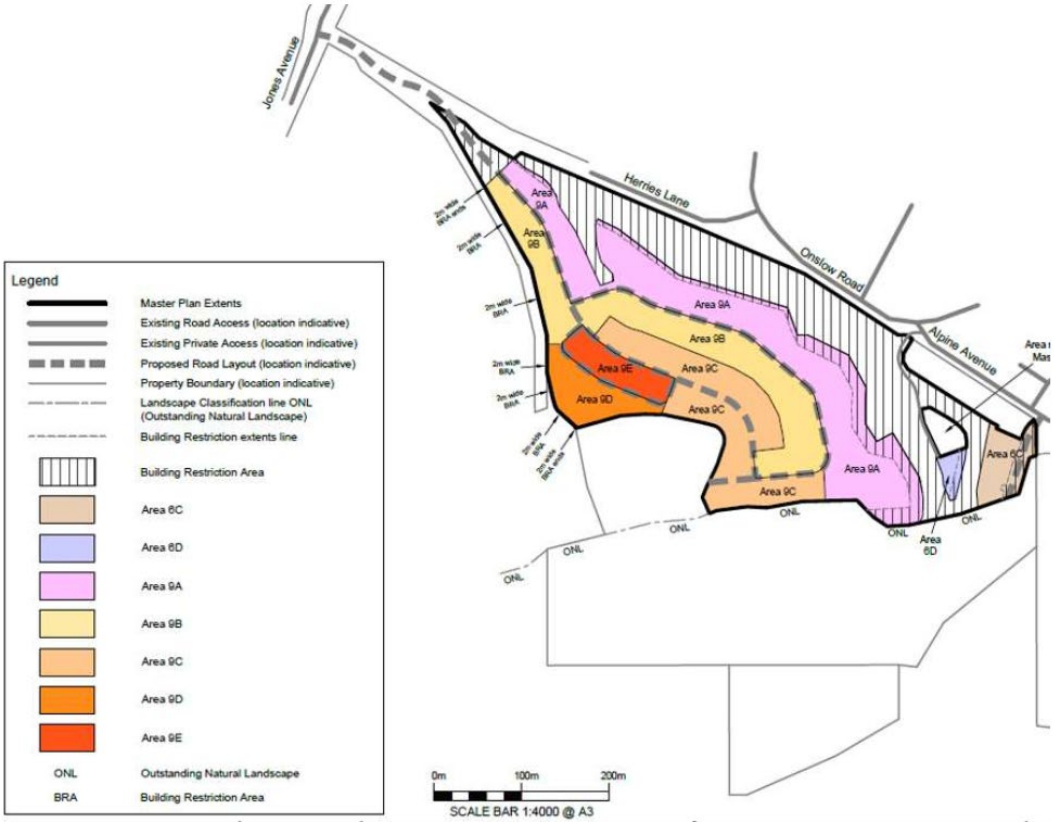


Figure 2:Structure plan areas from the Kawarau Heights Design Guidelines 2020 (source: QLDC)

In October 2021 QLDC granted RM210243 which, amongst other matters, approved subdivision of the 'southern block' (or subdivision Stage 9 involving the subject site Lot 2 DP 516376, excluding the proposed café site), into 100x residential Lots along with several Lots for roads, local purpose (pedestrian) reserves, and several 'balance' Lots. The approved subdivision generally aligns with the PDP structure plan for the area, and various design requirements (in accordance with the design guidelines) and building restriction area setbacks were specified in the consent conditions as requiring compliance in perpetuity via registration of a Consent Notice on the relevant property titles. One of these conditions on RM210243, condition 42(a), sets out general design controls for residential units which includes a 4m setback from the north boundary in Area 9A (the 'northern terrace' identified in the design guidelines) and is relevant to the applicant's proposed changes to exclude development on Lots 3 and 18 from this requirement.

In March 2022 QLDC granted RM211116 which, amongst other matters, changed conditions on RM210243 to amend the scheme plan and staging to enable greater flexibility for the site development. Changes were made to RM210243 condition 42(a), but only to the 'boundary fencing and gates' requirements and no changes were made to the 'Area 9A' setback requirement which this proposal seeks to change.

2. ACTIVITY STATUS

QLDC currently has an Operative District Plan (ODP) and Proposed District Plan (PDP).

Council notified its decisions on Stage 1 of the PDP on 7 May 2018, and notified its decisions on Stage 2 of the PDP on 21 March 2019. Stage 3 of the PDP was notified on 19 September 2019 and Stage 3B on 31 October 2019, and with decisions being notified on 1 April 2021. There are a number of appeals on these decisions.

Where there are rules in the PDP that are treated operative under s.86F of the RMA, corresponding rules in the ODP are treated as inoperative. Consent is required under Section 9(3) of the RMA, pursuant to the ODP and PDP rules which are listed below.

2.1 OPERATIVE DISTRICT PLAN

There are no relevant rules under the ODP as the relevant rules of Section 5 (Rural General) are treated as inoperative given the relevant rules under the PDP are treated as operative pursuant to section 86F.

2.2 PROPOSED DISTRICT PLAN

The subject site (excluding the café site, see site history above) is zoned Lower Density Suburban Residential by the PDP and the proposed activity requires resource consent under the PDP for the following reasons: [Note: the Lots referred to below are those approved by RM210243, as varied by RM211116]

LANDUSE

- A **non-complying** activity pursuant to Rules – Standards 7.5.1 (Building Height): *7.5.1.3 Kawarau Heights: Maximum of 4.5m and 6m as identified on the Structure Plan in 27.13.15*. The proposed chimney on the Lot 96 dwelling breaches the 6m height.

- A **discretionary** activity pursuant to Rules – Standards 7.5.5 (Building Coverage): *A maximum of 40%.* The following dwellings will exceed the 40% coverage as follows:
  Lot 44: Proposed coverage: 52.7%
  Lot 50: Proposed coverage: 49.1%
  Lot 54: Proposed coverage: 52.5%
  Lot 94: Proposed coverage: 45%
  Lot 96: Proposed Coverage: 50.7%

- A **non-complying** activity pursuant to Rules – Standards 7.5.6 (Landscaped permeable surface coverage): *At least 30% of the site area shall comprise landscaped (permeable) surface.* The proposed permeable coverage on Lot 44 is 27.9%

- A **non-complying** activity pursuant to Rules – Standards 7.5.7 (Recession plane): *7.5.7.1 Northern boundary: 2.5m and 55 degrees. 7.5.7.2 Western and eastern boundaries: 2.5m and 45 degrees. 7.5.7.3 Southern boundary: 2.5m and 35 degrees. Exemptions: a. gable end roofs may penetrate the building recession plane by no more than one third of the gable height.* The dwellings within the following lots will breach the recession plane/s

  Lot 18: Encroaches northern recessions plane
  Lot 39: Encroaches south and west recession planes.
  Lot 44: Encroaches south recession plane.
  Lot 50: Encroaches east and south east recession plane.
  Lot 54: Encroaches west recession plane.
  Lot 94: Encroaches north recession plane.
  Lot 96: Encroaches north and south recession planes.

- A **discretionary** activity pursuant to Rules – Standards 7.5.8 (Minimum boundary setbacks): *7.5.8.1 Road boundary: 4.5m, 7.5.8.2 All other boundaries: 2m*. (subject to various identified exceptions). The dwellings within the following lots will breach the setbacks:

  Lot 39: Encroaches 4.5m northern road setback and the 2m setback on the south, west and north west.
  Lot 44: Encroaching the 4.5m northern roadside setback, the 2m eastern setback and 2m southern setback.
  Lot 50: Encroaching east 2m setback, south east 2m setback, west 4.5m setback.
  Lot 54: Encroaching the 2m western setback.
  Lot 94: Encroaching the 2m setback on the north & south east, encroaching the 4.5m western roadside setback.
  Lot 96: Encroaching the 2m setback on the north & south, encroaching the 4.5m east & west roadside setback.

2.3 RESOURCE MANAGEMENT ACT 1991

- A **discretionary** activity pursuant to section 127(3) of the RMA to change or cancel conditions of consent. Condition 42(a) on RM210243 (as varied by RM211116) includes: *Area 9A- a. Setbacks from the north boundary shall be 4m. All other setbacks as per the District Plan rules (4.5m road setback, side yard setbacks 2m).* The dwellings on Lots 3 and 18 will infringe the 4m north boundary setback. The proposal is to change the relevant existing wording of the condition so the infringed requirement no longer applies to the two Lots, as follows (change format: strikethrough [~~xx~~] shows deletion, bold underline [**xx**] shows addition).

  *Area 9A. a. Setbacks from the north boundary shall be 4m**, except for Lots 3 and 18, where the dwellings will be constructed in accordance with the approved plans RM220135 dated February 2022**. All other setbacks as per the District Plan rules (4.5m road setback, side yard setbacks 2m).*

2.4 NATIONAL ENVIRONMENTAL STANDARD FOR ASSESSING AND MANAGING CONTAMINANTS IN SOIL TO PROTECT HUMAN HEALTH 2011 ("NES")

The RMA sections 95 and 104 decisions report granting RM210243 (see Annex E to the application material) identified that the recommendations of Preliminary (supporting application for SH160140) and Detailed Site Investigations (supporting application for RM210243) are being met through the earthworks approved under SH160140 which will have suitably remediated the contaminated areas once they are complete.

2.5 ACTIVITY STATUS SUMMARY

Overall, the application is considered to be:

- a **non-complying** activity under the PDP; and
- a **discretionary** activity under the RMA section 127(3).

Overall, the application is being considered and processed as a **non-complying** activity.

NOTIFICATION DETERMINATION DECISION UNDER SECTIONS 95A AND 95B OF THE RESOURCE MANAGEMENT ACT

3. SECTION 95A – PUBLIC NOTIFICATION

Section 95A of the RMA requires a decision on whether or not to publicly notify an application. The following steps set out in this section, in the order given, are used to determine whether to publicly notify an application for a resource consent.

3.1 Step 1 – Mandatory public notification

The applicant has not requested public notification of the application (s95A(3)(a)).

Public Notification is not required as a result of a refusal by the applicant to provide further information or refusal of the commissioning of a report under section 92(2)(b) of the RMA (s95A(3)(b)).

The application does not involve exchange to recreation reserve land under section 15AA of the Reserves Act 1977 (s95A(3)(c)).

Therefore, public notification is not required by Step 1.

3.2 Step 2 – Public notification precluded

Public notification is not precluded by any rule or national environmental standard (s95A(5)(a)).

The proposal is not:

- a controlled activity; or
- exclusively for a boundary activity as defined by section 87AAB that is restricted discretionary, discretionary or non-complying.

Therefore, public notification is not precluded (s95A(5)(b)).

3.3 Step 3 – If not precluded by Step 2, public notification is required in certain circumstances

Public notification is not specifically required under a rule or national environmental standard (s95A(8)(a)).

A consent authority must publicly notify an application if notification is not precluded by Step 2 and the consent authority decides, in accordance with s95D, that the proposed activity will have or is likely to have adverse effects on the environment that are more than minor (s95A(8)(b)).

An assessment in this respect is therefore undertaken, and decision made in sections 3.3.1 - 3.3.4 below:

3.3.1 Effects that must / may be disregarded (s95D(a)-(e))

Effects that must be disregarded:

- *Effects on the owners or occupiers of land on which the activity will occur and on adjacent land (s95D(a)).*
- *Trade competition and the effects of trade competition (s95D(d)).*
- *Any effect on a person who has given written approval to the relevant application (s95D(e).*

Regarding these matters it is noted that the majority of the proposed PDP Rules – Standards infringements relate to dwellings on approved Lots that would be surrounded by other Lots within the

approved subdivision that are also owned by the applicant, where effects must be disregarded pursuant to s95D(a).

Effects that may be disregarded:

- *An adverse effect of the activity if a rule or national environmental standard permits an activity with that effect (s95D(b) – referred to as the "permitted baseline". The relevance of a permitted baseline to this application is provided in section 3.3.2 below.*

3.3.2 Permitted Baseline (s95D(b))

The consent authority **may** disregard an adverse effect of the activity if a rule or national environmental standard permits an activity with that effect. Regarding the proposed development of approved Lots identified in the AEE it is noted that the relevant PDP Rules-Standards (and structure plan and design guideline they refer to) provide for designs that comply with the various requirements as permitted activities.

The '*receiving environment*' comprises: the existing environment and associated effects from lawfully established activities; effects from any consents on the subject site (not impacted by the proposal) that are likely to be implemented; the existing environment as modified by any resource consents granted and likely to be implemented; and the environment as likely to be modified by activities permitted in the plan. In this case it is noted that extensive subdivision and development activities have already approved for the subject site by consents SH160140, RM210243 and RM11116 form part of the existing environment from which the adverse effects of the proposal must be assessed

This is a relevant permitted baseline which is taken into consideration in the assessment below.

3.3.3 Assessment: Effects On The Environment

Taking into account sections 3.3.1 and 3.3.2 above, the following assessment determines whether the proposed activity will have, or is likely to have, adverse effects on the environment that are more than minor that will require public notification (s95A(8)(b)).

The Assessment of Effects on the Environment provided at section 8 and 8.2 of the applicant's AEE is considered accurate. It is therefore adopted for the purposes of this report. Comments were also obtained from Council's Engineering team. These comments are appended to this decision as **Appendix 3** and the updated geotechnical reports are appended as **Appendix 5.** They are adopted in full and relied upon for the purposes of this decision. The application has been comprehensively assessed by QLDC's Consultant Resource Management Engineer, Mr Alan Hopkins as confirmed in the memorandum dated 9 May 2022. Mr Hopkins' findings are accepted and are commented on where relevant.

Access
The changes to crossing arrangements as proposed by the applicant and contained in the approved plan set are generally accepted by the Mr Hopkins who is satisfied that the crossings comply with the relevant Council standards and rules. Appropriate conditions are recommended to manage the implementation of these crossing which have been accepted by the applicant;

Parking

Mr Hopkins confirms each proposed dwelling includes a two-car garage which comply with Council minimum standards. No conditions are recommended with respect to parking.

Services

Mr Hopkins confirms that the proposed dwellings are to be serviced via infrastructure installed under consent RM210243. As this land use application is dependent on completion of these services, a condition is therefore recommended that the proposed dwellings shall not be occupied until 224c has been issued for the relevant lots under RM210243. Confirmation has since been obtained that the applicant volunteers such a condition (refer email correspondence from Jenny Carter, dated 1/6/2022 which confirms that: *"..I've had confirmation that condition 8 is acceptable to the applicant..".* Further conditions are recommended that prior to the occupation of the dwellings they shall be connected to the service laterals installed to the property boundary under subdivision RM210243.

Geotechnical

A comprehensive assessment on geotechnical matters has been carried out in the engineering memo contained as **Appendix 3** and the recommendations of Mr Hopkins are accepted in this regard. Appropriate conditions have been recommended to align with these recommendations which have since been accepted by the applicant. A copy of the updated geotechnical assessments that relate to this application are included as **Appendix 5.**

In summary, the overall effects of the proposal on the environment are considered to be no more than minor for the following reasons:

- Within the context of the extensive subdivision and development already approved for the subject site, and anticipated and provided for by the PDP, the proposal relates to small elements which would not materially affect the character and amenity intended for the Kawarau Heights area.
- The proposal involves breaches of the relevant PDP Rules – Standards that are comparatively minor in scale and which respond to the specific constraints and opportunities of each affected approved Lot to provide attractive dwellings that are consistent with the expectations of the Kawarau Heights Design Guidelines.
- The proposed dwellings would be single-storey, pavilion-style buildings carefully located on each approved Lot, clad in natural and recessive materials, feature varying roof designs and articulated built forms that create visual interest, would integrate into the surrounding landscape and would not causing dominance or shading effects, would not significantly reduce open space or separation between buildings, and would contribute positively to the amenity values of the site and surrounds.
- Most of the proposed breaches relate to lots located centrally within the site where they would only affect the development site.
- Proposed infringement of the 4m setback required by consent conditions, by development of approved Lots 3 and 18 (and for which s.127 approval is sought to exclude these Lots from the requirement) primarily relates to site constraints including the proximity to an 'eastern escarpment'.

3.3.4 Decision: Effects On The Environment (s95A(8))

On the basis of the above assessment, it is assessed that the proposed activity is not likely to have adverse effects on the environment that are more than minor. Therefore, public notification is not required under Step 3.

3.4 Step 4 – Public Notification in Special Circumstances

There are no special circumstances in relation to this application

4. LIMITED NOTIFICATION (s95B)

Section 95B(1) requires a decision on whether there are any affected persons (under s95E). The following steps set out in this section, in the order given, are used to determine whether to give limited notification of an application for a resource consent, if the application is not publicly notified under section 95A.

4.1 Step 1: certain affected groups and affected persons must be notified

Determination under s95B(2)

The proposal does not affect protected customary rights groups, and does not affect a customary marine title group; therefore limited notification is not required.

Determination under s95B(3)

Limited notification is not required under Step 1 as the proposal does not affect customary rights groups, customary marine title groups nor is it on, adjacent to or may affect land subject to a statutory acknowledgement (s95B(2)-(4)).

4.2 Step 2: if not required by Step 1, limited notification precluded in certain circumstances

Limited notification is not precluded under Step 2 as the proposal is not subject to a rule in the District Plan or an NES that precludes notification (s95B(6)(a)).

Limited notification is not precluded under Step 2 as the proposal is not a controlled activity land use (s95B(6)(b)).

4.3 Step 3: if not precluded by Step 2, certain other affected persons must be notified

If limited notification is not precluded by Step 2, a consent authority must determine, in accordance with section 95E, whether the following are affected persons:

Boundary activity / Prescribed activity

The overall proposal is not a boundary activity (and the owner of the land affected by the proposed boundary adjustment has provided their written approval), and it is not a prescribed activity (s95B(7)).

Any other activity

The proposal includes but is not exclusively for boundary activities (s.87AAB) and therefore the proposed activity falls into the *'any other activity'* category (s95B(8)), and the adverse effects of the proposed activity are to be assessed in accordance with section 95E.

4.3.1 Considerations in assessing adverse effects on Persons (S95E(2)(a)-(c))

a) The consent authority **may** disregard an adverse effect of the activity on a person if a rule or national environmental standard permits an activity with that effect (a "permitted baseline"). Section 3.3.2 above sets out the relevance of the permitted baseline to this application.
b) The consent authority **must** disregard an adverse effect of the activity on the person if the effect does not relate to a matter for which a rule or a national environmental standard reserves control or restricts discretion; and
c) The consent authority **must** have regard to every relevant statutory acknowledgement specified in Schedule 11.

4.3.1 [ii] Persons who have provided written approval (s95E(3))

No persons have provided their written approval for the proposal.

4.3.2 Assessment: Effects on Persons

Taking into account the exclusions in sections 95E(2) and (3) as set out in section 4.3.1 above, the following outlines an assessment as to whether the activity will have or is likely to have adverse effects on persons that are minor or more than minor:

As discussed in section 3.3.3 above, the proposal is considered to relate to comparatively minor aspects of the approved and anticipated development of the Kawarau Heights area which remain consistent with the expectations of the Kawarau Heights Design Guidelines and would not undermine the character and amenity values intended by the PDP for the area. The majority of the proposed Rules – Standards infringements are internal to the subject site, effects would be suitably mitigated by the design and location of the proposed buildings and by the already established comprehensive site development requirements which remain unaffected, and the proposed infringements are unlikely to be readily discernible from a complying development when viewed by owners/occupiers of nearby properties or users of the various adjacent public areas. Overall, for these reasons it is considered that any adverse effects of the proposal on any persons will be less than minor.

No other persons are considered to be adversely affected by the proposal.

4.3.3 Decision: Effects on Persons (s95E(1))

In terms of section 95E of the RMA, and on the basis of the above assessment, no person is considered to be adversely affected by the proposal.

Therefore, limited notification is not required under Step 3.

4.4 Step 4 – Further Notification in Special Circumstances (s95B(10))

Special circumstances do not apply that require limited notification.

5. NOTIFICATION DETERMINATION

For the reasons set out in sections 3 and 4 of this notification decision report, under s95A and s95B of the RMA, the application is to be processed on a non-notified basis.

Prepared by

Wendy Baverstock
CONSULTANT PLANNER

Decision made by

Paula Costello
INDEPENDENT COMMISSIONER

Re-issued report prepared by

Wendy Baverstock
CONSULTANT PLANNER

Re-Issued Decision made by

Paula Costello
INDEPENDENT COMMISSIONER

DECISION UNDER SECTION 104 OF THE RESOURCE MANAGEMENT ACT

6. S104 ASSESSMENT

This application must be considered in terms of Section 104 of the RMA.

Subject to Part 2 of the RMA, Section 104 sets out those matters to be considered by the consent authority when considering a resource consent application. Considerations of relevance to this application are:

(a) any actual and potential effects on the environment of allowing the activity; and

(ab) any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity; and

(b) any relevant provisions of:

(i) A national environmental standard;
(ii) other regulations;
(iii) a national policy statement;
(iv) a New Zealand coastal policy statement;
(v) a regional policy statement or proposed regional policy statement;
(vi) a plan or proposed plan; and

(c) any other matter the consent authority considers relevant and reasonably necessary to determine the application.

6.1 EFFECTS ON THE ENVIRONMENT (s104(1)(a)&(ab))

Actual and potential adverse effects on the environment have been outlined in the section 95 report. The proposal also has positive effects in contributing to the available quality housing stock. In addition, conditions of consent can be imposed under s108 of the RMA as required to avoid, remedy or mitigate adverse effects (s104)(1)(a)). Overall, with the inclusion of the conditions recommended, the effects on the environment of the proposal will be less than minor.

6.2 RELEVANT DISTRICT PLAN PROVISIONS (s104(1)(b)(vi))

Operative District Plan

The most relevant operative objectives and policies are contained within section 5 (Rural General) of the ODP. No detailed assessment of the ODP provisions is undertaken here. However, as assessed in the Council's determination granting RM210243 for the underlying detailed subdivision and development of the subject site, the approved development is at odds with significant key provisions of the ODP that seek to maintain the rural character and amenity of the Rural General zone but does suitably protect and maintain the values of the adjacent ONL and ONF. However, given the progress of the PDP decision making process, and that the subject site has been irrevocably rezoned from the Rural to Residential, it is considered very little weight should be afforded to the ODP provisions.

Proposed District Plan

The most relevant objectives and policies are contained within Chapter 7 of the PDP. The provisions of this PDP chapter must be treated as operative in accordance with section 86F of the RMA. The applicant has provided an assessment in relation Chapter 7 in section 10 of the AEE which is considered adequate and is adopted for the purposes of this report. The applicant concludes that the proposal is consistent with the relevant provisions. This is accepted.

6.3 PARTICULAR RESTRICTIONS FOR NON-COMPLYING ACTIVITIES (s104(D))

With respect to the assessment above, the first gateway test for a non-complying activity required under section 104D(1)(a) has been met in that the application will not have an adverse effect on the environment which is more than minor.

With respect to the second gateway test under section 104D(1)(b), the application is not contrary to the relevant policies and objectives of the Proposed District Plan. However, it is contrary to the relevant objectives and policies of the Operative District Plan.

Accordingly, as the application has passed one of the gateway tests in s104D, consent can be granted for this non-complying activity.

6.4 PART 2 OF THE RMA

The purpose of the RMA is to promote the sustainable management of natural and physical resources. This proposal does not affect the sustainable potential of resources to meet the foreseeable needs of future generations (s5(a)), it does not affect the life-supporting capacity of air, water, soil or ecosystems (s5(b)) and as assessed does not have significant adverse effects on the environment (s5(c)).

The proposal is assessed as not affecting the matters included in Sections 6, 7 and 8 of the RMA. Specifically, section 7 sets out other matters that must be had particular regard to. Of relevance are the maintenance and enhancement of amenity values (s7(c)) and of the quality of the environment (s7(f)). The proposal is assessed as not having adverse effects on either, in particular as the subdivision will continue to be created in association with the residential use established.

Section 8 requires that the principles of Te Tiriti o Waitangi are taken into account. This proposal is consistent with the treaty principles.

Overall, the proposal is considered to meet the purpose and principles of the RMA.

7.0 DECISION A ON RESOURCE CONSENT PURSUANT TO SECTION 104 OF THE RMA

7.1 **DECISION A:** Consent is **granted** to change condition 42a of RM210243 (as amended by RM2111**1**6) to exclude the proposed residential development on approved Lot 3 and 18 from Area 9a 4m northern boundary setback requirement as outlined in *Appendix 1* of this decision report being updated consent conditions, RM210243 as amended by RM211116 and RM220135.

Advice notes

- All other conditions of RM210243 (as amended by RM211116) shall continue to apply.

7.2 DECISION B ON RESOURCE CONSENT PURSUANT TO SECTION 104 OF THE RMA

7.2.1 DECISION B: Consent is **granted** for the design of the proposed residential units (dwellings) on size identified lots in the Kawarau Heights subdivision (Lots 18, 39, 44, 50, 54, 94 and 96 approved under RM210243) to infringe the rules – standards of the PDP Lower Density Suburban Residential zone controlling building height, building coverage, landscape permeable surface coverage, recession planes, and minimum boundary setbacks subject to the conditions outlined in *Appendix 2* of this decision report imposed pursuant to Section 108 of the RMA.

Prepared by

Wendy Baverstock
CONSULTANT PLANNER

Decision made by

Paula Costello
INDEPENDENT COMMISSIONER

Re-issued report prepared by

Wendy Baverstock
CONSULTANT PLANNER

Re-Issued Decision made by

Paula Costello
INDEPENDENT COMMISSIONER

8.0 DEVELOPMENT CONTRIBUTIONS AND ADMINISTRATIVE MATTERS

Local Government Act 2002: Development Contributions

In granting this resource consent, pursuant to the Local Government Act 2002 and the Council's Policy on Development Contributions the Council has identified that a Development Contribution is required. Payment will be due prior to any application for certification pursuant to section 224(c) of the RMA or prior to issue of code of compliance relating to a Building Consent.

Please contact the Council if you require a Development Contribution Estimate.

Administrative Matters

The costs of processing the application are currently being assessed and you will be advised under separate cover whether further costs have been incurred.

The Council will contact you in due course to arrange the required monitoring. It is suggested that you contact the Council if you intend to delay implementation of this consent or if all conditions have been met.

This resource consent is not a building consent granted under the Building Act 2004. A building consent must be obtained before construction can begin.

This resource consent must be exercised within five years from the date of this decision subject to the provisions of section 125 of the RMA.

If you have any enquiries please contact resource consents on phone (03) 441 0499 or email resource.consent@qldc.govt.nz

9.0 APPENDICIES LIST

APPENDIX 1 – Updated Consent Conditions RM210243 (as changed by RM211116) and RM220135
APPENDIX 2 – Land Use Consent Conditions
APPENDIX 3 – Applicants AEE
APPENDIX 4 - Engineering Report
APPENDIX 5 - Updated geotechnical assessments

APPENDIX 1 – UPDATED CONSENT CONDITIONS RM210243 (as varied by RM211116 and RM220135)

DECISION A: SUBDIVISION CONDITIONS

General Conditions

1. That the development must be undertaken/carried out in accordance with the plans:

Subdivision Plans:

Option 1 (Revision H plans; unformed road remains in place)

That the development must be undertaken/carried out in accordance with the plans: Subdivision Plans:

• Proposed Subdivision Stages 9 and 6C, prepared by Paterson Pitts Group, Q6231 -92, Sheet No. 101, Rev H dated 22.12.2021

• Proposed Subdivision Stages 9 and 6C – Residential Lots, prepared by Paterson Pitts Group, Q6231 -92, Sheet No. 102, Rev H dated 22.12.2021

• Proposed Subdivision Stages 9 and 6C – Topographical Overlay, prepared by Paterson Pitts Group, Q6231 -92, Sheet No. 103, Rev H dated 22.12.2021

• Proposed Subdivision Stages 9 and 6C – Proposed Services, prepared by Paterson Pitts Group, Q6231 -92, Sheet No. 104, Rev H dated 22.12.2021

• Proposed Subdivision Stages 9 and 6C – Existing & Proposed easements and restrictions, prepared by Paterson Pitts Group, Q6231 -92, Sheet No. 105, Rev H dated 22.12.2021

• Proposed Subdivision Stages 9 and 6C – Detail Sheet 1, prepared by Paterson Pitts Group, Q6231 -92, Sheet No. 106, Rev H dated 22.12.2021

• Proposed Subdivision Stages 9 and 6C – Detail Sheet 1, prepared by Paterson Pitts Group, Q6231 -92, Sheet No. 107, Rev H dated 22.12.2021

• Proposed Subdivision Stages 9 and 6C – Detail Sheet 3, prepared by Paterson Pitts Group, Q6231 -92, Sheet No. 108, Rev H dated 22.12.2021

• Proposed Subdivision Stages 9 and 6C – Detail Sheet 4, prepared by Paterson Pitts Group, Q6231 -92, Sheet No. 109, Rev H dated 22.12.2021.

Option 2 (Revision J; unformed road has been stopped)

That the development must be undertaken/carried out in accordance with the plans: Subdivision Plans:

• Proposed Subdivision Stages 9 and 6C, prepared by Paterson Pitts Group, Q6231 -92, Sheet No. 101, Rev J dated 22.12.2021

• Proposed Subdivision Stages 9 and 6C – Residential Lots, prepared by Paterson Pitts Group, Q6231 -92, Sheet No. 102, Rev J dated 22.12.2021

• Proposed Subdivision Stages 9 and 6C – Topographical Overlay, prepared by Paterson Pitts Group, Q6231 -92, Sheet No. 103, Rev J dated 22.12.2021

• Proposed Subdivision Stages 9 and 6C – Proposed Services, prepared by Paterson Pitts Group, Q6231 -92, Sheet No. 104, Rev J dated 22.12.2021

• Proposed Subdivision Stages 9 and 6C – Existing & Proposed easements and restrictions, prepared by Paterson Pitts Group, Q6231 -92, Sheet No. 105, Rev J dated 22.12.2021

• Proposed Subdivision Stages 9 and 6C – Detail Sheet 1, prepared by Paterson Pitts Group, Q6231 -92, Sheet No. 106, Rev J dated 22.12.2021

• Proposed Subdivision Stages 9 and 6C – Detail Sheet 1, prepared by Paterson Pitts Group, Q6231 -92, Sheet No. 107, Rev J dated 22.12.2021

• Proposed Subdivision Stages 9 and 6C – Detail Sheet 3, prepared by Paterson Pitts Group, Q6231 -92, Sheet No. 108, Rev J dated 22.12.2021

• Proposed Subdivision Stages 9 and 6C – Detail Sheet 4, prepared by Paterson Pitts Group, Q6231 -92, Sheet No. 109, Rev J dated 22.12.2021

Landscape Plans:

- Kawarau Heights Tree Planting Plan, drawing reference SLX030521, Rev 4, dated 8 February 2022 prepared by Southern Landmarx Limited
- Terrace and Bund Planting Plan, drawing reference SLX030521, Rev 3, dated 20 December 2021 prepared by Southern Landmarx Limited

Engineering Plans – Area 9 Southblock:

- Fluent Solutions – 'Site Layout Plan' Dwg Q000605, Sheet C001, (Rev G).
- Fluent Solutions - 'Driveway Location Restriction Plan' Dwg Q000605, Sheet C352, (Rev A)
- Road cross sections drawings prepared by Fluent Solutions

Engineering Plans – Area 6C:

- Road cross section drawings prepared by Fluent Solutions
- Stage 6C Access Lot Turning Circles, Sheets1-2, prepared by Paterson Pitts Group, Q6231A - 92, Rev B dated 08/06/2021
- Proposed Earthworks Plans Stage 6C Sheets 1-4 Sheet, Revision C, prepared by Paterson Pitts Group, Q6231A -92, dated 8/06/2021

stamped as approved on 15 October 2021 and 16 March 2022

and the application as submitted, with the exception of the amendments required by the following conditions of consent.

2. This consent shall not be exercised and no work or activity associated with it may be commenced or continued until the following charges have been paid in full: all charges fixed in accordance with section 36(1) of the Resource Management Act 1991 and any finalised, additional charges under section 36(3) of the Act.

3. Only a maximum of 55 residential allotments under the RM210243 combined decisions shall be titled prior to the SH6 / Howards Drive intersection being upgraded to a roundabout and during this period no commercial operation of Lot 300 ('The Café') shall occur.

4. All engineering works shall be carried out in accordance with the Queenstown Lakes District Council's policies and standards, being QLDC's Land Development and Subdivision Code of Practice adopted on 8th October 2020 and subsequent amendments to that document up to the date of issue of any resource consent.
Note: The current standards are available on Council's website via the following link: https://www.qldc.govt.nz

5. This subdivision may be staged. For the purposes of issuing approvals under sections 223 and 224(c) of the Resource Management Act 1991, the conditions of this consent shall be applied only to the extent that they are relevant to each particular stage proposed.

   Each individual allotment shall be treated as an individual stage, notwithstanding that each stage shall have a large balance land lot/s.

   This consent may be progressed in any order and all stages may be combined, providing all necessary subdivision works (such as servicing, flood protection measures, provision of formed legal access and related road stopping processing completions and other works required to satisfy conditions of this consent), are completed for each stage, prior to certification being issued as necessary under sections 223 and 224(c) of the Resource Management Act 1991.

   Any balance lots created shall either be serviced to Council's standards or held together in one title with a serviced lot. Road lots may be created as smaller parcels than shown on the approved subdivision plan for vesting as each stage requires, with the remainder as balance land.
   The reserves Lots 210, 211 and 212 shall be created prior to the immediately adjacent lots

obtaining s224 certification.

Advice Notes: The acceptance of a reserve requires the approval of Full Council and the recommendation of the Wanaka Community Board or Community Services Committee.

To be completed prior to the commencement of any works on-site

6. Prior to the commencement of any works under this consent on the site, the consent holder shall provide a detailed landscape plan (including design specifications) to be certified by the Queenstown Lakes District Council's Parks & Open Spaces Planning Manager. The final landscape plan for roading and reserve areas shall achieve the following:

   a) All works shall meet Part 7 – Landscape, of QLDC's Land Development and Subdivision Code of Practice (dated 2020) and subsequent amendments to that document up to the date of issue of any resource consent;
   Note: The current standards are available on Council's website via the following link: https://www.qldc.govt.nz/media/3yyc4fzi/2020-qldc-land-development-and-subdivision-code-of-practice.pdf
   b) The landscape plan shall clearly illustrate all landscape works (including street trees and other landscape assets) within the reserves and roads that are to vest with Council;
   c) Clearly identify all trees (including the location of each tree), the species, size and location;
   d) Ensure that areas of reserve to be vested exclude any areas of road;
   e) Irrigation plan showing how trees, plants and/or grass are to be irrigated;
   f) Tree pit details showing root ball treatment and staking;
   g) Ensure that all batter slopes and mounds do not exceed a gradient of 1:5 when measured across any point to ensure that all slopes are mowable. This will require that plans clearly demonstrate that this gradient will not be exceeded;
   h) Path width, material and construction details so that trails 1 and 3 achieve a minimum grade 2 standard, and trail 2 a Grade 4 standard as set out in standards https://www.qldc.govt.nz/media/3yqf110p/cycle-trail-and-track-design-standards-specifications-2018.pdf;
   Advice Note: It is noted that due to topography and pending detailed design, the trail locations and formations may change. Flexibility around this is to be given, noting any changes to the trails shall come past the Parks and Reserves Department, prior to commencement of construction. Grade 3 formation may be considered, if there is no practical alternative to construct the trails to the formations stated in the above condition
   i) Details and locations for any other proposed assets, such as park seats, irrigation and fencing;
   Note: All reserve improvements require prior agreement with the Parks and Open Spaces Planning Manager, and require a developer's agreement with Council.
   j) Maintenance requirements; and
   k) A potable water supply point to be provided to the boundary of reserve lots.

   No additional works authorised under this consent may be undertaken on the site until the plan has been certified.

   Advice Notes: Often the final landscape plan will deviate from the plan that has been stamped as approved by the resource consent due to detailed engineering design. If the plan to be utilised for this final landscape plan is the same as the resource consent stamped as approved plan, the consent holder shall inform Council of this. This plan will be utilised for the landscape street tree inspection prior to 224c signoff and will also be the plan detailed and referenced within the required Maintenance Agreement (see condition 1).

   The consent holder is welcome to seek guidance from the Parks & Reserves Department when preparing the landscape plan. This may facilitate certification if any matters of concern are addressed. The Street Tree Planting Guidelines (Appendix I of the QLDC CoP 2020) can assist in providing *guidance https://www.qldc.govt.nz/media/3tlcmxj5/appendix-i-street-tree-planting-guidelines.pdf*

   The consent holder should also be aware that the certification or acceptance of any landscape plan does not remove the requirement to ensure Council approval for vesting of reserve areas.

6. At least 15 working days prior to any works commencing on site the Consent Holder shall submit an Environmental Management Plan (EMP) to Council's Monitoring and Enforcement Team for review and acceptance HOLD POINT 1. This document must be prepared by a Suitably Qualified and Experienced Person. The EMP shall be in accordance with the principles and requirements of the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans* and specifically shall address the following environmental elements as specified in the guidelines:

    a) Administrative Requirements

        (i) Weekly site inspections
        (ii) Notification and management of environmental incidents
        (iii) Records and registers
        (iv) Environmental roles and responsibilities of personnel (including nomination of Principal Contractor)
        (v) Site induction

    b) Operational Requirements

        (i) Erosion and sedimentation (including Erosion and Sediment Control Plan) (to be prepared by a Suitably Qualified and Experienced Person)
        (ii) Water quality
        (iii) Dust
        (iv) Cultural heritage
        (v) Noise (to be prepared by a Suitably Qualified and Experienced Person)
        (vi) Vibration (to be prepared by a Suitably Qualified and Experienced Person)
        (vii) Indigenous vegetation clearance
        (viii) Chemical and fuel management
        (ix) Waste management

    The EMP (and any sub-plans e.g. ESCP described below) shall also be consistent with any recommendations outlined in the geotechnical assessment report from Geosolve titled 'Geotechnical Report for Resource Consent – Queenstown Country Club, Southern Block, Queenstown' dated July 2020 ref 160041.04

7. Prior to ground-disturbing activities on the initial stage of works or any subsequent new stage of works, the Consent Holder shall engage an Appropriately Qualified Person to prepare and submit an Erosion and Sediment Control Plan (ESCP) to Council's Monitoring and Enforcement Team for review and acceptance. This plan shall be a sub-plan of the overarching EMP and must be prepared in accordance with the requirements outlined on pages 13 – 18 in *Queenstown Lakes District Council's Guidelines for Environmental Management Plans*. These plans must be updated when:

    a) The construction program moves from one Stage to another; or

    b) Any significant changes have been made to the construction methodology since the original plan was accepted for that Stage; or

    c) There has been an Environmental Incident and investigations have found that the management measures are inadequate.

8. Prior to commencing ground-disturbing activities, the Consent Holder shall nominate an Environmental Representative for the works program in accordance with the requirements detailed on pages 9 and 10 of the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans.*

9. Prior to commencing ground disturbing activities, the Consent Holder shall ensure that all staff (including all sub-contractors) involved in, or supervising, works onsite have attended an

Environmental Site Induction in accordance with the requirements detailed on page 8 of the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans.*

10. The owner of the land being developed shall provide a letter to the Principal Resource Management Engineer at Council advising who their representative is for the design and execution of the engineering works and construction works required in association with this development and shall confirm that these representatives will be responsible for all aspects of the works covered under Sections 1.7 & 1.8 of QLDC's Land Development and Subdivision Code of Practice, in relation to this development.

11. Prior to commencing works on site, the consent holder shall submit to the Principal Resource Management Engineer at Council an approved Traffic Management Plan from the Road Corridor Engineer at Council if any parking or public traffic will be disrupted, inconvenienced, or delayed, and/or if temporary safety barriers need to be installed. The Traffic Management Plan shall be prepared by a Site Traffic Management Supervisor and implemented in accordance with the approved Traffic Management Plan.

12. At least 7 days prior to commencing excavations, the consent holder shall provide the Principal Resource Management Engineer at Council with the name of a suitably qualified professional as defined in Section 1.7.2 of QLDC's Land Development and Subdivision Code of Practice and who shall supervise and monitor the earthworks, geotechnical works, and fill procedures. This engineer shall be responsible for providing a Geotechnical Completion Report and Schedule 2A certificate, including fill certification, for all lots within the subdivision.

Area - 6C

13. Prior to commencing any work on the site in respect to Area 6C, the consent holder shall install a construction vehicle crossing/s from Alpine Avenue, which all construction traffic shall use to enter and exit the site. The minimum standard for this crossing/s shall be a minimum 10 m of 150 mm deep AP40 gravel.

14. Prior to commencing works on the site in respect to Area 6C, the consent holder shall obtain 'Engineering Review and Acceptance' from the Queenstown Lakes District Council for development works to be undertaken and information requirements specified below. The application shall include all development items listed below unless a 'partial' review approach has been approved in writing by the Manager of Resource Management Engineering at Council. The 'Engineering Review and Acceptance' application(s) shall be submitted to the Manager of Resource Management Engineering at Council for review, prior to acceptance being issued. At Council's discretion, specific designs may be subject to a Peer Review, organised by the Council at the applicant's cost. The 'Engineering Review and Acceptance' application(s) shall include copies of all specifications, calculations, design plans and Schedule 1A design certificates as is considered by Council to be both necessary and adequate, in accordance with Condition (4), to detail the following requirements:

Transport

a) Formation of Street S6 (Access Lot 206) shall be designed and formed in accordance with the QLDC COP, Table 3.2 "Suburban, Live and Play, Primary Access to housing up to 20 du", Figure E11 with the following specific requirements and exceptions:

- Broken yellow 'no parking' lines shall be installed on at least one side of the carriageway to maintain a single live lane at all times.
- The carriageway shall be sealed in asphalt concrete.
- Kerbs fronting the residential lots shall be flush or mountable.
- The southern extent shall include a vehicle turning head (separate from the residential Lot 106 and 107 vehicle crossings).

The design of the Lot 206 access way shall include the provision of a minimum 7 perpendicular indented parks that shall be clearly and permanently marked out.

b) The formation of the Street S6 (Access Lot 206) intersection with Alpine Avenue in accordance with the latest Austroads intersection design guides. This design shall be subject to review and approval by Council with any associated costs met by the consent holder.

c) The provision of vehicle crossings to Lots 106 and 107 in accordance with Council standards. These crossing shall be separate and not conflict with the turning head provided at the southern extent of Street S6

d) The provision of road marking and signage for the access road and car parks. All signage and marking shall be in accordance with MOTSAM and the TCD Manual.

e) The provision of road lighting in accordance with Council's road lighting policies and standards, including the Southern Light lighting strategy (2017). A Lighting Subcategory of PR6 shall be used for roads in accordance with AS/NZS 1158.3.1:2020. To limit impact on the ONL any private street lighting on Street S6 shall have zero upward light spill. If desired the consent holder may opt to installed private bollard lighting as opposed to flay/pole mount lighting. It is noted that this will be a private road and therefore any lighting will need to be privately owned and maintained (separate from the QLDC lighting network).

   Alternately the consent holder may if appropriate opt to confirm via a lighting engineer that the access road can be safely serviced to Council standards without any new private lighting.

f) The transportation infrastructure design shall be submitted for review and certification shall be accompanied by the following;

   i) A design and access statement in accordance with the *Queenstown Lakes District Council – Land Development & Subdivision Code of Practice 2018*, Section 3.2.6.

   ii) Vehicle tracking movements shall be clearly demonstrated for all roads (specifically that of an 8 m rigid truck).

   iii) Detailed design for all roading shall illustrate how traffic calming measures have integrated pedestrian facilities, parking layout, and streetscapes into the overall design to achieve the target operating speed. The detailed design shall be prepared in consultation with an independent qualified person and a report submitted by this person confirming the designs achieve the target operation speed.

Services

g) Provision of a potable water supply to each residential lot in terms of Council's standards and connection policy. This shall include an Acuflo GM900 as the toby valve and an approved water meter as detailed in QLDC Water Meter Policy, dated June 2017. Where any toby valve boxes are required to be placed within a trafficable area (or likely future trafficable area), a trafficable box and lid shall be included.

h) The provision of a landscaping irrigation plan with suitable backflow prevention for any landscaping located within private access lot (if required).

i) The provision of fire hydrants with adequate pressure and flow to service each residential lot with a Class FW2 fire risk in accordance with the NZ Fire Service Code of Practice for Fire Fighting Water Supplies 2008. Any lesser risk must be approved in writing by the Fire Service NZ.

j) The provision of a gravity foul sewer connection from each residential lot to the existing Council gravity sewer that crosses the site and drains to Alpine Avenue and Council's Widgeon Place pumpstation. These connections shall be installed with an invert suitable to drain the buildable area within each lot while maintaining minimum grade and pipe cover.

   The design of this wastewater network shall either include the relocation of the existing branch of the network that services Lot 10 DP541986 to the west or alternatively confirmation that appropriate easements will be secured over this pipe to ensure its ongoing protection.

k) The provision of a reticulated primary stormwater system to collect and dispose of stormwater under the 5% AEP storm event from all road surfaces and all potential impervious areas within each residential lot. This system shall be connected to the existing 1200mm trunk stormwater main to the south-east. The individual residential lot lateral connections to these systems shall be designed to provide gravity drainage for the entire area within the lot.

l) The provision of a secondary stormwater protection system consisting of secondary flow paths to cater for the 1% AEP storm event and/or setting of appropriate building floor levels to ensure that there is no inundation of any buildable areas within the lots, and no increase in run-off onto private land beyond the site from the pre-development situation.

Where this system proposes to introduce additional flows to the Lake Hayes Estate Council road network, the consent holder shall provide evidence that suitable capacity exists within the associated road network and downstream flow paths to the Kawarau River.

m) As part of the Lakes Hayes Estate open drain enhancement the Consent Holder shall prepare a wetland treatment area concept design, to treat the development runoff prior to discharge to an approved outlet point with the Kawarau River, by a suitably qualified professional.

n) The Consent Holder shall install and maintain the wetland servicing the development areas for a 5 year term following the construction of the wetland. Should the wetland filtration device not be performing effectively and as designed the maintenance term shall be extended for a further 2 years and all necessary remedial works completed by the Consent Holder to rectify the wetland to ensure performance as designed. For clarity the Consent Holder shall not be liable for the cost of maintenance and/or installation of areas not serviced by the subject development.

o) An Operation and Maintenance (O&M) manual for the stormwater soakage/filtering device (wetland) that services the areas and which outlines adequate maintenance instructions and frequencies.

p) The provision of Design Certificates for all engineering infrastructure works associated with this subdivision submitted by a suitably qualified design professional (for clarification this shall include all Roads, Water, Wastewater, Stormwater). The certificates shall be in the format of the *Queenstown Lakes District Council – Land Development & Subdivision Code of Practice 2018* Schedule 1A Certificate.

Area 9 - Southblock

15. Prior to commencing works on the Southblock (any area with the exception of Area 6C), the consent holder shall obtain 'Engineering Review and Acceptance' from the Queenstown Lakes District Council for development works to be undertaken and information requirements specified below. The application shall include all development items listed below unless a 'partial' review approach has been approved in writing by the Manager of Resource Management Engineering at Council. The 'Engineering Review and Acceptance' application(s) shall be submitted to the Manager of Resource Management Engineering at Council for review, prior to acceptance being issued. At Council's discretion, specific designs may be subject to a Peer Review, organised by the Council at the applicant's cost. The 'Engineering Review and Acceptance' application(s) shall include copies of all specifications, calculations, design plans and Schedule 1A design certificates as is considered by Council to be both necessary and adequate, in accordance with Condition (4), to detail the following requirements:

Transport

a) Formation of the following roading assets to vest in Council-

Street S1 - Lower (North)
Designed and formed in accordance with the QLDC LDCP, Table 3.2 "Suburban, Live and Play, Primary Access to housing up to 200 du", Figure E12 (target operating speed of 40 km/hr) with the following specific requirements and exceptions:

- The legal width of the road reserve may be increased to a maximum 20m.

- The carriageway shall be a single direction 4m carriageway in either direction and formed in asphaltic concrete.
- The two carriageways shall be separated by a solid central median. The central median shall have suitably spaced breaks to allow access and turnaround of vehicles.
- Broken yellow 'no parking' lines shall be installed on the either side of the carriageways.
- A minimum 500mm berm strip is required between the footpath and lot boundaries.
- To avoid carriageway and kerb damage from root system, any street trees installed within the solid central median shall either be specifically chosen with limited root systems or root guards shall be installed.
- Footpaths shall be formed in concrete and shall be on both sides of the road. These paths shall be a minimum 1.5m wide, with the eastern footpath widening out to minimum 1.8m wide from where it joins with the existing off-road trail (from the head of Harries Lane) to the intersection with Jones Avenue.
- Kerbs fronting the residential lots shall be mountable.

Street S1 – Upper (South) & Street S2
Designed and formed in accordance with the QLDC LDCP, Table 3.2 "Suburban, Live and Play, Primary Access to housing up to 200 du", Figure E12 (target operating speed of 40 km/hr) with the following specific requirements and exceptions:

- The legal width of the road reserves may be increased to a maximum 17m.
- The carriageway shall be a minimum 7.2m width and formed in asphaltic concrete.
- Footpaths shall be formed in concrete and shall be on both sides of the road.
- Kerbs fronting the residential lots shall be mountable.

Street S2 – West (west of the Street S1 intersection)
Designed and formed in accordance with the QLDC LDCP, Table 3.2 "Suburban, Live and Play, Primary Access to housing up to 200 du", Figure E12 (target operating speed of 40 km/hr) with the following specific requirements and exceptions:

- The legal width of the road reserves may be reduced to a minimum 14.5m.
- The carriageway shall be a minimum 7.2m width and formed in asphaltic concrete.
- A footpath is only required on the one side of this road. This path shall be formed in concrete.
- Kerbs fronting the residential lots shall be mountable.

Street S3
Designed and formed in accordance with the QLDC LDCP, Table 3.2 "Suburban, Live and Play, Primary Access to housing up to 200 du", Figure E11 (target operating speed of 20 km/hr) with the following specific requirements and exceptions:

- This road design shall include standard roading kerb returns to Street S1 – Upper (not concrete crossings).
- The carriageway shall be formed in asphaltic concrete.
- Broken yellow 'no parking' lines shall be installed on at least one side of the carriageway to maintain a single live lane at all times.
- Kerbs fronting the residential lots shall be flush or mountable.).

Roading Summary Table (with agreed exceptions)

Road	Figure	Legal Width	Footpath	Movement Lane	Ownership
Street S1 (Lower)	E12	20m	1.5m both sides	2 x 4m (solid median)	QLDC
Street S1 (Upper)	E12	17m	1.5m both sides	7.2m	QLDC
Street S2	E12	17m	1.5m both sides	7.2m	QLDC
Street S2 (West)	E12	14.5m	1.5m southern side only	7.2m	QLDC
Street S3	E11	9m	Shared in live lane	7.2m	QLDC

b) Formation of the following private accesses –

Streets S4 & S5 (Access Lots 1 & 2)
Designed and formed in accordance with the QLDC COP, Table 3.2 "Suburban, Live and Play, Primary Access to housing up to 6 du", Figure E9.

Access Lot 3
Designed and formed in accordance with the QLDC COP, Table 3.2 "Suburban, Live and Play, Primary Access to housing up to 6 du", Figure E9.

c) The formation of all road intersections shall be designed in accordance with the latest Austroads intersection design guides. These designs shall be subject to review and approval by Council with any associated costs met by the consent holder.

d) The provision of a dedicated off-road public parking area within the road reserve land to the north of Lot 305. This parking area shall provide a minimum of 11 parks. This parking area shall be accessed via two new vehicle crossing point accesses to/from to Street S1 (Lower) and shall be accessed unidirectionally (one way access). The accesses to this parking shall include appropriate one way signage and marking.

e) The provision of a vehicle crossing access from the Street S1 (Lower) to Lot 2 DP 475594 (via the paper road). This access crossing shall be sealed for a minimum 6m from the Street S1 carriageway and shall join to the existing gravel access driveway. This crossing may be combined with the access to the public visitor/spill over parking area.

f) The provision of two separate banks of perpendicular off street parking bays on Street S3 that will provide a minimum of 12 visitor/spill over parks.

g) The provision of road marking and signage for all roads, car parks, and circulation/ manoeuvring aisles. All signage and marking shall be in accordance with MOTSAM and the TCD Manual.

h) The provision of road lighting in accordance with Council's road lighting policies and standards, including the Southern Light lighting strategy (2017). A Lighting Subcategory of PR6 shall be used for roads in accordance with AS/NZS 1158.3.1:2020. For ease of future maintenance, if possible, the poles and luminaries shall be consistent with those used on the recent Shotover Country development.

i) The provision and formation of indented bus stops on Jones Avenue in accordance with the approved plans under the engineering acceptance for SH160140. This shall include a suitably designed hard stand area and provision for bus shelters in accordance with Council's standards being QLDC's Land Development and Subdivision Code of Practice - *QLDC Bus Stop Policy and Standards, 2020*.

j) The provision of concrete vehicle crossings that shall be constructed to Lots 30-32, 49, 75, 94, 95 to Council's standards, and in the specific locations shown on the Fluent Solutions plan titled 'Driveway Locations Restrictions Plan' Dwg Q000605 sheet C352 (rev A) plans.

k) The provision of concrete vehicle crossings that shall be constructed to Lots 35-36, 38, 49, 52-53, 71 to Council's standards, in the specific locations shown on the Fluent Solutions plan titled 'Driveway Locations Restrictions Plan' Dwg Q000605 sheet C352 (rev A).

l) The provision of a concrete vehicle crossing and leg in access driveway to the buildable area of Lot 81. This crossing and driveway access shall be design in accordance with Council standards.

m) The transportation infrastructure design shall be submitted for review and certification shall be accompanied by the following;

    i) A design and access statement in accordance with the *Queenstown Lakes District Council – Land Development & Subdivision Code of Practice 2018*, Section 3.2.6.

    ii) Vehicle tracking movements shall be clearly demonstrated for all roads (specifically that of an 8 m rigid truck).

    iii) Detailed design for all roading shall illustrate how traffic calming measures have integrated pedestrian facilities, parking layout, and streetscapes into the overall design

to achieve the target operating speed. The detailed design shall be prepared in consultation with an independent qualified person and a report submitted by this person confirming the designs achieve the target operation speed.

n) The consent holder shall engage an independent and suitably qualified and experienced traffic engineer to carry out a detailed design safety audit in general accordance with the NZTA Manual "Road Safety Audit Procedures For Projects" and section 3.2.7 of the Councils Code of Practice. This shall include confirmation that appropriate traffic signs and road marking have been provisioned in accordance with the New Zealand Transport Agency's Manual of Traffic Signs and Markings (MOTSAM) and the Traffic control devices manual. The consent holder shall comply with any recommendations at their own cost. A copy of this report shall be submitted to Council for review and acceptance.

Off -Road Paths & Trails

o) The provision of mid-block footpaths within Lots 210-213. These paths shall be formed in concrete with a minimum 1.5m width.

p) The provision of an off-road trail/paths through balance Lots 303 and Section 2 SO504524 and linking Street S2 to the head of Herries Lane. This trail shall be constructed to a Grade 2 trail under the QLDC Cycle Trail Design Standards & Specifications. As a minimum the first 2m of this trail as it adjoins the Council on-road footpath network shall be sealed to the same standard as the on-road footpath.

q) The provision of an off-road trail linking Street S2 to Onslow Road through vested Lot 210 and balance Lot 301. This trail shall be design and constructed in general accordance with the following-

- 75mm deep aggregate path (AP20 gravel or similar)
- 240m of track at less than 10 degrees (17.6%)
- 20m of track at 10-15 degrees (17.6%-26.8%)
- Track width 1.1 - 1.2m throughout
- Track batters generally at 1:1.25 (80%)
- Track crossfall -3% toward cut batter
- Suitable provision made for stormwater disposal (including table drains throughout)
- As a minimum the first 2m of this trail as it adjoins the Council on-road footpath network shall be sealed to the same standard as the on-road footpath.

r) The provision of an off-road trail linking Street S2 south to the Queenstown Trail (Twin Rivers Trail) via balance Lot 302 and Section 129 Block III. This trail shall be design and constructed in general accordance with the following-

- Designed to a Grade 2 under the QLDC Trail Design Standards & Specifications
- Where unavoidable short sections of trial may have steeper grades and tighter corner radius as permitted with a Grade 3 standard under the QLDC Trail Design Standards & Specifications. Noting that all other aspects shall remain Grade 2 (width etc).
- Where possible existing tracks shall be used to minimise earthworks and vegetation disturbance.
- As a minimum the first 2m of this trail as it adjoins the Council on-road footpath network shall be sealed to the same standard as the on-road footpath.
- Suitable provision shall be made for stormwater runoff disposal.

The design submitted for this trail shall be accompanied by specific earthwork plans and confirmation from a suitability qualified geotechnical engineer that the associated batter slopes will stand permanently unsupported.

This trail design submitted for design acceptance shall be specifically reviewed and accepted by Council's Parks and Reserves Department.

Services

s) The provision of detailed design plans for the upgrading of the existing Council water supply booster pump station to provide a minimum 50.2 l/s of flow to sufficiently cater for fire fighting hydrant, domestic, and sprinkler demand. Alternately the consent holder may provide confirmation that the Council network has otherwise been upgraded to provide the required minimum flows and pressures to the development.

t) Provision of a potable water supply to each residential lot in terms of Council's standards and connection policy. This shall include an Acuflo GM900 as the toby valve and an approved water meter as detailed in QLDC Water Meter Policy, dated June 2017. Where any toby valve boxes are required to be placed within a trafficable area, a trafficable box and lid shall be included.

u) Provision of a potable water supply to future commercial area café within Lot 300 in accordance with Council's standards and connection policy. As a minimum this connection shall be provided as a 32mm lateral connection, with a gate valve and water meter. Where the valve/meter box is required to be placed within a trafficable area, a trafficable box and lid shall be included.

v) The provision of a landscaping irrigation plan with suitable backflow prevention for landscaping to be vested in Council (if required).

w) The provision of fire hydrants with adequate pressure and flow to service each residential lot with a Class FW2 fire risk in accordance with the NZ Fire Service Code of Practice for Fire Fighting Water Supplies 2008. Any lesser risk must be approved in writing by the Fire Service NZ.

x) The provision of detail for the upgrading of the existing QLDC Jones Avenue pump station to consistently accommodate a minimum 18.35 l/s of peak flow. Noting that this may only require simple upgrades to the pump impellors.

y) The provision of a new vested pump station to service the development within Lot 303. The pump station shall include suitable emergency storage and/or generator backup and scada controls. The pump station design provided shall include the provision of an associated rising main from the approved pump station to the QLDC Jones Avenue pumpstation. The pumpstation and rising main designs shall be in accordance with QLDC standards.

z) The provision of a gravity foul sewer connection from each residential lot to the new pumpstation required under Condition 15(y) above, in accordance with Council's standards and connection policy. These connections shall be installed with an invert suitable to drain the buildable area within each lot while maintaining minimum grade and pipe cover.

   If required, Lots 22-25 located at the southern end of the South Block development are permitted to be serviced via low diameter pressure foul sewer connections to the reticulated gravity sewerage network within Street S2 (near the entrance to Access 2). These pressure connections shall be installed in accordance with Council's standards and connection policy. These connections shall include boundary kits at the lot boundaries.

aa) The provision of a 150mm gravity foul sewer connection to service the future commercial area café within Lot 300.

bb) The provision of a gravity stormwater collection and disposal system which shall provide primary disposal from road surfaces and both primary and secondary protection for future development within the residential lots, in accordance with Council's standards and connection policy. This shall include:

   i) A reticulated primary system to collect and dispose of stormwater under the 5% AEP storm event from all road surfaces and all potential impervious areas within each residential lot and commercial Lot 300. This system shall be connected to the existing Council trunk stormwater main to the east and follows Herries Lane/Onslow Road/Alpine Avenue. The majority of the development shall be drained to the Council trunk stormwater main at the head of Herries Lane and via the gully contained within Lot 303. The southern portions of the development and Stage 6C shall be drained south-east via balance Lot 301 to the Council trunk stormwater main located within Lot 321 DP379403 (QLDC recreational reserve). The individual residential lot lateral connections to these systems shall be designed to provide gravity drainage for the entire area within the lot.
   ii) A secondary protection system consisting of secondary flow paths to cater for the 1% AEP storm event and/or setting of appropriate building floor levels to ensure that there is no

inundation of any buildable areas within the lots, and no increase in run-off onto private land beyond the site from the pre-development situation.

Where this system proposes to introduce additional flows to the Lake Hayes Estate Council road network, the consent holder shall provide evidence that suitable capacity exists within the associated road network and downstream flow paths to the Kawarau River.

iii) As part of the Lakes Hayes Estate open drain enhancement the Consent Holder shall prepare a wetland treatment area concept design, to treat runoff from the development areas prior to discharge to an approved outlet point with the Kawarau River, by a suitably qualified professional.

iv) The Consent Holder shall install and maintain the wetland servicing the development areas for a 5 year term following the construction of the wetland. Should the wetland filtration device not be performing effectively and as designed the maintenance term shall be extended for a further 2 years and all necessary remedial works completed by the Consent Holder to rectify the wetland to ensure performance as designed. For clarity the Consent Holder shall not be liable for the cost of maintenance and/or installation of areas not serviced by the subject development.

v) An Operation and Maintenance (O&M) manual for the stormwater soakage/filtering device (wetland) that services the areas and which outlines adequate maintenance instructions and frequencies.

cc) The provision of a landscape plan which illustrates that the approved landscaping (Condition 1) and proposed street trees will not conflict with access to any underground services to be vested in Council.

dd) The provision of Design Certificates for all engineering infrastructure works associated with this subdivision submitted by a suitably qualified design professional (for clarification this shall include all Roads, Water, Wastewater, Stormwater). The certificates shall be in the format of the *Queenstown Lakes District Council – Land Development & Subdivision Code of Practice 2018* Schedule 1A Certificate.

ee) The provision of a Design Certificate submitted by a suitably qualified design professional for the new Wastewater Pump Station. The certificate shall be in the format of IPENZ Producer Statement PS1 or the QLDC's Land Development and Subdivision Code of Practice Schedule 1A Certificate.

Construction Management

ff) Prior to the commencement of construction works on the southern site, the consent holder shall prepare and submit to the Council a Construction Management Plan (CMP), or a standalone section within an existing CMP, to ensure the protection of the CML-FKN-A transmission line, including tower 116. The CMP must be given to Transpower for its certification at least 20 working days prior to being submitted to the Council. The CMP must include (but is not limited to) the following:

- The name, experience and qualifications of the person/s nominated by the consent holder to supervise the implementation of, and adherence to, the CMP.
- Details of the contractor's liability insurance held to cover any costs, direct or indirect, associated with any damage to the CML-FKN-A line or towers, directly or indirectly caused by works undertaken to give effect to this consent.
- Construction drawings, plans, procedures, methods and measures to demonstrate that all construction activities undertaken on the site will meet the safe distances within the New Zealand Electrical Code of Practice for Electrical Safe Distances 2011 (NZECP 34:2001) or any subsequent revision of the code, including but not limited to those relating to:
  - Excavation and construction near towers (Section 2);
  - Building/Structure to conductor clearances (Section 3);
  - Ground to conductor clearances (Section 4);
  - Mobile plant to conductor clearances (Section 5); and
  - People to conductor clearances (Section 9).
- Details of any areas that are "out of bounds" during construction and within which additional management measures are required, such as fencing off, entry and exit hurdles and the

minimum height for any hurdles. Where a safety observer is required, it shall be at the consent holder's cost.
- Details of contractor training for those working near the CML-FKN-A transmission lines.'

gg) Prior to the commencement of construction works on the southern site, the consent holder shall prepare and submit to the Council a Construction Management Plan (CMP), or a standalone section within an existing CMP, to ensure Aircraft safety. Specifically-

- Potential dust emissions, noting that the proximity of the site to the Airport Approach and Protection Measures Designation means that proactive measures should be employed
- Ensure that pools of standing water are unable to form during construction, thereby avoiding any potential attraction of birds to the site.
- Any temporary lighting of the site that may be required during construction, and the detail as how any potential glare effects will be actively managed to avoid impacting on aircraft operations at Queenstown Airport.
- The method and timeframe for rehabilitating any temporary construction and batter areas.

hh) Prior to the commencement of construction works on the southern site, the consent holder shall prepare and submit to the Council a Construction Management Plan (CMP), or a standalone section within an existing CMP, to ensure no adverse effects on the underground gas reticulation system operated by Rock Gas/Contact Energy. Specifically-

- As built plans of the gas network (to be supplied by Contact Energy) no older than 14 days from the date of lodgement of the construction management plan
- Adherence to Contact Energy's conditions for working near its underground gas pipelines (copy attached)
- Details confirming how the reticulated gas supply network will be maintained throughout construction
- Demonstration of engagement with Contact Energy employees or contractors in regard to i-iii above.'

During construction:

16. Prior to bulk earthworks operations (and vegetation clearance) for the initial stage or any subsequent new stage of works, the Consent Holder must install erosion and sediment controls in accordance with the ESCP as well as provide As-built documentation for these controls by Suitably Qualified and Experienced Person HOLD POINT 2. It is noted that earthworks required to construct environmental management controls are allowed to commence once Council has provided notice that HOLD POINT 1 has been met.

17. All works shall be undertaken in accordance with the most current version of the EMP as accepted as suitable by Council.

18. The EMP shall be accessible on site at all times during work under this consent.

19. The Consent Holder shall establish and implement document version control. Council shall be provided with an electronic copy of the most current and complete version of the EMP at all times.

20. The Consent Holder shall develop and document a process of periodically reviewing the EMP as outlined on page 6 of the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans.* No ground disturbing activities shall commence in any subsequent stage of development until an EMP has been submitted and deemed suitable by Council 's Monitoring and Enforcement Team.

21. The Consent Holder shall undertake and document weekly and Pre and Post-Rain Event site inspections as outlined on pages 10 and 11 of the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans*.

22. A SQEP shall monitor the site monthly to ensure that the site is complying with its EMP, identify any new environmental risks arising that could cause an environmental effect and suggest alternative solutions that will result in more effective and efficient management. This must include a specific audit by the SQEP of the effectiveness of the ESCP. The outcome of these inspections should be included in the Monthly Environmental Report referred to Condition 22 below.

23. The Consent Holder shall complete and submit exception reporting to QLDC in the form of a monthly environmental report. The monthly environmental report shall be submitted to QLDC's Regulatory Department within five (5) working days of the end of each month.

24. In accordance with page 9 of the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans*, where any Environmental Incident where the EMP has failed leading to any adverse environmental effects offsite occurs the Consent Holder shall:

    a) Report to QLDC details of any Environmental Incident within 12 hours of becoming aware of the incident.

    b) Provide an Environmental Incident Report to QLDC within 10 working days of the incident occurring as per the requirements outlined in Section 3.3.1 of *Queenstown Lakes District Council's Guidelines for Environmental Management Plans.*

25. Environmental records are to be collated onsite and shall be made available to QLDC upon request; immediately if the request is made by a QLDC official onsite and within 24 hours if requested by a QLDC officer offsite. Records and registers to be managed onsite shall be in accordance with the requirements outlined on page 14 of the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans.*

26. Any Discharge (refer definition in the *Queenstown Lakes District Council's Guidelines for Environmental Management Plans*) that leaves the site shall comply with the Water Quality Discharge Criteria outlined on page 19 of the *Guideline.*

To be monitored throughout earthworks – all Stages

26. The earthworks, geotechnical works, and fill procedures shall be supervised and monitored by the person named in Condition (12) above.

27. Earthworks shall be undertaken in accordance with the recommendations of the Geosolve report titled '*Geotechnical Report for Resource Consent – Queenstown Country Club, Stage 6c, Access Road and Lots 1-5*' dated December 2020 ref 160041.04.

28. The earthworks associated with the construction of the pedestrian trail linking Street S2 east to Onslow Road shall be monitored by a suitably qualified geotechnical engineer, and if required batter grades altered to ensure batters will stand permanently unsupported.

29. The earthworks associated with the construction of the pedestrian and cycle trail linking Street S2 south to the Queenstown Trial (Twin Rivers Trail) shall be monitored by a suitably qualified geotechnical engineer, and if required batter grades altered to ensure batters will stand permanently unsupported.

30. Only cleanfill material shall be deposited at the site. Cleanfill material is defined as material that when buried/placed will have no adverse effect on people or the environment, and includes virgin natural materials such as clay, soil and rock, and other inert materials such as concrete or brick that are free of:
    - combustible, putrescible, degradable or leachable components;
    - hazardous substances;
    - products or materials derived from hazardous waste treatment, hazardous waste stabilisation or hazardous waste disposal practices;

- materials that may present a risk to human or animal health such as medical and veterinary waste, asbestos or radioactive substances;
- liquid waste.

Acceptable materials include bricks, pavers, masonry blocks, ceramics, un-reinforced concrete, reinforced concrete where any protruding steel is cut off at the concrete face, fibre cement building products, road sub-base, tiles and virgin soils (including rock, sand, gravel, clay) - provided they are uncontaminated. Any other materials will require the prior written approval of Council prior to disposal at the site. Topsoil shall be used for final cover only.

31. The consent holder shall implement suitable measures to prevent deposition of any debris on surrounding roads by vehicles moving to and from the site. If any material is deposited on any roads, the consent holder shall take immediate action, at his/her expense, to clean the roads. The loading and stockpiling of earth and other materials shall be confined to the subject site.

32. No earthworks, temporary or permanent, are to breach the boundaries of the greater site. With the specific exception of works required to construct the relevant off-site service and access connections.

On completion of earthworks for the trails

33. On completion of the earthworks associated with the trails, the consent holder shall complete the following:

    a) The topsoiling and re-grassing of existing vehicle tracks occurs within 12 month from completion of the construction of the trail;

    b) That cut and fill batters are re-grassed within 6 weeks of completion of construction.

To be completed before Council approval of the Title Plan

34. Prior to the Council signing the Title Plan pursuant to Section 223 of the Resource Management Act 1991, the consent holder shall complete the following:

    a) All necessary easements shall be shown in the Memorandum of Easements attached to the Title Plan and shall be duly granted or reserved.

    b) Any balance land (allotments) arising from staging the subdivision shall be amalgamated with a fully serviced and accessed allotment.

    c) Any specific terrace slope set-backs, no build areas, or foundation controls as identified within the geotechnical completion report provided under Condition 36(i) below shall be shall be shown as covenant areas on the relevant titled plans.

    d) The name of any roads which require naming in accordance with Council's road naming policy shall be shown on the survey plan.

    [Note: the road naming application should be submitted to the Principal Resource Management Engineer at QLDC. and should be lodged prior to the application for the section 223 certificate].

    e) The easement for the stormwater pipe proposed to be constructed within Lot 321 DP 379403 (Widgeon Place Reserve), must be registered, or shown on the plan prior to or concurrently with the 223 plan.

    f) The landscape plans submitted with the application shall be amended and resubmitted to council for certification. The amended plans shall achieve the following:

        i. Identify landscaping in the visitor parking area on Road 1 between Jones Road and the entrance to the subdivision. This Plan should be designed to provide a high level of amenity for the visitor parking area and partially screen parked vehicles from the main road while maintaining passive surveillance of the parking area.
        ii. The landscaping proposed with Lot 303 shall be amended to ensure the trail is safely designed in accordance with the CPTED principles.

    g) A landscape management plan detailing the land management and ongoing maintenance strategy for Lot 24 and balance lots 300-305 shall be submitted to council for certification by a

suitably qualified professional. A land management and maintenance plan shall be submitted that achieves the following objectives:

i. Provide for the ongoing maintenance including replacement planting of trees and plants that have been implemented in accordance with the approved Tree Planting Plan (Condition 1).
ii. Include a weed removal methodology for the initial removal of all weed species from the open slopes with a management program for the ongoing removal of such species to ensure the retention of the grassed open slopes.

Amalgamation Conditions

35. The following shall be registered with Land Information New Zealand (CSN 1742971):

- That Lots 24 and 213 and 300-305 hereon, Section 2 SO 504524 (Balance RT 990645) and the 1/8 share in Lot 206 hereon be held in the same Record of Title

- That Lot 206 hereon (legal access) be held as to eight undivided 1/8 shares by the owners of Lots 101-107 and Lot 301 hereon as tenants in common in the said shares and that individual records of title be issued in accordance therewith.

- That Lot 207 hereon (legal access) be held as to two undivided 1/2 shares by the owners of Lots 6 and 7 hereon as tenants in common in the said shares and that individual records of title be issued in accordance therewith.

- That Lot 208 hereon (legal access) be held as to four undivided 1/4 shares by the owners of Lots 22-25 hereon as tenants in common in the said shares and that individual records of title be issued in accordance therewith.

- That Lot 209 hereon (legal access) be held as to four undivided 1/4 shares by the owners of Lots 84-87 hereon as tenants in common in the said shares and that individual records of title be issued in accordance therewith.

To be completed before issue of the s224(c) certificate

Area 6C

36. Prior to certification pursuant to section 224(c) of the Resource Management Act 1991 in respect of any lots within Area 6C, the consent holder shall complete the following:

a) The completion and implementation of all works detailed in Condition (14) above.

b) Confirmation that up to 55 residential lots have been titled within the RM210243 'southern block' and 'Area 6c' total allotments to date, or alternatively confirm that the Howards Drive/SH6 intersection has been upgraded to a roundabout or an alternative intersection design with the required capacity to accommodate the lots proposed.

c) The submission of 'as-built' plans and information required to detail all engineering works completed in relation to or in association with this subdivision at the consent holder's cost. This information shall be formatted in accordance with Council's 'as-built' standards and shall include all Roads, Water, Irrigation, Wastewater, Stormwater reticulation.

d) All newly constructed gravity foul sewer and stormwater mains shall be subject to a closed circuit television (CCTV) inspection carried out in accordance with the New Zealand Pipe Inspection Manual. A pan tilt camera shall be used and lateral connections shall be inspected from inside the main. The CCTV shall be completed and reviewed by Council before any surface sealing and any defects identified shall be repaired.

e) Written confirmation shall be provided from the electricity network supplier responsible for the area, that provision of a minimum single phase 15kva underground electricity supply has been made available to the boundaries of each residential lot and that all the network supplier's requirements for making such means of supply available have been met.

f) Written confirmation shall be provided from the telecommunications network supplier responsible for the area, that provision of underground telephone services has been made available to the boundaries of each residential lot and that all the network supplier's requirements for making such means of supply available have been met.

g) Any road signage shall be installed in accordance with Council's signage specifications and all necessary road markings completed on all public roads in accordance with MOTSAM and the TCD Manual.

h) Road naming shall be carried out, and signs installed, in accordance with Council's road naming policy.

i) At the completion of onsite earthworks the geo-professional identified under Condition (12) shall incorporate the results of ground bearing test results for each residential allotment (regardless of whether affected by development cut and fill earthworks) and include these with a Geotechnical Completion Report and Schedule 2A certificate covering all lots within the subdivision. The Schedule 2A certification shall specifically include a statement under Clause 3(e) covering Section 106 of the Resource Management Act 1991. In the event the Schedule 2A includes limitations or remedial works against any lot(s) the Schedule 2A shall also include a geotechnical summary table identifying requirements against each relevant lot in the subdivision for reference by future lot owners. Any remedial works outlined on the Schedule 2A that requires works across lot boundaries shall be undertaken by the consent holder prior to 224(c) certification being issued.

   The above Geotechnical Completion Report and Schedule 2A certificate shall specifically address any specific slope stability set back requirements. This shall include any required no-build areas, or limited build areas that require specific foundation design and/or further geotechnical investigation.

j) The submission of Completion Certificates for all engineering works completed in relation to or in association with this subdivision. The certificates shall be in the format of the *Queenstown Lakes District Council – Land Development & Subdivision Code of Practice 2018* Schedule 1B and 1C Certificate.

k) The Consent Holder shall enter into a developer's agreement between the developer and Council in relation to ongoing maintenance of the wetland stormwater system. This agreement shall bind the developer to its requirements and confirm the following:

   (i) The applicant takes responsibility for Operation & Maintenance of the stormwater areas for a 5 year period from issue of 224c certification.
   (ii) The applicant shall meet the Key Performance Indicators (KPIs) for successful operation and management of the system that are established and agreed with Council through detailed design process prior to Engineering Acceptance by Council.
   (iii) The Consent Holder shall provide Council annually (31st March) with copies of all ongoing performance monitoring data and reporting a showing compliance with the agreed KPIs and O&M manual.
   (iv) If the system is not shown to be working effectively during the maintenance period, any remedial works required to ensure the effective and efficient operation of the stormwater disposal system in compliance with the O&M manual and associated KPIs shall be completed by the Consent Holder.
   (v) In the event of the system not performing effectively during the maintenance period, the maintenance period may be extended by a further 2 years to allow the applicant to demonstrate the effective and efficient operation of the stormwater disposal system prior to handover to Council.

l) The consent holder shall ensure that all silt attributable to the construction of this stage of development is removed from mud-tanks within the road network.

   Note: To ensure siltation in the months following 224c does not adversely impact the downstream wetland swales and Kawarau River then this aspect should be noted by Council and the contractor as requiring review through the maintenance period.

m) The consent holder shall remedy any damage to all existing road surfaces and berms that result from work carried out for this consent.

n) All exposed earthwork areas shall be top-soiled and grassed/revegetated or otherwise permanently stabilised.

Area 9 - Southblock

37. Prior to certification pursuant to section 224(c) of the Resource Management Act 1991 for any stages excluding Area 6C, the consent holder shall complete the following:

a) The completion and implementation of all works detailed in Condition (15) above.

b) Confirmation that up to 55 residential lots total will have been titled within the RM210243 'southern block' and 'Area 6c' total, or alternatively confirm that the Howards Drive/SH6 intersection has been upgraded to a roundabout or an alternative intersection design with the required capacity to accommodate the lots proposed.

c) Any required road access and intersection works between Jones Avenue and Street S1 (Lower) required to access the greater development shall have been completed under SH160140 and vested in Council.

d) The submission of 'as-built' plans and information required to detail all engineering works completed in relation to or in association with this subdivision at the consent holder's cost. This information shall be formatted in accordance with Council's 'as-built' standards and shall include all Roads, Water, Irrigation, Wastewater, Stormwater reticulation.

e) All newly constructed gravity foul sewer and stormwater mains shall be subject to a closed circuit television (CCTV) inspection carried out in accordance with the New Zealand Pipe Inspection Manual. A pan tilt camera shall be used and lateral connections shall be inspected from inside the main. The CCTV shall be completed and reviewed by Council before any surface sealing and any defects identified shall be repaired.

f) The consent holder shall provide evidence that the required water supply booster pump station upgrades have occurred to ensure that suitable domestic and fire fighting provision is available to service the development, and any upgrades have been agreed complete and accepted by QLDC Property & Infrastructure.

g) The consent holder shall provide evidence that the required Jones Avenue wastewater pump station upgrades have occurred to ensure that suitable capacity is available to service the development, and any upgrades have been agreed complete and accepted by QLDC Property & Infrastructure.

h) Written confirmation shall be provided from the electricity network supplier responsible for the area, that provision of a minimum single phase 15kva underground electricity supply has been made available to the boundaries of each residential lot and that all the network supplier's requirements for making such means of supply available have been met.

i) Written confirmation shall be provided from the telecommunications network supplier responsible for the area, that provision of underground telephone services has been made available to the boundaries of each residential lot and that all the network supplier's requirements for making such means of supply available have been met.

j) Any road signage shall be installed in accordance with Council's signage specifications and all necessary road markings completed on all public roads in accordance with MOTSAM and the TCD Manual.

k) Road naming shall be carried out, and signs installed, in accordance with Council's road naming policy.

l) The consent holder shall submit a post construction safety audit of the transportation network which shall cover all aspects of that stage of the development. This audit shall be carried out by an independent and suitably qualified engineer and the consent holder shall comply with any recommendations approved by Council at their own cost. A copy of this report shall be submitted to Council for review and acceptance.

m) At the completion of onsite earthworks the geo-professional identified under Condition (12) shall incorporate the results of ground bearing test results for each residential allotment (regardless of whether affected by development cut and fill earthworks) and include these with a

Geotechnical Completion Report and Schedule 2A certificate covering all lots within the subdivision. The Schedule 2A certification shall specifically include a statement under Clause 3(e) covering Section 106 of the Resource Management Act 1991. In the event the Schedule 2A includes limitations or remedial works against any lot(s) the Schedule 2A shall also include a geotechnical summary table identifying requirements against each relevant lot in the subdivision for reference by future lot owners. Any remedial works outlined on the Schedule 2A that requires works across lot boundaries shall be undertaken by the consent holder prior to 224(c) certification being issued.

The above geotechnical completion report and Schedule 2A for the development shall specifically consider terrace slope set back requirements, and where required covenant areas shall be included on the relevant titles with regards to minimum terrace slope setback requirements for NZS3604 foundations and any specific requirements for foundation designs for construction within the identified setback areas.

The geotechnical completion report and Schedule 2A for the development shall also provide confirmation that a physical check and removal of any loose areas has been undertaken on the rock bluff area to the south of Lots 59-62 to ensure the risk to these properties from rockfall has been mitigated.

n) The provision of an operation & maintenance plan for the new wastewater pump station. This plan shall be reviewed by the Principal Resource Management Engineer at Council prior to acceptance.

o) The submission of a Completion Certificate from both the Contractor and Approved Certifier for the Wastewater Pump Station installed to service the subdivision. This certificate shall be in the format of an IPENZ Producer Statement PS3 and PS4.

p) The submission of Completion Certificates for all engineering works completed in relation to or in association with this subdivision. The certificates shall be in the format of the *Queenstown Lakes District Council – Land Development & Subdivision Code of Practice 2018* Schedule 1B and 1C Certificate.

q) The Consent Holder shall enter into a developer's agreement between the developer and Council in relation to ongoing maintenance of the wetland stormwater treatment system. This agreement shall bind the developer to its requirements and confirm the following:

a. The applicant takes responsibility for Operation & Maintenance of the stormwater areas for a 5 year period from issue of 224c certification from the first stage of development.
b. The applicant shall meet the Key Performance Indicators (KPIs) for successful operation and management of the system that are established and agreed with Council through detailed design process prior to Engineering Acceptance by Council.
c. The Consent Holder shall provide Council annually (31st March) with copies of all ongoing performance monitoring data and reporting a showing compliance with the agreed KPIs and O&M manual.
d. If the system is not shown to be working effectively during the maintenance period, any remedial works required to ensure the effective and efficient operation of the stormwater disposal system in compliance with the O&M manual and associated KPIs shall be completed by the Consent Holder.
e. In the event of the system not performing effectively during the maintenance period, the maintenance period may be extended by a further 2 years to allow the applicant to demonstrate the effective and efficient operation of the stormwater disposal system prior to handover to Council.

r) The consent holder shall ensure that all silt attributable to the construction of the development is removed from mud-tanks within the road network and from the downstream network.

Note: To ensure siltation in the months following 224c does not adversely impact the downstream pipe network and waterways then this aspect should be noted by Council and the contractor as requiring review through the maintenance period and being catered within the above plan provisions.

s) The consent holder shall remedy any damage to all existing road surfaces and berms that result from work carried out for this consent.

t) All exposed earthwork areas shall be top-soiled and grassed/revegetated or otherwise permanently stabilised.

38. Prior to certification pursuant to section 224(c) of the Resource Management Act 1991, the consent holder shall complete the following *(Note that the formation of trails will be linked to stages)*:

a) The consent holder shall obtain a Full Council decision confirming that all areas of reserve have been formally agreed to be vested.

b) The consent holder shall fully implement all road/street landscaping and planting as shown on the landscape plans approved by Conditions (1) and (6) and amended landscaping plans required by Condition (34f & g).

c) The consent holder shall ensure the completion and implementation of the landscaping and planting requirements detailed in Conditions (1) and (6) and amended by landscaping plans required by conditions (34f) and (34g) above.

d) The consent holder shall construct all trails, applicable to the stage sought or the calendar date at the time of application for 224c. For avoidance of doubt, this condition requires all trails located within lots seeking 224c certification to be constructed, and/or as specified below. All trails must be constructed within the final stage of development or by calendar date stated, if not already established.

- Trail 1 shall be formed to a minimum Grade 2 standard. Should Grade 2 not be able to be achieved, Grade 3 may be considered where appropriate, and the discretion of the Parks and Open Spaces Planning Manager. Trail 1 shall be constructed before 224c for Lot 303 is approved, or by December 2022, whichever is the earliest.

- Trail 2 shall be formed to a minimum Grade 4 standard and shall be constructed either before 224c for Lots 16 and 17, or by December 2023, whichever is the earliest.

- Trail 3 shall be formed to a minimum Grade 2 Standard and must have a turning head constructed where it borders DOC land (Crown Land Block III Shotover Survey District). Trail 3 shall be constructed either before titles for Lots 26 and 27, or by December 2023, whichever is the earliest.

Any deviation from these formations or the trail locations shall be run past Council's trail engineer and approved by the Parks and Open Spaces Planning Manager, prior to the trail being constructed.

Advice Note: It is noted that due to topography and pending detailed design, the trail locations and formations may change. Flexibility around this is to be given, noting any changes to the trails shall come past the Parks and Reserves Department, prior to commencement of construction. Grade 3 formation may be considered, if there is no practical alternative to construct the trails to the formations stated in the above condition.

e) The consent holder shall enter into a maintenance agreement under s207A of the Local Government Act 2002 Amendment Act (LGA) as per clause 7.4.11.2 of the QLDC LDSCoP 2020, with the QLDC Parks and Reserves Department, with the obligation being upon the consent holder to fulfil the requirements detailed in (i) to (iv) below. The maintenance period shall be three (3) years from any issue of 224(c):

a) All new assets, including trails, irrigation and fencing, shall be kept in good working order and be free of defects or disrepair;
b) Trees and vegetation shall be irrigated and maintained to an acceptable standard as specified by QLDC Parks and Reserves Planning team. It shall be the responsibility of the consent holder to ensure that any new plantings, as shown on the approved landscape plans, that die or decline at any time over the three (3) year maintenance period following the initial planting shall be replaced. The replacement plants shall be of the same species, grade and size as the original specimens and planted no later than the following planting season or as instructed by QLDC;

c) The vested reserve(s) shall be kept in a tidy condition and shall be free of litter and refuse; Health and safety plans shall be provided for all non-QLDC approved contractors undertaking maintenance in the reserves or road reserves.

d) On completion of construction, asbuilts for walkways (and grassed areas if any), which are to be vested with Council, to be provided as per Land Development and Subdivision Code of Practice (dated 2020).

Advice Note: Asbuilt submission package, including asbuilt specs and guidelines, available on the QLDC LDSCoP 2020 website: https://www.qlfdc.govt.nz/services/resource-consents/land-developments-and-subdivisions

e) All new reserve and road reserve asset information shall be submitted electronically with spatial attributes as outlined in Schedule 1D of the QLDC LDSC 2020.

f) The consent holder shall provide confirmation of completion of all site remediation works to remove soil contaminants in accordance with the Remedial Action Plan (RAP) and Site Validation report (SVR) required by the Detailed Site Investigation Report dated January 2017 prepared by Opus.

g) The consent holder shall complete the cancellation of consent notice conditions on 11122528.3 11663461.3 as it relates to the proposed residential lots, reserves and roads proposed in this subdivision, in accordance with Decision C of RM210243.

h) The dedicated off-street public parking area within the road reserve land to the north of Lot 305 shall be constructed prior to s224c for Lots 1 and 2 or December 2022, whichever is the earliest.

Covenant

i) The Consent Holder shall ensure that a fencing Covenant, required under s6 of the Fencing Act 1978, is registered on all land adjoining a Council reserve to ensure that any reserves to vest in QLDC are protected and that Council has no liability to contribute towards any work on a fence between a public reserve vested in or administered by the Council and any adjoining land.

Ongoing Conditions/Consent Notices

39. In the event that the Schedule 2A certificate issued under Condition (36i) contains limitations or remedial works required, then a consent notice shall be registered on the relevant Record of Titles detailing requirements for the lot owner(s). This shall include any specific slope stability areas or no build areas identified by Condition (32d) above.

Advice note: This condition may include setbacks from the edge of the slope crest on some lots as identified on the approved subdivision plans, or other restrictions in relation to building foundations being designed by a suitably qualified and experienced engineer.

40. If suitable gravity sewer connections cannot be provided to Lots 22-25 under Condition (15z) and pressure connections are required, the following condition of the consent shall be complied with in perpetuity and shall be registered on the relevant Title by way of Consent Notice pursuant to s.221 of the Act.

a) At time of future development, a private domestic sewage pump system shall be installed to service the allotment. This pump shall pressure feed to the Council's gravity sewer network via the pressure sewer lateral pipe and associated boundary kit installed at time of the underlying subdivision. The detailed engineering design and ongoing monitoring and maintenance responsibilities for any pumped sewer system shall be submitted to Council for review and acceptance prior to installation.

41. The following conditions of the consent shall be complied with in perpetuity and shall be registered on the Titles of the relevant residential lots, by way of Consent Notice pursuant to s221 of the Resource Management Act 1991 (RMA).

a) Any future vehicle crossing installed to access the property from the surrounding road network on Lots 05, 30-32, 50, 67, 68, 76-79, 90-96 shall only be located within in the position shown on the Fluent Solutions plan titled 'Driveway Locations Restrictions Plan' Dwg Q000605 sheet C352 (Rev A) as submitted with resource consent RM210243.

b) Any future vehicle crossings installed to access the property from the surrounding road network on Lots 76-79 and 90-93 shall be from the minor road to the south and in accordance with the Fluent Solutions plan titled 'Driveway Locations Restrictions Plan' Dwg Q000605 sheet C352 (Rev A) as submitted with resource consent RM210243.

c) The vehicle crossing provided to Lots 35-36, 38, 49, 52-53, 71 shall remain located within their current constructed position and as shown on the Fluent Solutions plan titled 'Driveway Locations Restrictions Plan' Dwg Q000605 sheet C352 (Rev A) as submitted with resource consent RM210243.

d) At time of future construction of a residential unit, if a specific vehicle crossing has not previously been installed to the property from the surround road network, the lot owner shall install a residential vehicle crossing in accordance with Drawing B5-18 of the QLDC Subdivision & Land Development Code of Practice.

e) For all residential allotments, there shall be no fencing on the road boundary *(except the western side of Lots 89 and 94-100)* and side yard fencing shall not extend past the front (street) façade of the residential unit.

42. The following conditions of the consent shall be complied with in perpetuity and shall be registered on the Titles of the residential lots, by way of Consent Notice pursuant to s221 of the Resource Management Act 1991 (RMA).

a) All residential units shall be designed in accordance with the following general design controls:

Building Forms	a. Roof forms are to be of gable ends or single mono pitches. No hips to be accepted. b. For gable pavilions with lean to, the lean to can only be a maximum 60% of the pavilion width. c. For gable pavilions the gable width can only be a maximum of 110% of the gable height. d. Height of attached accessory structures such as awnings or pergolas shall not exceed the low point of the dwelling roof.
Materials/colours	a. All building materials and landscape features to be of dark recessive tones and have an LRV less than 35%. Stained natural timber (e.g. cedar) and stone are excluded from this LRV restriction. b. All building claddings shall be stacked schist stone, painted, stained or unpainted wooden weatherboards, painted brick, packed earth or solid plaster. c. All roofing shall be of slate, timber shingles, or a light weight metal (including corrugated roofing or equivalent) with an LRV level of less than 35%. d. All windows to be low reflective glass. e. All exterior lighting shall be fixed and no higher than 1.8m above finished ground level, filtered and pointed downwards and screened so as to reduce lux spill.
Boundary fencing and gates	a. There shall be no fencing on the road boundary *(except the western side of Lots 89 and 94-100)*. b. Side yard fencing shall not extend past the front (street) façade of the dwelling. c. Fencing shall have a maximum height of 1.5m. d. Fencing shall be of high quality materials in recessive colours including stone, timber, concrete, glass, post and rail and

	transparent steel fencing. Basic fencing structure including wire and trellis fences are excluded. e. Fencing within the building restriction area shall be post and rail only. f. Fencing or gates between side yards and houses are permitted but must set back 2.5m from the front façade.
Landscaping	a. No hedges shall exceed 1.8m in height, except that hedges that are located within 2m of the road boundary shall have a height of no more than 1m. b. Paths and pavements shall be finished in schist, exposed aggregate, granites, bluestone or similar. c. Poured concrete or pavers restricted to shades of mid to dark grey colour only.
Driveways and parking	a. All driveways shall be finished in asphalt, schist or exposed aggregate. No pavers or flat concrete allowed.
Density	a. There shall be no more than one residential unit per site. b. There shall be no residential flat on any site. c. There shall be no further subdivision of any site.
Activity Area Specific Controls	
Heights	a. Where there is a 6m height restriction (as provided on the structure plan) areas 9A, part of 9B and 9D) residential units shall be single level.
Area 9E	a. Garages must be accessed off the laneway
Area 9A	a. Setbacks from the north boundary shall be 4m, except for Lots 3 and 18, where the dwellings will be constructed in accordance with the RM220135 approved plans dated February and May 2022 respectively. All other setbacks as per the District Plan rules (4.5m road setback, side yard setbacks 2m.

All other consent conditions are to remain unchanged.

b) All residential units shall be constructed in accordance with the height restrictions specified on the Kawarau Heights Structure Plan.

c) All planting on residential lots in Activity Area 9A shall be selected in accordance with the plant list of species outlined in Residential Design Guidelines for Kawarau Heights.

d) Open fires, excluding gas fires, are prohibited.

43. The following conditions of the consent shall be complied with in perpetuity and shall be registered on the relevant Titles of any lots created by this subdivision that will adjoin Council reserve land by way of Consent Notice pursuant to s.221 of the Resource Management Act 1991 (RMA):

    a) All boundary fences along or adjoining any areas of reserve land shall be no greater than 1.2 metres in height and shall be no less than 50% visually permeable.

44. The following conditions of the consent shall be complied with in perpetuity and shall be registered on the relevant Titles of all residential lots containing portions of the BRA “Building Restriction Area” Area created by this subdivision or shown on the Kawarau Heights Structure Plan by way of Consent Notice pursuant to s.221 of the Resource Management Act 1991 (RMA):

(i) No buildings or structures are permitted within the Building Restriction Area (BRA) as specified on the Title Plan or Kawarau Heights Structure Plan of the QLDC District Plan.

Lot 24 and Balance Land (Lots 300-305)

45. The following conditions of the consent shall be complied with in perpetuity and shall be registered on the relevant Title of Lot 24 and Lots 300-305, by way of Consent Notice pursuant to s221 of the Resource Management Act 1991 (RMA).

a) It is the obligation of the owner of Lot 24 to ensure the ongoing management and maintenance of the entry reserves, escarpments and balance allotment, Lots 300-305 in accordance with the approved landscape management plan required under Condition (34g) of RM210243.

b) The lot owner shall ensure that:
(ii) All planting and landscaping identified on the approved landscape plan shall be maintained and irrigated in accordance with those plans on an ongoing basis.
(iii) The grassed, open slopes are retained through the ongoing removal of weed species. This should be undertaken on an annual basis.
(iv) All planting is maintained in perpetuity. If any plant or tree should die or become diseased it shall be replaced within the next available planting season. This includes ensuring that all native shrubs and grasses proposed on the terrace edges and the knoll are irrigated and maintained to ensure survival and healthy growth.

Advice Notes:

1. The consent holder is advised that any retaining walls, including stacked stone and gabion walls, proposed in this development which exceeds 1.5m in height or walls of any height bearing additional surcharge loads will require Building Consent, as they are not exempt under Schedule 1 of the Building Act 2004.
2. Prior approval via a Connection to Council Services for a Temporary Water Take is required if Council's water supply is to be utilised for dust suppression during earthworks. This shall include the use of a backflow prevention device to prevent contamination of Council's potable water supply.
3. This consent triggers a requirement for Development Contributions, please see the attached information sheet for more details on when a development contribution is triggered and when it is payable. For further information please contact the DCN Officer at QLDC.
4. The consent holder is advised that consents may be required under the Otago Regional Plan: Air for Otago – the Air Plan which manages air quality and limits emissions for any domestic heating source and burning discharges.

DECISION B: LANDUSE CONDITIONS

General Conditions

1. That the development must be undertaken/carried out in accordance with the plans:

That the development on approved Lots 3, 18, 39, 44, 50, 54, 94 and 96 RM210243 (as amended by RM211116) must be undertaken/carried out in accordance with the plans (as relevant to each lot):

Plans prepared by Queenstown Commercial Sanderson Group, as follows

- Lot 03 Kawarau Heights Queenstown – Site Planning (dated 25/02/2022)
- Lot 03 Kawarau Heights Queenstown – Elevations, north & east (dated 25/02/2022)
- Lot 03 Kawarau Heights Queenstown – Elevations, south & west (dated 25/02/2022)
- Lot 18 Kawarau Heights Queenstown – Floor plan (dated 30/05/2022)
- Lot 18 Kawarau Heights Queenstown – Elevations, north & east (dated 3/02/2022)
- Lot 18 Kawarau Heights Queenstown – Elevations, south & west (dated 3/02/2022)
- Lot 39 Kawarau Heights Queenstown – Site Plan (dated 2/02/2022)
- Lot 39 Kawarau Heights Queenstown – Elevations, north & east (dated 2/02/2022)
- Lot 39 Kawarau Heights Queenstown – Elevations, south & west (dated 2/02/2022)
- Lot 44 Kawarau Heights Queenstown – Site Plan (dated 1/02/2022)
- Lot 44 Kawarau Heights Queenstown – Elevations, north & east (dated 1/02/2022)
- Lot 44 Kawarau Heights Queenstown – Elevations, south & west (dated 1/02/2022)
- Lot 50 Kawarau Heights Queenstown – Site Plan (dated 3/02/2022)
- Lot 50 Kawarau Heights Queenstown – Elevations (dated 3/02/2022)
- Lot 50 Vehicle Crossing Plan (dated 12.5.2022)
- Allotment 54 Lot 2 DP 516376 / Lot 3 DP 557973. Kawarau Heights – Site Plan (dated 2/02/2022)
- Allotment 54 Lot 2 DP 516376 / Lot 3 DP 557973. Kawarau Heights – Elevations, north & east (dated 2/02/2022).
- Allotment 54 Lot 2 DP 516376 / Lot 3 DP 557973. Kawarau Heights – Elevations. south & west (dated 2/02/2022)
- Lot 94 Kawarau Heights Queenstown – Site Plan (dated 2/02/2022)
- Lot 94 Kawarau Heights Queenstown – Elevations, north & east (dated 2/02/2022)
- Lot 94 Kawarau Heights Queenstown – Elevations, south & west (dated 2/02/2022)
- Lot 94 Vehicle Crossing Plan (dated 12.5.2022)
- Lot 96 Kawarau Heights Queenstown – Site Plan (dated 20/05/2022)
- Lot 96 Kawarau Heights Queenstown – Elevations, north & east (dated 20/05/20220
- Lot 96 Kawarau Heights Queenstown – Elevations, south & west (dated 20/05/2022)
- Lot 96 Vehicle Crossing Plan (dated 20.5.2022)
- Driveway Restriction plan (dated 4/05/2022)

stamped as approved on 7 June 2022.

and the application as submitted, with the exception of the amendments required by the following conditions of consent.

2. This consent shall not be exercised and no work or activity associated with it may be commenced or continued until the following charges have been paid in full: all charges fixed in accordance with section 36(1) of the Resource Management Act 1991 and any finalised, additional charges under section 36(3) of the Act.

3. The consent holder is liable for costs associated with the monitoring of this resource consent under Section 35 of the Resource Management Act 1991.

4. All land use activities authorised by way of this consent are to be undertaken in accordance with the relevant conditions contained within RM210243: Decision A.

Engineering

5. All engineering works shall be carried out in accordance with the Queenstown Lakes District Council's policies and standards, being QLDC's Land Development and Subdivision Code of Practice adopted on 8th October 2020 and any subsequent amendments to that document up to the date of issue of any subdivision consent, except where specified otherwise.

   Note: The current standards are available on Council's website via the following link: http://www.qldc.govt.nz

To be monitored throughout earthworks

6. Any earthworks within Lots 39, 44, 50, 54, 94, 96 shall be undertaken in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled *Geotechnical Assessments for Foundation Design Lot Numbers 5, 26, 39, 44, 49, 50, 54, 94, 96, 100 - Kawarau Heights'* ref no. 160041.04, dated 13th May 2022.

7. Any earthworks within Lot 18 shall be undertaken in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Lot 18 -Kawarau Heights Subdivision Geotechnical Assessment*' ref no. 160041.04, dated 2nd February 2022.

8. Any earthworks within Lot 3 shall be undertaken in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Lot 3 -Kawarau Heights Subdivision Geotechnical Assessment*' ref no. 160041.04, dated 7th March 2022.

To be completed prior to the construction of the residential unit

9. Prior to the construction of the dwellings within Lots 39, 44, 50, 54, 94, 96 the consent holder shall submit to the Manager of Resource Management Engineering at Council evidence demonstrating that the ground within Lots 39, 44, 50, 54, 94, 96 has been undercut and improved to achieve 'good ground' in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled *Geotechnical Assessments for Foundation Design Lot Numbers 5, 26, 39, 44, 49, 50, 54, 94, 96, 100 - Kawarau Heights'* ref no. 160041.04, dated 13th May 2022.. Alternatively, the consent holder may provide evidence demonstrating that the relevant dwelling foundations have been designed in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Geotechnical Assessments for Foundation Design Lot Numbers 5, 26, 39, 44, 49, 50, 54, 94, 96, 100 - Kawarau Heights'* ref no. 160041.04, dated 13th May 2022.

10. Prior to the construction of the dwelling within Lot 18 the consent holder shall submit to the Manager of Resource Management Engineering at Council evidence demonstrating that the ground within Lot 18 has been undercut and improved to achieve 'good ground' in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Lot 18 -Kawarau Heights Subdivision Geotechnical Assessment*' ref no. 160041.04, dated 2nd February 2022. Alternatively, the consent holder may provide evidence demonstrating that the dwelling foundations have been designed in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Lot 18 -Kawarau Heights Subdivision Geotechnical Assessment*' ref no. 160041.04, dated 2nd February 2022.

11. Prior to the construction of the dwelling within Lot 3 the consent holder shall submit to the Manager of Resource Management Engineering at Council evidence demonstrating that the ground within Lot 3 has been undercut and improved to achieve 'good ground' in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Lot 3 -Kawarau Heights Subdivision Geotechnical Assessment*' ref no. 160041.04, dated 7th March 2022. Alternatively, the consent holder may provide evidence demonstrating that the dwelling foundations have been designed in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Lot 3 -Kawarau Heights Subdivision Geotechnical Assessment*' ref no. 160041.04, dated 7th March 2022.

To be completed when works finish and before occupation of the residential unit

12. The residential units authorised by way of this consent shall not be occupied until s224c certification has been issued for the relevant lots under consent RM210243 and all associated infrastructure and roading installed and vested in Council.

13. Prior to the occupation of the relevant residential unit, the consent holder shall complete the following:

    a) A concrete (or exposed aggregate concrete) vehicle access crossing shall be installed from the surrounding road network to the Lot 50 boundary in accordance with Drawing B5-18 of the QLDC COP and located as per the Queenstown Commercial plan '*Lot 50 – Vehicle Crossing Plan'* dated 12/05/2022. As per Drawing B5-18 this shall include a minimum 0.5m flare either side where the crossing meets the road kerb line.

    b) A concrete (or exposed aggregate concrete) vehicle access crossing shall be installed from the surrounding road network to the Lot 94 boundary in accordance with Drawing B5-18 of the QLDC COP and located as per the Queenstown Commercial plan '*Lot 94 – Vehicle Crossing Plan'* dated 12/05/2022. As per Drawing B5-18 this shall include a minimum 0.5m flare either side where the crossing meets the road kerb line.

    c) A concrete (or exposed aggregate concrete) vehicle access crossing shall be installed from the surrounding road network to the Lot 96 boundary in accordance with Drawing B5-18 of the QLDC COP and located as per the Queenstown Commercial plan '*Lot 96 – Vehicle Crossing Plan'* dated 20/05/2022. As per Drawing B5-18 this shall include a minimum 0.5m flare either side where the crossing meets the road kerb line.

    d) A concrete (or exposed aggregate concrete) vehicle access crossing shall be installed from the surrounding road network to the Lot 3, 18, 39, 44, 54 boundaries in accordance with Drawing B5-18 of the QLDC COP. As per Drawing B5-18 this shall include a minimum 0.5m flare either side where the crossing meets the road kerb line.

    e) Connection of the residential unit to the Council water supply, sewer, and stormwater laterals installed to the boundary of the site under subdivision RM210243, in accordance with Council's standards.

    f) The construction of all vehicle manoeuvring and car parking areas to Council's standards. Provision shall be made for stormwater disposal from all impermeable surfaces.

    g) Any power supply connection to the residential unit shall be underground from existing reticulation and in accordance with any requirements and standards of the Network providers.

    h) Any wired telecommunications connection to the residential unit shall be underground from existing reticulation and in accordance with any requirements and standards of the Network provider.

    i) The consent holder shall remedy any damage to all existing road surfaces and berms that result from work carried out for this consent.

Advice Notes:

- For the avoidance of doubt, landuse consent is granted for the design of the proposed residential units (dwellings) on six identified Lots in the Kawarau Heights subdivision (Lots 39, 44, 50, 54, 94 and 96 approved under RM210243 as amended by RM211116) to infringe the Rules – Standards of the PDP Lower Density Suburban Residential Zone controlling building height, building coverage, landscaped permeable surface coverage, recession planes, and minimum boundary setbacks.

- This land use consent lapses 5 years after granting. For the avoidance of doubt, constructing one residential unit does not give effect to the consent as a whole. Each unit is given effect to individually which means any units not constructed to a fully measurable extent prior to this five year period will fall outside this consent.

- The consent holder is advised that any retaining walls, including stacked stone and gabion walls, proposed in this development which exceeds 1.5m in height or walls of any height bearing

additional surcharge loads will require Building Consent, as they are not exempt under Schedule 1 of the Building Act 2004.

- Prior approval via a Connection to Council Services for a Temporary Water Take is required if Council's water supply is to be utilised for dust suppression during earthworks. This shall include the use of a backflow prevention device to prevent contamination of Council's potable water supply

APPENDIX 3 – APPLICANT'S AEE

ANNEX A

ASSESSMENT OF ENVIRONMENTAL EFFECTS

Application for land use consent for dwellings at Kawarau Heights that breach performance standards and application to amend consent notice condition

February 2022

FOURTH SCHEDULE
Information Required in Application for Resource Consent

1. Introduction - A description of the proposal

The applicant, Queenstown Commercial Limited (QCL), seeks to obtain resource consent for specific house designs at Kawarau Heights.

The proposed house locations and rule breaches are identified in the following table. The plans for each dwelling are contained in Annex [**D**]; these provide elevations and floor plans for each of the proposed dwellings.

Lot	Proposed breaches	Comments
3	Portion of dwelling is located within 4m northern setback (north boundary setback of 4m is required by consent notice condition)	Geotech report is pending 4m setback is a consent notice requirement
18	**Recession Planes** encroaching the northern recession plane at gable **Building setback** Portion of dwelling is located within 4m northern setback (north boundary setback of 4m is required by consent notice condition)	Geotech advice is provided Recession plane meets exceptions to rule: *Exemptions: a. gable end roofs may penetrate the building recession plane by no more than one third of the gable height;* So, with Geotech advice only requirement for consent is the 4m setback As above, 4m setback is a consent notice requirement
39	**Recession Planes** Encroaching the South & West recession planes **Setbacks** Encroaching the 4.5m northern roadside setback Encroaching the 2m setback on the south, west & north west	
44	**Recession Planes** encroaching the southern recession plane	

	Building Coverage exceeding the maximum building coverage by 12.7% Max coverage - 40% Current coverage - 52.7% **Landscape** not meeting the minimum 30% permeable surface current permeable area - 27.9% **Setbacks** Encroaching the 4.5m northern roadside setback Encroaching the 2m eastern setback Encroaching the 2m southern setback	
50	**Recession Planes** Encroaching East & South East Recession Planes **Building Coverage** Exceeding Max coverage by 9.1% Max - 40% Current - 49.1% **Setbacks** Encroaching East 2m setback Encroaching South East 2m setback Encroaching West 4.5m Setback	
54	**Recession plane** Encroaching the Western recession plane **Building Coverage** Exceeding the maximum building coverage by 12.4% Max coverage - 40% Current coverage - 52.4% **Setbacks** Encroaching the 2m Western setback	The setback breach meets the exception though- Exceptions to boundary setbacks: a. accessory buildings for residential activities may be located within the boundary setback distances (other than from road boundaries), where they do not exceed 7.5m in length, there are no windows or openings (other than for carports) along any walls within 1.5m of an internal boundary, and they comply with rules for Building Height and Recession Plane; b. any building may locate within a boundary setback distance by up to 1m for an area no greater than 6m² provided the building within the boundary setback area

		has no windows or openings; Recession plane is just the chimney- exception doesn't apply to chimneys
94	**Recession Planes** Encroaching the North recession plane **Setbacks** Encroaching the 2m setback on the North & South East Encroaching the 4.5m western roadside setback **Building Coverage** Exceeding the maximum building coverage by 5% Max coverage - 40% Current coverage - 45%	
96	**Recession Planes** Encroaching North & South recession planes **Building Coverage** Exceeding the maximum building coverage by 10.7% Max coverage - 40% Current coverage - 50.7%. **Setbacks** Encroaching the 2m setback on the North & South Encroaching the 4.5m East & West roadside setback **Height Restriction** Encroaching the 6m height restriction	

Figure 1 below illustrates the location of each of the dwellings within the plan of subdivision.

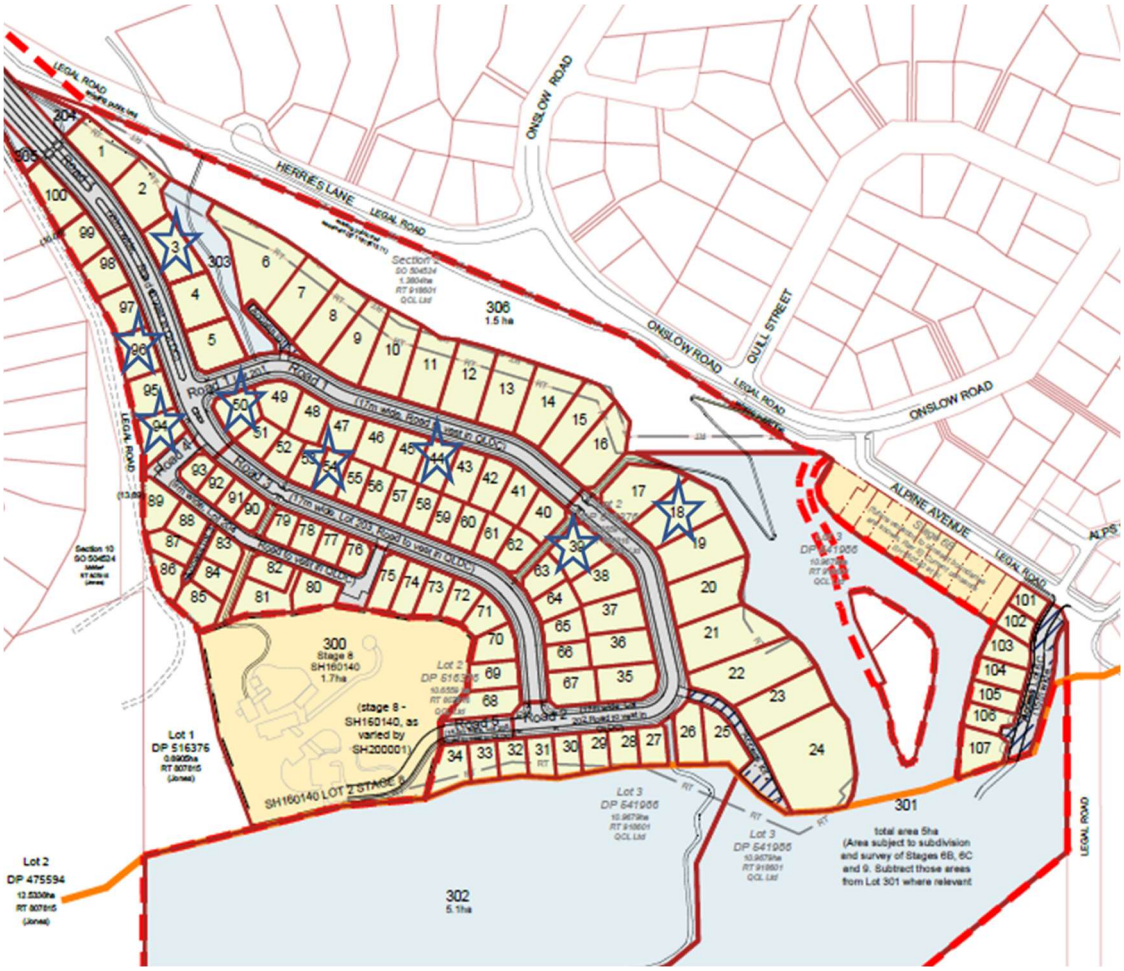


Figure 1: Location of proposed dwellings within approved subdivision

2. Background

SH160140 was a subdivision and land use consent approved under the HASHA legislation. Within what is now known as the Kawarau Heights site (which is the subject to this application) that consent approved 88 retirement villas.

As a result of the resolution of an appeal to the District Plan the site was rezoned Lower Density Residential. Some provisions within the LDR provide specifically to Kawarau Heights, including a structure plan, reference to specific design guidelines and some specific rules.

Resource consent RM210142 approved the subdivision of the site. Figure 1 above is an extract from the plan of subdivision. Of relevance, there are a number of consent notice conditions imposed, including a consent notice condition requiring a 4m setback from the northern boundary of lots located within Activity Area 9A.

Resource consent RM211116 has approved a variation to the subdivision. This provides two alternative scheme plans; one with the road that runs along the site's eastern edge stopped, and the other with the road remaining. Other changes are primarily in relation to the staging of the subdivision.

Much of the physical work has been completed, and it is anticipated that titles will issue within 2022.

3. Site description

The site is legally described as Lot 2 Deposited Plan 516376 held in Record of Title 807816 (please see attached and marked [**C**]).

The site location and legal description is illustrated on Figure 2 below:

Figure 2: Site location

As discussed above, the subdivision works are nearing completion and therefore the roads, footpaths, services and street trees are in place.

3. Resource consents sought

This application is for a land use consent and amendment to a consent notice condition.

3.1 Consent requirements and activity status

This application is for all matters requiring resource consent under the District Plan, rather than for the specific list of consent matters / non-compliances identified by the author. As such, if the Council is of the view that resource consent is required for alternative or additional matters to those identified in this AEE, it has the discretion to grant consent to those matters as well as or in lieu of those identified in this AEE.

I note that, if the Council is of the view that the activity status of any of the matters requiring consent is different to that described in this AEE, or that some or all of the matters requiring consent should be bundled or unbundled in a way that results in a different outcome to that expressed in this AEE, the Council has the ability under Section 104(5)

of the Resource Management Act 1991 ("Act") to process the application The site is zoned Rural and requires the following resource consents:

3.1.1 Proposed District Plan (PDP)

The site is zoned Lower Density Residential Zone and requires resource consent for the following;

1. *7.5.1 Building Height*

7.5.1.3 Kawarau Heights: Maximum of 4.5m and 6m as identified on the Structure Plan in 27.13.15

The proposed chimney on the Lot 96 dwelling breaches the 6m height. **Non complying**

2. *Rule 7.5.5 Building Coverage – A maximum of 40%.*

The following dwellings will exceed the 40% coverage as follows:
Lot 44: Proposed coverage: 52.7%
Lot 50: Proposed coverage: 49.1%
Lot 54: Proposed coverage: 52.5%
Lot 94: Proposed coverage: 45%
Lot 96: Proposed Coverage: 50.7%

Discretionary activity.

3. *Rule 7.5.6 Landscaped permeable surface coverage - At least 30% of the site area shall comprise landscaped (permeable) surface*.

Lot 44: Proposed permeable coverage: 27.9%
Non complying activity.

4. *Rule 7.5.7 Recession planes:*

7.5.7.1 Northern boundary: 2.5m and 55 degrees.
7.5.7.2 Western and eastern boundaries: 2.5m and 45 degrees.
7.5.7.3 Southern boundary: 2.5m and 35 degrees.

Exemptions: a. gable end roofs may penetrate the building recession plane by no more than one third of the gable height;

The dwellings within the following lots will breach the recession plane/s

Lot 39: Encroaches south and west recession planes
Lot 44: Encroaches south recession plane
Lot 50: Encroaches east and south east recession plane
Lot 54: Encroaches west recession plane
Lot 94: Encroaches north recession plane
Lot 96: Encroaches north and south recession planes.

Non Complying activity.

5. *Rule 7.5.8 Minimum boundary setbacks*

The dwellings within the following lots will breach the setbacks:

Lot 39: Encroaches 4.5m northern road setback and the 2m setback on the south, west and north west.

Lot 44: Encroaching the 4.5m northern roadside setback, the 2m eastern setback and 2m southern setback
Lot 50: Encroaching East 2m setback, South East 2m setback, West 4.5m Setback
Lot 54: Encroaching the 2m Western setback
Lot 94: Encroaching the 2m setback on the North & South East, encroaching the 4.5m western roadside setback
Lot 96: Encroaching the 2m setback on the North & South, encroaching the 4.5m East & West roadside setback

Discretionary activity

3.1.2 Operative District Plan (ODP)

The provisions of the PDP are effectively operative pursuant to Section 86f of the Resource Management Act.

3.1.3 Change to consent notice condition

Consent notice condition 42(a) includes the following:

Area 9A- Setbacks from the north boundary shall be 4m. All other setbacks as per the District Plan rules (4.5m road setback, side yard setbacks 2m).

The proposed dwellings in Lots 3 and 18 will be located within the 4m north setback.

Pursuant to Section 221 of the Resource Management Act it is requested that the consent notice condition is amended to remove the requirement for a 4m north boundary setback.

Area 9A- Setbacks from the north boundary shall be 4m, ***except for Lots 3 and 18, where the dwellings will be constructed in accordance with the approved plans dated February 2022.*** *All other setbacks as per the District Plan rules (4.5m road setback, side yard setbacks 2m).*

4. Description of other activities

No other activities are part of the proposal to which this application relates.

5. A description of any other resource consents required for the proposal

No other resource consents are required for this proposal.

6. An assessment of the activity against any relevant provisions of a document referred to in Section 104(1)(b)

Section 104(1)(b) requires that the Council must have regard to any relevant provisions of—

(i) a national environmental standard:
(ii) other regulations:
(iii) a national policy statement:
(iv) a New Zealand coastal policy statement:
(v) a regional policy statement or proposed regional policy statement:
(vi) a plan or proposed plan; and

Clause (i) is not relevant in that the National Environmental Standard (NES) for Assessing and Managing Contaminants in Soil to Protect Human Health 2012 is not relevant. This is a development site that has obtained resource consent approval for underlying subdivision. The approved development is under construction. This is not a subdivision or change in use.

There are no relevant objectives and policies within higher order documents, including the Otago Regional Plans, Regional Policy Statement and National Policy Statements. This is because of the nature of the proposed land use consent, which is to obtain resource consent for minor breaches to performance standards.

The Operative and Proposed Queenstown Lakes District Plans are relevant, and the relevant provisions are addressed in the following sections of this AEE.

8. Assessment of Effects on the Environment (s95D)

The proposed dwellings breach some of the performance standards. The breaches are illustrated clearly on the floor plans and elevations attached and marked [**D**].

Each of the breaches are minor in scale and are for the purpose of fitting the dwellings within the specific sites, creating attractive homes that are oriented to the sun, and respond to the specific constraints and opportunities of each site.

Most of the breaches affect the development site only, because the lots are located centrally within the site. The four lots that are located on the perimeter of the site are addressed specifically as follows:

Lot 3 is a difficult site to develop given that it is sandwiched between the road to its west and the escarpment to its east. It is because of these site constraints that a small part of the dwelling is located within 4m of the northern boundary. The proposed dwelling provides a high quality designed single story dwelling.

The proposed dwelling within Lot 18 has frontage to the eastern escarpment. It will be located slightly within the 4m northern boundary setback. While the dwelling breaches the recession plane, the breach meets the following exemption:

Exemptions:

a. gable end roofs may penetrate the building recession plane by no more than one third of the gable height;

Lots 94 and 96 are located on the western side of the subdivision. The proposed dwellings breach building coverage, setbacks and recession planes. The dwelling within Lot 96 breaches the 6m height because of its proposed chimney. Both dwellings comply with the building line restriction and both are single story with gable pavilion design.

The effects of the breaches on the environment are mitigated by the following factors:

- The house designs use natural, recessive materials
- The breaches are minor in terms of their scale
- Apart from lots 3 and 18, 94 and 96 the dwellings are located centrally within the subdivision and the effects on the wider environment will be minimal.

Kawarau Heights Design guidelines

The design guidelines list design outcomes and these are each addressed as follows:

- *A high quality built environment with an overarching design language responsive to the natural character of the site and the wider context.*

The proposed designs achieve a consistent design language responsive to the natural character of the site and its wider context. This is achieved through use of varying roof designs, natural and recessive claddings and articulated built forms that create visual interest.

- *A range of densities and lot sizes.*

This has been achieved through the underlying subdivision, which creates a range of lot sizes.

- *Provision for single story pavilion style dwellings around the edges of the site, with provision for double story centrally within the site.*

The proposed dwellings are single story and provide a pavilion style design.

- *Buildings that integrate with the existing topography of the land and surrounding area.*

The buildings have been designed specifically for each site and they integrate with the topography of the site and surrounding area.

- *A natural palette of materials with recessive tones to ensure the buildings are subservient to the landscape and surrounding alpine character.*

The dwellings will be clad in a natural palette of materials finished in recessive tones, and this will ensure that the dwellings are subservient to the landscaping. The designs build on and complement the surrounding alpine character.

- *Buildings that are simple in architectural form.*

The buildings are simple in architectural form, with use of varying materials and articulation to create visual interest. Gable rooves are used with pavilion style forms.

Overall it is considered that the proposed houses meet the Kawarau Design Guidelines. The guidelines relating to landscaping, density and integration with the landscape are achieved in large part by the comprehensive subdivision.

The proposed dwellings achieve the guidelines through careful placement of the dwellings on each site, use of appropriate cladding and finishes, design of roof forms and pavilion style dwellings. The garages are in most cases set back from the dwelling, and this helps reduce adverse effects of garages dominating the street. The designs achieve a high quality finish and they will contribute positively to the amenity values of the site and its surrounds.

The breaches are minor, and overall the dwellings meet the design outcomes of the Design Guidelines.

8.2 Conclusion- Environmental Effects

The environmental effects resulting from the proposal, being minor breaches to the performance standards, will result in effects that are less than minor. Of the proposed dwellings, four are located at the edges of the development, being lots 3 and 18 on the east, and 94 and 96 on the west.

The dwellings within lots 3 and 18 are setback from the eastern escarpment and comply with height. They breach the 4m northern setback slightly, but those breaches are not for the full length of the buildings (particularly in the case of Lot 18), and will not cause dominance nor any significant reduction in open space or separation between dwellings.

The proposed dwelling on Lot 94 is located off the boundary to its west and pushes into the eastern road setback. Its design is consistent with the guidelines, and with the dwelling proposed for Lot 96. They both use simple gable roof forms, natural cladding and will achieve a positive relationship to the street.

The proposed dwellings on Lots 94 and 96 provide a pavilion style with gable roof and natural timber finish. They breach the 4.5m setback on the western side. The dwellings will not cause dominance or shading effects. They will not be prominent when viewed from the wider environment and have been designed to complement the landscape.

Overall, the effects of the proposed dwellings on the environment will be no more than minor.

9.0 Effects on Persons

Section 95B(1) requires assessment as to whether there are any affected persons (under s95E) in relation to the activity. Section 95E requires that a person is an affected person if adverse effects of the activity on the person are minor or more than minor (but not less than minor).

Any effects of this proposal on persons will be less than minor. No person is deemed affected. It is noted that in terms of effects on adjacent sites within the development, the applicant currently owns all of the sites within the subdivision.

10. Relevant District Plan provisions (s104(1)(b)(vi))

10.1 Relevant Objectives and Policies

Because the relevant appeals have been resolved, and as such the provisions of the PDP are effectively operative, this assessment focuses on the PDP provisions.

7.2 Objectives and Policies

Objective - Development within the zone provides for a mix of compatible suburban densities and a high amenity low density residential living environment for residents as well as users of public spaces within the zone.

The dwellings achieve a mix of compatible designs and will achieve a high amenity, low density living environment for residents and for users of public places within the zone. The amenity will be maintained through the underlying subdivision and its associated layout, density and landscaping. The proposed dwellings, while breaching some of the performance standards, are of a quality design that respects and responds to the local environment.

The bulk, height and location will maintain the suburban intensity character of the zone, and the privacy and access to sunlight for neighbouring sites will be maintained. This is because of the minor nature of the breaches, and the use of articulation of the building forms.

The proposal has been assessed against the Kawarau Heights Design Guidelines, and the designs achieve the key design outcomes for Kawarau Heights. The dwellings are located in accordance with the structure plan.

Objective 7.2.3
Encourage higher density development where it responds sensitively to the context and character of the locality and is designed to maintain local amenity values

The density is determined by the underlying subdivision and therefore this objective and associated policies are not relevant to the proposed dwellings. The higher density development is achieved in accordance with Policy 7.2.3.4; the sites that are the subject of this application are more than 450m^2 in area.

11. Conclusion- Objectives and Policies of the PDP

It is concluded that the proposal to breach some of the performance standards at Kawarau Heights is consistent with the relevant objectives and policies of the PDP.

The proposed dwellings provide high quality design that achieves the design guidelines for Kawarau Heights. The amenity values of the surrounding residents and the users of nearby trails and roads will be maintained.

12. Where the scale or significance of the activity's effect are such that monitoring is required, a description of how, once the proposal is approved, effects will be monitored and by whom.

No such monitoring is required.

13. Assessment of the activity against Part 2 of the Act

Natural and physical resources will be managed in a manner that enables people and communities to provide for their social, economic and cultural wellbeing. This application promotes sustainable management, and therefore achieves Section 5.

Sections 6 and 8 of Part 2 of the Act are not relevant to this application.

14. Conclusion

The applicant, Queenstown Commercial Limited (QCL), seeks to obtain resource consent for specific houses within the Kawarau Heights development.

The breaches to the rules are generally minor. The dwellings are of a high quality, and their quality design will achieve the design outcomes for the neighbourhood. Because of this, the minor breaches, and the use of simple design forms with natural, recessive cladding, the effects on the wider environment will be less than minor. The effects on persons will be less than minor and no person is deemed affected.

The proposed dwellings have been assessed against the Design Guidelines for Kawarau Heights and the Objectives and policies of the PDP. It is concluded that the proposed dwellings achieve the key design outcomes provided in the Guidelines, and they achieve the relevant objectives and policies of the PDP.

The proposal to construct the dwellings in accordance the plans attached at Annex [**D**] should therefore be approved on a non notified basis.

APPENDIX 4 – ENGINEERING REPORT

QUEENSTOWN LAKES DISTRICT COUNCIL

www.qldc.govt.nz

ENGINEERING MEMO

TO: **Wendy Baverstock**

FROM: Alan Hopkins

DATE: 27/05/2022

SUBJECT: **RM220135 – Queenstown Commercial Limited**

Variation to Condition 42(a) of RM210243

In addition to the proposed LU consent discussed below for the construction of the 8 dwellings, the applicant also seeks to vary existing consent notice condition 42(a) of RM210243. This variation relates to a boundary setback exemption sought for Lots 3 and 18. These setback requirements relate to planning and landscape matters and therefore no specific engineering input is warranted.

Land Use – Construction of Dwellings

The applicant (Queenstown Commercial Limited) seeks land use consent for the construction of 8 dwellings on Lots 3, 18, 39, 44, 50, 54, 94, 96 of subdivision RM210243 (Kawarau Heights). The RM210243 subdivision consent was notably varied under RM211116 to allow two alternative scheme plans; one with the paper road that runs along the site's eastern edge stopped, and the other with the road remaining. Other variation changes were primarily in relation to the staging of the subdivision

For simplicity the proposed dwellings are referred to by the future allotments they will be contained within under RM210243. The location of each of the relevant allotments (and associated dwellings) are as shown below-

Much of the physical work for the RM210243 subdivision has now been completed, and it is anticipated that titles will issue shortly. The RM210243 subdivision consent notably includes a number of consent notice conditions that are of relevance to any residential construction upon the underlying land and within the area of the proposed future titles. These CN conditions are as contained within conditions 39-44 of RM210243 (as varied by RM211116). The specific engineering CN conditions of relevance include-

Condition 41 (RM210243)

a) Any future vehicle crossing installed to access the property from the surrounding road network on Lots 05, 30-32, 50, 67, 68, 76-79, 90-96 shall only be located within in the position shown on the Fluent Solutions plan titled 'Driveway Locations Restrictions Plan' Dwg Q000605 sheet C352 (Rev A) as submitted with resource consent RM210243.

b) Any future vehicle crossings installed to access the property from the surrounding road network on Lots 76-79 and 90-93 shall be from the minor road to the south and in accordance with the Fluent Solutions plan titled 'Driveway Locations Restrictions Plan' Dwg Q000605 sheet C352 (Rev A) as submitted with resource consent RM210243.

c) The vehicle crossing provided to Lots 35-36, 38, 49, 52-53, 71 shall remain located within their current constructed position and as shown on the Fluent Solutions plan titled 'Driveway Locations Restrictions Plan' Dwg Q000605 sheet C352 (Rev A) as submitted with resource consent RM210243.

d) At time of future construction of a residential unit, if a specific vehicle crossing has not previously been installed to the property from the surround road network, the lot owner shall install a residential vehicle crossing in accordance with Drawing B5-18 of the QLDC Subdivision & Land Development Code of Practice.

e) For all residential allotments, there shall be no fencing on the road boundary (except the western side of Lots 89 and 94-100) and side yard fencing shall not extend past the front (street) façade of the residential unit.

Access

I note that in general the greater access roads to the proposed lots and associated dwellings are being constructed and vested under consent RM210243. As this land use application is dependent on completion of these access road for access, I therefore recommend a consent condition that the proposed dwellings shall not be occupied until 224c has been issued for the relevant lots under RM210243. **Note this condition may need to be volunteered by the applicant*

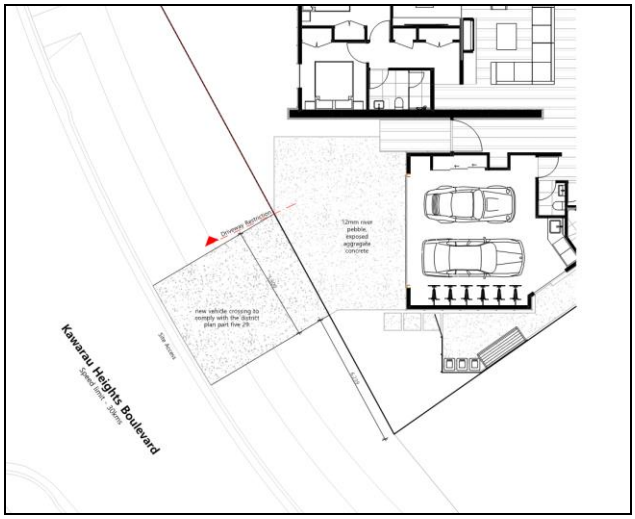
The required vehicle access crossings to Lots 3, 18, 39, 44, 54 have no specific access crossing limitations under the CN conditions of RM210243. Under CN condition 41e the access crossings are required to be designed and installed to Drawing B5-18 of the QLDC COP. I have reviewed the proposed vehicle crossing designs for these proposed dwellings and I am satisfied that they generally comply with Drawing B5-18.

I am also satisfied that these crossings comply with all other relevant Council standards and rules. To ensure that these crossing are correctly constructed, I recommend a consent condition that prior to the occupation of the dwelling a concrete vehicle access crossing shall be installed from the surrounding road network to the lot boundary in accordance with Drawing B5-18 of the QLDC COP.

I note all the proposed vehicle crossing designs provided do not flare by 0.5m at the intersection with the road carriageway kerb line as required under Drawing B5-18 and rule 29.5.14c of the QLDC PDP. The application as provided therefore will result in a breach with CN condition 41e of RM210243 and rule 29.5.14c of the QLDC PDP. It is assumed that this was an oversight by the designer and was intended to be corrected in the construction plan set. However, to ensure that this occurs I recommend a consent condition to ensure that the access crossings installed are provided with an access flare at the kerb intersection in accordance with Drawing B5-18 of the QLDC COP. This condition will address the non-compliance with the PDP rules for all lots except Lot 94. Lot 94 has specific widening at the property boundary to accommodate the required access driveway alignment

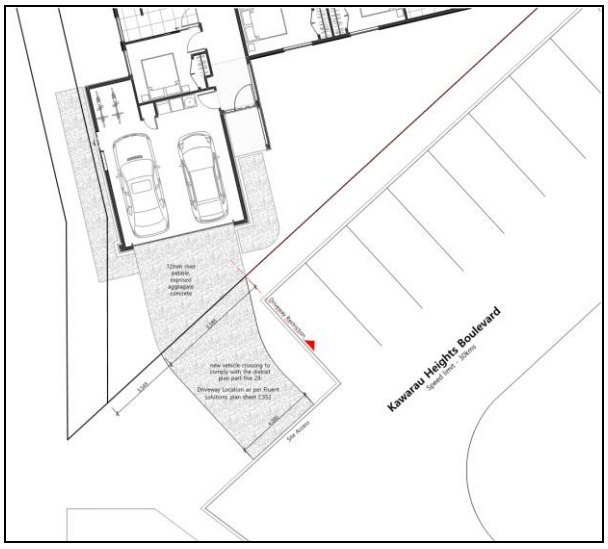
and therefore cannot comply with 29.5.14c of the QLDC PDP in so much as 'the width of the vehicle crossings at the kerb shall be 1.0m wider than the width at the boundary'. In this regard I am satisfied that non-compliance for Lot 94 is acceptable on the basis that the access flares at the kerb line in accordance with Drawing B5-18 of the QLDC COP but is not required to specifically be 1m wider than the width at the boundary.

Lot 50



The access crossing to Lot 50 is subject to CN Condition 41a of RM210243. This condition relates to the need to provide a minimum 25m access crossing off-sets from the roading intersection to the north. As per the above plan I am satisfied that the access crossing to Lot 50 is located generally 25m from the intersection to the north and therefore complies with CN Condition 41a of RM210243 and rule 29.5.21 of the QLDC PDP. I note that while the access crossing is located within 25m of the minor lane access opposite, this aspect and non-compliance with rule 29.5.21 of the QLDC PDP has already been identified and agreed appropriate under RM210243, this included specific safety assessment from a suitably qualified traffic engineer. I am satisfied that this crossing complies with all other relevant Council standards and rules. To ensure that this crossing is correctly constructed, I recommend a consent condition that prior to the occupation of the dwelling a concrete vehicle access crossing shall be installed from the surrounding road network to the lot boundary in accordance with Drawing B5-18 of the QLDC COP and located as per the Queenstown Commercial plan '*Lot 50 – Vehicle Crossing Plan'* dated 12/05/2022.

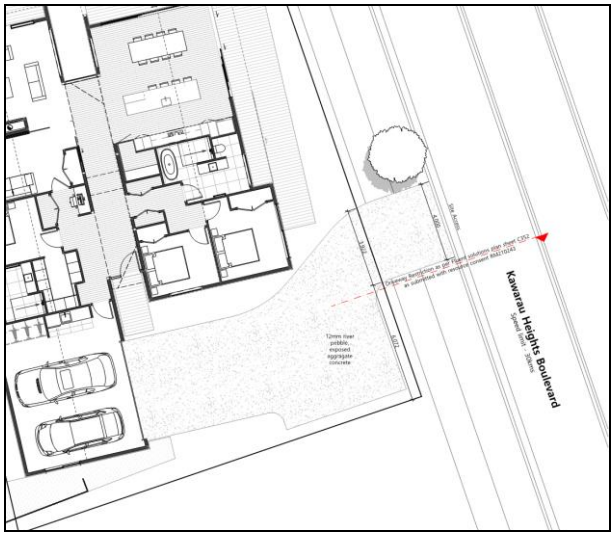
Lot 94



The access crossing to Lot 94 is subject to CN Condition 41a and 41b of RM210243. Condition 41a relates to the need to provide a minimum 25m access crossing off-sets from the roading intersection

to the east. Condition 41b relates to the need to only access from the minor road (Kawarau Heights Boulevard) and in the location shown on the Fluent Solutions plan titled 'Driveway Locations Restrictions Plan' Dwg Q000605 sheet C352 (Rev A). I have reviewed the proposed access layout and I am satisfied that it complies within both CN Conditions 41a and 41b of RM210243. I am satisfied that this crossing complies with all other relevant Council standards and rules. To ensure that this crossing is correctly constructed, I recommend a consent condition that prior to the occupation of the dwelling a concrete vehicle access crossing shall be installed from the surrounding road network to the lot boundary in accordance with Drawing B5-18 of the QLDC COP and located as per the Queenstown Commercial plan '*Lot 94 – Vehicle Crossing Plan'* dated 12/05/2022..

Lot 96



The access crossing to Lot 96 is subject to CN Condition 41a of RM210243. This condition relates to the need to provide a minimum 25m access crossing off-sets from the roading intersection to the south. As per the above plan I am satisfied that the access crossing to Lot 96 is located 25m from the intersection to the south and therefore complies with CN Condition 41a of RM210243 and rule 29.5.21 of the QLDC PDP. I do note however that in order to accommodate this crossing location the applicant has been required to off-set the crossing to the north of the on-site garage, this alignment is problematic for any vehicle trying to reserve manoeuvre from the garage to the access road (Kawarau Heights Boulevard). This potential inconvenience has been addressed through the provision of an onsite turnaround area. I am satisfied that this crossing complies with all other relevant Council standards and rules. To ensure that this crossing is correctly constructed, I recommend a consent condition that prior to the occupation of the dwelling a concrete vehicle access crossing shall be installed from the surrounding road network to the lot boundary in accordance with Drawing B5-18 of the QLDC COP and located as per the Queenstown Commercial plan '*Lot 96 – Vehicle Crossing Plan'* dated 20/05/2022.

Parking

Each proposed dwelling includes a two-car garage. I have reviewed the dimensions of the proposed garages and I am satisfied that these comply with Council minimum standards. I am satisfied that the formation of these garage parks will be further assessed under the building consent for the dwellings and therefore no consent conditions are recommended in this regard.

Services

The proposed dwellings are to be serviced via infrastructure installed under consent RM210243. As this land use application is dependent on completion of these service, I therefore recommend a consent condition that the proposed dwellings shall not be occupied until 224c has been issued for the relevant lots under RM210243. **Note this condition may need to be volunteered by the applicant*

I likewise recommend a consent condition that prior to occupation of the dwellings they shall be connected to the service laterals installed to the property boundary under subdivision RM210243.

Geotechnical

The specific conditions of subdivision RM210243 require that prior to 224c the consent holder shall provide a geotechnical completion report and Schedule 1A certificate. This report and certificate will ensure that the underlying ground conditions can support any future residential dwelling, and where specific foundations or ground improvements are required, this will be secured through appropriate consent notice conditions on the relevant title. A geotechnical completion report and Schedule 1A certificate has yet to be issued for the relevant lots under RM210243. The applicant has therefore provided specific geotechnical assessment reports for each of the lots. Noting that all bulk ground works required under RM210243 have now been completed.

Lot 3

Lot 3 is located within a 13m terrace slope crest setback area (hatched green) identified by Geosolve under the consent assessment for RM210243 as a 'geotechnical setback area' and requiring 'specific engineering design'

The applicant has provided a geotechnical assessment report for Lot 3 from Geosolve titled '*Lot 3 - Kawarau Heights Subdivision Geotechnical Assessment*' ref no. 160041.04, dated 7th March 2022. The findings of this assessment relate to slope stability within regards to the adjacent terrace slope and general foundation bearing capacity.

Slope Stability

The 7th March 2022 Lot 3 Geosolve assessment includes additional modelling of slope stability factors and concludes '*The results (of slope modelling) show,* that *to meet building code requirements with respect to slope stability building setback from the crest will vary from 3 m at the north end of the lot, to 1.2 m at the southern end. Foundations that extend closer to the crest then this should be subject to specific engineering assessment with respect to slope stability*.' I have reviewed the proposed dwelling design in this regard, and I am satisfied that the proposed dwelling is located with a greater setback then those recommended by Geosolve. I accept the Geosolve findings, and I am satisfied that the proposed dwelling has been suitably assessed with regards to terrace slope stability and setback and is therefore acceptable in this regard.

Foundation Bearing Capacity

The 7th March 2022 Lot 3 Geosolve assessment concludes the following with regards the ground bearing and specific foundation design-

The natural soils don't meet the requirements of "Good Ground", as outlined in NZS3604. Options to address the reduced bearing capacity are outlined as follows:

Undercut and Replacement with Engineered Fill

Undercutting the natural ground and replacing with imported granular fill will provide a practical solution to improve foundation bearing capacity.
To achieve 300kPa ultimate bearing capacity it is recommended a minimum of 0.4 m thickness of engineered fill is placed below foundation level. Foundations should bear directly on the engineered fill.
Imported fill should be well graded granular material placed and compacted in accordance with NZS4431 and with certification provided to that effect.

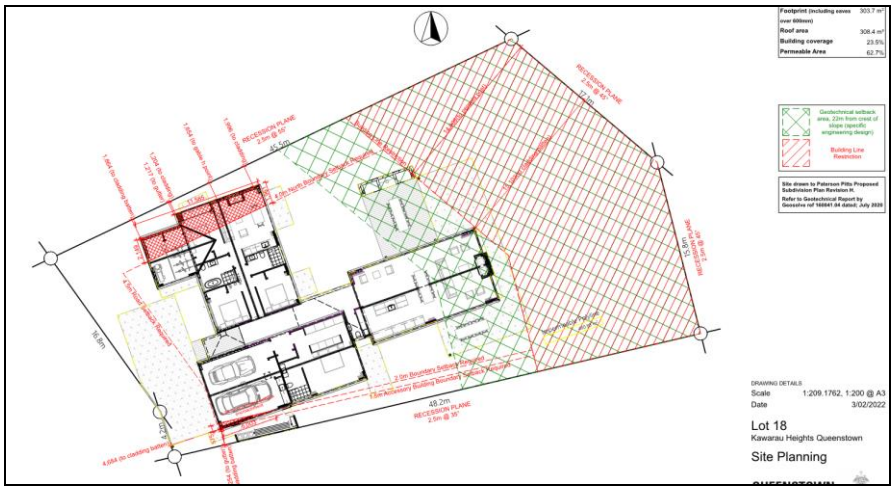
The engineered fill should extend 1 m beyond the building footprint.

Design Footings for a Reduced Bearing Capacity
Alternatively, foundations can be designed to bear on the natural ground using an appropriate bearing capacity. Figure 2 below (see report) provides recommended allowable bearing pressures for shallow foundations which bear on the natural ground. The foundation working stresses presented in Figure 2 are governed by bearing capacity in the case of narrow footings and settlement in the case of wide footings.
From Figure 2 it can be seen an allowable working stress of approximately 50 kPa is recommended for a 400 mm wide by 400 mm deep strip footing founded on loose sand. This corresponds to a factored (ULS) bearing capacity of approximately 75 kPa and an ultimate geotechnical bearing capacity of 150 kPa.

I accept the Geosolve findings, and to ensure that suitable ground improvement has occurred or foundations designed, I recommend a consent condition that prior to the construction of the dwelling the consent holder shall provide evidence demonstrating that ground within Lot 3 has been undercut and improved to achieve 'good ground' in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Lot 3 -Kawarau Heights Subdivision Geotechnical Assessment*' ref no. 160041.04, dated 7th March 2022. Alternatively, the consent holder may provide evidence demonstrating that the dwelling foundations have been designed in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Lot 3 -Kawarau Heights Subdivision Geotechnical Assessment*' ref no. 160041.04, dated 7th March 2022.

The 7th March 2022 Lot 3 Geosolve assessment also includes general recommendations with regards to fill placement and earthwork inspections. I therefore also recommend a general condition that all earthworks shall be undertaken in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Lot 3 -Kawarau Heights Subdivision Geotechnical Assessment*' ref no. 160041.04, dated 7th March 2022.

Lot 18
Lot 18 is located within a 22m terrace slope crest setback area (hatched green) identified by Geosolve under the consent assessment for RM210243 as a 'geotechnical setback area' and requiring 'specific engineering design'



The applicant has provided a geotechnical assessment report for Lot 18 from Geosolve titled '*Lot 18 - Kawarau Heights Subdivision Geotechnical Assessment*' ref no. 160041.04, dated 2nd February 2022. The findings of this assessment relate to slope stability within regards to the adjacent terrace slope and general foundation bearing capacity.

Slope Stability
The 2nd Feb 2022 Lot 18 Geosolve assessment includes additional modelling of slope stability factors and concludes the following-

Loading Case	Minimum Factor of safety Requirements	Results
Static	1.5	Achieved at ≥13 m set back from the crest
Seismic Serviceability Limit State (SLS), 0.08g	1.2	Achieved at ≥15 m set-back from the crest
Seismic Ultimate Limit State (ULS), 0.34g	No target FOS - estimated lateral stretch to be restricted to less than 20 mm at the building location	<20 mm calculated at 16.5 m setback from the crest.

'*Drawings provided to Geosolve, indicate the footprint of the building is greater than 16.5 m from the crest of the slope. The results therefore show the proposed building location is satisfactory with respect to slope stability, and no specific engineering design is required.'*

I have reviewed the proposed dwelling design in this regard, and I am satisfied that the proposed dwelling is located with a greater setback then those recommended by Geosolve. Noting that terrace crest is located 1.3-1.5m east of the property's eastern boundary. I accept the Geosolve findings, and I am satisfied that the proposed dwelling has been suitably assessed with regards to terrace slope stability and setback and is therefore acceptable in this regard.

Foundation Bearing Capacity
The 2nd Feb 2022 Lot 18 Geosolve assessment concludes the following with regards the ground bearing and specific foundation design-

These (underlying) materials do not comply with the requirements for "Good Ground", as outlined in NZS3604 and specific engineering design will therefore be required. Options to address the reduced bearing capacity are outlined as follows:

<u>Undercut and Replacement with Engineered Fill</u>
Undercutting the natural ground and replacing with imported granular fill will provide a practical solution to improve foundation bearing capacity. Review of the Architects drawings indicates footing widths will vary from 0.1 m to 0.65 m.
To achieve 300kPa ultimate bearing capacity it is recommended a minimum of 0.4 m thickness of engineered fill is placed below foundation level. Foundations should bear directly on the engineered fill.
Imported fill should be well graded granular material placed and compacted in accordance with NZS4431 and with certification provided to that effect.
The engineered fill should extend 1 m beyond the building footprint.

<u>Design Footings for a Reduced Bearing Capacity</u>
Alternatively, foundations can be designed to bear on the natural ground using an appropriate bearing capacity. Figure 2 below (see report) provides recommended allowable bearing pressures for shallow foundations which bear on the natural ground. The foundation working stresses presented in Figure 2 are governed by bearing capacity in the case of narrow footings and settlement in the case of wide footings.
From Figure 2 it can be seen an allowable working stress of approximately 50 kPa is recommended for a 400 mm wide by 400 mm deep strip footing founded on loose sand. This corresponds to a factored (ULS) bearing capacity of approximately 75 kPa and an ultimate geotechnical bearing capacity of 150 kPa.

I accept the Geosolve findings, and to ensure that suitable ground improvement has occurred or foundations designed, I recommend a consent condition that prior to the constructed of the dwelling within Lot 18 the consent holder shall provide evidence demonstrating that ground within Lot 18 has been undercut and improved to achieve 'good ground' in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Lot 18 -Kawarau Heights Subdivision Geotechnical Assessment*' ref no. 160041.04, dated 2nd February 2022. Alternatively, the consent holder may provide evidence demonstrating that the dwelling foundations have been designed in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Lot 18 -Kawarau Heights Subdivision Geotechnical Assessment*' ref no. 160041.04, dated 2nd February 2022.

The 2nd February 2022 Lot 18 Geosolve assessment also includes general recommendations with regards to fill placement and earthwork inspections. I therefore also recommend a general condition that all earthworks shall be undertaken in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Lot 18 -Kawarau Heights Subdivision Geotechnical Assessment*' ref no. 160041.04, dated 2nd February 2022.

Lots 39, 44, 50, 54, 94, 96
Lots 39, 44, 50, 54, 94, 96 are located outside of any terrace slope crest setback areas identified by Geosolve under the consent assessment for RM210243. The applicant has provided a geotechnical assessment report for these lots from Geosolve titled '*Geotechnical Assessments for Foundation Design Lot Numbers 5, 26, 39, 44, 49, 50, 54, 94, 96, 100 - Kawarau Heights'* ref no. 160041.04, dated 13th May 2022. This assessment relates to foundation bearing capacity and general recommendations with regards to fill placement and construction inspections.

Foundation Bearing Capacity
The 13th May 2022 Geosolve assessment concludes the following with regards the ground bearing and specific foundation design on Lots 39, 44, 50, 54, 94, 96 -

Investigation data indicates loess materials will be present at typical shallow foundation depths (< 1m). These materials are assessed to be 'firm' with respect to consistency. Underlying the loess, 'loose' sand and 'firm' silt materials are present. These materials do not meet the requirements for Good Ground as described in NZS3604.

2 options are available for foundation design as follows:

<u>Improve bearing by undercutting and replacement with engineered fill</u>
Undercutting the natural ground and replacing with imported granular fill will provide a practical solution to improve the foundation bearing capacity.
To achieve 300kPa ultimate bearing capacity a minimum engineered fill thickness of 0.4 m below foundation level is required. 0.4 m of engineered fill will allow standard shallow foundation types that require bearing capacities as per Good Ground to be constructed.
Imported fill should be well graded granular and relatively free draining. The fill should be placed and compacted in accordance with NZS4431 with certification provided to that effect.

<u>Bearing on Natural Ground</u>
Foundations can be designed to bear on the natural ground using an appropriate bearing capacity. Figure 1 below (see report) provides recommended allowable bearing pressures for shallow foundations which bear on the natural ground. The foundation working stresses presented in Figure 1 are governed by bearing capacity in the case of narrow footings and settlement in the case of wide footings.
From Figure 1 it can be seen an allowable working stress of approximately 50 kPa is recommended for a 400 mm wide by 400 mm deep strip footing founded on loose sand. This corresponds to a factored (ULS) bearing capacity of approximately 75 kPa and an ultimate geotechnical bearing capacity of 150 kPa.

I accept the Geosolve findings, and to ensure that suitable ground improvement has occurred or foundations designed, I recommend a consent condition that prior to the constructed of the dwellings the consent holder shall provide evidence demonstrating that ground within Lots 39, 44, 50, 54, 94, 96 has been undercut and improved to achieve 'good ground' in accordance with the recommendations

of the Geosolve report provided for land use consent RM220135 and titled *Geotechnical Assessments for Foundation Design Lot Numbers 5, 26, 39, 44, 49, 50, 54, 94, 96, 100 - Kawarau Heights'* ref no. 160041.04, dated 13th May 2022.. Alternatively, the consent holder may provide evidence demonstrating that the relevant dwelling foundations have been designed in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Geotechnical Assessments for Foundation Design Lot Numbers 5, 26, 39, 44, 49, 50, 54, 94, 96, 100 - Kawarau Heights'* ref no. 160041.04, dated 13th May 2022.

The 13th May 2022 Lots 5, 26, 39, 44, 49, 50, 54, 94, 96, 100 Geosolve assessment also includes general recommendations with regards to fill placement and earthwork inspections. I therefore also recommend a general condition that all earthworks shall be undertaken in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Geotechnical Assessments for Foundation Design Lot Numbers 5, 26, 39, 44, 49, 50, 54, 94, 96, 100 - Kawarau Heights'* ref no. 160041.04, dated 13th May 2022

RECOMMENDED CONDITIONS

It is recommended that the following conditions are included in the consent decision:

General

1. All engineering works shall be carried out in accordance with the Queenstown Lakes District Council's policies and standards, being QLDC's Land Development and Subdivision Code of Practice adopted on 8th October 2020 and any subsequent amendments to that document up to the date of issue of any subdivision consent, except where specified otherwise.

   Note: The current standards are available on Council's website via the following link: http://www.qldc.govt.nz

To be monitored throughout earthworks

2. Any earthworks within Lots 39, 44, 50, 54, 94, 96 shall be undertaken in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled *Geotechnical Assessments for Foundation Design Lot Numbers 5, 26, 39, 44, 49, 50, 54, 94, 96, 100 - Kawarau Heights'* ref no. 160041.04, dated 13th May 2022.

3. Any earthworks within Lot 18 shall be undertaken in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Lot 18 -Kawarau Heights Subdivision Geotechnical Assessment*' ref no. 160041.04, dated 2nd February 2022.

4. Any earthworks within Lot 3 shall be undertaken in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Lot 3 -Kawarau Heights Subdivision Geotechnical Assessment*' ref no. 160041.04, dated 7th March 2022.

To be completed prior to the construction of the residential unit

5. Prior to the construction of the dwellings within Lots 39, 44, 50, 54, 94, 96 the consent holder shall submit to the Manager of Resource Management Engineering at Council evidence demonstrating that the ground within Lots 39, 44, 50, 54, 94, 96 has been undercut and improved to achieve 'good ground' in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled *Geotechnical Assessments for Foundation Design Lot Numbers 5, 26, 39, 44, 49, 50, 54, 94, 96, 100 - Kawarau Heights'* ref no. 160041.04, dated 13th May 2022.. Alternatively, the consent holder may provide evidence demonstrating that the relevant dwelling foundations have been designed in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Geotechnical Assessments for Foundation Design Lot Numbers 5, 26, 39, 44, 49, 50, 54, 94, 96, 100 - Kawarau Heights'* ref no. 160041.04, dated 13th May 2022.

6. Prior to the constructed of the dwelling within Lot 18 the consent holder shall submit to the Manager of Resource Management Engineering at Council evidence demonstrating that the ground within Lot 18 has been undercut and improved to achieve 'good ground' in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Lot 18 -Kawarau Heights Subdivision Geotechnical Assessment*' ref no. 160041.04, dated 2nd February 2022. Alternatively, the consent holder may provide evidence demonstrating that the dwelling foundations have been designed in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Lot 18 -Kawarau Heights Subdivision Geotechnical Assessment*' ref no. 160041.04, dated 2nd February 2022.

7. Prior to the constructed of the dwelling within Lot 3 the consent holder shall submit to the Manager of Resource Management Engineering at Council evidence demonstrating that the ground within Lot 3 has been undercut and improved to achieve 'good ground' in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Lot 3 -Kawarau Heights Subdivision Geotechnical Assessment*' ref no. 160041.04, dated 7th March 2022. Alternatively, the consent holder may provide evidence demonstrating that the dwelling foundations have been designed in accordance with the recommendations of the Geosolve report provided for land use consent RM220135 and titled '*Lot 3 -Kawarau Heights Subdivision Geotechnical Assessment*' ref no. 160041.04, dated 7th March 2022.

To be completed when works finish and before occupation of the residential unit

8. The residential unit shall not be occupied until 224c has been issued for the relevant lots under consent RM210243 and all associated infrastructure and roading installed and vested in Council. **Note this condition may need to be volunteered by the applicant*

9. Prior to the occupation of the relevant residential unit, the consent holder shall complete the following:

    a) A concrete (or exposed aggregate concrete) vehicle access crossing shall be installed from the surrounding road network to the Lot 50 boundary in accordance with Drawing B5-18 of the QLDC COP and located as per the Queenstown Commercial plan '*Lot 50 – Vehicle Crossing Plan'* dated 12/05/2022. As per Drawing B5-18 this shall include a minimum 0.5m flare either side where the crossing meets the road kerb line.

    b) A concrete (or exposed aggregate concrete) vehicle access crossing shall be installed from the surrounding road network to the Lot 94 boundary in accordance with Drawing B5-18 of the QLDC COP and located as per the Queenstown Commercial plan '*Lot 94 – Vehicle Crossing Plan'* dated 12/05/2022. As per Drawing B5-18 this shall include a minimum 0.5m flare either side where the crossing meets the road kerb line.

    c) A concrete (or exposed aggregate concrete) vehicle access crossing shall be installed from the surrounding road network to the Lot 96 boundary in accordance with Drawing B5-18 of the QLDC COP and located as per the Queenstown Commercial plan '*Lot 96 – Vehicle Crossing Plan'* dated 20/05/2022. As per Drawing B5-18 this shall include a minimum 0.5m flare either side where the crossing meets the road kerb line.

    d) A concrete (or exposed aggregate concrete) vehicle access crossing shall be installed from the surrounding road network to the Lot 3, 18, 39, 44, 54 boundaries in accordance with Drawing B5-18 of the QLDC COP. As per Drawing B5-18 this shall include a minimum 0.5m flare either side where the crossing meets the road kerb line.

    e) Connection of the residential unit to the Council water supply, sewer, and stormwater laterals installed to the boundary of the site under subdivision RM210243, in accordance with Council's standards.

    f) The construction of all vehicle manoeuvring and car parking areas to Council's standards. Provision shall be made for stormwater disposal from all impermeable surfaces.

    g) Any power supply connection to the residential unit shall be underground from existing reticulation and in accordance with any requirements and standards of the Network providers.

h) Any wired telecommunications connection to the residential unit shall be underground from existing reticulation and in accordance with any requirements and standards of the Network provider.

i) The consent holder shall remedy any damage to all existing road surfaces and berms that result from work carried out for this consent.

Advice Notes

1. The consent holder is advised that any retaining walls, including stacked stone and gabion walls, proposed in this development which exceeds 1.5m in height or walls of any height bearing additional surcharge loads will require Building Consent, as they are not exempt under Schedule 1 of the Building Act 2004.
2. Prior approval via a Connection to Council Services for a Temporary Water Take is required if Council's water supply is to be utilised for dust suppression during earthworks. This shall include the use of a backflow prevention device to prevent contamination of Council's potable water supply.

Prepared by:

Alan Hopkins
CONSULTING ENGINEER

Reviewed by:

Mike Wardill
TEAM LEADER RM ENGINEERING

APPENDIX 5 – GEOTECHNICAL REPORTS

GeoSolve Ref: 160041.04
7 March 2022

Queenstown Commercial Limited
brent@queenstowncommercial.co.nz
cc Lloyd Bassett- Smith lloyd@bassett-smithachitecture.co.nz

Attention: Brent Mitchell

Lot 3 - Kawarau Heights Subdivision
Geotechnical Assessment

Dear Brent,

1 Introduction

This letter documents the results of specific geotechnical assessment for Lot 3. We understand the analysis and recommendations outlined below will be used to confirm the location of the proposed dwelling on the lot, and the detailed design of the foundations. The geotechnical issues outlined in this letter comprise.

- Slope stability, and;
- Foundation bearing capacity.

2 Previous Reporting

Resource consent reporting for the Kawarau Heights subdivision[1], and subsequent consenting documentation provides the following recommendations for Lot 3:

- Slope Stability – With respect to the slope on the eastern boundary of the lot minimum building setbacks of 22m are recommended for standard foundations constructed in accordance with NZS3604. Set back zones are provided on development plans.
- Bearing Capacity – With respect to foundation bearing capacity, Specific Engineering Design (SED) is required.

Geotechnical completion reporting (yet to be finalised) is expected to include the above 2 requirements for Lot 14.

3 Recent Earthworks

Subsequent to issue of the resource consent report, earthworks have been undertaken along the north eastern edge of Lot 3. The earthworks have modified the slope on the north eastern side of platform, and have been completed in tandem with stormwater pipework

[1] Geotechnical Report, Queenstown Country Club, Southern Block, Queenstown, Ref 160041.04, July 2020

and retaining at the slope toe. An as-built survey of the earthworks has been provided by Paterson Pitts Group and is shown in Figure 1.1 below.

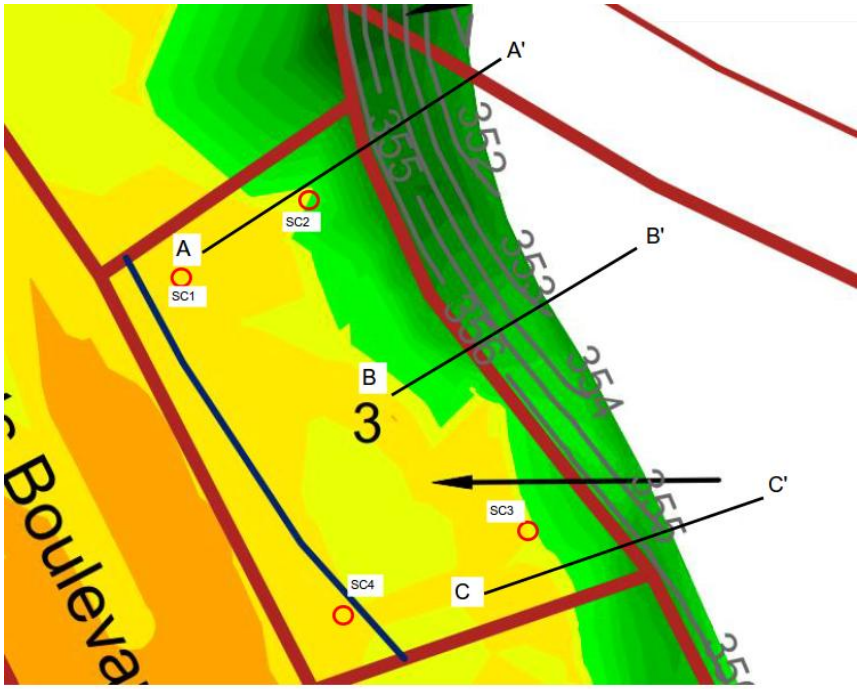


Figure 1.1 Plan showing filled ground (green) on the north eastern border of Lot 3, Cross-Section locations and Scala penetrometer test locations.

Photograph 1 below shows a view of the site and the slope to the south east.

Photograph 1. Slope on the south eastern side of Lot 3. Looking north.

4 Ground Conditions

A review of the ground model beneath the lot has been completed from the following data:

- A review of all Dynamic Probe data for the Kawarau Heights Subdivision, completed to depths of up to 12 m. No specific dynamic probe has been completed in Lot 3.
- A review of test pit data for the general surrounding area, and construction data,
- 4 x Scala Penetrometer tests completed across the building footprint.
- Scala testing data for the fill placed along the south eastern slope.

The ground model for lot 3 is assessed to be as follows:

- 0.3m of Topsoil
- Engineered fill along the south eastern slope boundary and along the margins of the lot, varying in thickness;
- < 1 m of Loess, comprising silt with fine sand;
- 4 m of alluvial SAND, loose
- 7 m + Alluvial sand & gravel, medium dense.

5 Slope Stability Analysis

A slope stability analysis has been completed for Lot 3 using the software package Slope/W. 3 Cross-sections were analysed, A B and C, as shown on Figure 1.1 above. The design parameters used in the slope stability analysis are provided in Table 5.1 below. Seismic loading has been determined using the NZTA Bridge Manual.

Unit	Thickness (m)	SPT N value (from DPH data)	Bulk Density γ (kN/m^3)	Effective Cohesion c' (kPa)	Effective Friction ϕ' (deg)
Loess (firm to stiff SILT with trace to minor sand).	0.8	<5	18	0	30
Alluvial Sand (SAND with some silt, Loose).	4.0	<10	18	0	30
Alluvial Sand and Gravel (Inferred from the known geological data and the DPH Log, interbedded, medium dense)	7m+	Varies 10-30, average 20	18	0	33
Engineered fill	Varies	n/a	18	0	34

Table 5.1. Geotechnical Design Parameters and Supporting Test Data

Table 5.2, below shows the building code criteria and results of the slope stability analysis.

Loading Case	Minimum Factor of safety Requirements	Results		
		Section A	Section B	Section C
Static	1.5	1.5 m setback	1.5 m setback	1 m setback
Seismic Serviceability Limit State (SLS), 0.08g	1.2	3 m setback	2 m setback	1.2 m setback
Seismic Ultimate Limit State (ULS), 0.34g	No target FOS - estimated lateral stretch to be restricted to less than 20 mm at the building location	< 20 mm displacement at 3 m setback	< 20 mm displacement at 2 m setback	< 20 mm displacement at 1.2 m setback

Table 5.2 – Slope Stability Building Code Criteria and Results

The results show, that to meet building code requirements with respect to slope stability building setback from the crest will vary from 3 m at the north end of the lot, to 1.2 m at the southern end. Foundations that extend closer to the crest then this should be subject to specific engineering assessment with respect to slope stability.

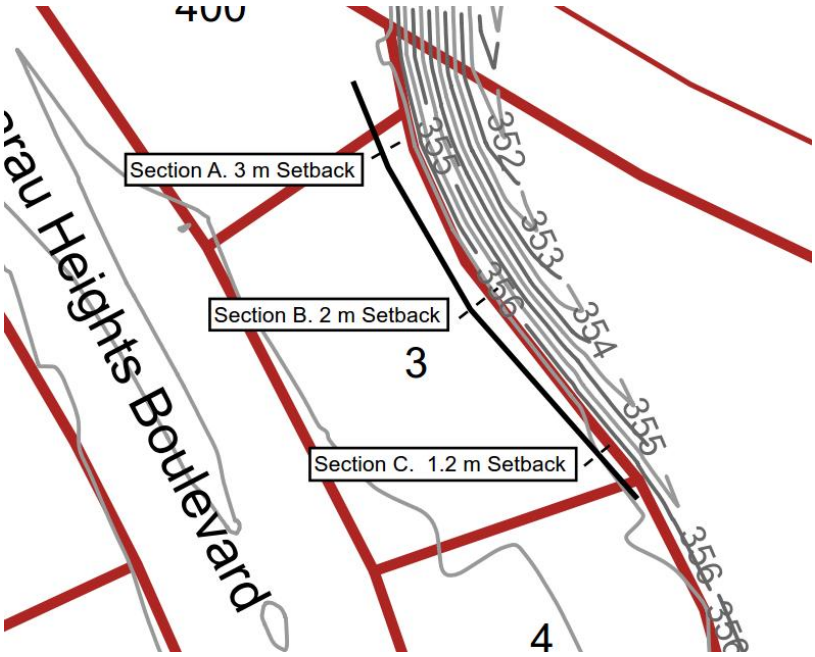


Figure 5.1. Site Plan showing set-backs for Sections A, B and C.

6 Foundation Bearing Capacity

The site is underlain by a mixture of engineered fill and natural soil. The engineered fill is confined to a narrow strip along the south eastern boundary, and in many areas within the lot is relatively shallow (<1 m), see Figure 1.1 above.

Most of the building footprint will be on natural soil (Loess and deltaic sand), and it is recommended the bearing capacity be assessed on this basis. Scala blow counts for the natural soil materials are typically 2-3 per 100 mm advancement of the rod, see attached results. The natural soils therefore don't meet the requirements of "Good Ground", as outlined in NZS3604. Options to address the reduced bearing capacity are outlined as follows:

Undercut and Replacement with Engineered Fill

Undercutting the natural ground and replacing with imported granular fill will provide a practical solution to improve foundation bearing capacity.

To achieve 300kPa ultimate bearing capacity it is recommended a minimum of 0.4 m thickness of engineered fill is placed below foundation level. Foundations should bear directly on the engineered fill.

Imported fill should be well graded granular material placed and compacted in accordance with NZS4431 and with certification provided to that effect.

The engineered fill should extend 1 m beyond the building footprint.

Design Footings for a Reduced Bearing Capacity

Alternatively, foundations can be designed to bear on the natural ground using an appropriate bearing capacity. Figure 2 below provides recommended allowable bearing pressures for shallow foundations which bear on the natural ground. The foundation working stresses presented in Figure 2 are governed by bearing capacity in the case of narrow footings and settlement in the case of wide footings.

From Figure 2 it can be seen an allowable working stress of approximately 50 kPa is recommended for a 400 mm wide by 400 mm deep strip footing founded on loose sand. This corresponds to a factored (ULS) bearing capacity of approximately 75 kPa and an ultimate geotechnical bearing capacity of 150 kPa.

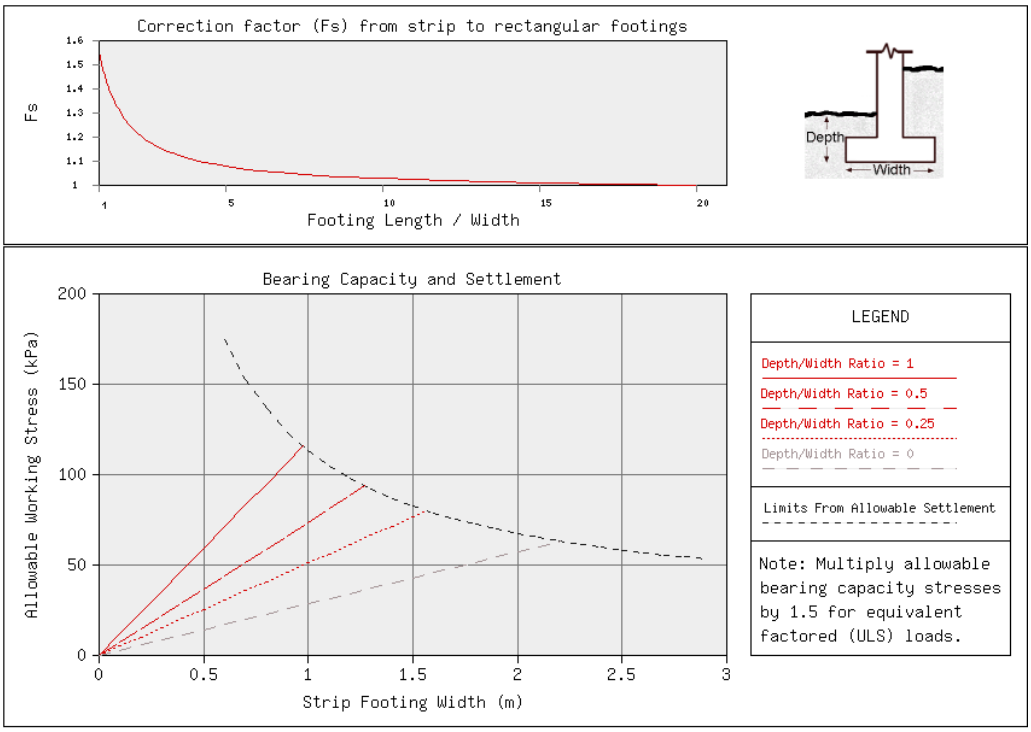


Figure 6.1. Recommended shallow bearing pressures for foundations that bear on loose sand material in the upper 1 m.

7 Construction

The following geotechnical construction inspections and testing will be required for the development.

- Prior to any fill placement or foundation construction inspection of all natural soil subgrade areas will need to be completed. The inspection will confirm all unsuitable materials have been removed and the natural ground meets the assumptions of this report.
- Note that mature trees were removed from lot 3 and some remaining roots may be present. Additional undercut may be required to address any remaining roots.
- Engineered fill will be placed and tested in accordance with NZS4431 Earth Fill for Residential Buildings. Engineer review and sign off of the fill materials and test results will be required.

8 Applicability

This report has been prepared for the benefit of Queenstown Commercial Ltd with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose without our prior review and written agreement.

Yours faithfully,

Paul Faulkner
Senior Engineering Geologist
GeoSolve Limited

Attachments:

Scala Penetrometer Logs 1 to 4

GEOSOLVE

GeoSolve Ltd

SCALA PENETROMETER LOG

Job No: *160041.04*
Project: *Lot 3 Kawarau Heights*

Date: *3/03/2022*
Operated by: *pgf*
Logged by: *pgf*

Test Number ***SC1 & SC2***

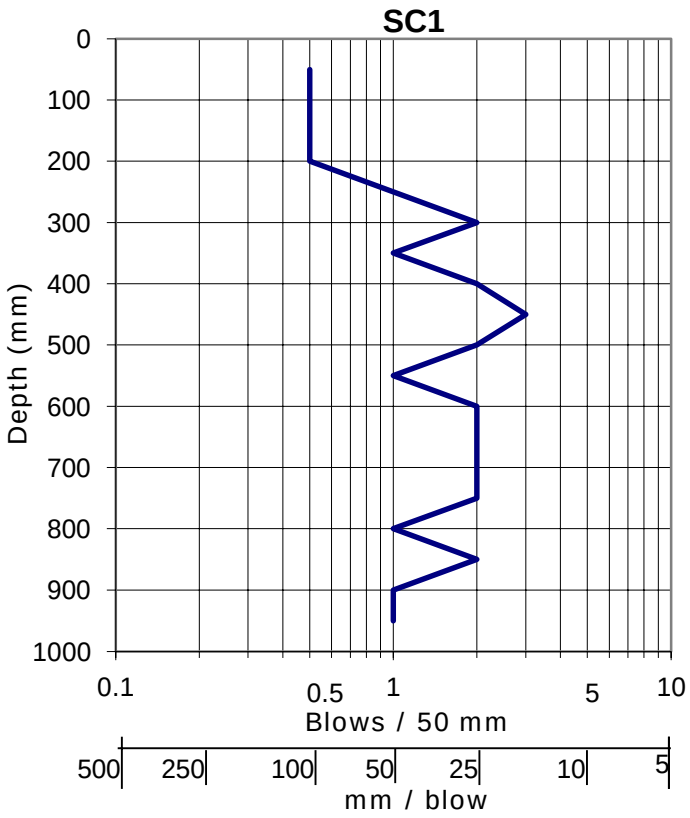
Sheet ***1***
of ***1***

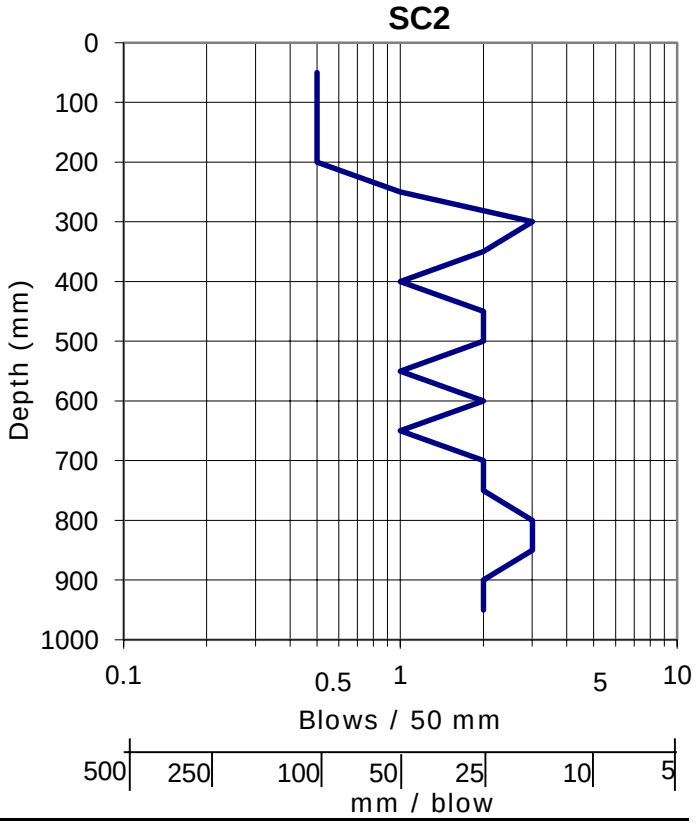
SC1
Location: Lot 3
RL: 0 m

mm Driven	No. of Blows
50	*0.5*
100	*0.5*
150	*0.5*
200	*0.5*
250	*1*
300	*2*
350	*1*
400	*2*
450	*3*
500	*2*
550	*1*
600	*2*
650	*2*
700	*2*
750	*2*
800	*1*
850	*2*
900	*1*
950	*1*
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+

SC2
Location: Lot 3
RL: 0m

mm Driven	No. of Blows
50	*0.5*
100	*0.5*
150	*0.5*
200	*0.5*
250	*1*
300	*3*
350	*2*
400	*1*
450	*2*
500	*2*
550	*1*
600	*2*
650	*1*
700	*2*
750	*2*
800	*3*
850	*3*
900	*2*
950	*2*
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+





GEOSOLVE

GeoSolve Ltd

SCALA PENETROMETER LOG

Job No: *160041.04*
Project: *Lot 3 Kawarau Heights*

Date: *3/03/2022*
Operated by: *pgf*
Logged by: *pgf*

Test Number ***SC3 & SC4***

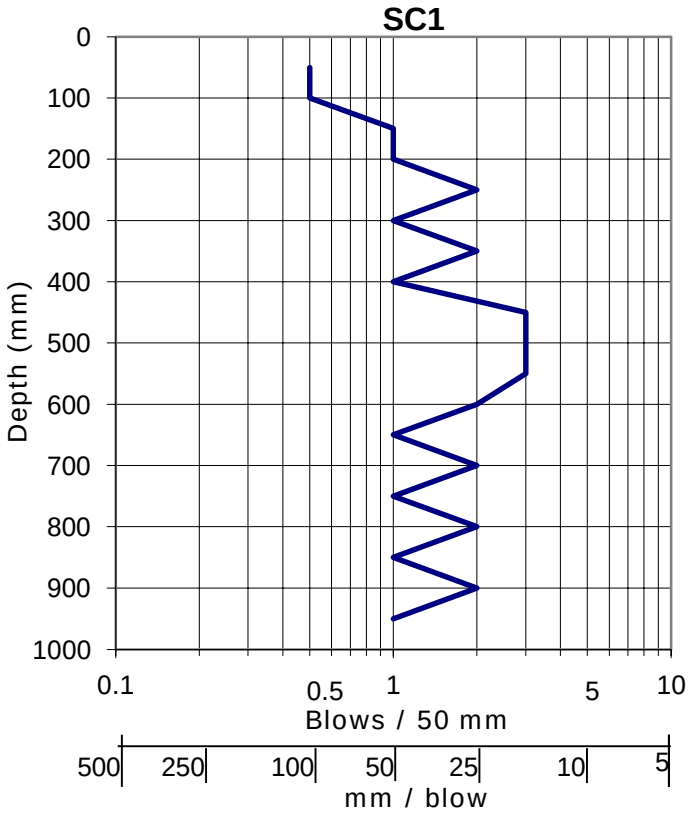
Sheet ***1***
of ***1***

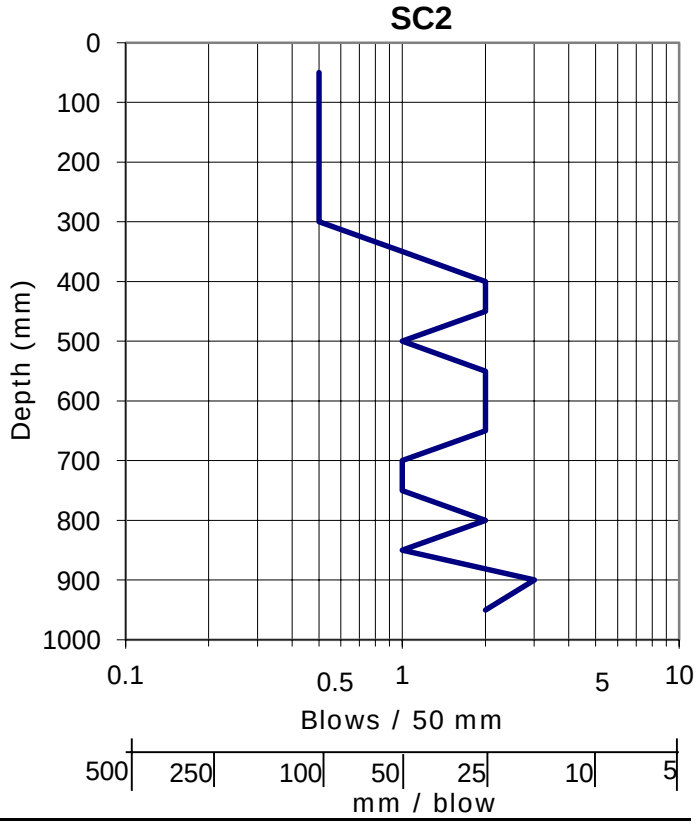
SC3
Location: Lot 3
RL: 0 m

mm Driven	No. of Blows
50	*0.5*
100	*0.5*
150	*1*
200	*1*
250	*2*
300	*1*
350	*2*
400	*1*
450	*3*
500	*3*
550	*3*
600	*2*
650	*1*
700	*2*
750	*1*
800	*2*
850	*1*
900	*2*
950	*1*
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+

SC4
Location: Lot 3
RL: 0m

mm Driven	No. of Blows
50	*0.5*
100	*0.5*
150	*0.5*
200	*0.5*
250	*0.5*
300	*0.5*
350	*1*
400	*2*
450	*2*
500	*1*
550	*2*
600	*2*
650	*2*
700	*1*
750	*1*
800	*2*
850	*1*
900	*3*
950	*2*
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+





GeoSolve Ref: 160041.04
2 February 2022

Queenstown Commercial Limited
c/o brent@queenstowncommercial.co.nz
cc Lloyd Bassett- Smith lloyd@bassett-smithachitecture.co.nz

Attention: Brent Mitchell

Lot 18 - Kawarau Heights Subdivision
Kawarau Heights

Dear Brent,

Introduction

This letter documents the results of specific geotechnical assessment for Lot 18. We understand the analysis and recommendations outlined below will be used to confirm the location of the proposed dwelling on the lot, and the detailed design of the foundations. The geotechnical issues outlined in this letter comprise.

- Slope stability, and;
- Foundation bearing capacity.

Drawings of the proposed dwelling have been completed by Bassett-Smith Architecture and provided to Geosolve. The attached site plan from the drawing set shows the proposed layout of the site and house location on the lot.

Previous Reporting

Resource consent reporting for the Kawarau Heights subdivision[1], and subsequent consenting documentation provides the following recommendations for Lot 18:

- Slope Stability – With respect to the slope on the eastern boundary of the lot minimum building setbacks of 22m are recommended for standard foundations constructed in accordance with NZS3604. Set back zones are provided on development plans.
- Bearing Capacity – With respect to foundation bearing capacity, Specific Engineering Design (SED) is required.

Geotechnical completion reporting (yet to be finalised) is expected to include the above 2 requirements.

The above geotechnical issues are assessed below and recommendations provided.

[1] Geotechnical Report, Queenstown Country Club, Southern Block, Queenstown, Ref 160041.04, July 2020

Ground Conditions

A review of the ground model beneath the lot has been completed from the following data:

- Dynamic probe log DPH 3, located in the eastern corner of the lot,
- Test pit log TP 9, located on the northwest boundary, and,
- 4 x Scala Penetrometer tests completed across the building footprint.

Logs of the above testing data are attached, and the test locations are shown in Figure 1below.

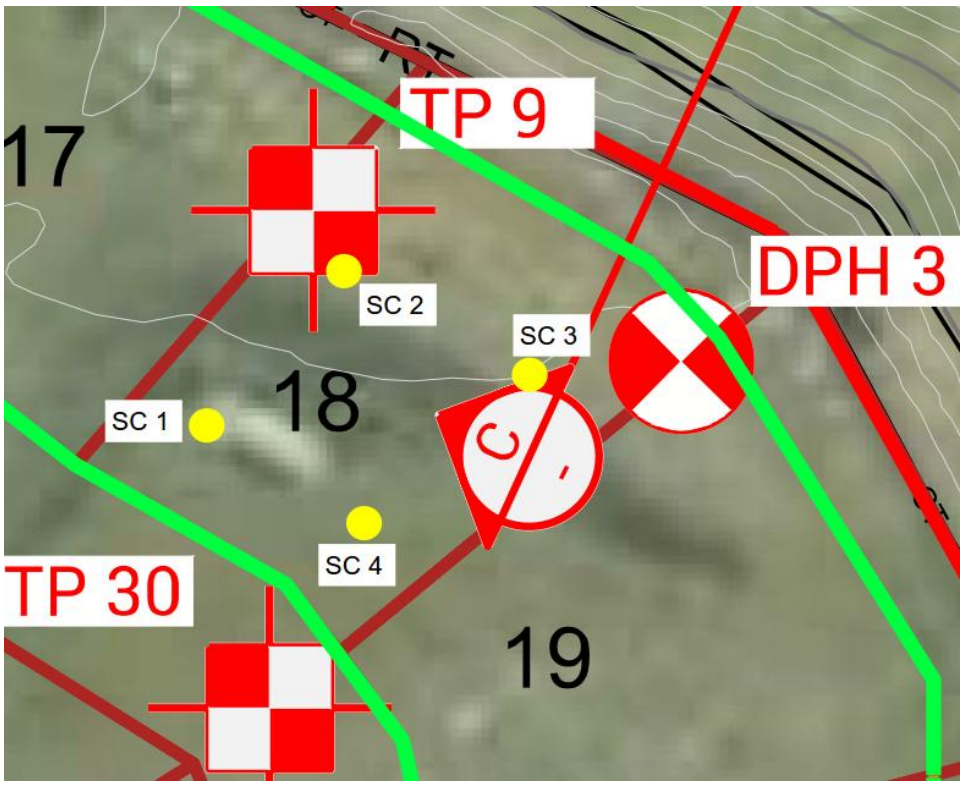


Figure 1. Site Investigation Plan.

Slope Stability Analysis

A slope stability analysis has been completed for Lot 18 using the software package Slope/W. The slope profile provided in Cross-Section C-C' from the resource consent report, has been used for the analysis. Cross-Section C-C' passes directly through Lot 18. The design parameters used in the slope stability analysis are provided in Table 1 below.

Table 1. Geotechnical Design Parameters and Supporting Test Data

Unit	Thickness (m)	SPT N value (from DPH)	Bulk Density γ (kN/m^3)	Effective Cohesion c' (kPa)	Effective Friction ϕ' (deg)
Loess (firm to stiff SILT with trace to minor sand).	0.8	<5	18	0	30
Alluvial Sand (SAND with some silt, Loose).	4.0	<10	18	0	30
Alluvial Sand and Gravel (Inferred from the known geological data and the DPH Log, interbedded, medium dense)	7m+	Varies 10-32, average 20	18	0	33

Table 2, below shows the design criteria for the proposed house location used for this analysis. Seismic loading has been determined using the NZTA Bridge Manual.

Table 2 – Slope Stability Design Criteria and Analysis Results

Loading Case	Minimum Factor of safety Requirements	Results
Static	1.5	Achieved at ≥13 m set back from the crest
Seismic Serviceability Limit State (SLS), 0.08g	1.2	Achieved at ≥15 m set-back from the crest
Seismic Ultimate Limit State (ULS), 0.34g	No target FOS - estimated lateral stretch to be restricted to less than 20 mm at the building location	<20 mm calculated at 16.5 m setback from the crest.

Drawings provided to Geosolve, see attached, indicate the footprint of the building is greater than 16.5 m from the crest of the slope.

The results therefore show the proposed building location is satisfactory with respect to slope stability, and no specific engineering design is required.

Foundation Bearing Capacity

Test data for the lot, see attached investigation logs, indicates the site is underlain by a 0.8 m deep surface layer of Loess (SILT) which is underlain by Deltaic deposits, primarily comprising loose SAND.

Scala blow counts in the underlying soil materials are typically 2-3 per 100 mm advancement of the rod. These materials do not comply with the requirements for “Good Ground”, as outlined in NZS3604 and specific engineering design will therefore be required. Options to address the reduced bearing capacity are outlined as follows:

Undercut and Replacement with Engineered Fill

Undercutting the natural ground and replacing with imported granular fill will provide a practical solution to improve foundation bearing capacity. Review of the Architects drawings indicates footing widths will vary from 0.1 m to 0.65 m.

To achieve 300kPa ultimate bearing capacity it is recommended a minimum of 0.4 m thickness of engineered fill is placed below foundation level. Foundations should bear directly on the engineered fill.

Imported fill should be well graded granular material placed and compacted in accordance with NZS4431 and with certification provided to that effect.

The engineered fill should extend 1 m beyond the building footprint.

Design Footings for a Reduced Bearing Capacity

Alternatively, foundations can be designed to bear on the natural ground using an appropriate bearing capacity. Figure 2 below provides recommended allowable bearing pressures for shallow foundations which bear on the natural ground. The foundation working stresses presented in Figure 2 are governed by bearing capacity in the case of narrow footings and settlement in the case of wide footings.

From Figure 2 it can be seen an allowable working stress of approximately 50 kPa is recommended for a 400 mm wide by 400 mm deep strip footing founded on loose sand. This corresponds to a factored (ULS) bearing capacity of approximately 75 kPa and an ultimate geotechnical bearing capacity of 150 kPa.

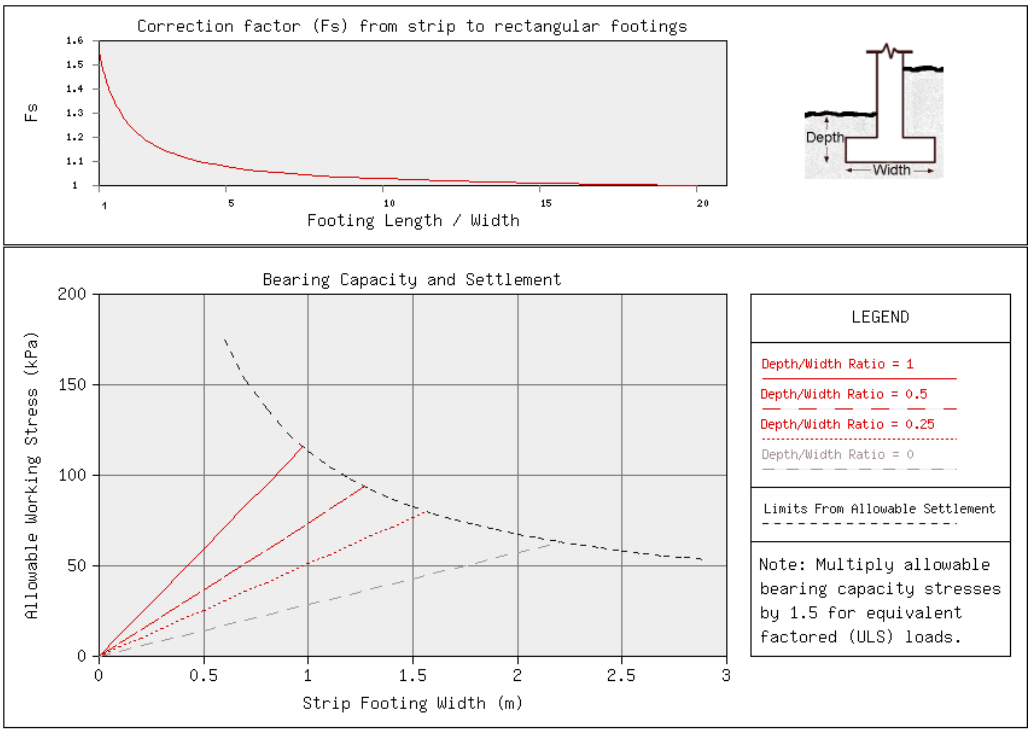


Figure 2. Recommended shallow bearing pressures for foundations that bear on loose sand material in the upper 1 m.

Construction

The following geotechnical construction inspections and testing will be required for the development.

- Prior to any fill placement or foundation construction inspection of all natura soil subgrade areas will need to be completed. The inspection will confirm all unsuitable materials have been removed and the natural ground meets the assumptions of this report.
- Engineered fill will be placed and tested in accordance with NZS4431 Earth Fill for Residential Buildings. Engineer review and sign off of the fill materials and test results will be required.

Applicability

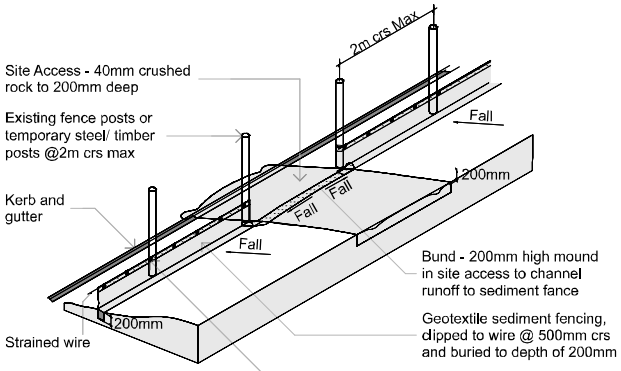
This report has been prepared for the benefit of Queenstown Commercial Ltd with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose without our prior review and written agreement.

Yours faithfully,

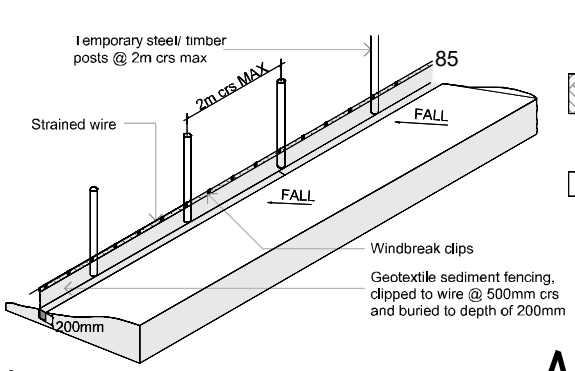
Paul Faulkner
Senior Engineering Geologist
GeoSolve Limited

Attachments:

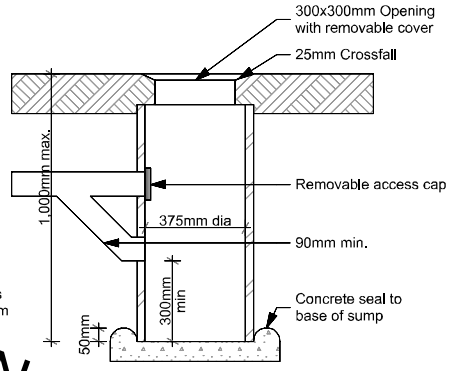
House Layout Plan (Bassett-Smith Architecture)
Cross-Section C-C'
Test Pit Log TP 9
Dynamic Probe DPH3
Scala Penetrometer Logs 1 to 4



DRIVEWAY SEDIMENT BARRIER DETAIL TO ROAD BOUNDARY

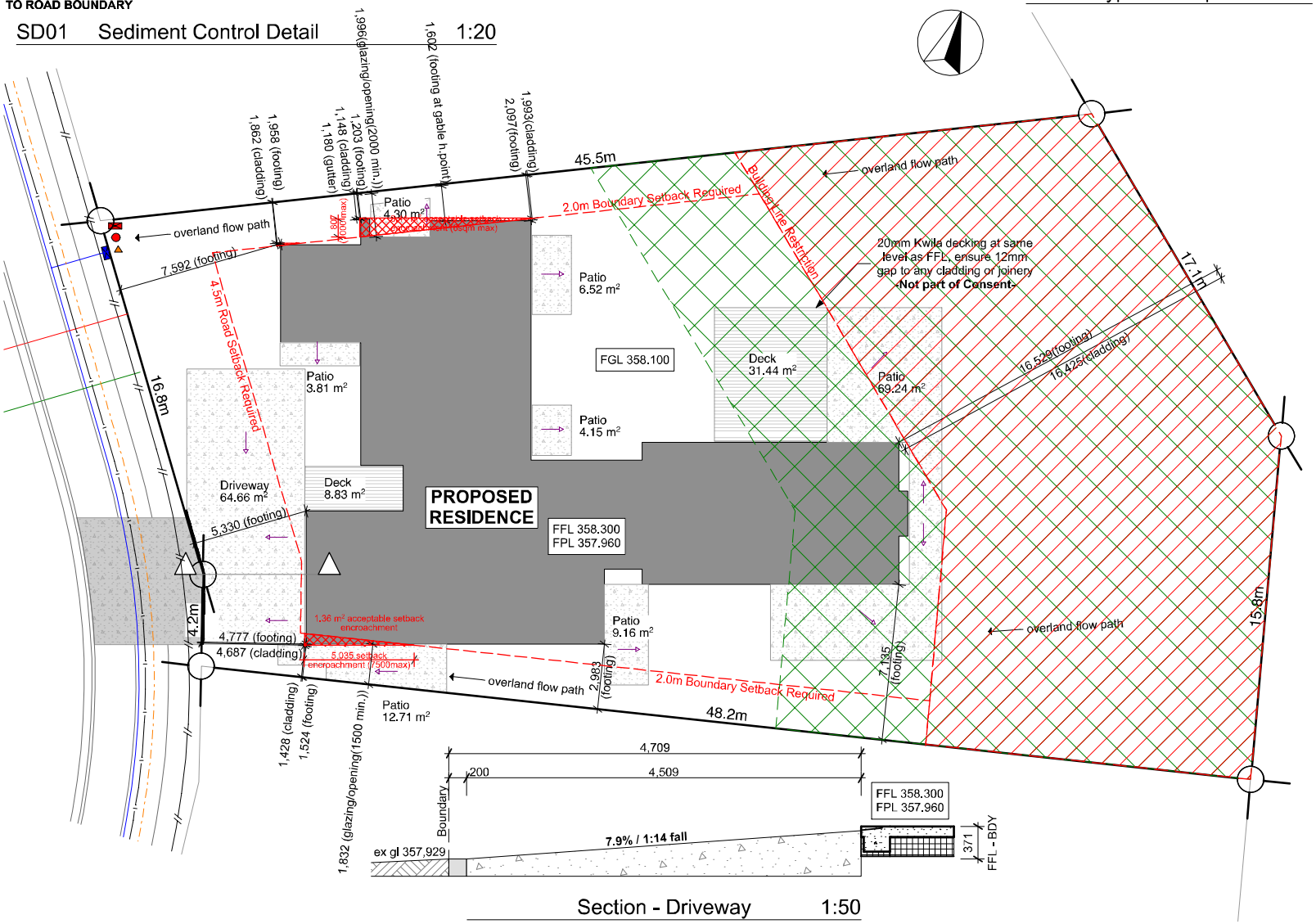


SEDIMENT BARRIER DETAIL TO ROAD BOUNDARY



SD02 Type 1 Sump 1:20

SD01 Sediment Control Detail 1:20



Section - Driveway 1:50

SITE NOTES

Site area = 1250m²
Build coverage = 23.7% (40% max)
Permeable area = 61.5% (30% min)

SITE:
Building is to be read in conjunction with site conditions and specification documentation. The site is already prepared and levelled in preparation for building works, this work is to be overseen and signed off by Fluent Solutions. Refer to the Geotech Completion Report by Geosolve Ltd. in the specification documentation for details

SERVICES:
Service connection cluster to be located on lot boundary and to include water, natural gas, power, data, sanitary sewer and stormwater.
Contractor to check invert levels of service pipes at connection cluster to ensure adequate falls for all proposed drainage connections.

DRAINAGE NOTES:
Trenches should be excavated to allow for the specified depth of bedding, the pipe diameter and the minimum recommended cover, overlay plus backfill, above the pipes.

MIN. COVER:
-Driveways and similar areas: 600mm (subject to traffic)
-Footpaths, gardens: 500mm.
-Construction traffic: 750mm

Bedding materials are listed as per AS/NZS 26551.

Note: Site drainage to be read in conjunction with plumbing schematic on A11

SITE WORKS
Ground levels in relation to Dunedin datum post earthworks and retaining wall construction. Ground levels to be confirmed at time of construction.
Driveway and entry path to be constructed from 100mm exposed aggregate concrete non-slip finish with black oxide added.

LANDSCAPING
Patio and entry areas to be constructed with 75mm exposed aggregate non-slip finish with black oxide added.
All lawn and garden areas to be addressed by owner.

SITE SETOUT
Fire setbacks indicated on this site plan are for ensuring compliance with external spread of fire only and are not to be taken as permanent boundaries between adjacent houses.
Where indicated as a Site Boundary these are the overall site boundaries where Queenstown Lakes District Council planning setbacks and daylighting apply.

KEY
- = Phone/Fibre
- = Power
- = Water
- = Gas
- = Impermeble fall 1:40
- = Exposed aggregate concrete patio

Geotechnical setback area, 22m from crest of slope (specific engineering design)

Building Line Restriction

NOTE

SEDIMENT & RUNOFF CONTROL
Sediment and runoff control shall be designed and installed by the licensed building practitioner prior to or during earthworks for the project. The sediment controls shall be installed in accordance with the requirements of Queenstown Lakes District Councils City Plan.

PRIOR TO STARTING ANY WORKS
- Locate and identify boundary pegs, service connection points and there inverts (Confirm all falls shown in drawings will comply)

- Public protection from onsite hazards, Site safety fencing (when required by T.A), 2.0m(min) to prevent site hazards from harming traffic or passers-by, to restrict unauthorized entry by children - ensure fencing is difficult to be climbed, gates and doors do not project beyond site when open, and encloses the whole site.

- All building sites to have Worksafe NZ compliant warning signs erected.

- Any hazardous equipment or materials will be stored onsite only if secured, by portable building lock up or in the house being built (after lock-up stage)

- Sites to be assessed on a individual basis by construction managers for compliance with NZBC clause F5 and if specific hazards exist then a work-site barrier must be erected.

Site drawn to Paterson Pitts Proposed Subdivision Plan Revision H.

Refer to Geotechnical Report by Geosolve ref 160041.04 dated; July 2020

STATUS
Detailed Design

PROJECT
Lot 18 Kawarau Heights Queenstown

TERRITORIAL AUTHORITY
Queenstown Lakes District Council
Lower Density Suburban Residential

SITE DATA	
Sub Soil Classification:	E
Soil Classification	REF GEOTECH
Wind Zone	High
Earthquake Zone	3
Climate Zone	3
Exposure Zone	B
Rain Intensity (10%AEP)	41mm/hr
Snowload	1.5kPa

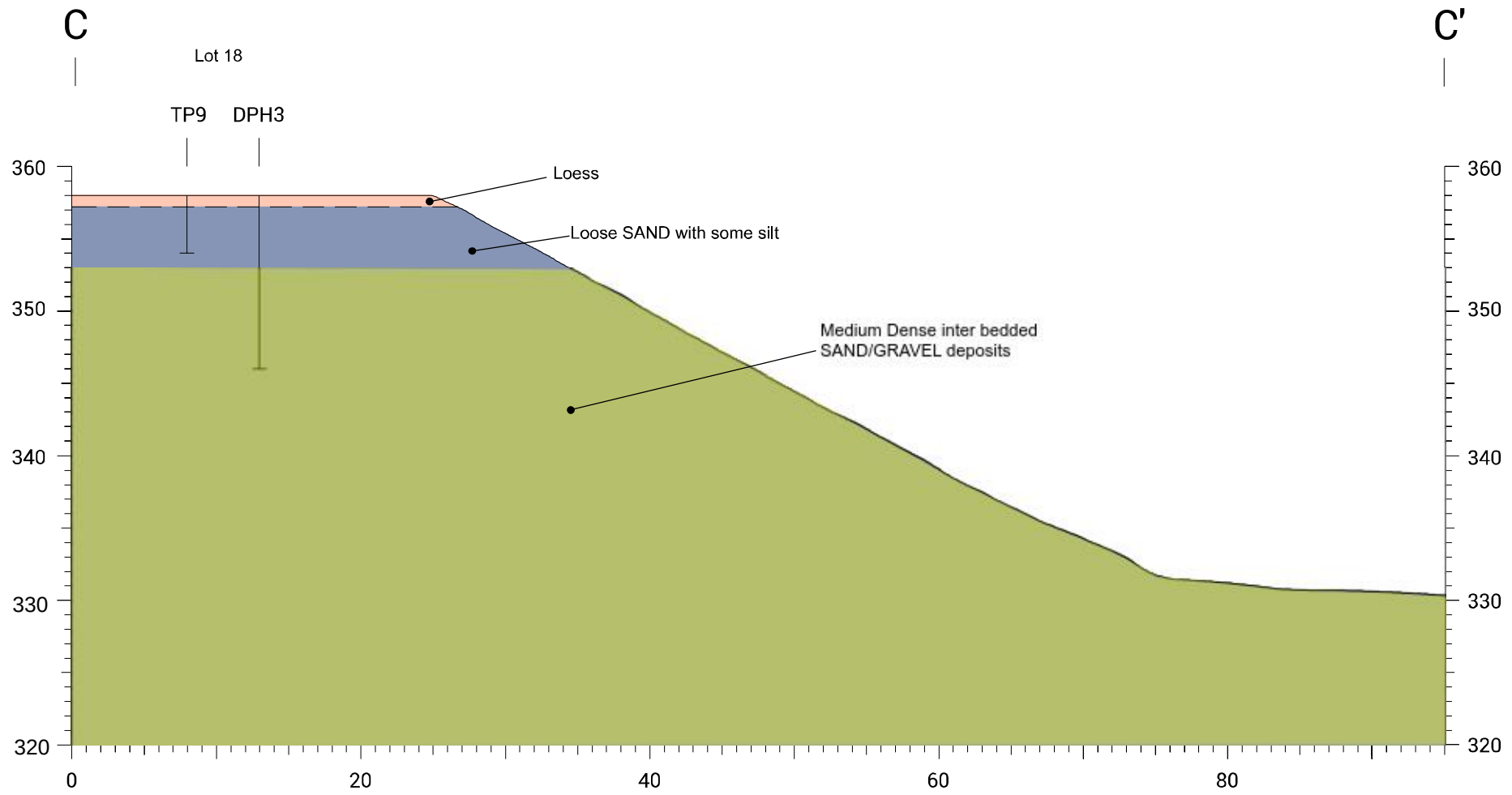
DRAWING DETAILS	
Job no.	21010
Date	1/12/2021
Drawn	Lloyd Bassett-Smith
LBP	Lloyd Bassett-Smith BP 126919
Scale	**1:200, 1:20, 1:50 @ A3**

DRAWING TITLE
Site Plan

DRAWING NO. **A03**
REVISION

QUEENSTOWN COMMERCIAL Sanderson

KAWARAU HEIGHTS



SCALE 1:300

0 3 6 9 12 15 (m)

GEOSOLVE
Level 1, 70 MacAndrew Road, South Dunedin
www.geosolve.co.nz

DRAWN	JM	Jul.20
DRAFTING CHECKED	JM	Jun.20
APPROVED	PGF	Jun.20
CADFILE: 160041.04_SP.dwg		
SCALES (AT A3 SIZE): 1:300		
PROJECT No: 160041.04		

Queenstown Commercial Ltd

Lot 18 Kawarau Heights

Shotover Country, Queenstown

Cross Section C - C'

FIG No:

REV. 0

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 9**

PROJECT:	Shotover Country - Southern Block	JOB NUMBER:	160041.04

EASTING:		mE	EQUIPMENT:	21T Excavator	OPERATOR:	Nick
NORTHING:		mN	INFOMAP NO.		COMPANY:	Queenstown Commercial Limited
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	11-Jun-20
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	11-Jun-20

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.2	TOPSOIL		Dark brown, organic SILT. Soft. Moist.			
0.8	LOESS		Light greyish brown, SILT with trace sand. Sand is fine. Non-plastic. Stiff. Massive. Dry to moist.			
1.1	DELTAIC SILT/SAND		Grey, silty SAND. Sand is fine. Micaceous. Medium dense. Bedded. Moist.			
1.3	DELTAIC GRAVEL		Grey, sandy GRAVEL. Sand is fine to coarse. Gravel is fine to coarse; subrounded to rounded. Slightly iron and manganese stained. Medium dense. Bedded. Moist.			
4.0	DELTAIC SILT/SAND		Light grey, Interbedded SAND with some silt and silty SAND. Sand is fine. Micaceous. Loose. Bedded. Moist.		NO SEEPAGE	

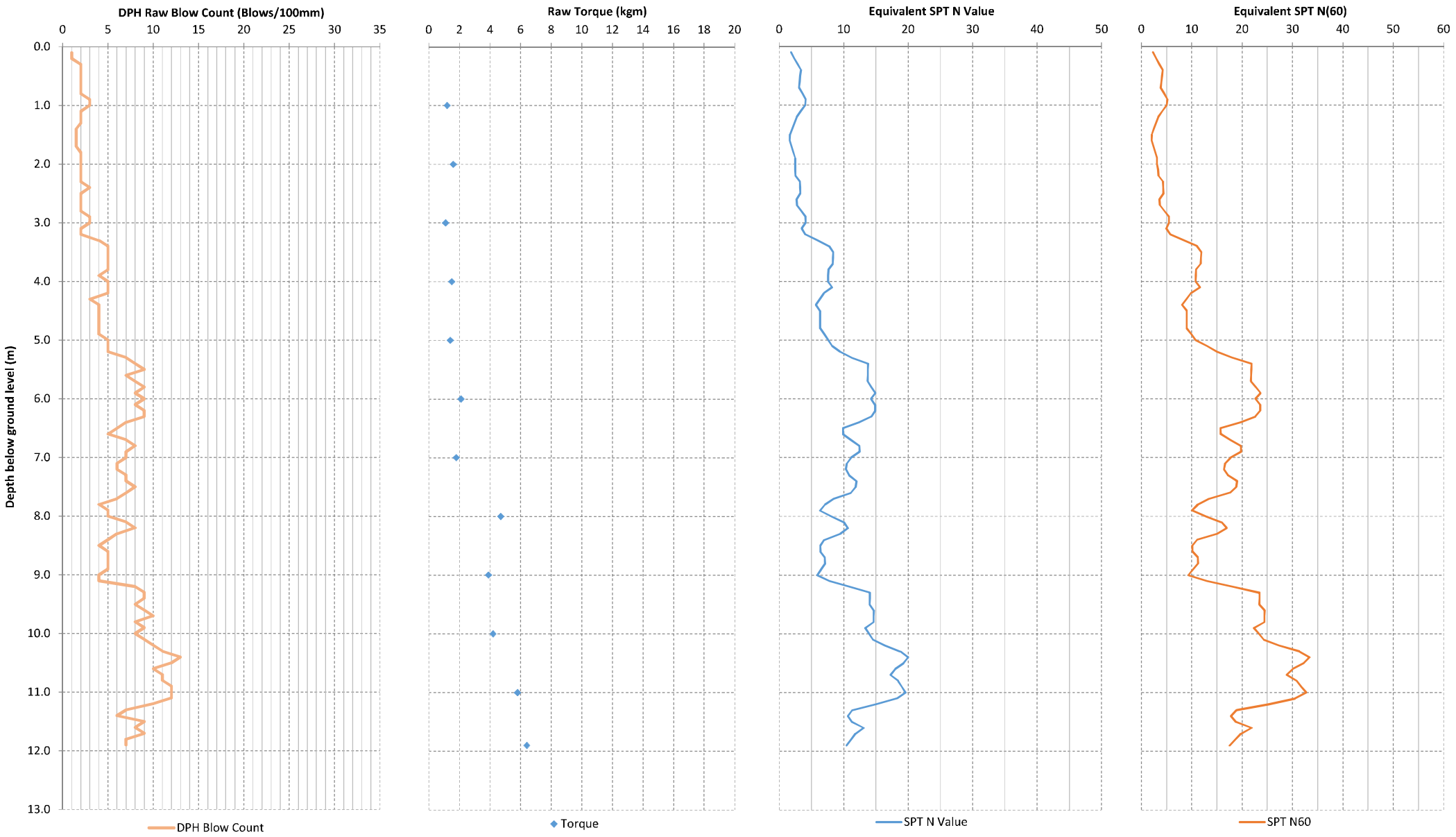
Total Depth = 4 m

COMMENT: Test pit dry.

Logged By: JM

Checked Date:

Sheet: 1 of 1



PROJECT	160041.04 - Shotover Country - Southern Block	CLIENT	Queenstown Commercial Ltd
DESCRIPTION	Geotechnical Assessment	TEST NUMBER	DPH3
LOCATION	Shotover Country - Southern Block	DATE	1/07/2020
		LOGGED BY	NT
		ANALYSED BY	RC
		CHECKED BY	PGF

GEOSOLVE

GeoSolve Ltd

SCALA PENETROMETER LOG

Job No: *160041.04*
Project: *Lot 18 Kawarau Heights*

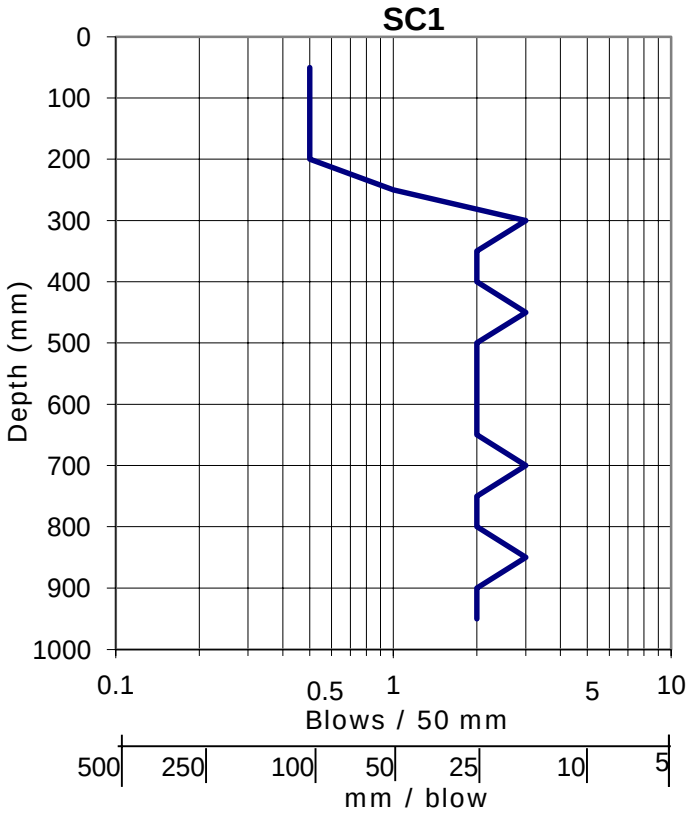
Date: *25/01/2022*
Operated by: *pgf*
Logged by: *pgf*

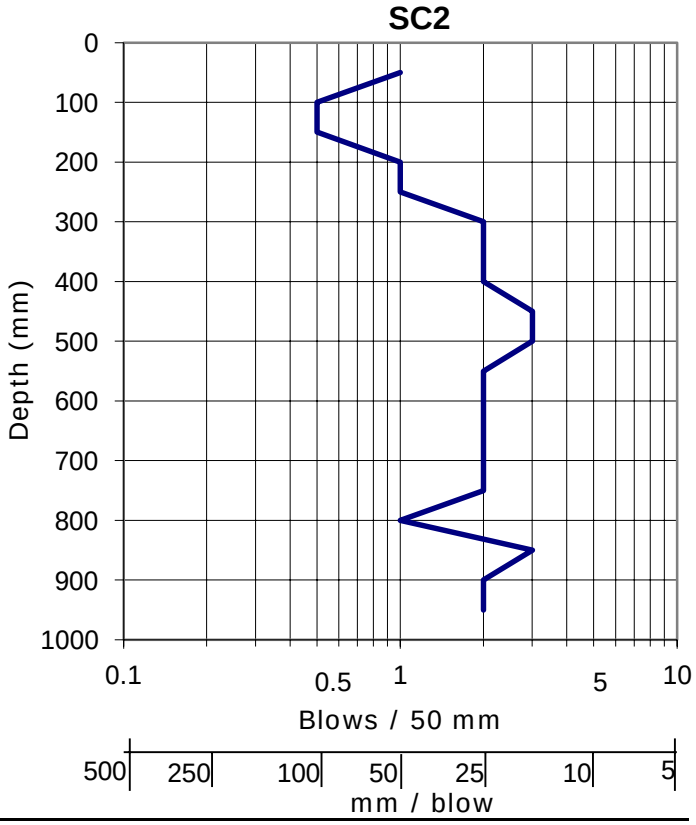
Test Number ***SC1 & SC2***

Sheet ***1***
of ***1***

SC1 Location: Lot 18 RL: 0 m	
mm Driven	No. of Blows
50	*0.5*
100	*0.5*
150	*0.5*
200	*0.5*
250	*1*
300	*3*
350	*2*
400	*2*
450	*3*
500	*2*
550	*2*
600	*2*
650	*2*
700	*3*
750	*2*
800	*2*
850	*3*
900	*2*
950	*2*
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+

SC2 Location: Lot 18 RL: 0m	
mm Driven	No. of Blows
50	*1*
100	*0.5*
150	*0.5*
200	*1*
250	*1*
300	*2*
350	*2*
400	*2*
450	*3*
500	*3*
550	*2*
600	*2*
650	*2*
700	*2*
750	*2*
800	*1*
850	*3*
900	*2*
950	*2*
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+





GEOSOLVE

GeoSolve Ltd

SCALA PENETROMETER LOG

Job No: *160041.04*
Project: *Lot 18 Kawarau Heights*

Date: *25/01/2022*
Operated by: *pgf*
Logged by: *pgf*

Test Number ***SC3 & SC4***

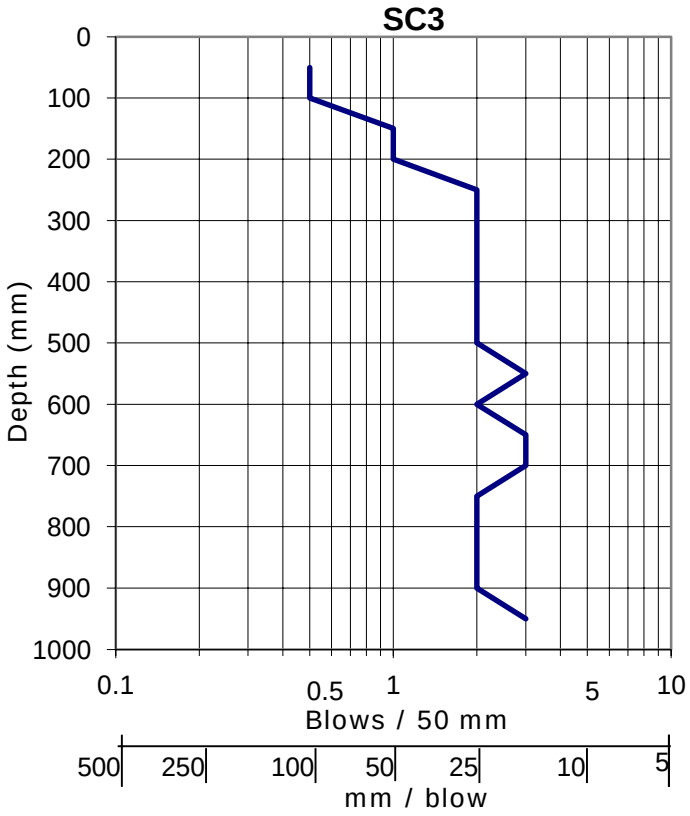
Sheet ***1***
of ***1***

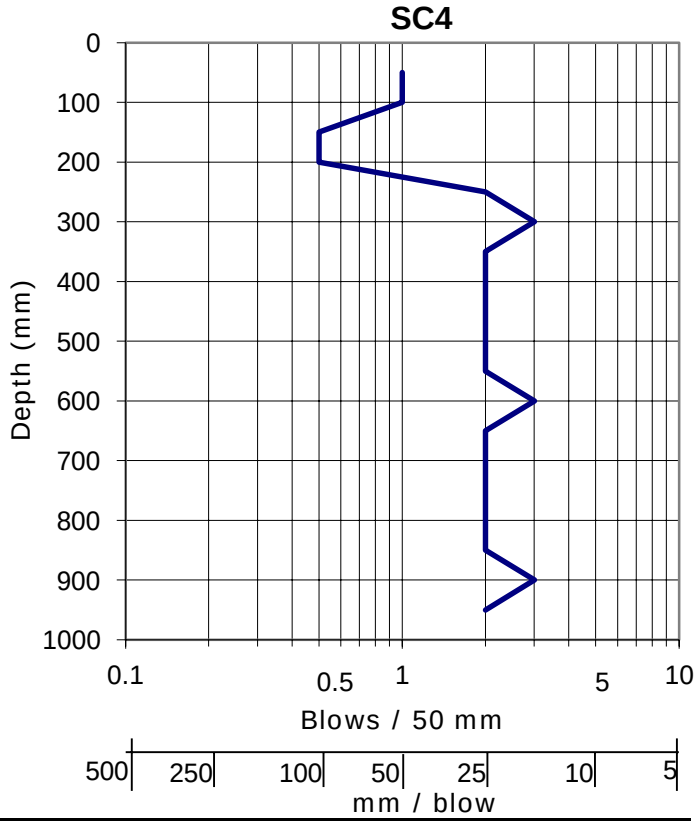
SC3
Location: Lot 18
RL: 0 m

mm Driven	No. of Blows
50	*0.5*
100	*0.5*
150	*1*
200	*1*
250	*2*
300	*2*
350	*2*
400	*2*
450	*2*
500	*2*
550	*3*
600	*2*
650	*3*
700	*3*
750	*2*
800	*2*
850	*2*
900	*2*
950	*3*
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+

SC4
Location: Lot 18
RL: 0m

mm Driven	No. of Blows
50	*1*
100	*1*
150	*0.5*
200	*0.5*
250	*2*
300	*3*
350	*2*
400	*2*
450	*2*
500	*2*
550	*2*
600	*3*
650	*2*
700	*2*
750	*2*
800	*2*
850	*2*
900	*3*
950	*2*
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+





GeoSolve Ref: 160041.04
13 May 2022

Queenstown Commercial Limited
c/o brent@queenstowncommercial.co.nz

Attention: Brent Mitchell

Geotechnical Assessments for Foundation Design
Lot Numbers 5, 26, 39, 44, 49, 50, 54, 94, 96, 100 - Kawarau Heights

Dear Brent,

1 Introduction

This letter documents the results of specific geotechnical assessments for Lots , 26, 39, 44, 49, 50, 54, 94, 96, 100 at the Kawarau Heights Subdivision.

The analysis and recommendations outlined below will be used to confirm the detailed design of the foundations with respect to bearing capacity. The lots covered by this report are not subject to other geotechnical assessment requirements, e.g. for slope stability, or liquefaction.

2 Previous Reporting and Design Requirements

Based on resource consent reporting for the Kawarau Heights subdivision[1], and subsequent completion reporting for Stage 1[2] we expect the lots to be identified as not complying with the requirements for "Good Ground", as outlined in NZS3604. The lots therefore require Specific Engineering Design (SED) to determine an appropriate foundation design. The specific assessment is provided in the Sections below.

3 Proposed Developments

Detailed design plans have not been provided however we understand the lots will be developed with residential buildings.

The surface of the lots is relatively Level, with slopes of 0 to 5°, and no significant earthworks are expected. Cut depths are not expected to exceed 1 m.

We understand foundation types will be either raft, e.g. Max, Rib, comparable product, or NZS 3604 strip/pad foundation types.

[1] Geotechnical Report, Queenstown Country Club, Southern Block, Queenstown, Ref 160041.04, July 2020
[2] Geotechnical Completion Report and Schedule 2A, Stage 1 Kawarau Heights, Queenstown, Ref 160041.04, May 2022.

4 Ground Conditions

The ground conditions across the subdivision show consistency across the area and typically comprise:

- Topsoil, overlying;
- Loess, overlying;
- Deltaic deposits (silt, sand and gravel);
- Groundwater is at depths of 20 m +.

A review of the lot specific ground conditions has been completed using existing test pit data and additional scala penetrometer testing and is provided in Table 1 below.

Table 1. Summary of Lot specific Ground Conditions.

Lot Number	Test Pits	Scala Tests	Ground Conditions
5	3, 24, 25	1, 2	Topsoil overlying 0.7 – 1 m of Loess, overlying deltaic silt and sand, thin gravel bands may be present.
26	21, 32	3, 4	Topsoil overlying 0.5 – 0.7 m of Loess, overlying deltaic silt and sand.
39	11, 29, 30, 34	5, 6	Topsoil overlying 0.6 – 0.7 m of Loess, overlying deltaic silt and sand.
44	8, 27, 28	7, 8	Topsoil overlying 0.4 – 0.8 m of Loess, overlying deltaic silt and sand.
49	6, 25, 26	9, 10	Topsoil overlying 0.5 – 0.7 m of Loess, overlying deltaic silt and sand.
50	6, 25, 26	11, 12	Topsoil overlying 0.5 – 0.7 m of Loess, overlying deltaic silt and sand.
54	6, 8, 22	13, 14	Topsoil overlying 0.5– 0.8 m of Loess, overlying deltaic silt and sand.
94	5, 32	15, 16	Topsoil overlying 0.5– 0.7 m of Loess, overlying deltaic silt and sand.
96	2, 24	17, 18	Topsoil overlying 0.7– 0.8 m of Loess, overlying deltaic silt and sand.
100	1, 23	19, 20	Topsoil overlying 0.4– 0.7 m of Loess, overlying deltaic gravel over silt and sand.

The test pit and scala logs are attached.

Scala Testing

Scala penetrometer testing was completed for each test pit location, and lot specific scala testing has also been completed, results attached. Blow counts show some variation, interpreted to result from variations in moisture content, however, at typical foundation depths (the upper 1 m) values of 2-3 per 100 mm advancement of the rod are assessed to provide a consistent lower bound.

5 Foundation Bearing Capacity

General

Investigation data indicates loess materials will be present at typical shallow foundation depths (< 1m). These materials are assessed to be 'firm' with respect to consistency. Underlying the loess, 'loose' sand and 'firm' silt materials are present. These materials do not meet the requirements for Good Ground as described in NZS3604.

2 options are available for foundation design as follows:

- Design foundations to bear on the natural ground utilising a lower bearing capacity, or;
- Improve the bearing capacity of the ground by undercutting and replacing with engineered fill.

Recommendation for both options are discussed below.

Bearing on Natural Ground

Foundations can be designed to bear on the natural ground using an appropriate bearing capacity. Figure 1 below provides recommended allowable bearing pressures for shallow foundations which bear on the natural ground. The foundation working stresses presented in Figure 1 are governed by bearing capacity in the case of narrow footings and settlement in the case of wide footings.

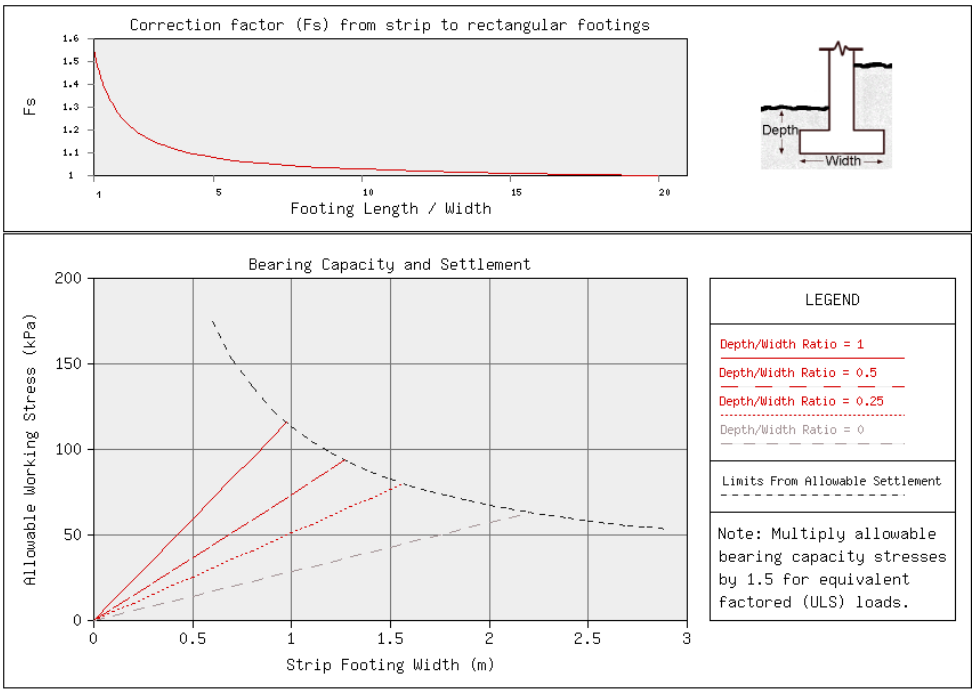


Figure 1. Recommended shallow bearing pressures for foundations that bear on loose sand material in the upper 1 m.

From Figure 1 it can be seen an allowable working stress of approximately 50 kPa is recommended for a 400 mm wide by 400 mm deep strip footing founded on loose sand or firm silts. This corresponds to a factored (ULS) bearing capacity of approximately 75 kPa and an ultimate geotechnical bearing capacity of 150 kPa.

Improve bearing by undercutting and replacement with engineered fill

Undercutting the natural ground and replacing with imported granular fill will provide a practical solution to improve the foundation bearing capacity.

To achieve 300kPa ultimate bearing capacity a minimum engineered fill thickness of 0.4 m below foundation level is required. 0.4 m of engineered fill will allow standard shallow foundation types that require bearing capacities as per Good Ground to be constructed.

Imported fill should be well graded granular and relatively free draining. The fill should be placed and compacted in accordance with NZS4431 with certification provided to that effect.

6 Construction

The following geotechnical construction inspections and testing will be required for the development.

- Prior to any fill placement or foundation construction, inspection of all natural soil subgrade areas will need to be completed. The inspection will confirm all unsuitable materials have been removed and the natural ground meets the design assumptions of this report.

- Additional undercut may be required if weak or otherwise unsuitable materials are present and final undercut depth may be greater than 0.4 m in some cases.
- A minimum of 0.4 m of engineered fill will be placed and tested in accordance with NZS4431 Earth Fill for Residential Buildings.
- Engineer review and sign off of the fill materials and test results will be required.
- The engineered fill should extend 1 m beyond the building footprint

7 Applicability

This report has been prepared for the benefit of Queenstown Commercial Ltd with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose without our prior review and written agreement.

Yours faithfully,

Paul Faulkner
Senior Engineering Geologist
GeoSolve Limited

Attachments: Test Pit and Scala Penetrometer Test Data.

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 1**

PROJECT:	Shotover Country - Southern Block	JOB NUMBER:	160041.04

EASTING:		mE	EQUIPMENT:	21T Excavator	OPERATOR:	Nick
NORTHING:		mN	INFOMAP NO.		COMPANY:	Queenstown Commercial Limited
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	10-Jun-20
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	10-Jun-20

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.2	TOPSOIL		Dark brown, organic SILT. Soft. Moist.			
0.9	LOESS		Light brownish grey, SILT with trace sand. Sand is fine. Non-plastic. Firm. Massive. Moist.			
1.5	DELTAIC GRAVEL		Brownish grey, sandy GRAVEL. Sand is fine to coarse. Gravel is fine to coarse; subrounded. Slightly iron stained. Medium dense. Bedded. Moist.			
3.5	DELTAIC SILT/SAND		Grey, silty SAND with occasional 30 mm thick sandy SILT layers. Sand is fine. Micaceous. Medium dense. Bedded. Moist.		NO SEEPAGE	

Total Depth = 3.5 m

COMMENT: Test pit dry.

Logged By: JM

Checked Date:

Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 2**

PROJECT:	Shotover Country - Southern Block	JOB NUMBER:	160041.04

EASTING:		mE	EQUIPMENT:	21T Excavator	OPERATOR:	Nick
NORTHING:		mN	INFOMAP NO.		COMPANY:	Queenstown Commercial Limited
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	10-Jun-20
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	10-Jun-20

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.2	TOPSOIL		Dark brown, organic SILT. Soft. Moist.			
1.0	LOESS		Light brownish grey, SILT with trace sand. Sand is fine. Non-plastic. Firm. Massive. Moist.			
3.6	DELTAIC SILT/SAND		Grey, Interbedded silty SAND and sandy SILT with occasional 30 mm thick SILT with minor sand layers. Sand is fine. Thin iron stained bands. Medium dense. Bedded. Moist.		NO SEEPAGE	

Total Depth = 3.6 m

COMMENT: Test pit dry.

Logged By: JM

Checked Date:

Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 3**

PROJECT:	Shotover Country - Southern Block	JOB NUMBER:	160041.04

EASTING:		mE	EQUIPMENT:	21T Excavator	OPERATOR:	Nick
NORTHING:		mN	INFOMAP NO.		COMPANY:	Queenstown Commercial Limited
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	11-Jun-20
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	11-Jun-20

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.25	TOPSOIL		Dark brown, organic SILT. Soft. Moist.			
1.2	LOESS		Light greyish brown, SILT with trace sand. Sand is fine. Non-plastic. Firm. Massive. Moist.			
1.7	DELTAIC GRAVEL		Grey, gravelly SAND with minor silt. Sand is fine to coarse. Gravel is fine to medium; subrounded to rounded. Slightly iron stained. Medium dense. Bedded. Moist.			
3.5	DELTAIC SILT/SAND		Grey, Interbedded silty SAND and sandy SILT. Sand is fine. Micaceous. Medium dense. Bedded. Moist.		NO SEEPAGE	

Total Depth = 3.5 m

COMMENT: Test pit dry.

Logged By: JM

Checked Date:

Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 5**

PROJECT:	Shotover Country - Southern Block	JOB NUMBER:	160041.04

EASTING:		mE	EQUIPMENT:	21T Excavator	OPERATOR:	Nick
NORTHING:		mN	INFOMAP NO.		COMPANY:	Queenstown Commercial Limited
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	10-Jun-20
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	10-Jun-20

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.3	TOPSOIL		Dark brown, organic SILT. Soft. Moist.			
0.8	LOESS		Light brownish grey, SILT with trace sand. Sand is fine. Non-plastic. Stiff. Massive. Dry to moist.			
1.1	DELTAIC GRAVEL		Grey, sandy GRAVEL. Sand is fine to coarse. Gravel is fine to medium; subrounded. Medium dense. Bedded. Dry to moist.			
1.2	DELTAIC SILT/SAND		Dark grey, silty SAND. Sand is fine. Medium dense. Bedded. Moist.			
3.5	DELTAIC GRAVEL		Grey, sandy GRAVEL. Sand is fine to coarse. Gravel is fine to medium; subrounded to rounded. Slightly iron stained. Medium dense. Bedded. Moist.		NO SEEPAGE	

Total Depth = 3.5 m

COMMENT: Test pit dry.

Logged By: JM

Checked Date:

Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 6**

PROJECT:	Shotover Country - Southern Block	JOB NUMBER:	160041.04

EASTING:		mE	EQUIPMENT:	21T Excavator	OPERATOR:	Nick
NORTHING:		mN	INFOMAP NO.		COMPANY:	Queenstown Commercial Limited
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	10-Jun-20
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	10-Jun-20

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.2	TOPSOIL		Dark brown, organic SILT. Soft. Moist.			
0.7	LOESS		Light brownish grey, SILT with trace sand. Sand is fine. Non-plastic. Stiff. Massive. Dry to moist.			
1.6	DELTAIC SILT/SAND		Grey, sandy SILT. Sand is fine. Micaceous. Firm. Bedded. Moist.			
3.5	DELTAIC SILT/SAND		Grey, SAND with minor silt and occasional 30 mm thick sandy SILT layers. Sand is fine to medium. Thin iron stained bands. Medium dense. Bedded. Moist.		NO SEEPAGE	

Total Depth = 3.5 m

COMMENT: Test pit dry.

Logged By: JM
Checked Date:
Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 8**

PROJECT:	Shotover Country - Southern Block	JOB NUMBER:	160041.04

EASTING:		mE	EQUIPMENT:	21T Excavator	OPERATOR:	Nick
NORTHING:		mN	INFOMAP NO.		COMPANY:	Queenstown Commercial Limited
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	11-Jun-20
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	11-Jun-20

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.2	TOPSOIL		Dark brown, organic SILT. Soft. Moist.			
1.0	LOESS		Light brownish grey, SILT with trace sand. Sand is fine. Non-plastic. Stiff. Massive. Dry to moist.			
2.4	DELTAIC SAND		Grey, SAND with minor silt with occasional 50 mm thick sandy GRAVEL lenses. Sand is fine to medium. Thin iron stained bands. Medium dense. Bedded. Moist.			
3.5	DELTAIC SILT/SAND		Grey, Interbedded silty SAND and sandy SILT. Sand is fine. Micaceous. Medium dense. Bedded. Moist.		NO SEEPAGE	

Total Depth = 3.5 m

COMMENT: Test pit dry.

Logged By: JM

Checked Date:

Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 11**

PROJECT:	Shotover Country - Southern Block	JOB NUMBER:	160041.04

EASTING:		mE	EQUIPMENT:	21T Excavator	OPERATOR:	Nick
NORTHING:		mN	INFOMAP NO.		COMPANY:	Queenstown Commercial Limited
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	11-Jun-20
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	11-Jun-20

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.2	TOPSOIL		Dark brown, organic SILT. Soft. Moist.			
0.7	LOESS		Light brownish grey, SILT with trace sand. Sand is fine. Non-plastic. Firm. Massive. Moist.			
2.1	DELTAIC SILT/SAND		Light brownish grey, SILT with some sand. Sand is fine. Micaceous. Firm. Bedded. Moist.			
3.6	DELTAIC SILT/SAND		Grey, Interbedded silty SAND and sandy SILT. Sand is fine. Micaceous. Slightly iron stained. Medium dense. Bedded. Moist.		NO SEEPAGE	

Total Depth = 3.6 m

COMMENT: Test pit dry.	Logged By: JM
	Checked Date:
	Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 21**

PROJECT:	Shotover Country - Southern Block	JOB NUMBER:	160041.04

EASTING:		mE	EQUIPMENT:	21T Excavator	OPERATOR:	Nick
NORTHING:		mN	INFOMAP NO.		COMPANY:	Queenstown Commercial Limited
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	11-Jun-20
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	11-Jun-20

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.2	TOPSOIL		Dark brown, organic SILT. Soft. Moist.			
0.8	LOESS		Light brownish grey, SILT with trace sand. Sand is fine. Firm. Massive. Moist.			
2.2	DELTAIC SILT/SAND		Light grey, Interbedded silty SAND and sandy SILT. Sand is fine. Micaceous. Thin iron stained bands. Loose. Bedded. Moist.			
3.2	DELTAIC GRAVEL		Light grey, sandy GRAVEL. Sand is fine to coarse. Gravel is fine to coarse; subrounded to rounded. Slightly iron stained. Medium dense. Bedded. Moist.		NO SEEPAGE	

Total Depth = 3.2 m

COMMENT: Test pit dry.

Logged By: JM

Checked Date:

Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 23**

PROJECT:	Shotover Country - Southern Block	JOB NUMBER:	160041.04

EASTING:		mE	EQUIPMENT:	21T Excavator	OPERATOR:	Nick
NORTHING:		mN	INFOMAP NO.		COMPANY:	Queenstown Commercial Limited
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	10-Jun-20
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	10-Jun-20

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.2	TOPSOIL		Dark brown, organic SILT. Soft. Moist.		NO SEEPAGE	
0.65	LOESS		Grey, SILT with trace sand and rootlets. Sand is fine. Non-plastic. Firm. Massive. Moist.			
0.8	DELTAIC GRAVEL		Grey, sandy GRAVEL. Sand is fine to coarse. Gravel is fine to coarse; subrounded. Slightly iron stained. Medium dense. Bedded. Moist.			
0.9	DELTAIC SAND		Grey, SAND. Sand is fine to medium. Slightly iron stained. Loose. Bedded. Moist.			

Total Depth = 0.9 m

COMMENT: Test pit dry. Scala returned blow counts per 100 mm from 1.0 m: 2, 2, 2, 3, 3, 3, 2, 2, 2

Logged By: JM

Checked Date:

Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 24**

PROJECT:	Shotover Country - Southern Block	JOB NUMBER:	160041.04

EASTING:		mE	EQUIPMENT:	21T Excavator	OPERATOR:	Nick
NORTHING:		mN	INFOMAP NO.		COMPANY:	Queenstown Commercial Limited
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	10-Jun-20
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	10-Jun-20

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.2	TOPSOIL		Dark brown, organic SILT. Soft. Moist.			
0.9	LOESS		Light brownish grey, SILT with trace sand. Sand is fine. Non-plastic. Firm. Massive. Moist.			
1.0	DELTAIC SILT/SAND		Grey, silty SAND. Sand is fine. Micaceous. Loose. Bedded. Moist.		NO SEEPAGE	

Total Depth = 1 m

COMMENT: Test pit dry. Scala returned blow counts per 100 mm from 1.0 m: 1, 1, 2, 4, 8, 15, 15+

Logged By: JM

Checked Date:

Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 25**

PROJECT:	Shotover Country - Southern Block	JOB NUMBER:	160041.04

EASTING:		mE	EQUIPMENT:	21T Excavator	OPERATOR:	Nick
NORTHING:		mN	INFOMAP NO.		COMPANY:	Queenstown Commercial Limited
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	10-Jun-20
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	10-Jun-20

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.2	TOPSOIL		Dark brown, organic SILT. Soft. Moist.			
0.9	LOESS		Light brownish grey, SILT with trace sand. Sand is fine. Non-plastic. Firm. Massive. Moist.			
1.0	DELTAIC SILT/SAND		Grey, silty SAND. Sand is fine. Micaceous. Loose. Bedded. Moist.		NO SEEPAGE	

Total Depth = 1 m

COMMENT: Test pit dry. Scala returned blow counts per 100 mm from 1.0 m: 1, 2, 2, 3, 7, 5, 13

Logged By: JM

Checked Date:

Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 26**

PROJECT:	Shotover Country - Southern Block	JOB NUMBER:	160041.04

EASTING:		mE	EQUIPMENT:	21T Excavator	OPERATOR:	Nick
NORTHING:		mN	INFOMAP NO.		COMPANY:	Queenstown Commercial Limited
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	11-Jun-20
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	11-Jun-20

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.3	TOPSOIL		Dark brown, organic SILT. Soft. Moist.			
0.9	LOESS		Light brownish grey, SILT with trace sand. Sand is fine. Non-plastic. Firm. Massive. Moist.			
1.0	DELTAIC SILT/SAND		Grey, sandy SILT. Sand is fine. Micaceous. Firm. Bedded. Moist.		NO SEEPAGE	

Total Depth = 1 m

COMMENT: Test pit dry. Scala returned blow counts per 100 mm from 1.0 m: 2, 3, 3, 5, 5, 3, 2, 2, 4

Logged By: JM

Checked Date:

Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 27**

PROJECT:	Shotover Country - Southern Block	JOB NUMBER:	160041.04

EASTING:		mE	EQUIPMENT:	21T Excavator	OPERATOR:	Nick
NORTHING:		mN	INFOMAP NO.		COMPANY:	Queenstown Commercial Limited
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	11-Jun-20
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	11-Jun-20

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.25	TOPSOIL		Dark brown, organic SILT. Soft. Moist.			
0.8	LOESS		Light brownish grey, SILT with trace sand. Sand is fine. Non-plastic. Firm. Massive. Moist.			
1.0	DELTAIC SILT/SAND		Grey, silty SAND. Sand is fine. Micaceous. Medium dense. Bedded. Moist.		NO SEEPAGE	

Total Depth = 1 m

COMMENT: Test pit dry. Scala returned blow counts per 100 mm from 1.0 m: 1, 2, 2, 2, 5, 2, 1, 2, 2

Logged By: JM

Checked Date:

Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 28**

PROJECT:	Shotover Country - Southern Block	JOB NUMBER:	160041.04

EASTING:		mE	EQUIPMENT:	21T Excavator	OPERATOR:	Nick
NORTHING:		mN	INFOMAP NO.		COMPANY:	Queenstown Commercial Limited
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	11-Jun-20
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	11-Jun-20

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.15	TOPSOIL		Dark brown, organic SILT. Soft. Moist.			
0.6	LOESS		Light brownish grey, SILT with trace sand. Sand is fine. Non-plastic. Firm. Massive. Moist.			
1.0	DELTAIC SILT/SAND		Grey, silty SAND. Sand is fine. Micaceous. Slightly iron stained. Loose. Bedded. Moist.		NO SEEPAGE	

Total Depth = 1 m

COMMENT: Test pit dry. Scala returned blow counts per 100 mm from 1.0 m: 2, 2, 2, 2, 2, 2, 2, 2, 2

Logged By: JM

Checked Date:

Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 29**

PROJECT:	Shotover Country - Southern Block	JOB NUMBER:	160041.04

EASTING:		mE	EQUIPMENT:	21T Excavator	OPERATOR:	Nick
NORTHING:		mN	INFOMAP NO.		COMPANY:	Queenstown Commercial Limited
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	11-Jun-20
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	11-Jun-20

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.2	TOPSOIL		Dark brown, organic SILT. Soft. Moist.			
0.7	LOESS		Light greyish brown, SILT with trace sand. Sand is fine. Non-plastic. Firm. Massive. Moist.			
1.0	DELTAIC SILT/SAND		Grey, silty SAND. Sand is fine. Micaceous. Slightly iron stained. Loose. Bedded. Moist.		NO SEEPAGE	

Total Depth = 1 m

COMMENT: Test pit dry. Scala returned blow counts per 100 mm from 1.0 m: 1, 1, 2, 3, 4, 2, 2, 2, 2

Logged By: JM

Checked Date:

Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 30**

PROJECT:	Shotover Country - Southern Block	JOB NUMBER:	160041.04

EASTING:		mE	EQUIPMENT:	21T Excavator	OPERATOR:	Nick
NORTHING:		mN	INFOMAP NO.		COMPANY:	Queenstown Commercial Limited
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	11-Jun-20
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	11-Jun-20

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.25	TOPSOIL		Dark brown, organic SILT. Soft. Moist.			
0.7	LOESS		Light brownish grey, SILT with trace sand. Sand is fine. Non-plastic. Stiff. Massive. Dry to moist.			
1.0	DELTAIC SILT/SAND		Grey, silty SAND. Sand is fine. Micaceous. Slightly iron stained. Loose. Bedded. Moist.		NO SEEPAGE	

Total Depth = 1 m

COMMENT: Test pit dry. Scala returned blow counts per 100 mm from 1.0 m: 1, 2, 1, 2, 2, 2, 2, 2, 2

Logged By: JM

Checked Date:

Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

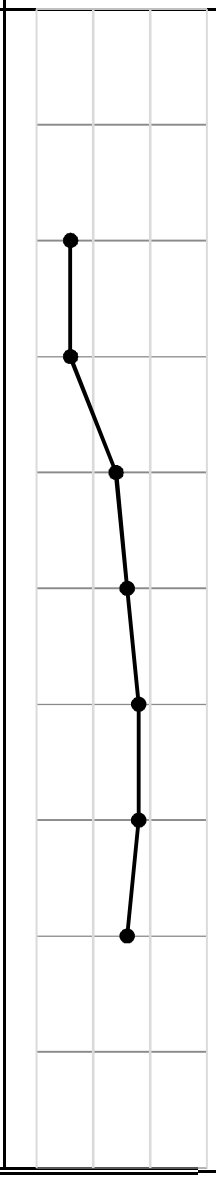
EXCAVATION NUMBER: **TP 32**

PROJECT:	Shotover Country - Southern Block	JOB NUMBER:	160041.04

EASTING:		mE	EQUIPMENT:	21T Excavator	OPERATOR:	Nick
NORTHING:		mN	INFOMAP NO.		COMPANY:	Queenstown Commercial Limited
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	11-Jun-20
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	11-Jun-20

DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE	SCALA PENETROMETER Blows per 100mm (0 5 10 15)
0.25	TOPSOIL		Dark brown, organic SILT. Soft. Moist.			
0.9	LOESS		Light greyish brown, SILT with trace sand. Sand is fine. Non-plastic. Stiff. Massive. Dry to moist.			
1.0	DELTAIC SILT/SAND		Light grey, silty SAND. Sand is fine. Micaceous. Loose. Bedded. Moist.		NO SEEPAGE	

Total Depth = 1 m



COMMENT: Test pit dry. Scala returned blow counts per 100 mm from 1.0 m: 2, 2, 3, 3, 2, 3, 3, 4, 3

Logged By: JM

Checked Date:

Sheet: 1 of 1

GEOSOLVE

EXCAVATION LOG

EXCAVATION NUMBER: **TP 34**

PROJECT:	Shotover Country - Southern Block	JOB NUMBER:	160041.04

EASTING:		mE	EQUIPMENT:	21T Excavator	OPERATOR:	Nick
NORTHING:		mN	INFOMAP NO.		COMPANY:	Queenstown Commercial Limited
ELEVATION:		m	DIMENSIONS:		HOLE STARTED:	11-Jun-20
METHOD:			EXCAV. DATUM:		HOLE FINISHED:	11-Jun-20

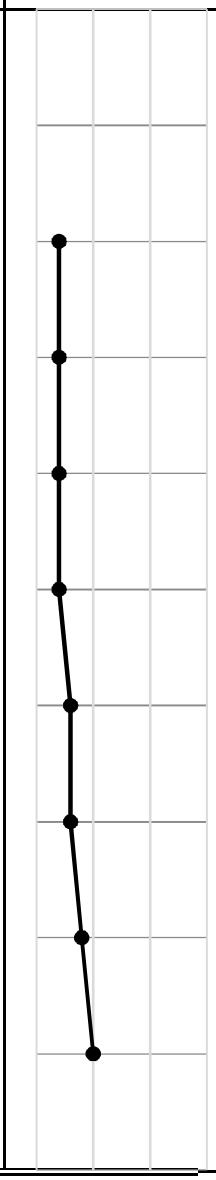
DEPTH (m)	SOIL / ROCK TYPE	GRAPHIC LOG	DESCRIPTION	USCS GROUP	GROUNDWATER / SEEPAGE
0.2	TOPSOIL		Dark brown, organic SILT. Soft. Moist.		
0.9	LOESS		Light brownish grey, SILT with trace sand. Sand is fine. Non-plastic. Firm. Massive. Moist.		
1.0	DELTAIC SILT/SAND		Grey, sandy SILT. Sand is fine. Micaceous. Firm. Bedded. Moist.		NO SEEPAGE

Total Depth = 1 m

SCALA PENETROMETER

Blows per 100mm

0 5 10 15



COMMENT: Test pit dry. Scala returned blow counts per 100 mm from 1.0 m: 2, 3, 5, 6, 6, 9, 7

Logged By: JM

Checked Date:

Sheet: 1 of 1

GEOSOLVE

GeoSolve Ltd

SCALA PENETROMETER LOG

Job No: *160041.04*
Project: *Lot 5 Kawarau Heights*

Date: *10/05/2022*
Operated by: *pgf*
Logged by: *pgf*

Test Number ***SC1 & SC2***

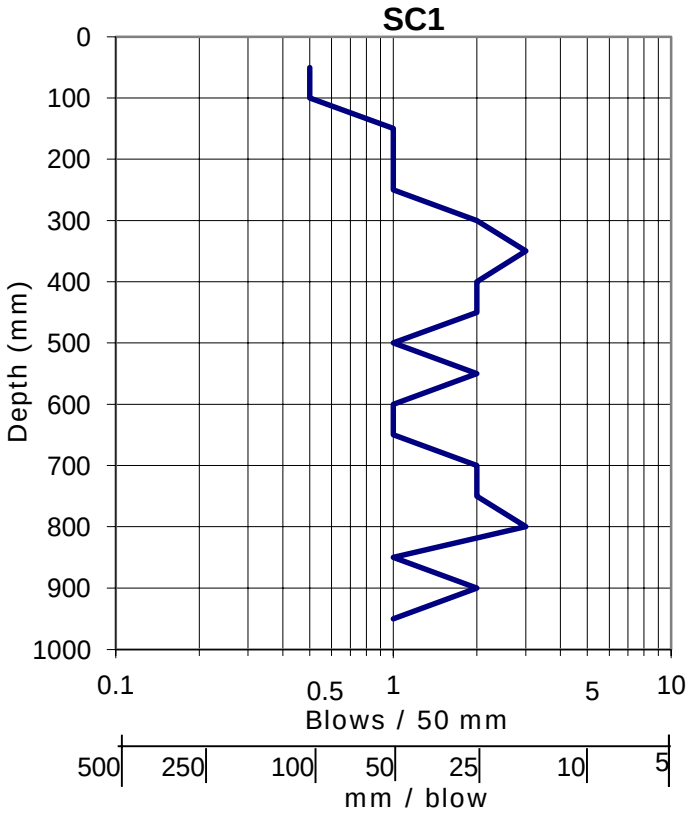
Sheet ***1***
of ***1***

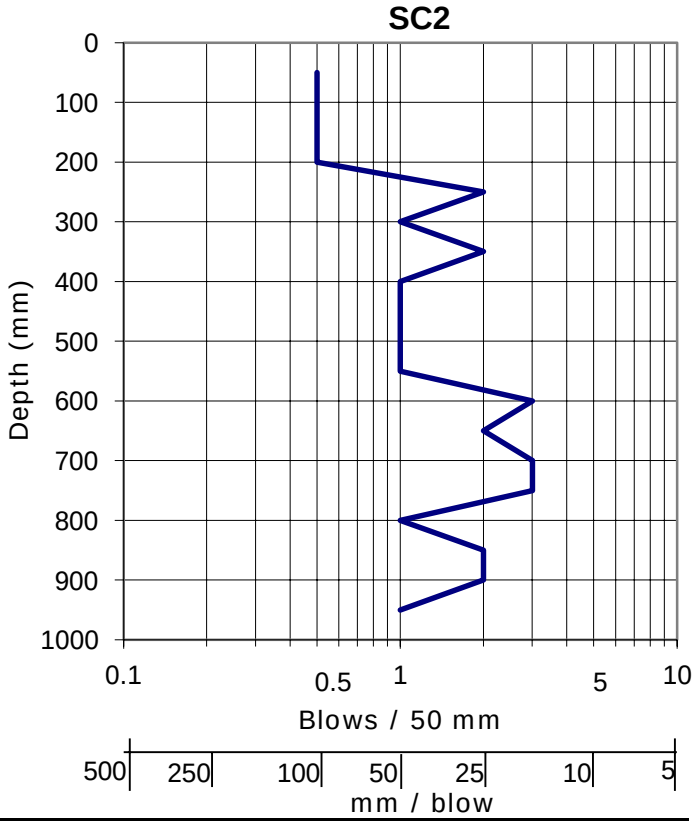
SC1
Location: Lot 5
RL: 0 m

mm Driven	No. of Blows
50	*0.5*
100	*0.5*
150	*1*
200	*1*
250	*1*
300	*2*
350	*3*
400	*2*
450	*2*
500	*1*
550	*2*
600	*1*
650	*1*
700	*2*
750	*2*
800	*3*
850	*1*
900	*2*
950	*1*
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+

SC2
Location: Lot 5
RL: 0m

mm Driven	No. of Blows
50	*0.5*
100	*0.5*
150	*0.5*
200	*0.5*
250	*2*
300	*1*
350	*2*
400	*1*
450	*1*
500	*1*
550	*1*
600	*3*
650	*2*
700	*3*
750	*3*
800	*1*
850	*2*
900	*2*
950	*1*
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+





GEOSOLVE

GeoSolve Ltd

SCALA PENETROMETER LOG

Job No: *160041.04*
Project: *Lot 26 Kawarau Heights*

Date: *10/05/2022*
Operated by: *pgf*
Logged by: *pgf*

Test Number ***SC3 & SC4***

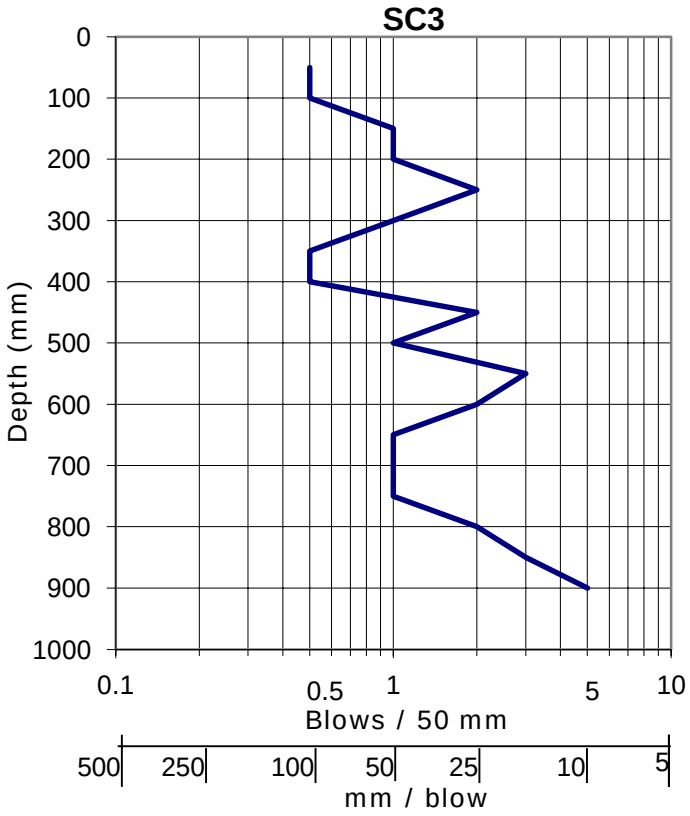
Sheet ***1***
of ***1***

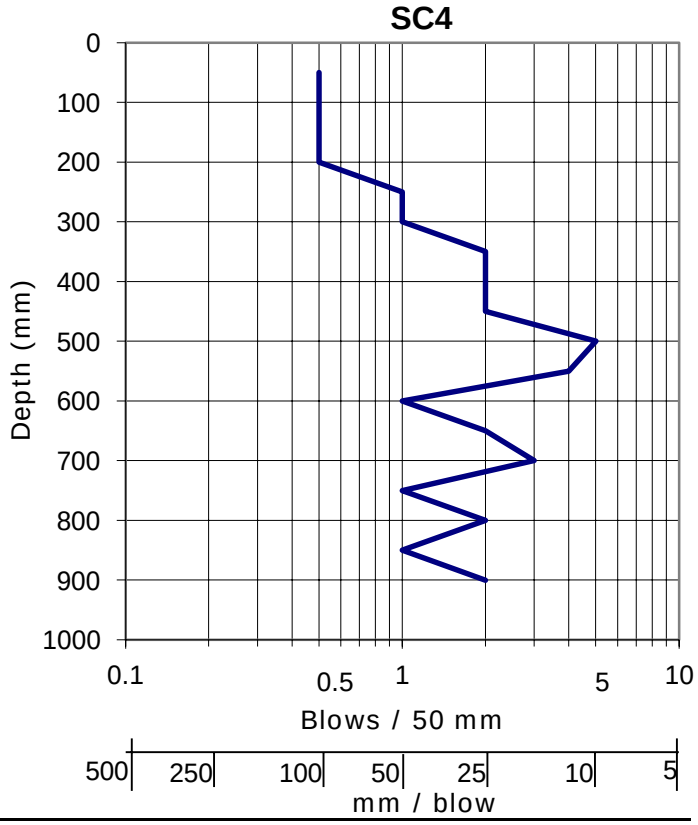
SC3
Location: Lot 26
RL: 0 m

mm Driven	No. of Blows
50	0.5
100	0.5
150	1
200	1
250	2
300	1
350	0.5
400	0.5
450	2
500	1
550	3
600	2
650	1
700	1
750	1
800	2
850	3
900	5
950	
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+

SC4
Location: Lot 26
RL: 0m

mm Driven	No. of Blows
50	0.5
100	0.5
150	0.5
200	0.5
250	1
300	1
350	2
400	2
450	2
500	5
550	4
600	1
650	2
700	3
750	1
800	2
850	1
900	2
950	
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+





GEOSOLVE

GeoSolve Ltd

SCALA PENETROMETER LOG

Job No: *160041.04*
Project: *Lot 39 Kawarau Heights*

Date: *10/05/2022*
Operated by: *pgf*
Logged by: *pgf*

Test Number ***SC5 & SC6***

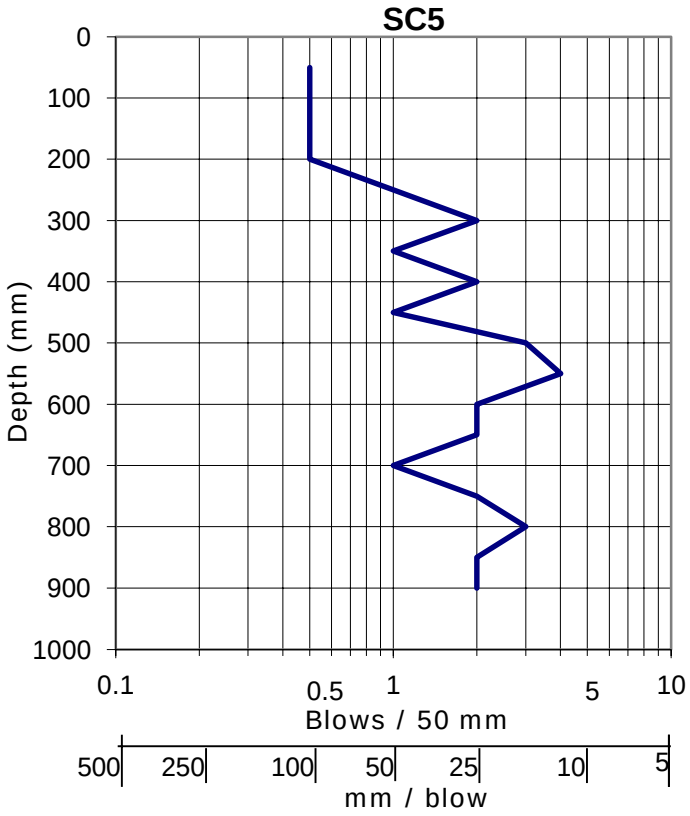
Sheet ***1***
of ***1***

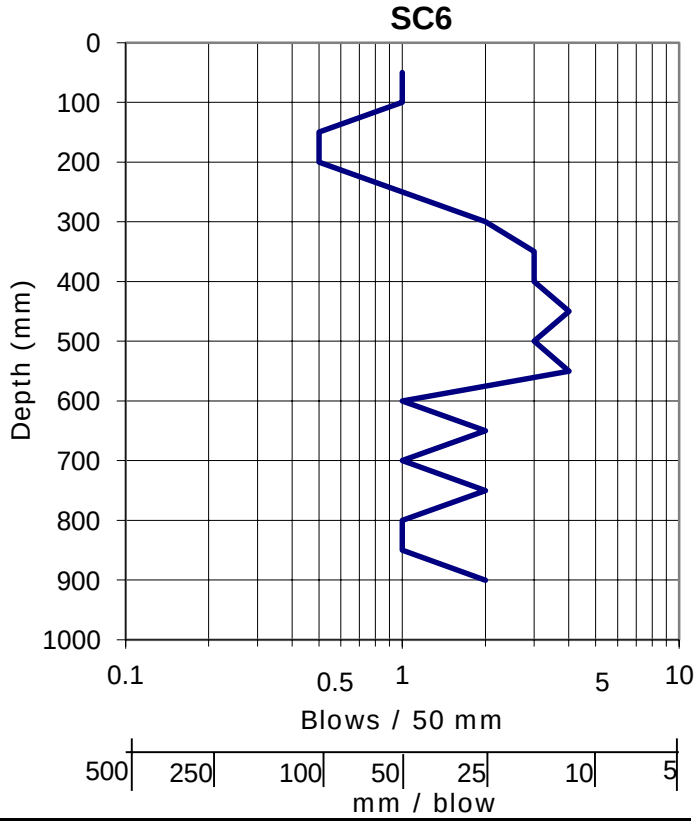
SC5
Location: Lot 39
RL: 0 m

mm Driven	No. of Blows
50	*0.5*
100	*0.5*
150	*0.5*
200	*0.5*
250	*1*
300	*2*
350	*1*
400	*2*
450	*1*
500	*3*
550	*4*
600	*2*
650	*2*
700	*1*
750	*2*
800	*3*
850	*2*
900	*2*
950	
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+

SC6
Location: Lot 39
RL: 0m

mm Driven	No. of Blows
50	*1*
100	*1*
150	*0.5*
200	*0.5*
250	*1*
300	*2*
350	*3*
400	*3*
450	*4*
500	*3*
550	*4*
600	*1*
650	*2*
700	*1*
750	*2*
800	*1*
850	*1*
900	*2*
950	
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+





GEOSOLVE

GeoSolve Ltd

SCALA PENETROMETER LOG

Job No: *160041.04*
Project: *Lot 44 Kawarau Heights*

Date: *10/05/2022*
Operated by: *pgf*
Logged by: *pgf*

Test Number ***SC7 & SC8***

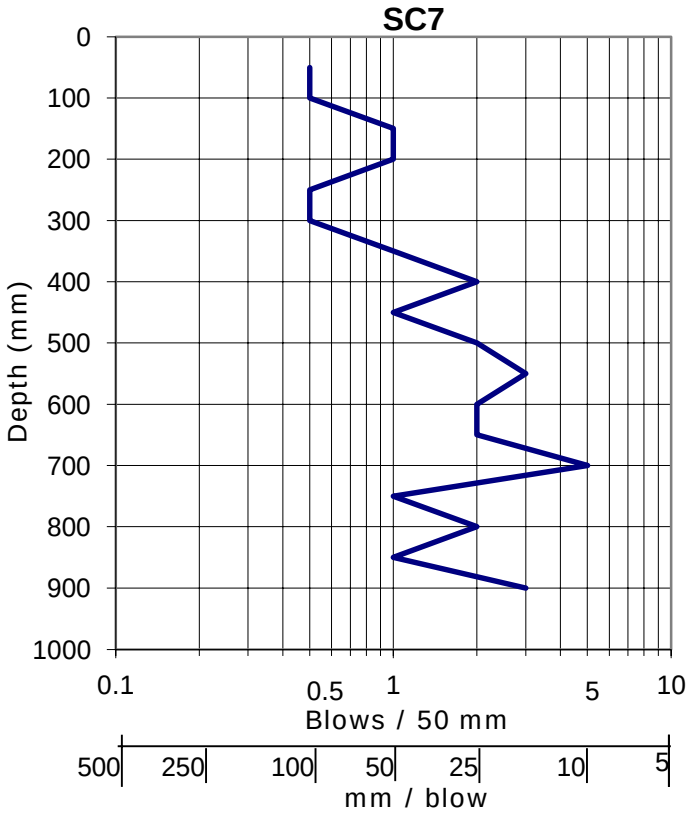
Sheet ***1***
of ***1***

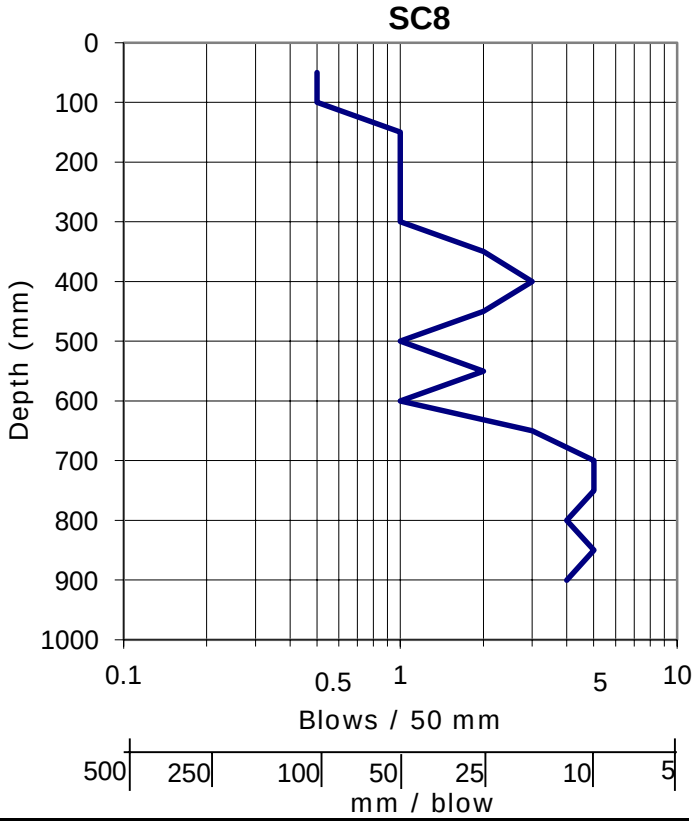
SC7
Location: Lot 44
RL: 0 m

mm Driven	No. of Blows
50	*0.5*
100	*0.5*
150	*1*
200	*1*
250	*0.5*
300	*0.5*
350	*1*
400	*2*
450	*1*
500	*2*
550	*3*
600	*2*
650	*2*
700	*5*
750	*1*
800	*2*
850	*1*
900	*3*
950	
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+

SC8
Location: Lot 44
RL: 0m

mm Driven	No. of Blows
50	*0.5*
100	*0.5*
150	*1*
200	*1*
250	*1*
300	*1*
350	*2*
400	*3*
450	*2*
500	*1*
550	*2*
600	*1*
650	*3*
700	*5*
750	*5*
800	*4*
850	*5*
900	*4*
950	
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+





GEOSOLVE

GeoSolve Ltd

SCALA PENETROMETER LOG

Job No: *160041.04*
Project: *Lot 49 Kawarau Heights*

Date: *10/05/2022*
Operated by: *pgf*
Logged by: *pgf*

Test Number ***SC9 & SC10***

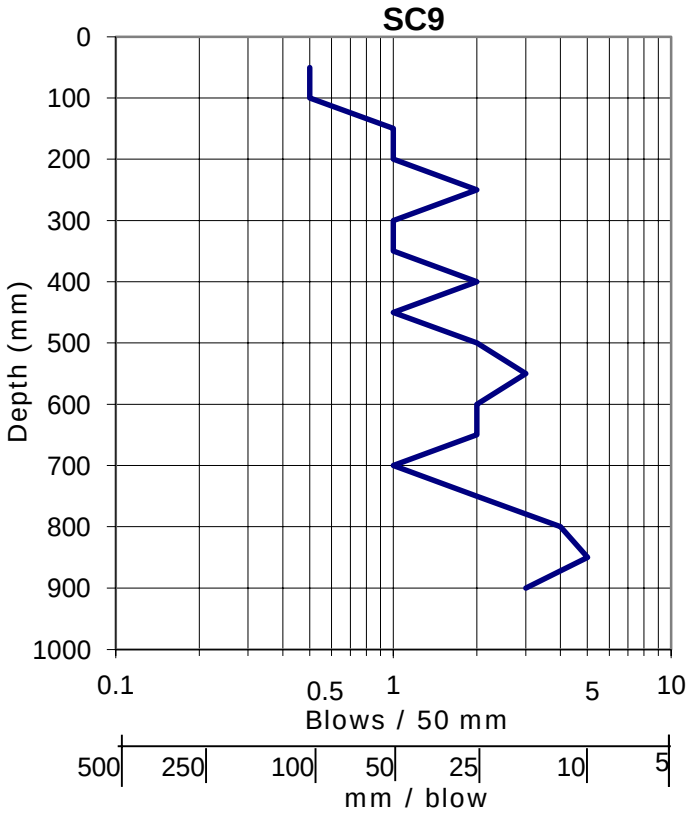
Sheet ***1***
of ***1***

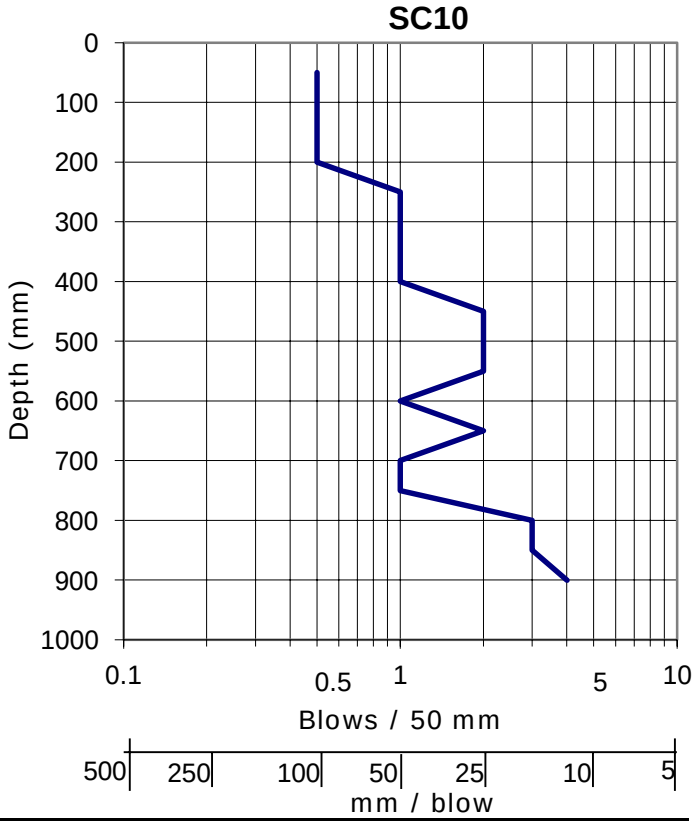
SC9
Location: Lot 49
RL: 0 m

mm Driven	No. of Blows
50	*0.5*
100	*0.5*
150	*1*
200	*1*
250	*2*
300	*1*
350	*1*
400	*2*
450	*1*
500	*2*
550	*3*
600	*2*
650	*2*
700	*1*
750	*2*
800	*4*
850	*5*
900	*3*
950	
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+

SC10
Location: Lot 49
RL: 0m

mm Driven	No. of Blows
50	*0.5*
100	*0.5*
150	*0.5*
200	*0.5*
250	*1*
300	*1*
350	*1*
400	*1*
450	*2*
500	*2*
550	*2*
600	*1*
650	*2*
700	*1*
750	*1*
800	*3*
850	*3*
900	*4*
950	
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+





GEOSOLVE

GeoSolve Ltd

SCALA PENETROMETER LOG

Job No: *160041.04*
Project: *Lot 50 Kawarau Heights*

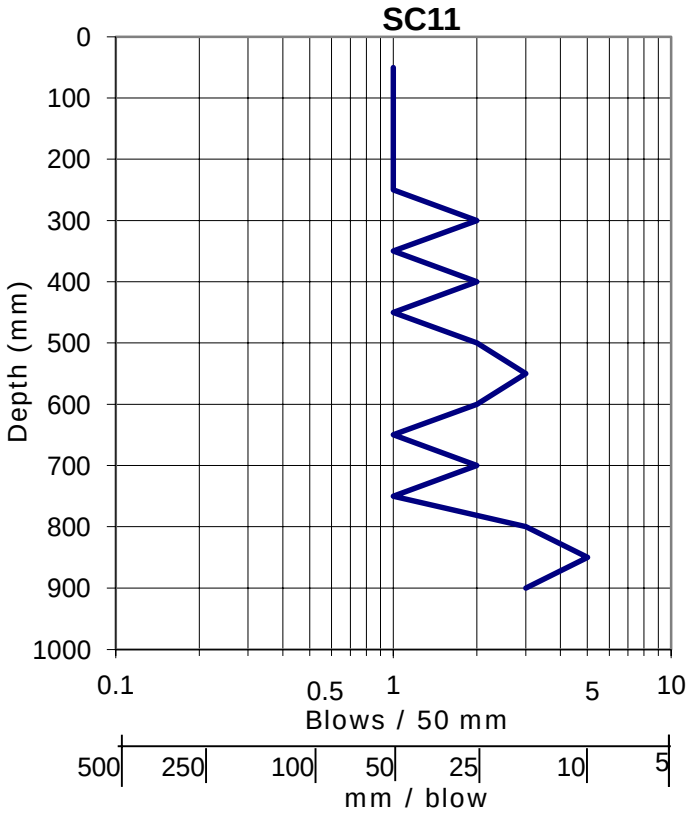
Date: *10/05/2022*
Operated by: *pgf*
Logged by: *pgf*

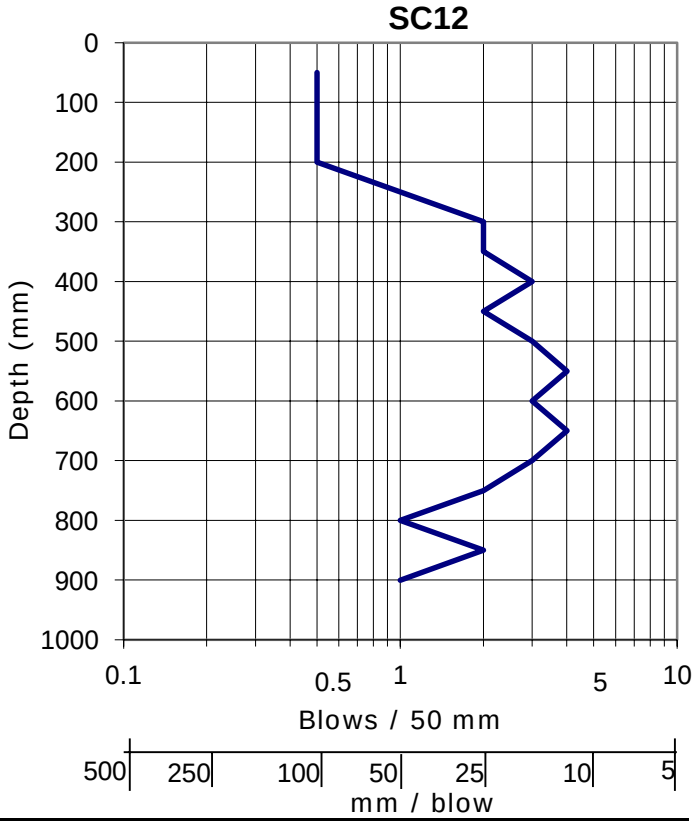
Test Number ***SC11 & SC12***

Sheet ***1***
of ***1***

SC11 Location: Lot 50 RL: 0 m	
mm Driven	No. of Blows
50	1
100	1
150	1
200	1
250	1
300	2
350	1
400	2
450	1
500	2
550	3
600	2
650	1
700	2
750	1
800	3
850	5
900	3
950	
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+

SC12 Location: Lot 50 RL: 0m	
mm Driven	No. of Blows
50	0.5
100	0.5
150	0.5
200	0.5
250	1
300	2
350	2
400	3
450	2
500	3
550	4
600	3
650	4
700	3
750	2
800	1
850	2
900	1
950	
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+





GEOSOLVE

GeoSolve Ltd

SCALA PENETROMETER LOG

Job No: *160041.04*
Project: *Lot 54 Kawarau Heights*

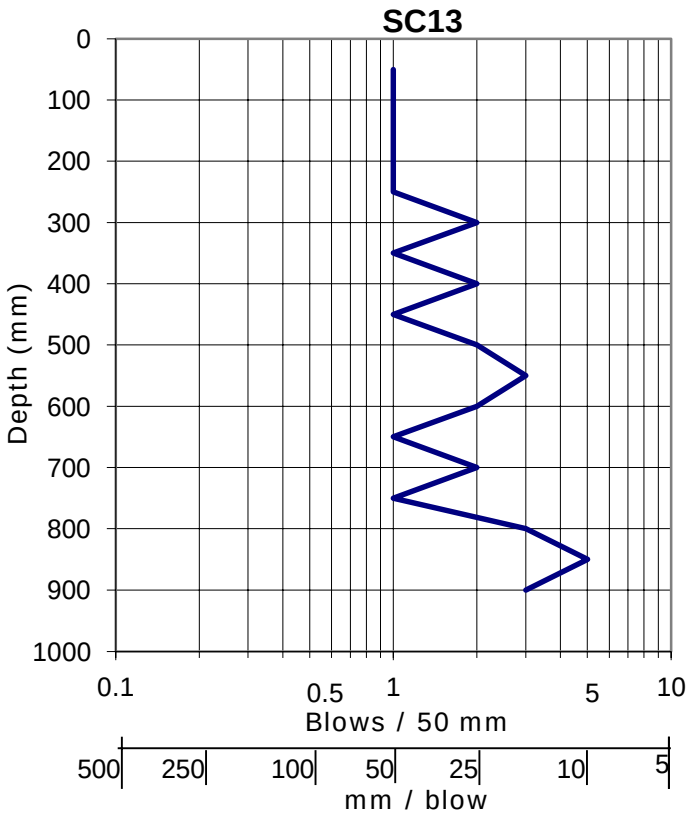
Date: *10/05/2022*
Operated by: *pgf*
Logged by: *pgf*

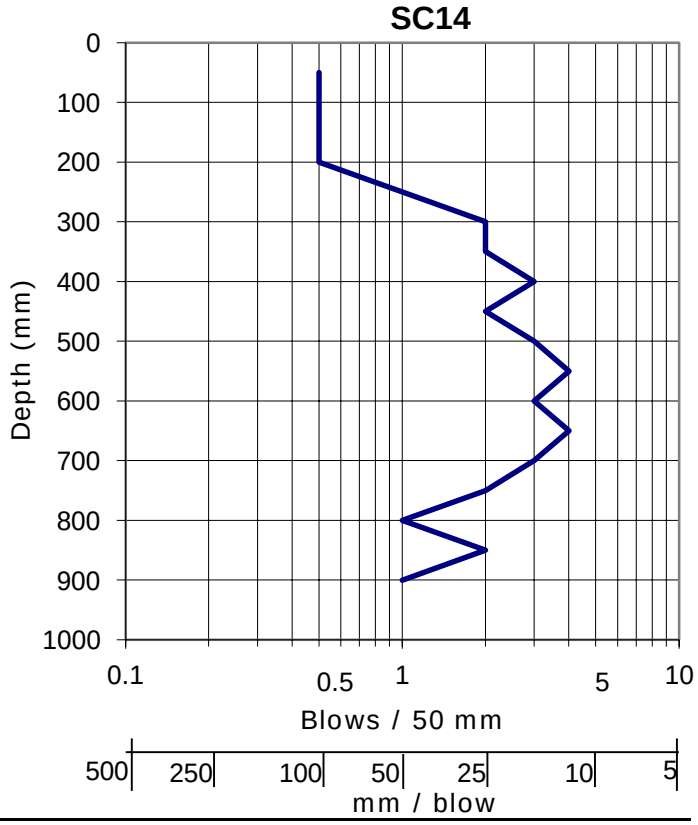
Test Number ***SC13 & SC14***

Sheet ***1***
of ***1***

SC13 Location: Lot 54 RL: 0 m	
mm Driven	No. of Blows
50	*1*
100	*1*
150	*1*
200	*1*
250	*1*
300	*2*
350	*1*
400	*2*
450	*1*
500	*2*
550	*3*
600	*2*
650	*1*
700	*2*
750	*1*
800	*3*
850	*5*
900	*3*
950	
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+

SC14 Location: Lot 54 RL: 0m	
mm Driven	No. of Blows
50	*0.5*
100	*0.5*
150	*0.5*
200	*0.5*
250	*1*
300	*2*
350	*2*
400	*3*
450	*2*
500	*3*
550	*4*
600	*3*
650	*4*
700	*3*
750	*2*
800	*1*
850	*2*
900	*1*
950	
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+





GEOSOLVE

GeoSolve Ltd

SCALA PENETROMETER LOG

Job No: *160041.04*
Project: *Lot 94 Kawarau Heights*

Date: *10/05/2022*
Operated by: *pgf*
Logged by: *pgf*

Test Number ***SC15 & SC16***

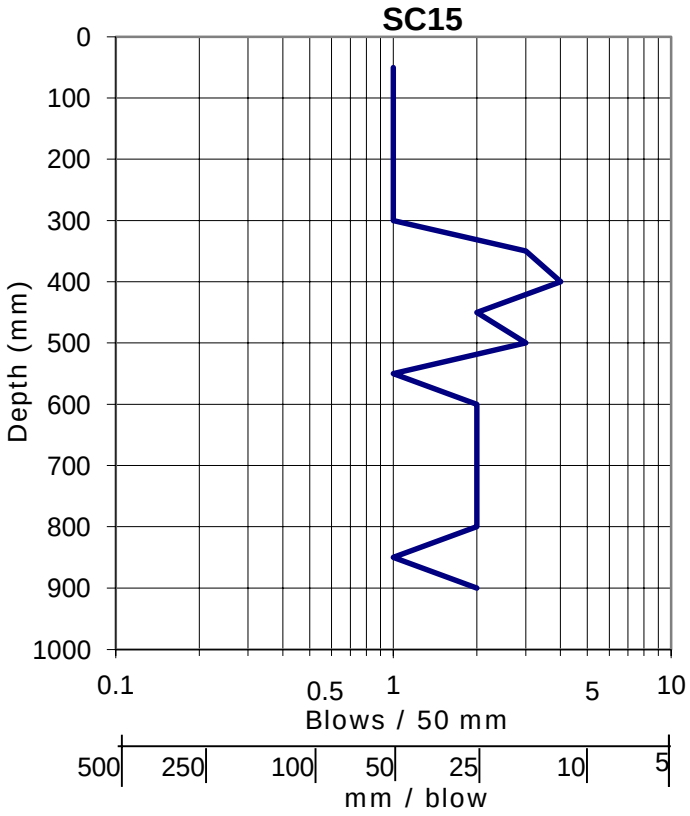
Sheet ***1***
of ***1***

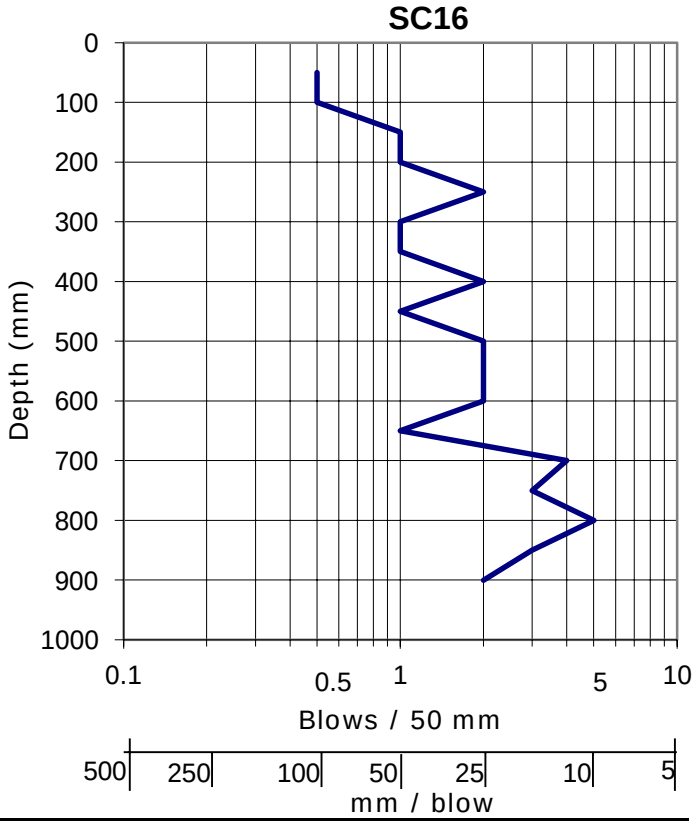
SC15
Location: Lot 94
RL: 0 m

mm Driven	No. of Blows
50	1
100	1
150	1
200	1
250	1
300	1
350	3
400	4
450	2
500	3
550	1
600	2
650	2
700	2
750	2
800	2
850	1
900	2
950	
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+

SC16
Location: Lot 94
RL: 0m

mm Driven	No. of Blows
50	0.5
100	0.5
150	1
200	1
250	2
300	1
350	1
400	2
450	1
500	2
550	2
600	2
650	1
700	4
750	3
800	5
850	3
900	2
950	
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+





GEOSOLVE

GeoSolve Ltd

SCALA PENETROMETER LOG

Job No: *160041.04*
Project: *Lot 96 Kawarau Heights*

Date: *10/05/2022*
Operated by: *pgf*
Logged by: *pgf*

Test Number ***SC17 & SC18***

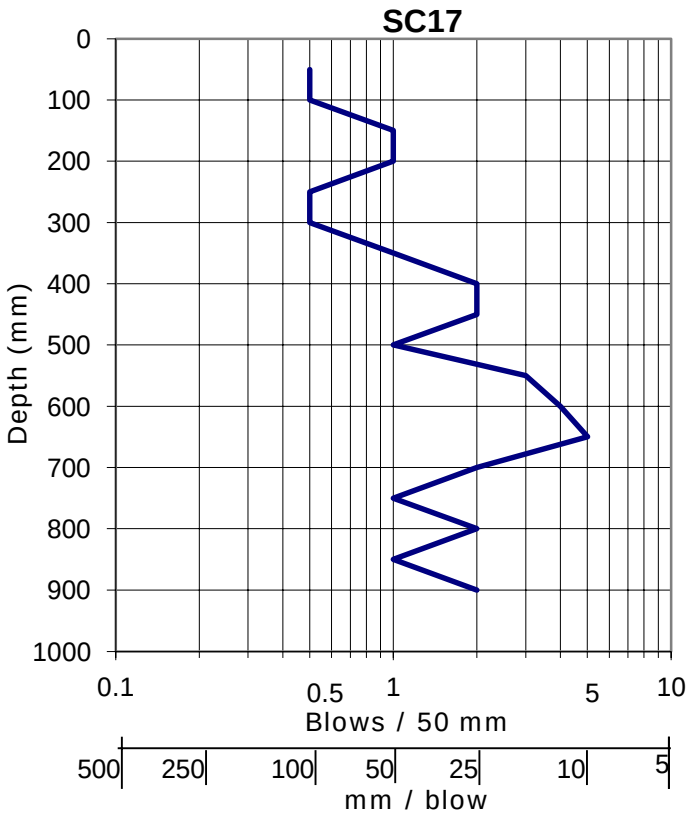
Sheet ***1***
of ***1***

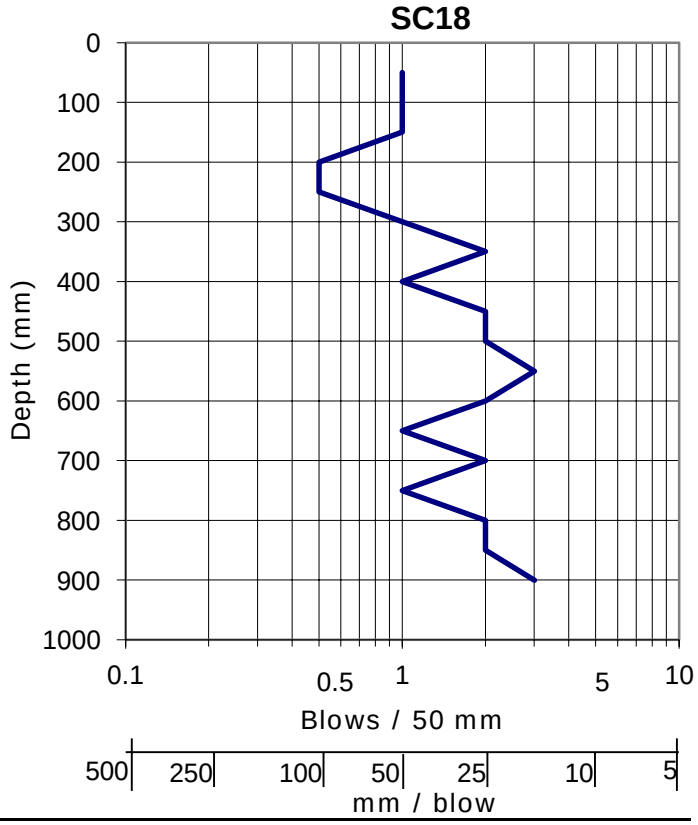
SC17
Location: Lot 96
RL: 0 m

mm Driven	No. of Blows
50	*0.5*
100	*0.5*
150	*1*
200	*1*
250	*0.5*
300	*0.5*
350	*1*
400	*2*
450	*2*
500	*1*
550	*3*
600	*4*
650	*5*
700	*2*
750	*1*
800	*2*
850	*1*
900	*2*
950	
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+

SC18
Location: Lot 96
RL: 0m

mm Driven	No. of Blows
50	*1*
100	*1*
150	*1*
200	*0.5*
250	*0.5*
300	*1*
350	*2*
400	*1*
450	*2*
500	*2*
550	*3*
600	*2*
650	*1*
700	*2*
750	*1*
800	*2*
850	*2*
900	*3*
950	
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+





GEOSOLVE

GeoSolve Ltd

SCALA PENETROMETER LOG

Job No: *160041.04*
Project: *Lot 100 Kawarau Heights*

Date: *10/05/2022*
Operated by: *pgf*
Logged by: *pgf*

Test Number ***SC19 & SC20***

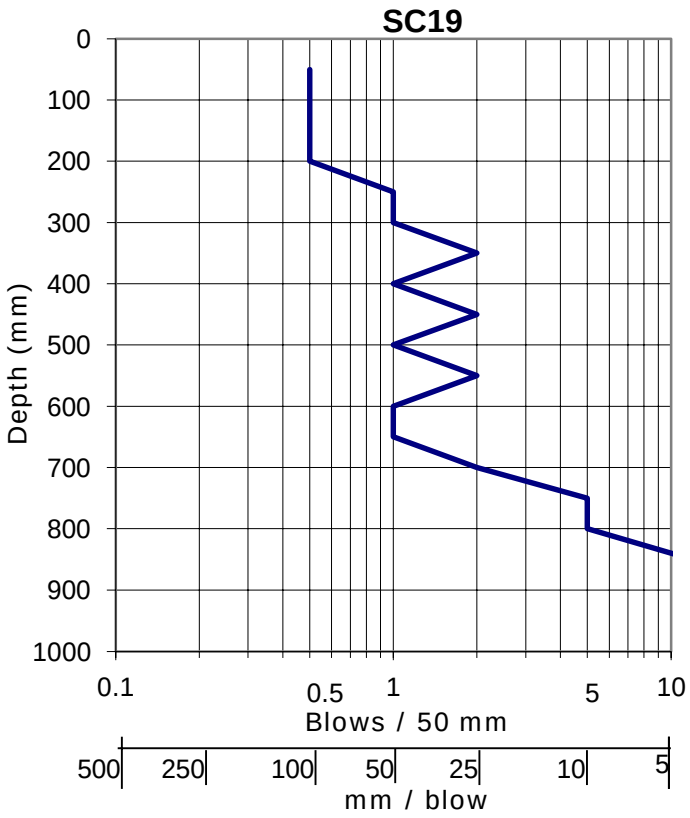
Sheet ***1***
of ***1***

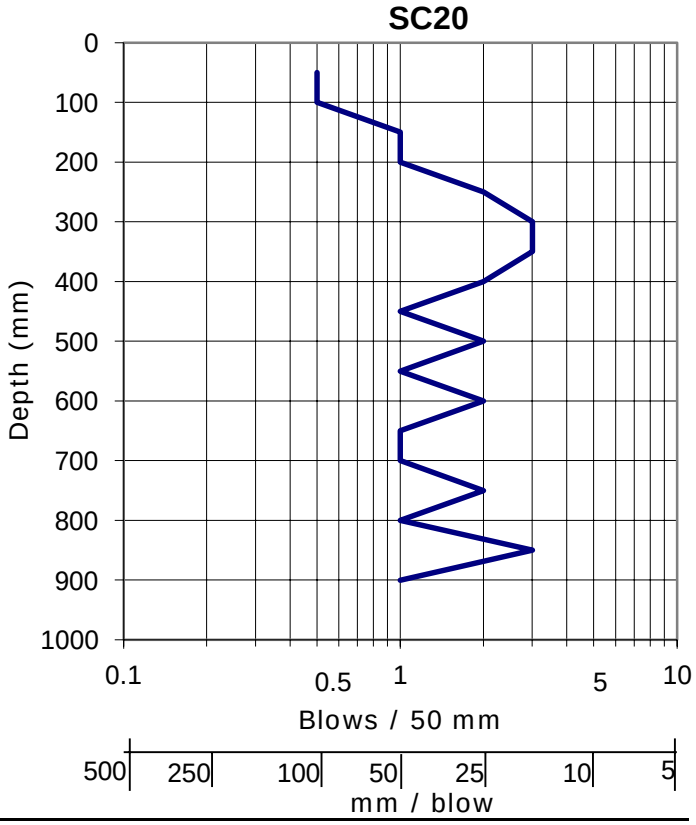
SC19
Location: Lot 100
RL: 0 m

mm Driven	No. of Blows
50	*0.5*
100	*0.5*
150	*0.5*
200	*0.5*
250	*1*
300	*1*
350	*2*
400	*1*
450	*2*
500	*1*
550	*2*
600	*1*
650	*1*
700	*2*
750	*5*
800	*5*
850	*12*
900	
950	
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+

SC20
Location: Lot 100
RL: 0m

mm Driven	No. of Blows
50	*0.5*
100	*0.5*
150	*1*
200	*1*
250	*2*
300	*3*
350	*3*
400	*2*
450	*1*
500	*2*
550	*1*
600	*2*
650	*1*
700	*1*
750	*2*
800	*1*
850	*3*
900	*1*
950	
1000	
Inferred Soil Type	Sand/silt
Watertable Depth	30 m+





Issues requiring resource consent

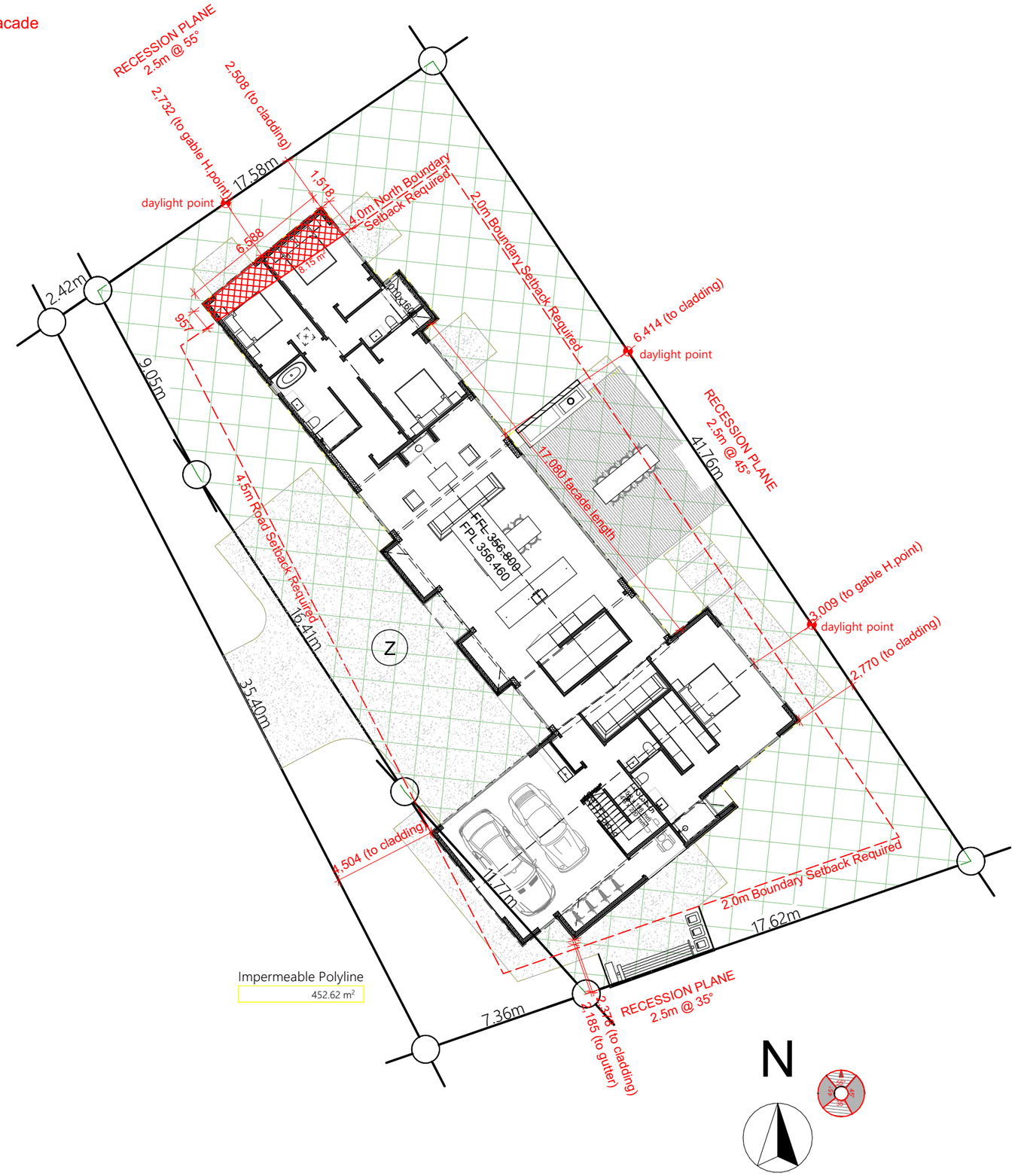
Setbacks
Encroaching the 4m North side setback

Building Length
Eastern Building facade exceeds the maximum 16m building facade

QUEENSTOWN LAKES DISTRICT COUNCIL

APPROVED PLAN:
RM220135

Tuesday, 07 June 2022



Site area	855m²
Floor area (over frame)	301.1 m²
Floor area (over cladding)	306.5 m²
Footprint (including eaves over 600mm)	275.5 m²
Roof area	278.8 m²
Building coverage	32.2%
Permeable Area	47.1%

Site drawn to Paterson Pitts Proposed Subdivision Plan Revision H.

Refer to Geotechnical Report by Geosolve ref 160041.04 dated; July 2020

= Geotechnical setback area, 13m from crest of slope (specific engineering design)

DRAWING DETAILS

Scale 1:200, 1:20, 1:50 @ A3

Date 25/02/2022

Lot 03

Kawarau Heights Queenstown

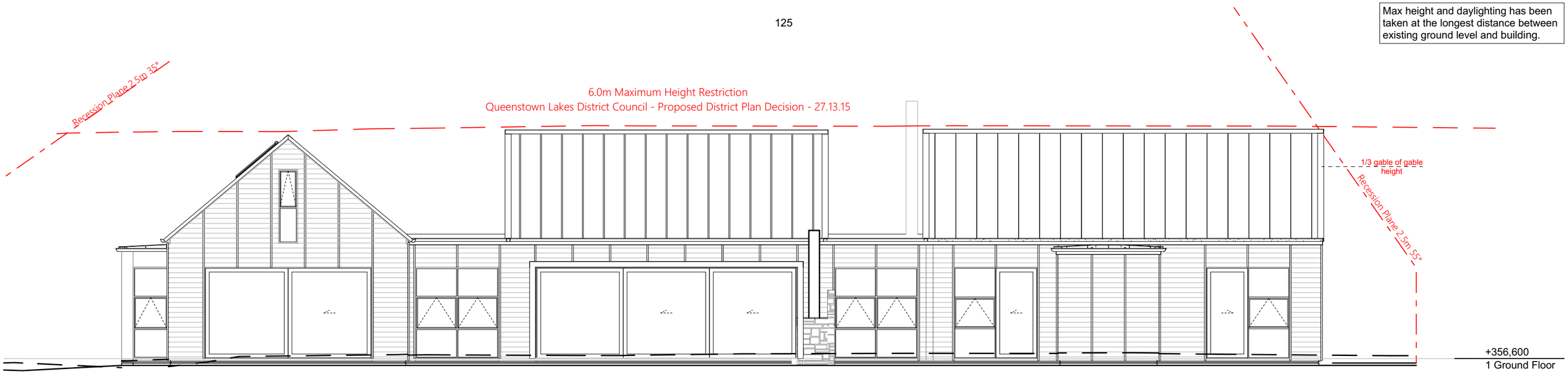
Site Planning

QUEENSTOWN COMMERCIAL | Sanderson GROUP

KAWARAU HEIGHTS

This plan is conceptual only to provide an indicative layout to prospective clients.

Max height and daylighting has been taken at the longest distance between existing ground level and building.



North Elevation 1:100

East Elevation 1:100

DRAWING DETAILS

Scale	1:100 @ A3
Date	25/02/2022

Lot 03

Kawarau Heights Queenstown

Elevations

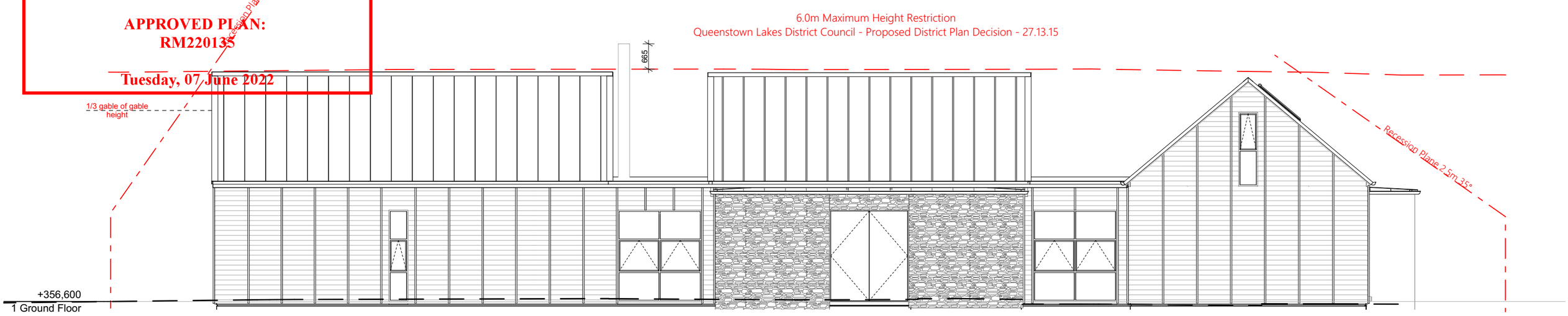
QUEENSTOWN COMMERCIAL

Sanderson GROUP

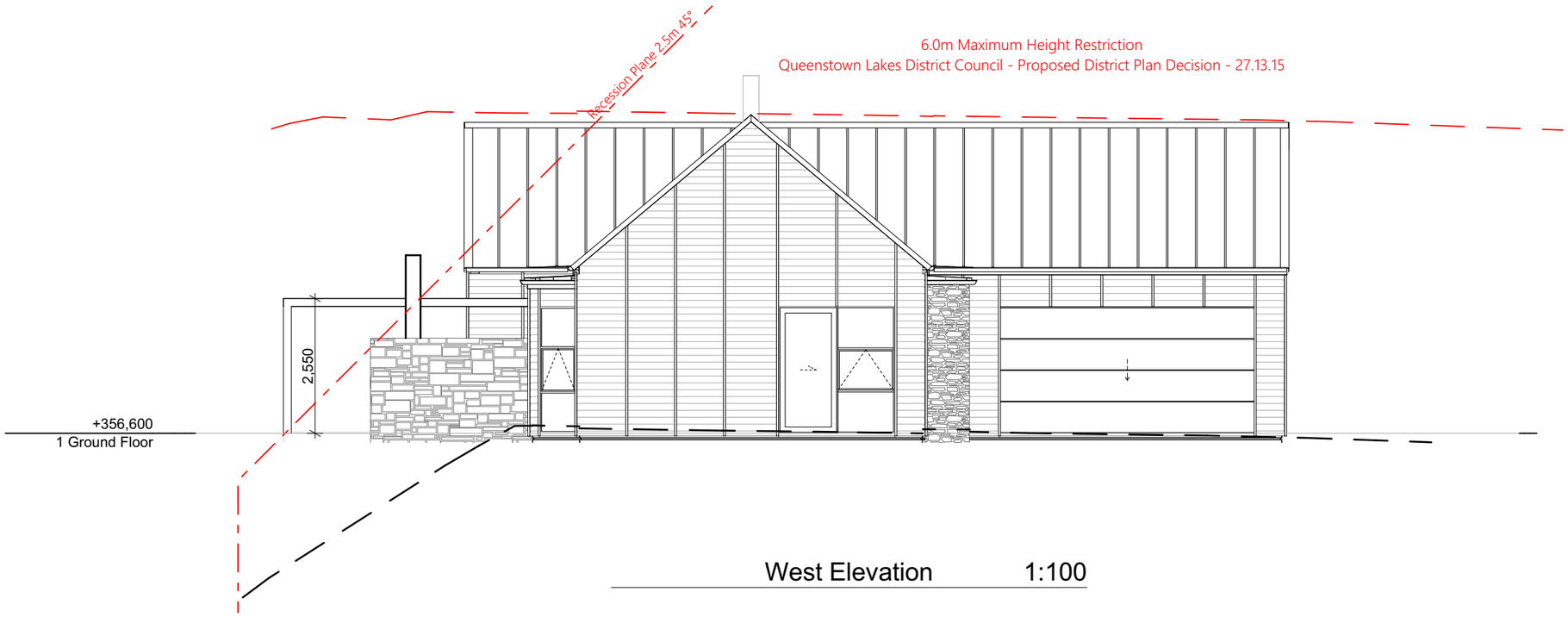
KAWARAU HEIGHTS

This plan is conceptual only to provide an indicative layout to prospective clients.

Max height and daylighting has been taken at the longest distance between existing ground level and building.



South Elevation 1:100



West Elevation 1:100

DRAWING DETAILS

Scale 1:100 @ A3

Date 25/02/2022

Lot 03

Kawarau Heights Queenstown

Elevations

QUEENSTOWN COMMERCIAL

Sanderson GROUP

KAWARAU HEIGHTS

This plan is conceptual only to provide an indicative layout to prospective clients.

Heat Sensitive Materials
No Combustible Materials within this area. Curtains can not be installed within this area, but where curtains are installed near the fireplace they must be outside of this zone and restrained with tiebacks.

Escea DF700 gas fire with insulated flue
Fire and flue to be installed strictly to manufacturers installation instructions.
Trim 695 x D600
800 head height
Builder to nog onsite

600x600 ceiling hatch with roof ladder

2400 soffit

D08
2,475 x 2,400
3-200x45 NPLVL8H12

3/190x45 SG8 + 1280x825 TV recess

D09
3,600 x 2,400
3-300x45 NPLVL8H12

Bed 4
10.65 m²
2755 stud
carpet

Store
2755 stud

Lounge 2
2755 stud
carpet

W11
900 x 1,600
3-140x45 JFLVL8H12

D07
2,440 x 2,400
3-200x45 NPLVL8H12

2/710

wc
900 van

Bath.2
2755 stud
tiles

1600 Bath

1100x1200

wc
900 van

Bath.1
2755 stud
tiles

1000x1700

W12
1,720 x 800
3-200x45 JFLVL8H12

E-02a
A20

Tiled shower
1. Recess with 1:50 fall to drain
2. Waterproof 1500 from rose(grey hatch)
3. Glass walls (safety glass)

Tiled shower
1. Recess with 1:50 fall to drain
2. Waterproof 1500 from rose (grey hatch)
3. Glass walls (safety glass)

W10
1,250 x 2,400
3-140x45 JFLVL8H12

Bed 3
9.57 m²
2755 stud
carpet

Bed 2
9.87 m²
2755 stud
carpet

W09
2,250 x 2,400
3-200x45 NPLVL8H12

D10
2,300 x 2,400
3-200x45 NPLVL8H12

W01
4,960 x 2,440
3-300x45 NPLVL13H12 roof beam

D01
9,450 x 2,400
SED Portal

1,200 x 2,425
Squareformed Cavity Slider
3-150x45 NPLVL13H12

Entry
2455 stud
timber strip flooring

FFL 358.300

OPENING
2,100 x 2,455

Living Area
sqm: 99.31 m²

wall panelling

Dining
2755 stud
Raking

Lounge
carpet

W02
2,055 x 2,400
SED Portal

W04
6,053 x 2,120

3/190x45 SG8
+ 1280x825 TV recess

W03
2,055 x 2,400
SED Portal

D06
1,930 x 2,435
2/940 Plasma doors
3-140x45 JFLVL8H12 roof beam

E-03a
A21

No Allowance has been made for storage within the Roof Space

600x600 ceiling hatch with roof ladder

Double Garage
2755 stud
carpet

D05
4,840 x 2,400
SED Portal

Laund.
tiles
w/m
dry

tub

Ens.
2755 stud
tiles

wc

1200 van

WIR
2755 stud
carpet

Bed 1
17.11 m²
2755 stud
carpet

2455 stud
300 Bas
WC

F
F
P

OPENING
2,400 x 2,455

Kitchen
timber strip flooring
oven under
elec hobb
d.w.

W06
860 x 800
3-140x45 JFLVL8H12 roof beam

W05
4,835 x 1,090
1/300x85 GI17c + 1/300x45 LVL

D02
4,685 x 2,400
SED Portal

D03
2,300 x 2,400
3-200x45 NPLVL8H12

D04
2,400 x 2,400
3-200x45 NPLVL8H12

gas meter box

W08
1,840 x 800
3-200x45 NPLVL8H12

W07
3,950 x 800
3-300x45 NPLVL8H12

Tiled shower
1. Recess with 1:50 fall to drain
2. Waterproof 1500 from rose(grey hatch)
3. Glass walls (safety glass)

B1 A24 · B2 A24 · B3 A25 · B4 A25 · A1 A22 · A2 A23 · A3 A23 · 14 · 15 · 19

House Colour Key:

-Roof Colour: Flaxpod
-Cedar Colour: Dryden's Midnight
-Aluminium Colour: Metropolis Coal Dust
-Plaster Colour: Triple White pointer
-Cedar Colour: Dryden's Midnight (cabinetry to match)

Schist
-Wakatipu Schist
-Bagged as per Amisfield Winery
-Warm Grey/Brown mix, not Green

Cedar Profiles
-Horizontal: Herman Pacific CP835
-Battens: 39x39mm
-Interior Panelling: Herman Pacific CP3352

WET AREAS - BATHROOM/ENSUITE

Laticrete Hydro Ban waterproofing membrane installed to entire bathroom /ensuite floor area with 2m upstand on walls.

ENGINEERING DETAIL NOTES

STRUCTURAL ENGINEER DESIGN
All construction to be read in conjunction with the Kirk Roberts Consulting Engineering structural plans and engineering calculations.
Refer to Connection plan for engineers connection locations & the Roof Framing plans for any structural engineering.

RevID	ChID	Change Name	Date
05	15	Gas fires changed from Regency to Escea gas fires.	3/05/2022
	19	Window 5 (Kitchen) lowered 20mm to allow for bench to go over jamb linings with revised Kitchen Design.	

All dimensions to be verified on site before commencing any work or producing shop drawings.
Do not scale. The copyright of this drawing remains with Queenstown Commercial Limited.

NOTE

FLOOR AREA

TOTAL O/FRAME	290.0 m²
TOTAL O/CLADDING	296.3 m²
TOTAL ROOF	308.2 m²

ELEVATION KEY

North
West — LOT 18 — East
South

GENERAL NOTES

All dimensions, levels, falls, heights and structure etc. to be checked and confirmed on site before commencement of works.

All proprietary materials to be handled, placed, stored and installed in strict accordance with manufacturers specifications and any conditions associated appraisals.

FFL = meaning '**F**inished **F**loor **L**evel'.
All dimensioned to be read off the plans - **do not scale from drawings**. All dimensions in millimetres unless stated otherwise.

All construction to comply with NZS3604:2011 and NZBC and to be read in conjunction with the Manufacturers specification documentation.

STATUS

Detailed Design

PROJECT

Allotment 18
Lot 2 DP 516376
Kawarau Heights
Queenstown

TERRITORIAL AUTHORITY
Queenstown Lakes District Council
Lower Density Suburban Residential

SITE DATA

Sub Soil Classification:	C
Soil Classification	REF GEOTECH
Wind Zone	Very High
Earthquake Zone	3
Climate Zone	3
Exposure Zone	B
Rain Intensity (10%AEP)	41mm/hr
Snowload	2.0kPa

DRAWING DETAILS

Job no.	21010
Date	3/05/2022
Drawn	Lloyd Bassett-Smith
LBP	Lloyd Bassett-Smith BP 126919
Scale	**1:100 @ A3**

DRAWING TITLE

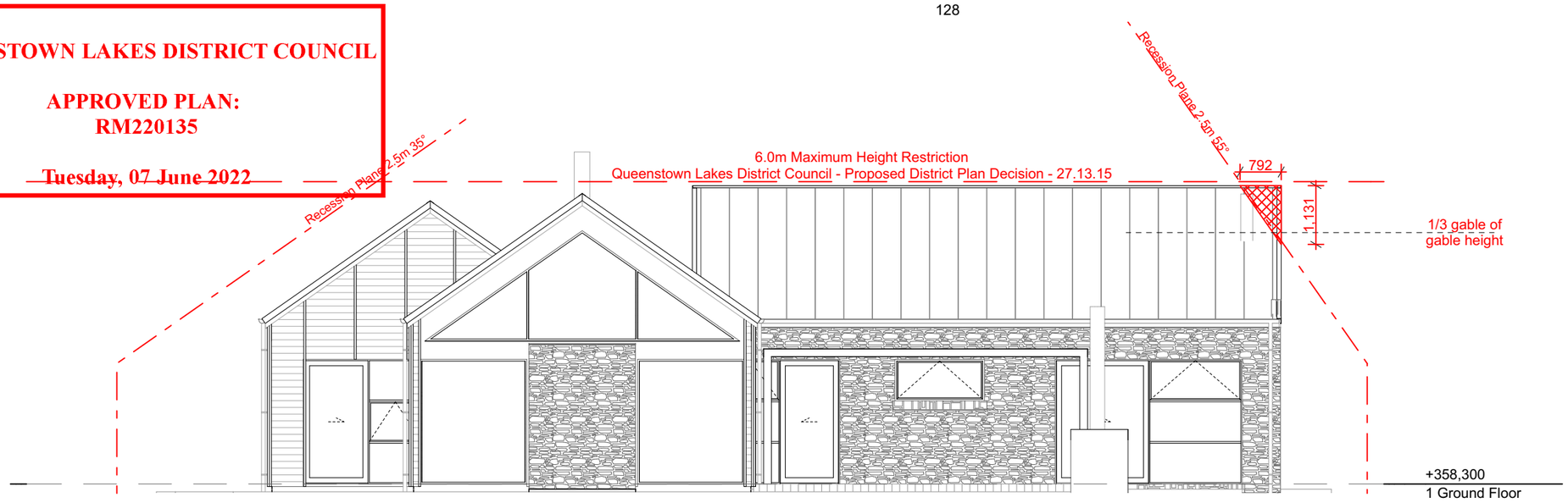
Floor Plan

DRAWING NO. A05

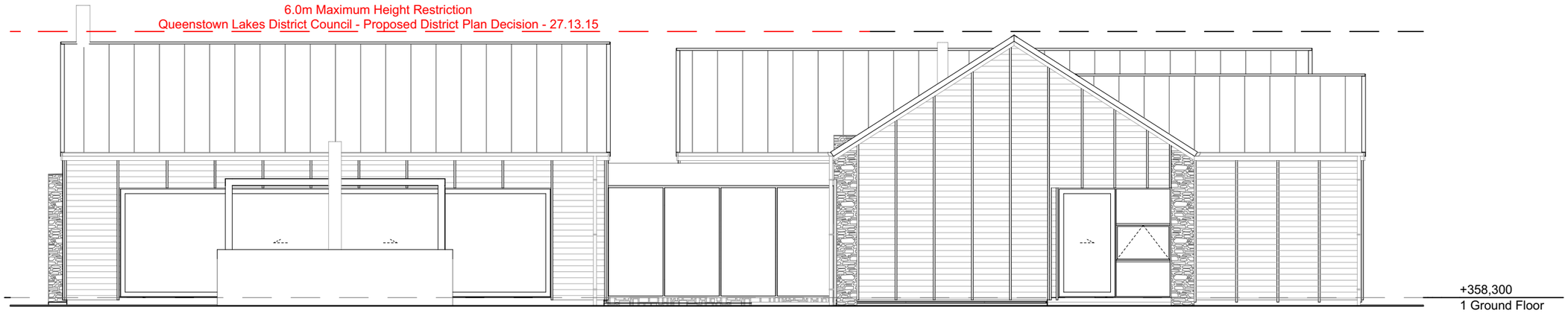
REVISION 05

QUEENSTOWN COMMERCIAL · Sanderson GROUP

KAWARAU HEIGHTS



East Elevation 1:100



North Elevation 1:100

DRAWING DETAILS

Scale	1:100 @ A3
Date	3/02/2022

Lot 18

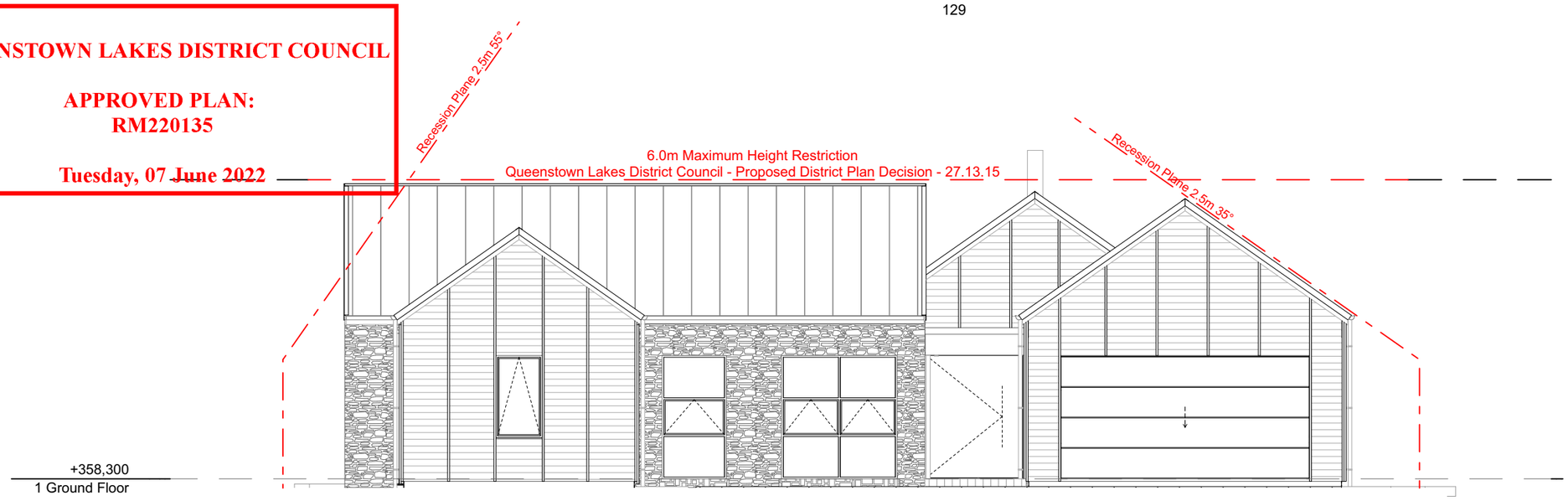
Kawarau Heights Queenstown

Elevations

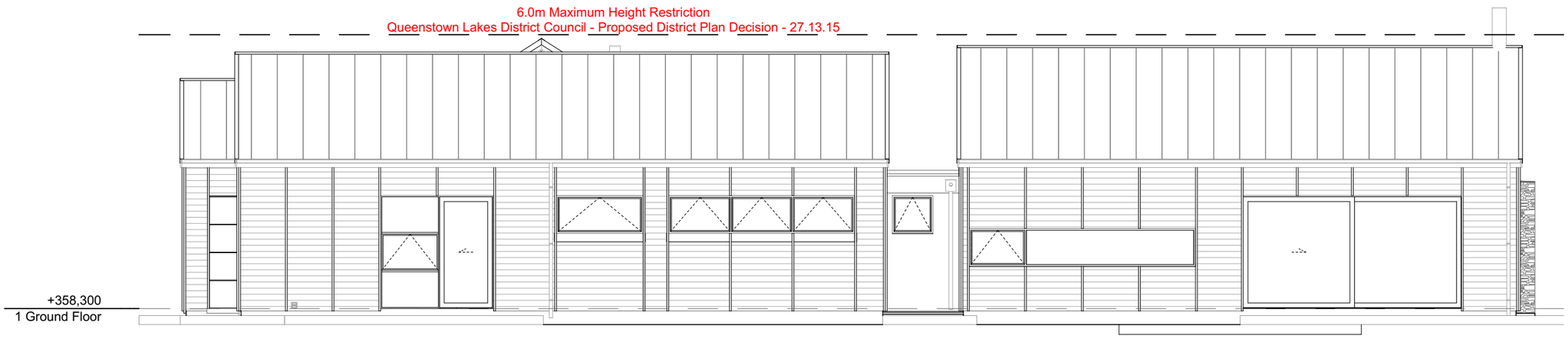
QUEENSTOWN COMMERCIAL Sanderson GROUP

KAWARAU HEIGHTS

This plan is conceptual only to provide an indicative layout to prospective clients.



West Elevation 1:100



South Elevation 1:100

DRAWING DETAILS

Scale 1:100 @ A3

Date 3/02/2022

Lot 18

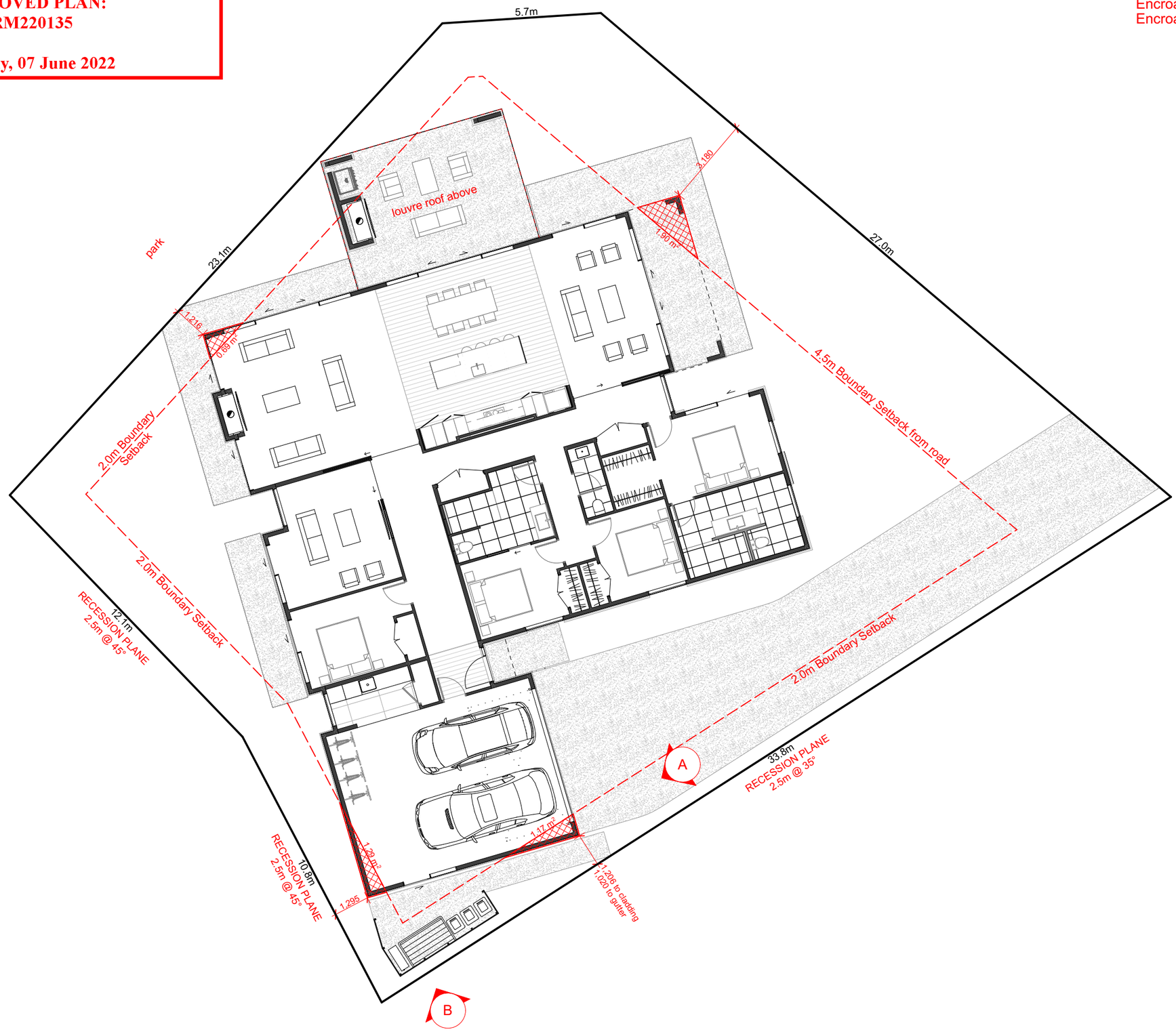
Kawarau Heights Queenstown

Elevations

QUEENSTOWN COMMERCIAL Sanderson GROUP

KAWARAU HEIGHTS

This plan is conceptual only to provide an indicative layout to prospective clients.



Issues requiring resource consent

Recession Planes
Encroaching the South & West recession planes

Setbacks
Encroaching the 4.5m northern roadside setback
Encroaching the 2m setback on the south, west & north west

Site area	775m²
Floor area (over frame)	288.1m²
Floor area (over cladding)	292.7m²
Floor Area (including eaves over 600mm)	338.1m²
Roof area	338.1m²
Building coverage	43.6%
Permeable Area	35.4% (274.5m²)

DRAWING DETAILS

Scale	1:150 @ A3
Date	2/02/2022

Lot 39
Kawarau Heights Queenstown

Site Plan

QUEENSTOWN COMMERCIAL
Sanderson GROUP

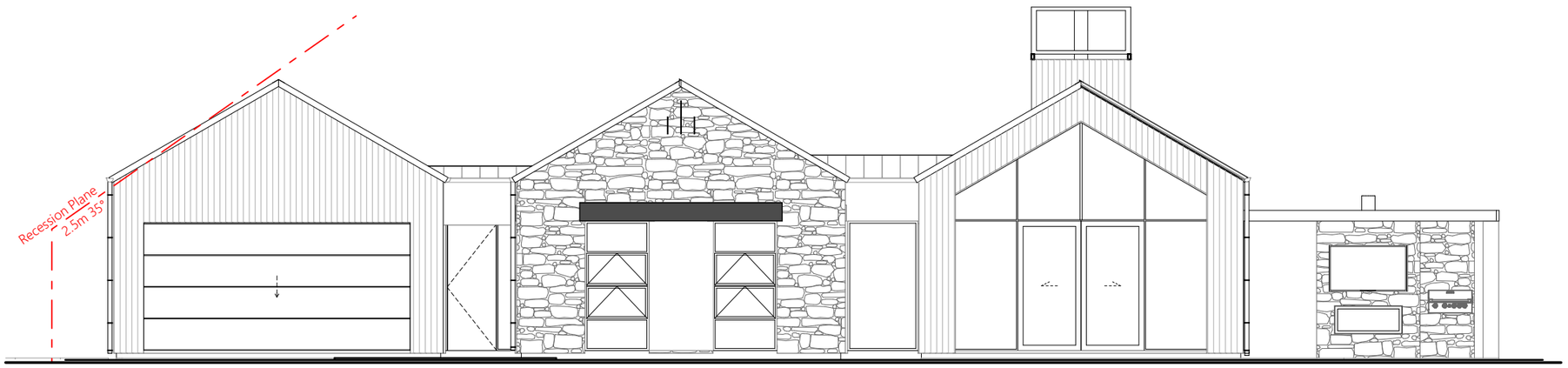
KAWARAU HEIGHTS

This plan is conceptual only to provide an indicative layout to prospective clients.

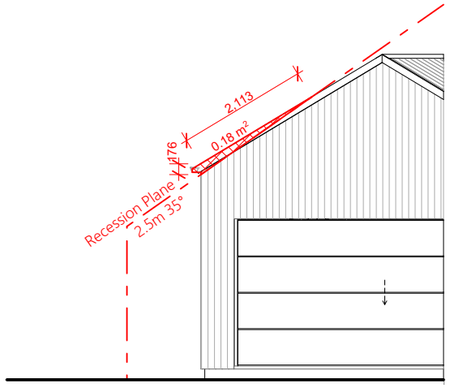
8.0m Maximum Height Restriction
QLDC - Proposed District Plan Decision - 27.13.15

North Elevation scale: 1:100

8.0m Maximum Height Restriction
QLDC - Proposed District Plan Decision - 27.13.15



East Elevation scale: 1:100



A East Elevation

DRAWING DETAILS

Scale	1:100 @ A3
Date	2/02/2022

Lot 39

Kawarau Heights Queenstown

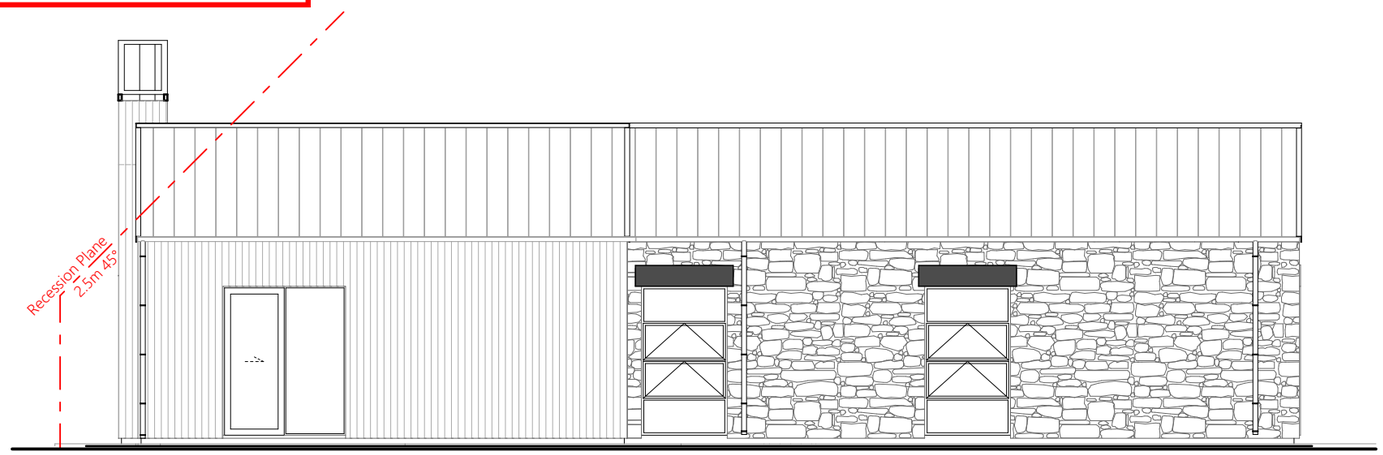
Elevations

QUEENSTOWN COMMERCIAL Sanderson GROUP

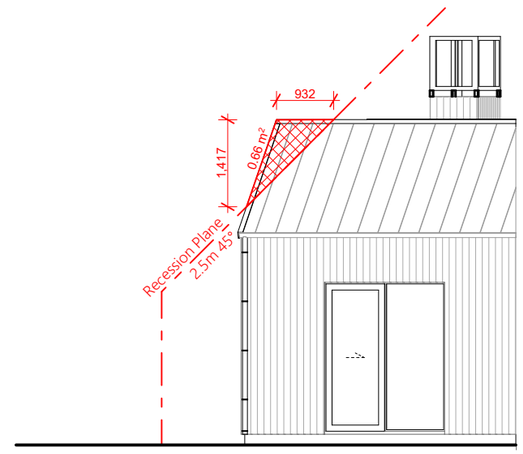
KAWARAU HEIGHTS

This plan is conceptual only to provide an indicative layout to prospective clients.

8.0m Maximum Height Restriction
QLDC - Proposed District Plan Decision - 27.13.15



South Elevation scale: 1:100



B South Elevation

8.0m Maximum Height Restriction
QLDC - Proposed District Plan Decision - 27.13.15

West Elevation scale: 1:100

DRAWING DETAILS

Scale	1:100 @ A3
Date	2/02/2022

Lot 39

Kawarau Heights Queenstown

Elevations

QUEENSTOWN COMMERCIAL Sanderson GROUP

KAWARAU HEIGHTS

Issues requiring resource consent

Recession Planes
encroaching the southern recession plane

Building Coverage
exceeding the maximum building coverage by 12.7%
Max coverage - 40%
Current coverage - 52.7%

Landscape
not meeting the minimum 30% permeable surface
current permeable area - 27.9%

Setbacks
Encroaching the 4.5m northern roadside setback
Encroaching the 2m eastern setback
Encroaching the 2m southern setback

Site area	540 m²
Floor area (over frame)	267.8m²
Floor area (over cladding)	271.9m²
Floor Area (including eaves over 600mm)	287.2m²
Roof area	291.9m²
Building coverage	53.2%
Permeable Area	27.9% (150.6m²)

DRAWING DETAILS

Scale	1:150 @ A3
Date	1/02/2022

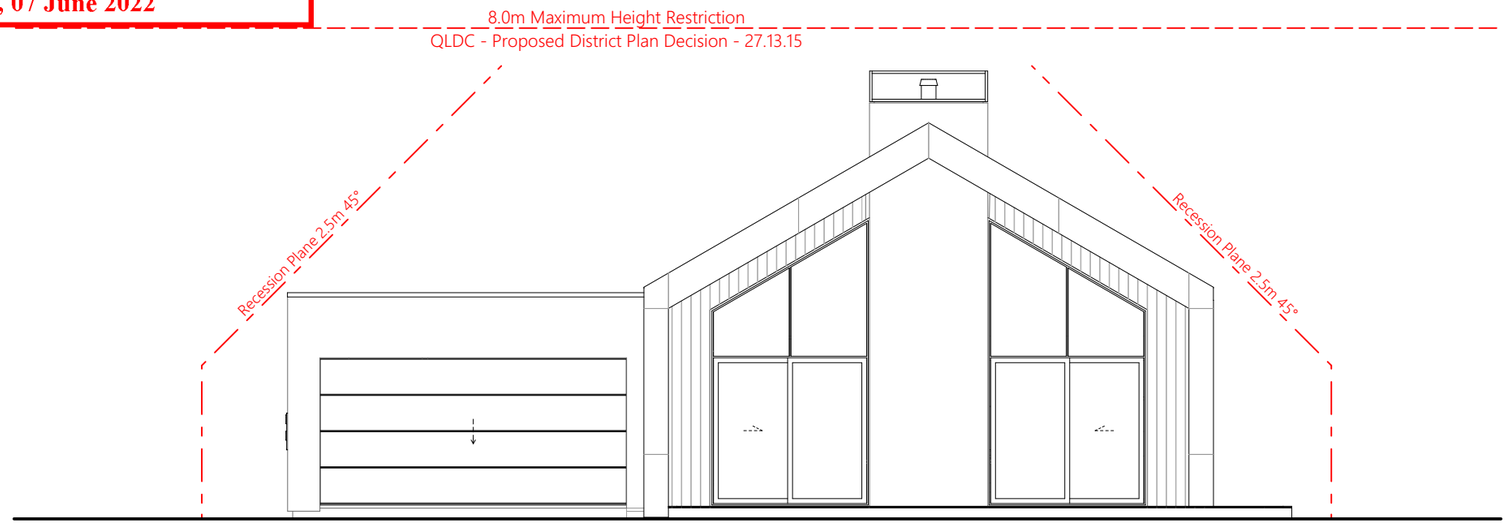
Lot 44
Kawarau Heights Queenstown

Site Plan

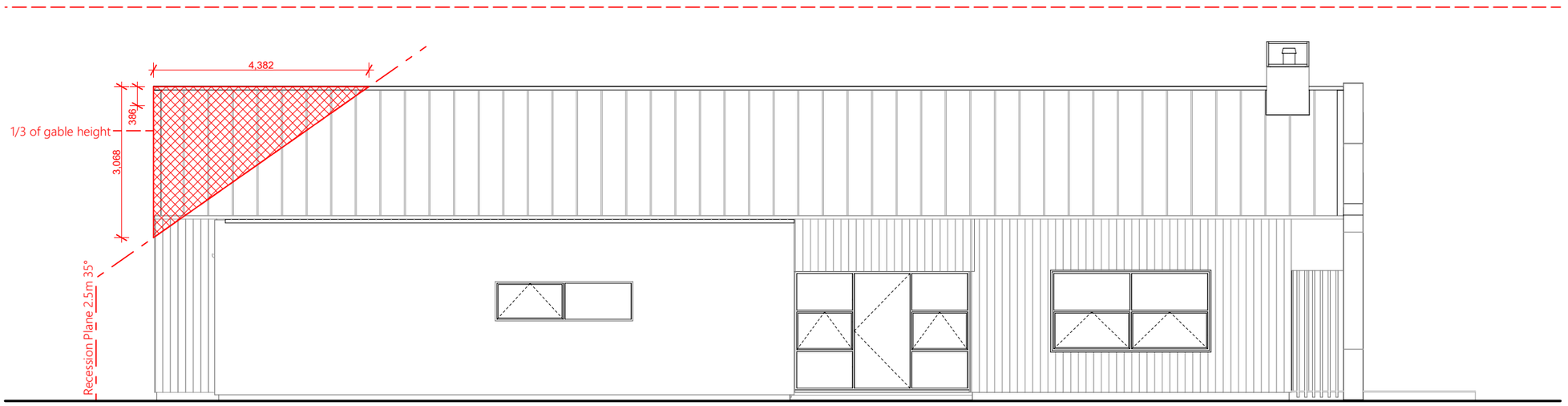
QUEENSTOWN COMMERCIAL Sanderson GROUP

KAWARAU HEIGHTS

This plan is conceptual only to provide an indicative layout to prospective clients.



North Elevation



East Elevation

NOTES

Site area	540 m²
Floor area (over frame)	267.8m²
Decks & Patios area	57.6m²

DRAWING DETAILS

Scale	1:100 @ A3
Date	1/02/2022

Lot 44

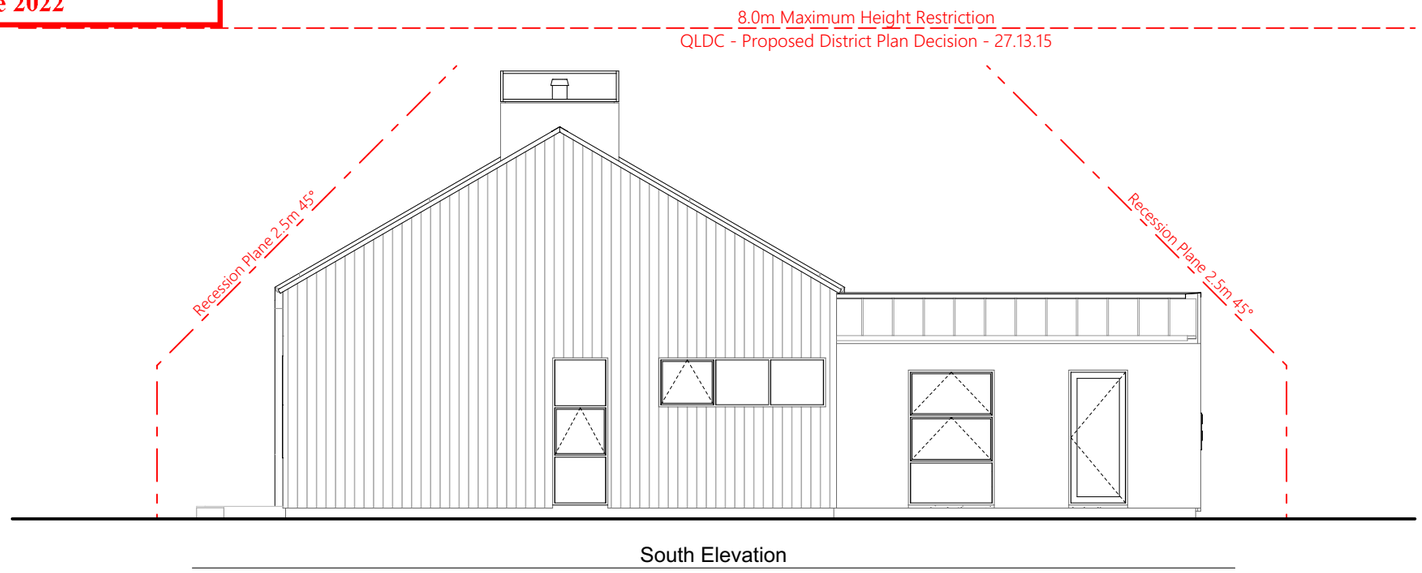
Kawarau Heights Queenstown

Elevations

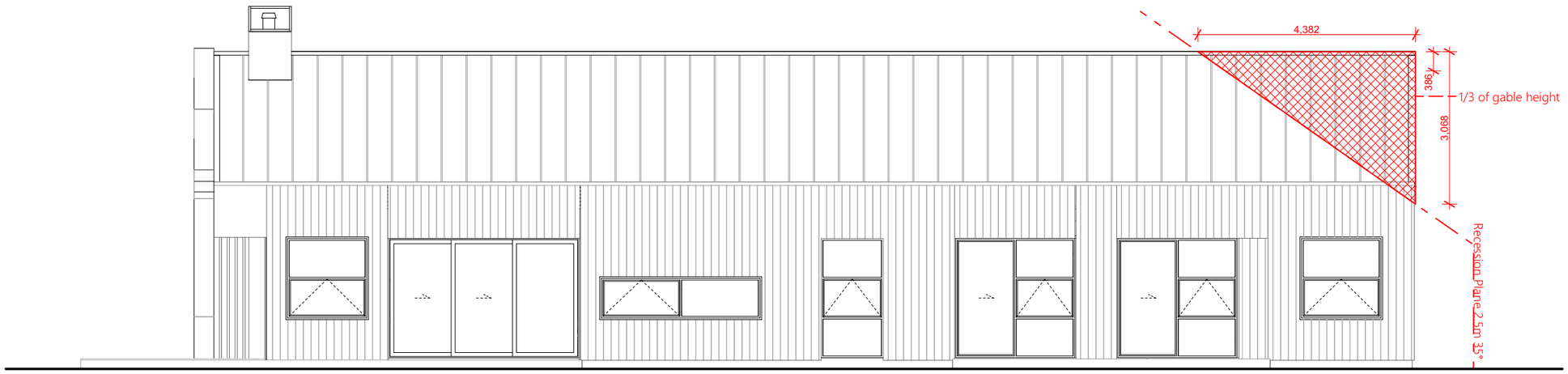
QUEENSTOWN COMMERCIAL Sanderson GROUP

KAWARAU HEIGHTS

This plan is conceptual only to provide an indicative layout to prospective clients.



South Elevation



West Elevation

PROJECT TITLE

Lot 44 Spec House
Kawarau Heights

DRAWING TITLE

Elevations

DRAWING DETAILS

Scale	1:100 @ A3
Date	1/02/2022
Drawn	Clay Dixon
Checked	B SPENCER

SHEET REVISION

A12

QUEENSTOWN COMMERCIAL Sanderson GROUP

KAWARAU HEIGHTS

Issues requiring resource consent

Recession Planes
Encroaching East & South East Recession Planes

Building Coverage
Exceeding Max coverage by 9.1%
Max - 40%
Current - 49.1%

Setbacks
Encroaching East 2m setback
Encroaching South East 2m setback
Encroaching West 4.5m Setback

Site area	550 m²
Floor area (over frame)	227.4 m²
Floor area (over cladding)	230.9 m²
Floor Area (including eaves over 600mm)	270.1 m²
Roof area	271.5 m²
Building coverage	49.1%
Permeable Area	40.8% (224.2m²)

DRAWING DETAILS

Scale	1:150 @ A3
Date	3/05/2022

Lot 50

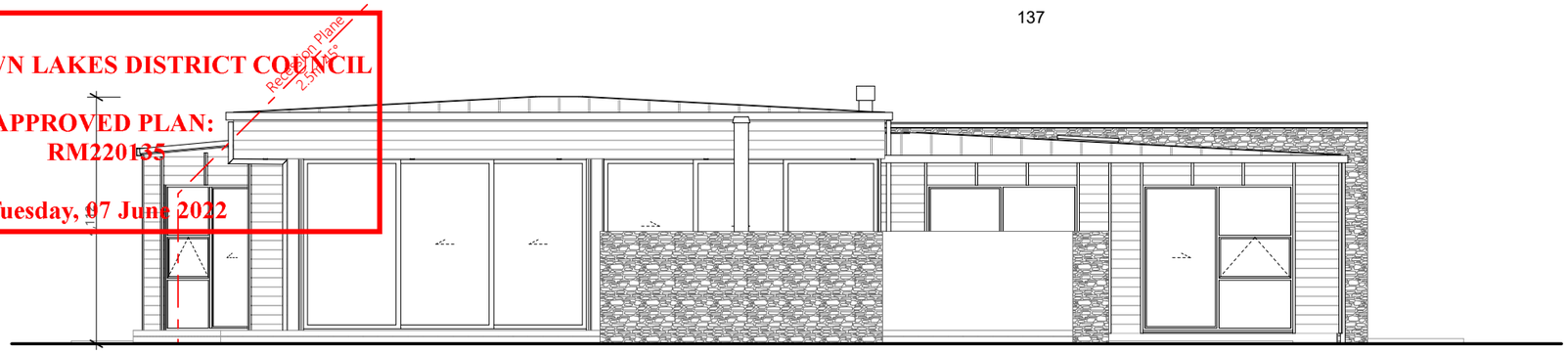
Kawarau Heights Queenstown

Site Plan

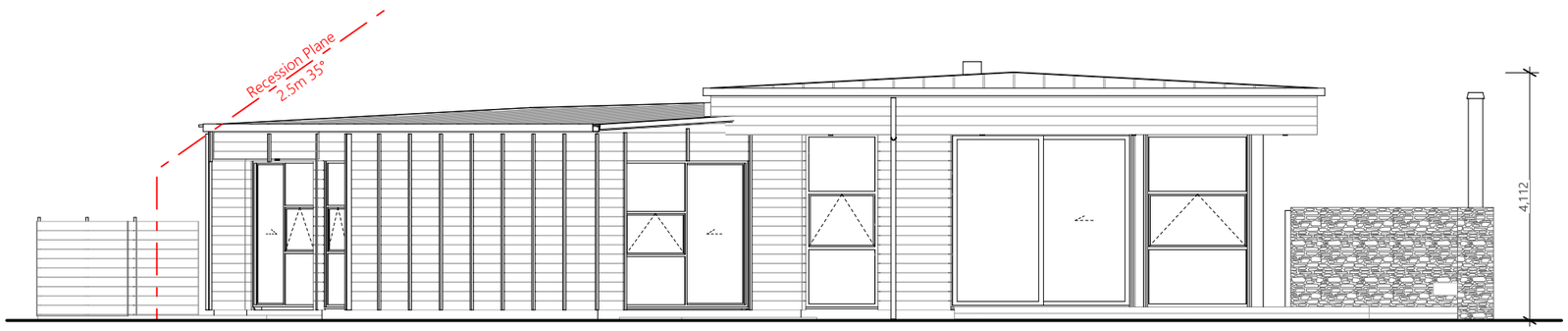
QUEENSTOWN COMMERCIAL Sanderson GROUP

KAWARAU HEIGHTS

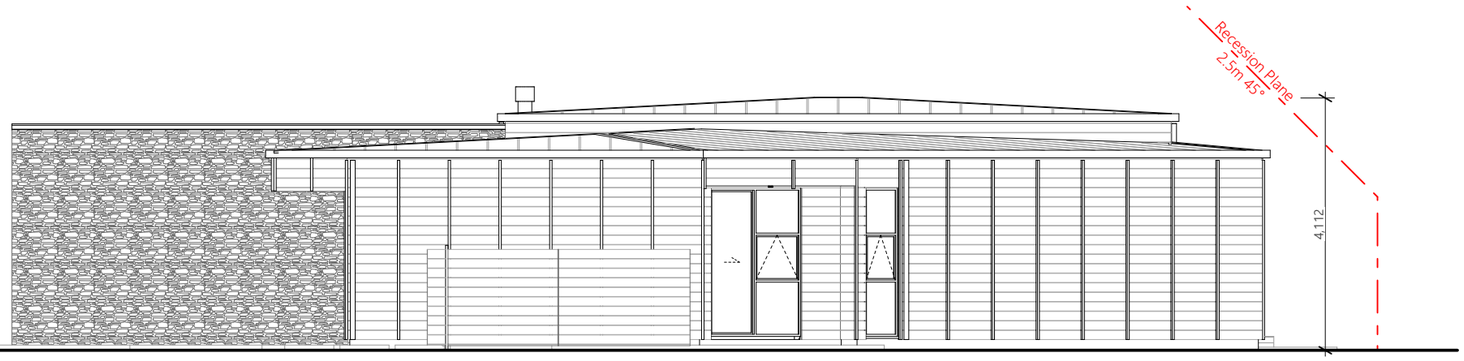
This plan is conceptual only to provide an indicative layout to prospective clients.



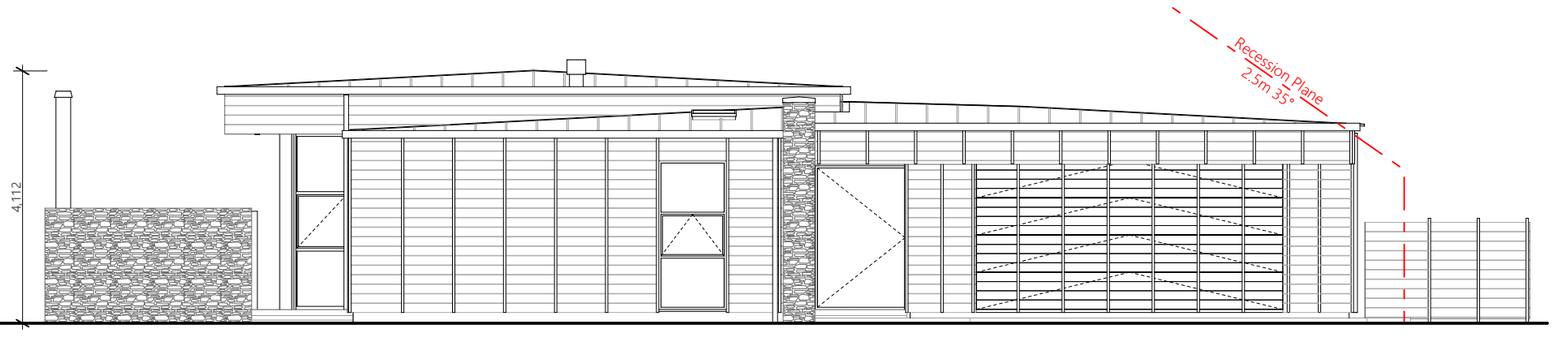
North Elevation



East Elevation

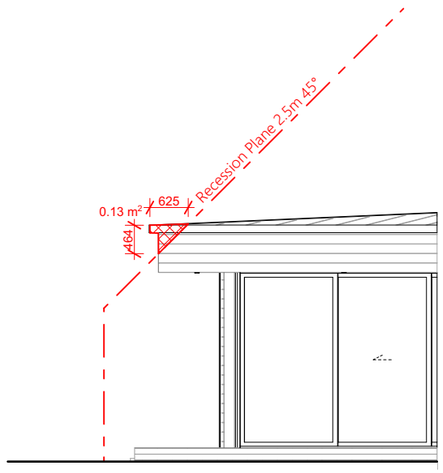


South Elevation

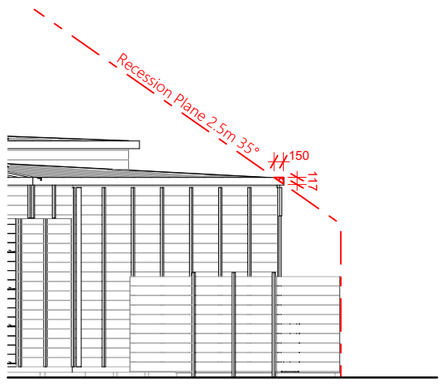


West Elevation

8.0m Maximum Height Restriction
QLDC - Proposed District Plan Decision - 27.13.15



A North Elevation



B West Elevation

DRAWING DETAILS

Scale	1:100 @ A3
Date	3/05/2022

Lot 50

Kawarau Heights Queenstown

Elevations

QUEENSTOWN COMMERCIAL

Sanderson GROUP

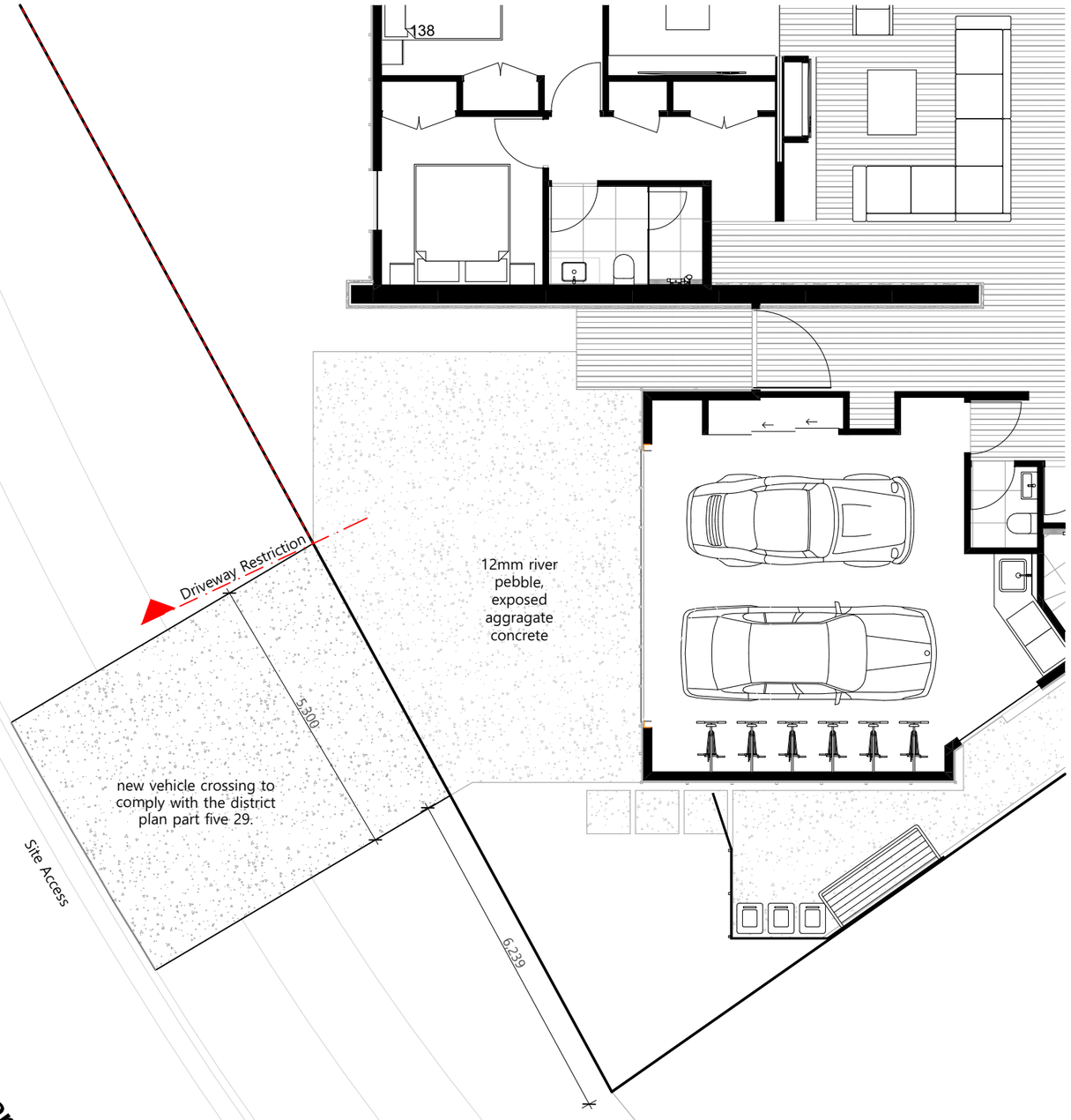
KAWARAU HEIGHTS

This plan is conceptual only to provide an indicative layout to prospective clients.

QUEENSTOWN LAKES DISTRICT COUNCIL

APPROVED PLAN:
RM220135

Tuesday, 07 June 2022



DRAWING DETAILS

Scale 1:100 @ A3

Date 12/05/2022

Lot 50

Kawarau Heights Queenstown

Vehicle Crossing Plan

QUEENSTOWN COMMERCIAL

Sanderson GROUP

KAWARAU HEIGHTS

This plan is conceptual only to provide an indicative layout to prospective clients.

Issues requiring resource consent

Recession Planes
Encroaching the 2m Western setback

Building Coverage
Exceeding the maximum building coverage by 12.4%
Max coverage - 40%
Current coverage - 52.4%

Setbacks
Encroaching the 2m Western setback

QUEENSTOWN LAKES DISTRICT COUNCIL
APPROVED PLAN:
RM220135
Tuesday, 07 June 2022

All dimensions to be verified on site before commencing any work or producing shop drawings.
Do not scale. The copyright of this drawing remains with Queenstown Commercial Limited.

NOTE

Site area	400m²
Floor area (over frame)	196.3m²
Floor area (over cladding)	200.2m²
Floor Area (including eaves over 600mm)	209.56m²
Roof area	209.8m²
Building coverage	52.37%
Permeable Area	31.5% (126m²)

N

STATUS
Resource Consent

PROJECT
Allotment 54
Lot 2 DP 516376 / Lot 3 DP 557973
Kawarau Heights

TERRITORIAL AUTHORITY
Queenstown Lakes District Council
Lower Density Suburban Residential

SITE DATA

Sub Soil Classification:	E
Soil Classification	REF GEOTECH
Wind Zone	High
Earthquake Zone	3
Climate Zone	3
Exposure Zone	B
Rain Intensity (10%AEP)	41mm/hr
Snowload	1.5kPa

DRAWING DETAILS

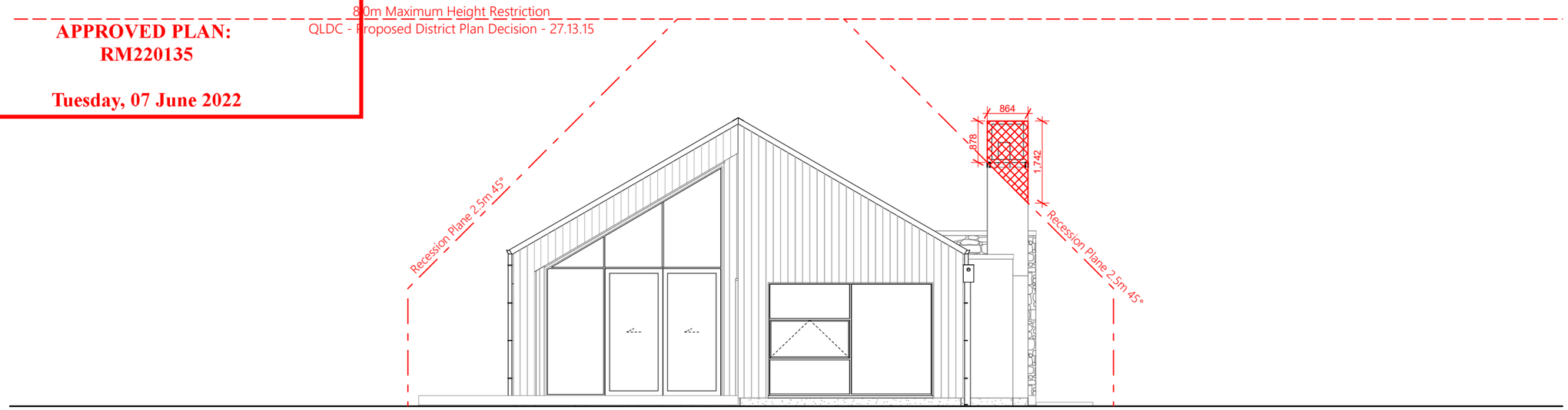
Job no.	#Project ID
Date	2/02/2022
Drawn	#CAD Technician Full Name
LBP	#Contact Company
Scale	**1:150 @ A3**

DRAWING TITLE
Site Plan

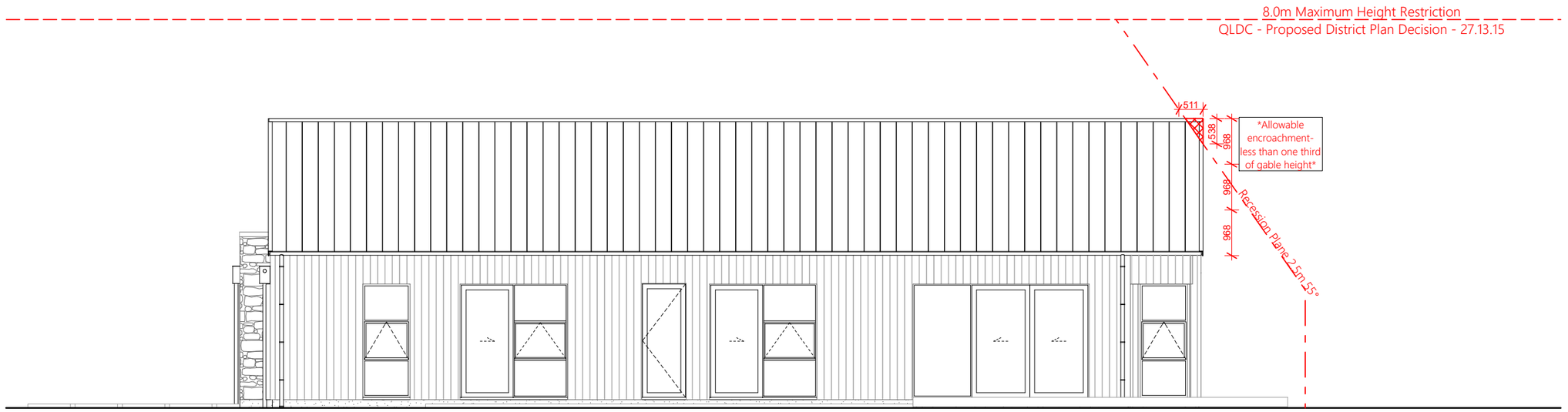
DRAWING NO. REVISION

QUEENSTOWN COMMERCIAL Sanderson GROUP

KAWARAU HEIGHTS



North Elevation scale: 1:100



East Elevation scale: 1:100

NOTE

STATUS
Resource Consent

PROJECT
Allotment 54
Lot 2 DP 516376 / Lot 3 DP 557973
Kawarau Heights

TERRITORIAL AUTHORITY
Queenstown Lakes District Council
Lower Density Suburban Residential

SITE DATA

Sub Soil Classification:	E
Soil Classification	REF GEOTECH
Wind Zone	High
Earthquake Zone	3
Climate Zone	3
Exposure Zone	B
Rain Intensity (10%AEP)	41mm/hr
Snowload	1.5kPa

DRAWING DETAILS

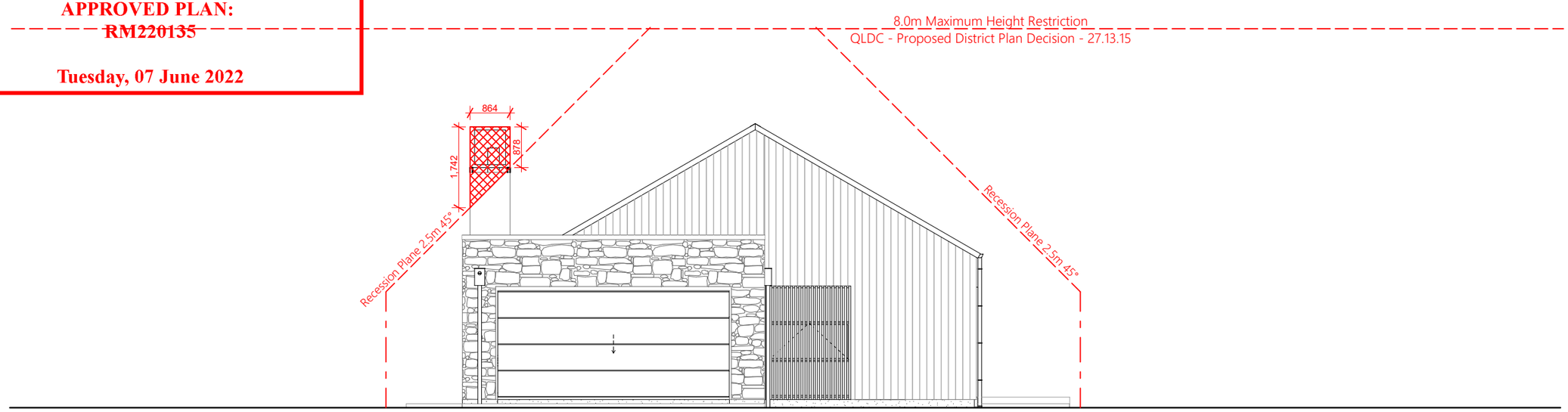
Job no.	#Project ID
Date	2/02/2022
Drawn	#CAD Technician Full Name
LBP	#Contact Company
Scale	**1:100 @ A3**

DRAWING TITLE
Elevations

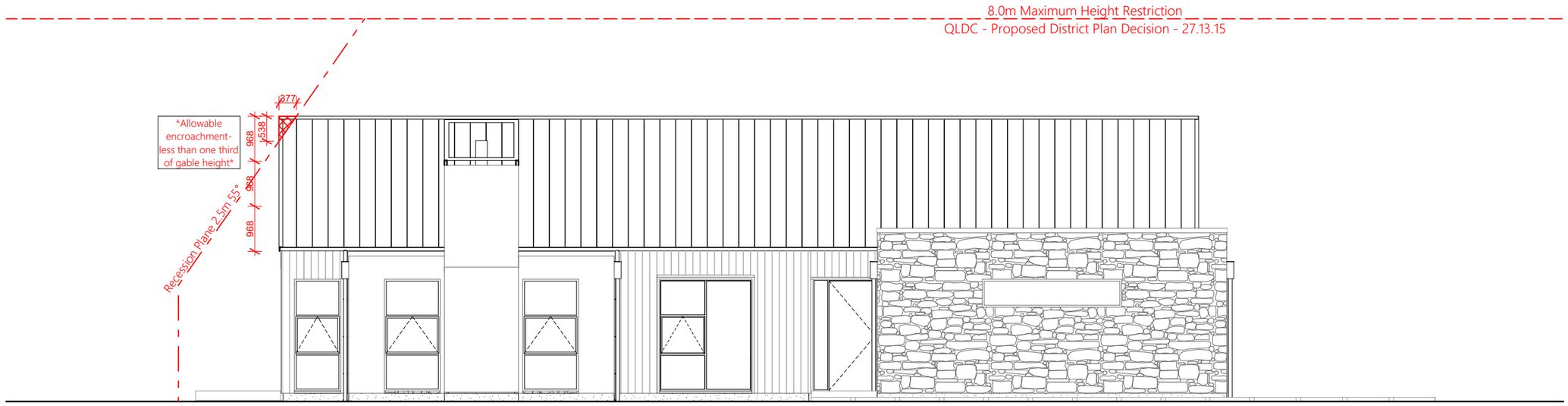
DRAWING NO. REVISION

QUEENSTOWN COMMERCIAL Sanderson GROUP

KAWARAU HEIGHTS



South Elevation scale: 1:100



West Elevation scale: 1:100

NOTE

STATUS
Resource Consent

PROJECT
Allotment 54
Lot 2 DP 516376 / Lot 3 DP 557973
Kawarau Heights

TERRITORIAL AUTHORITY
Queenstown Lakes District Council
Lower Density Suburban Residential

SITE DATA

Sub Soil Classification:	E
Soil Classification	REF GEOTECH
Wind Zone	High
Earthquake Zone	3
Climate Zone	3
Exposure Zone	B
Rain Intensity (10%AEP)	41mm/hr
Snowload	1.5kPa

DRAWING DETAILS

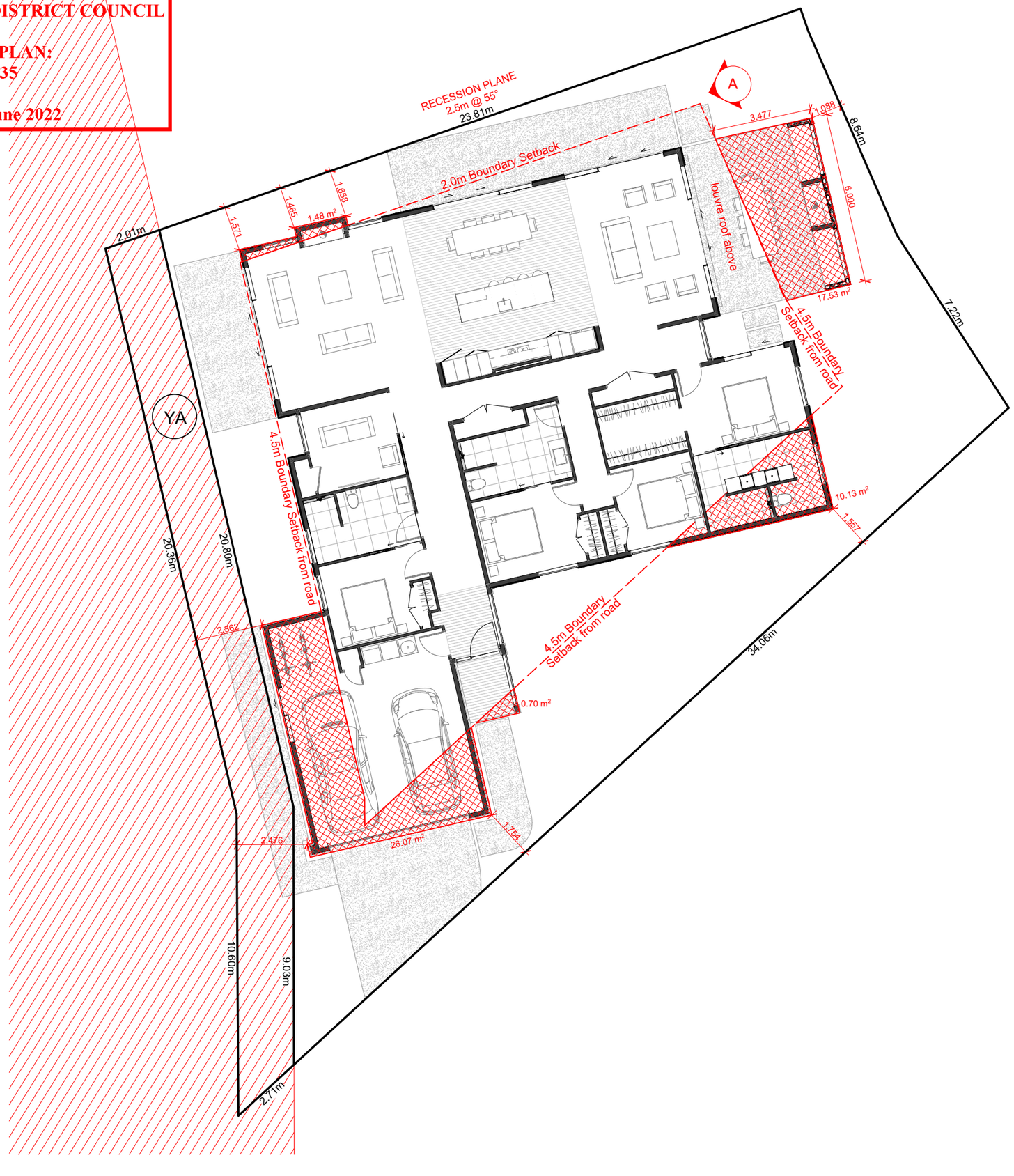
Job no.	#Project ID
Date	2/02/2022
Drawn	#CAD Technician Full Name
LBP	#Contact Company
Scale	**1:100 @ A3**

DRAWING TITLE
Elevations

DRAWING NO. REVISION

QUEENSTOWN COMMERCIAL Sanderson GROUP

KAWARAU HEIGHTS



Issues requiring resource consent

Recession Planes
Encroaching the North recession plane

Setbacks
Encroaching the 2m setback on the North & South East
Encroaching the 4.5m western roadside setback

Building Coverage
Exceeding the maximum building coverage by 5%
Max coverage - 40%
Current coverage - 45%

Building Restriction Area

Site area	640m²
Floor area (over frame)	280.3m²
Floor area (over cladding)	284.8m²
Floor Area (including eaves over 600mm)	317.0m²
Roof area	317.2m²
Building coverage	49.5%
Permeable Area	39.1% (250.4m²)

DRAWING DETAILS

Scale	1:150 @ A3
Date	2/02/2022

Lot 94

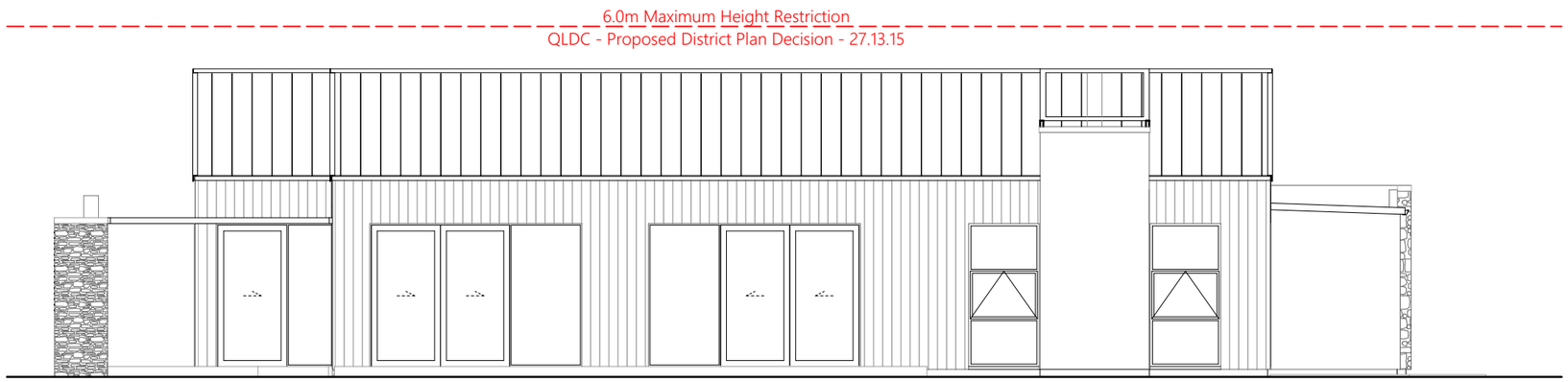
Kawarau Heights Queenstown

Site Plan

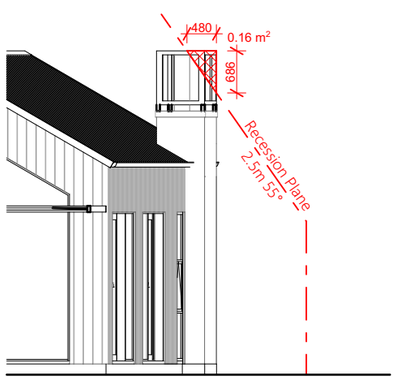
QUEENSTOWN COMMERCIAL Sanderson GROUP

KAWARAU HEIGHTS

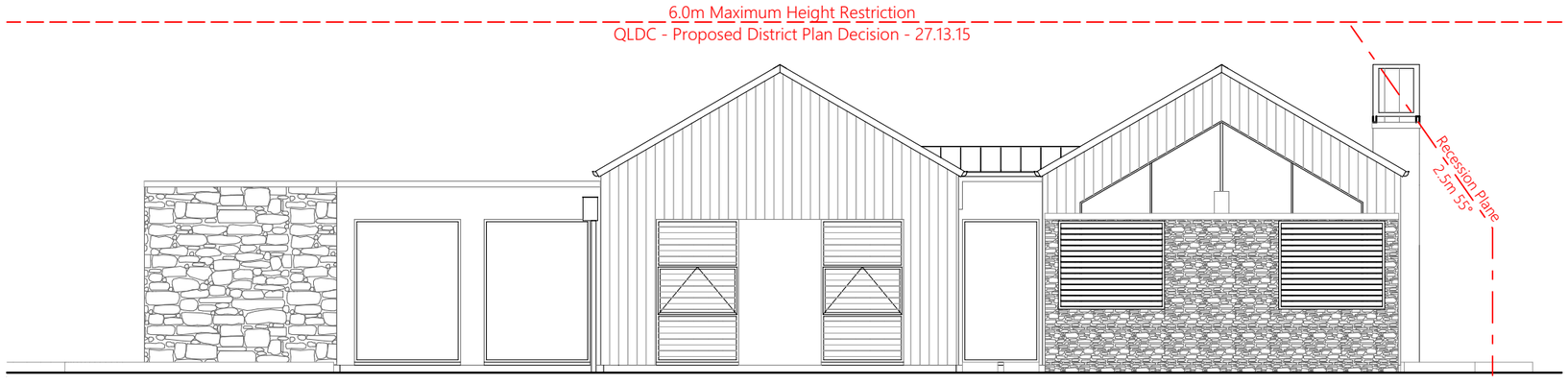
This plan is conceptual only to provide an indicative layout to prospective clients.



North Elevation scale: 1:100



A East Elevation



East Elevation scale: 1:100

DRAWING DETAILS

Scale	1:100 @ A3
Date	2/02/2022

Lot 94

Kawarau Heights Queenstown

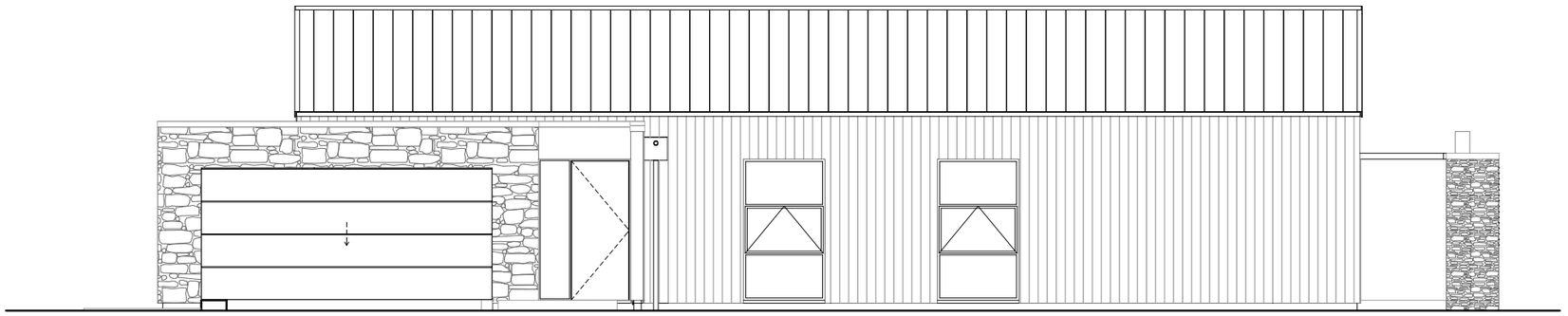
Elevations

QUEENSTOWN COMMERCIAL

Sanderson GROUP

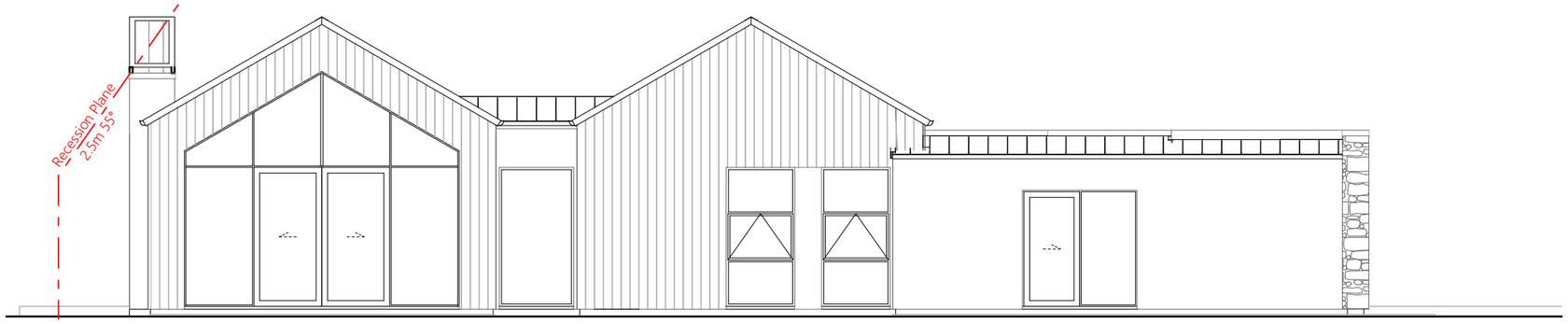
KAWARAU HEIGHTS

6.0m Maximum Height Restriction
QLDC - Proposed District Plan Decision - 27.13.15



South Elevation scale: 1:100

6.0m Maximum Height Restriction
QLDC - Proposed District Plan Decision - 27.13.15



West Elevation scale: 1:100

DRAWING DETAILS

Scale	1:100 @ A3
Date	2/02/2022

Lot 94

Kawarau Heights Queenstown

Elevations

QUEENSTOWN COMMERCIAL Sanderson GROUP

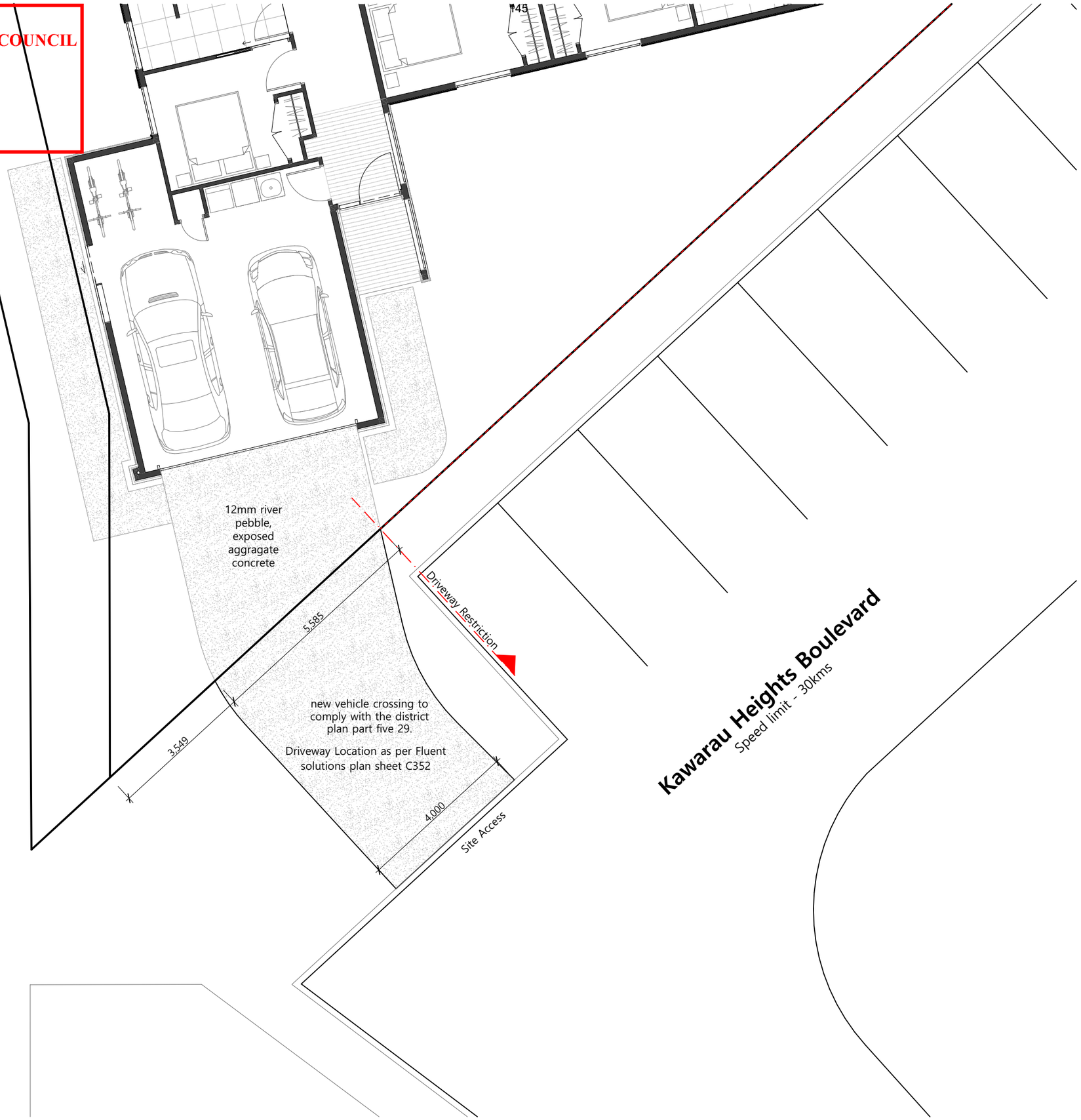
KAWARAU HEIGHTS

This plan is conceptual only to provide an indicative layout to prospective clients.

QUEENSTOWN LAKES DISTRICT COUNCIL

APPROVED PLAN:
RM220135

Tuesday, 07 June 2022



DRAWING DETAILS

Scale	1:100 @ A3
Date	12/05/2022

Lot 94

Kawarau Heights Queenstown

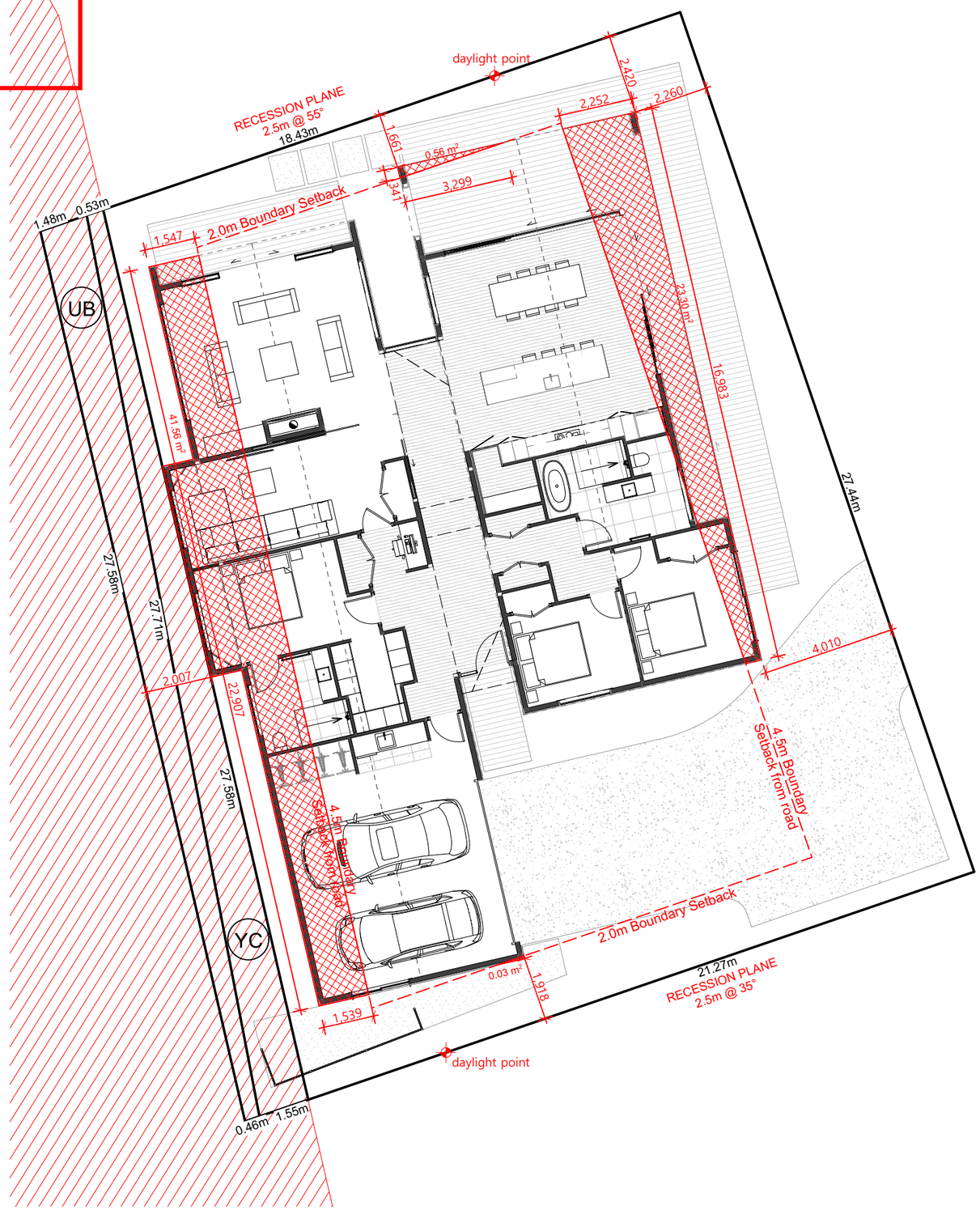
Vehicle Crossing Plan

QUEENSTOWN COMMERCIAL

Sanderson GROUP

KAWARAU HEIGHTS

This plan is conceptual only to provide an indicative layout to prospective clients.



Issues requiring resource consent

Recession Planes
Encroaching North & South recession planes

Building Coverage
Exceeding the maximum building coverage by 9.2%
Max coverage - 40%
Current coverage - 49.2%.

Setbacks
Encroaching the 2m setback on the North & South
Encroaching the 4.5m East & West roadside setback

Height Restriction
Encroaching the 6m height restriction

Building Line Restriction

Site area	600m²
Floor area (over frame)	257.3m²
Floor area (over cladding)	260.7m²
Floor Area (including eaves over 600mm)	295.0m²
Roof area	395.0m²
Building coverage	49.2%
Permeable Area	34.6% (207.6m²)

DRAWING DETAILS

Scale	1:150 @ A3
Date	20/05/2022

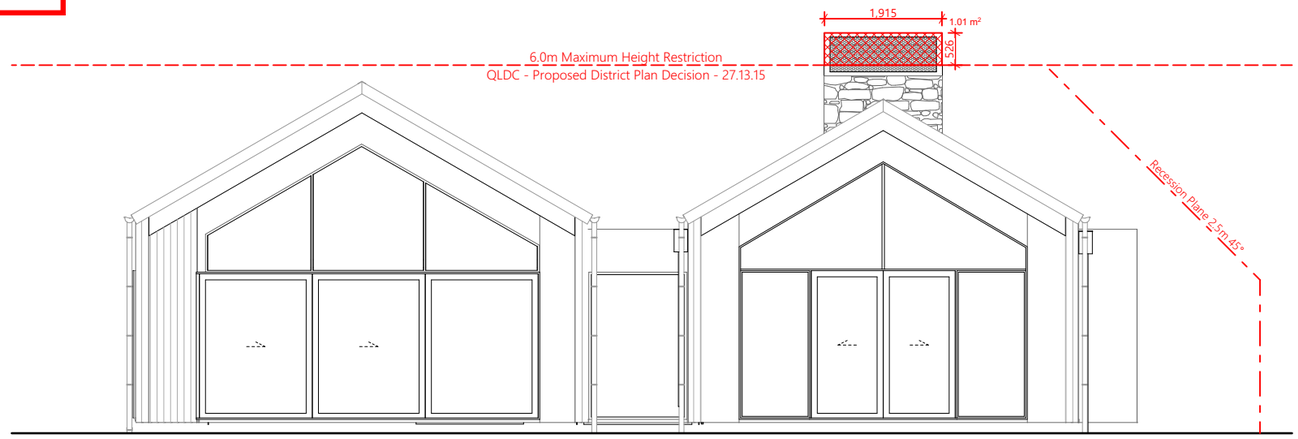
Lot 96

Site Plan

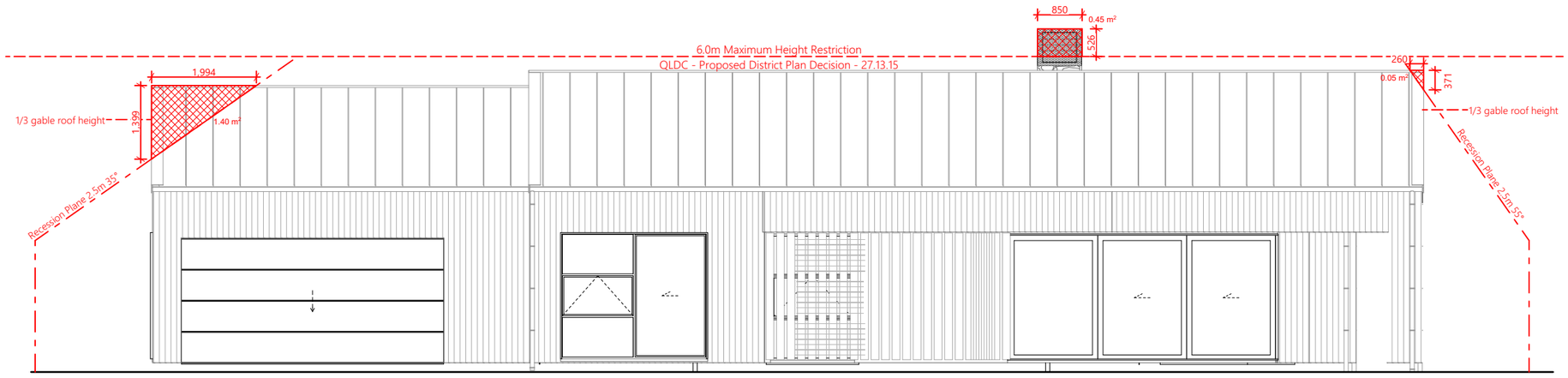
QUEENSTOWN COMMERCIAL Sanderson GROUP

KAWARAU HEIGHTS

This plan is conceptual only to provide an indicative layout to prospective clients.



North Elevation scale: 1:100



East Elevation scale: 1:100

DRAWING DETAILS

Scale	1:100 @ A3
Date	20/05/2022

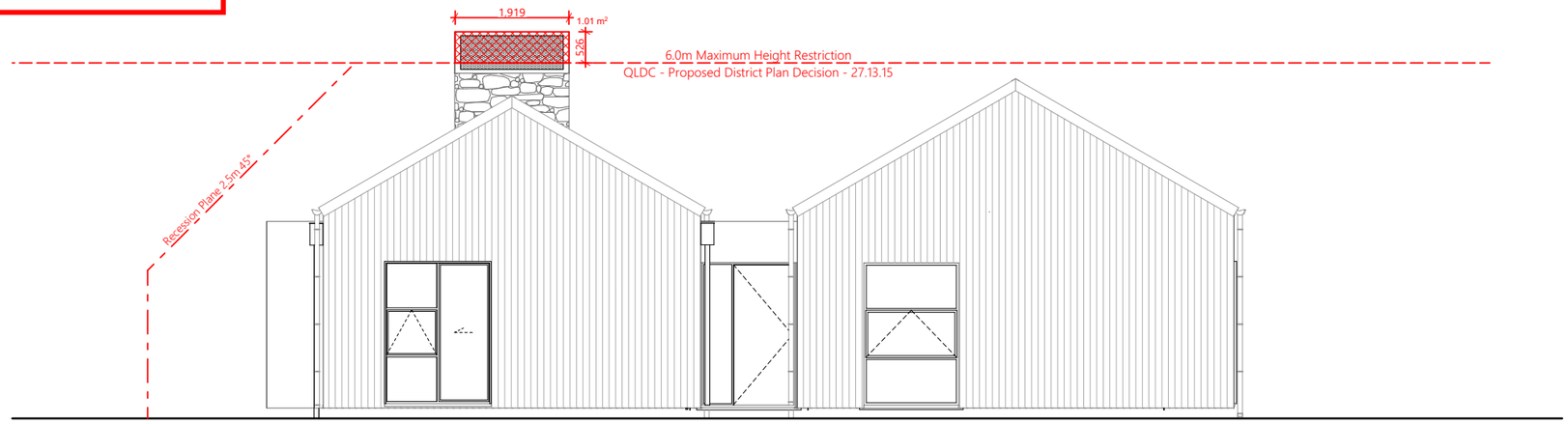
Lot 96

Elevations

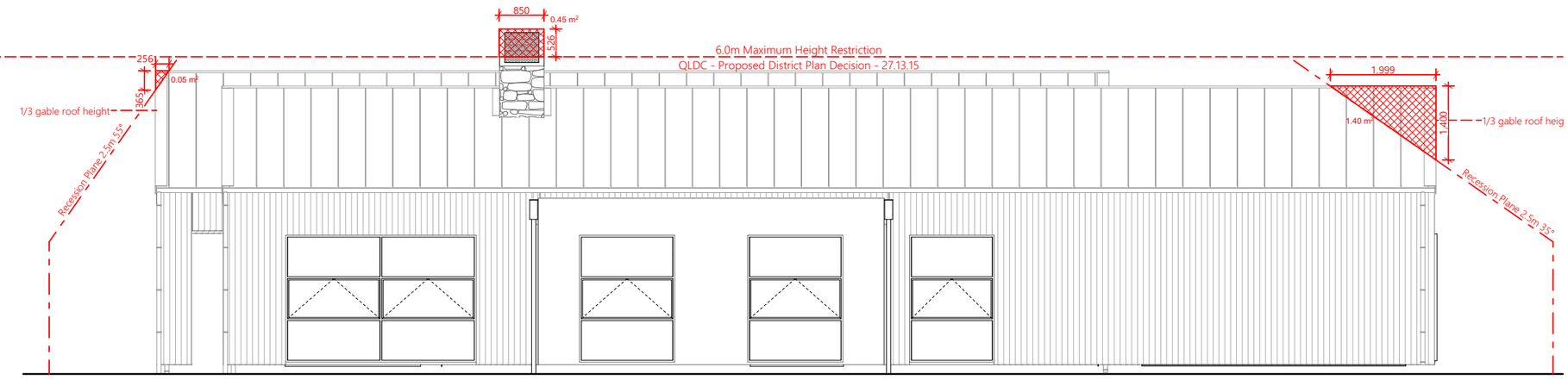
QUEENSTOWN COMMERCIAL Sanderson GROUP

KAWARAU HEIGHTS

This plan is conceptual only to provide an indicative layout to prospective clients.



South Elevation scale: 1:100



West Elevation scale: 1:100

DRAWING DETAILS

Scale	1:100 @ A3
Date	20/05/2022

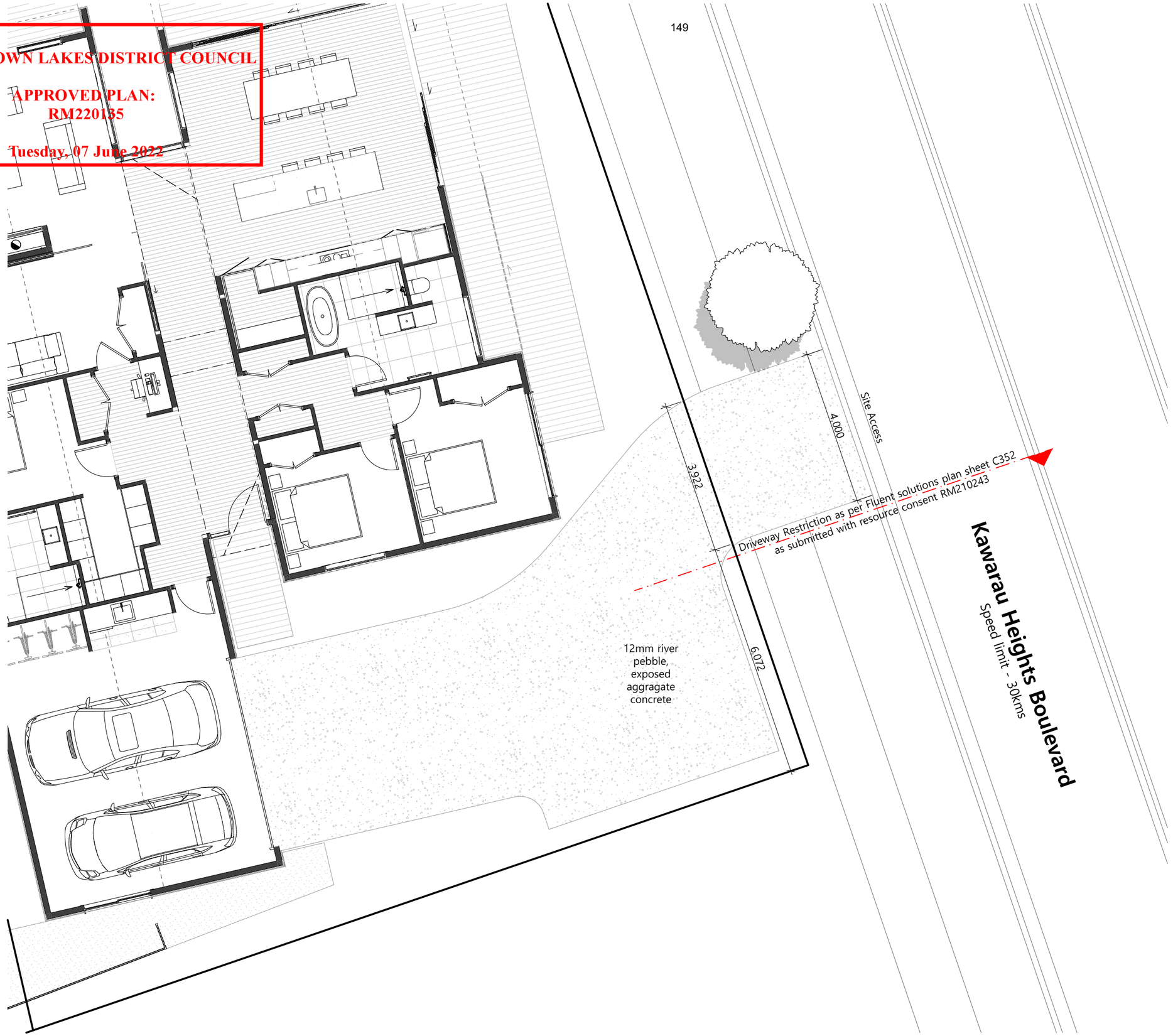
Lot 96

Elevations

QUEENSTOWN COMMERCIAL Sanderson GROUP

KAWARAU HEIGHTS

This plan is conceptual only to provide an indicative layout to prospective clients.



DRAWING DETAILS

Scale	1:100 @ A3
Date	20/05/2022

Lot 96

Vehicle Crossing Plan

QUEENSTOWN COMMERCIAL

Sanderson GROUP

KAWARAU HEIGHTS

This plan is conceptual only to provide an indicative layout to prospective clients.

QUEENSTOWN COMMERCIAL Sanderson GROUP

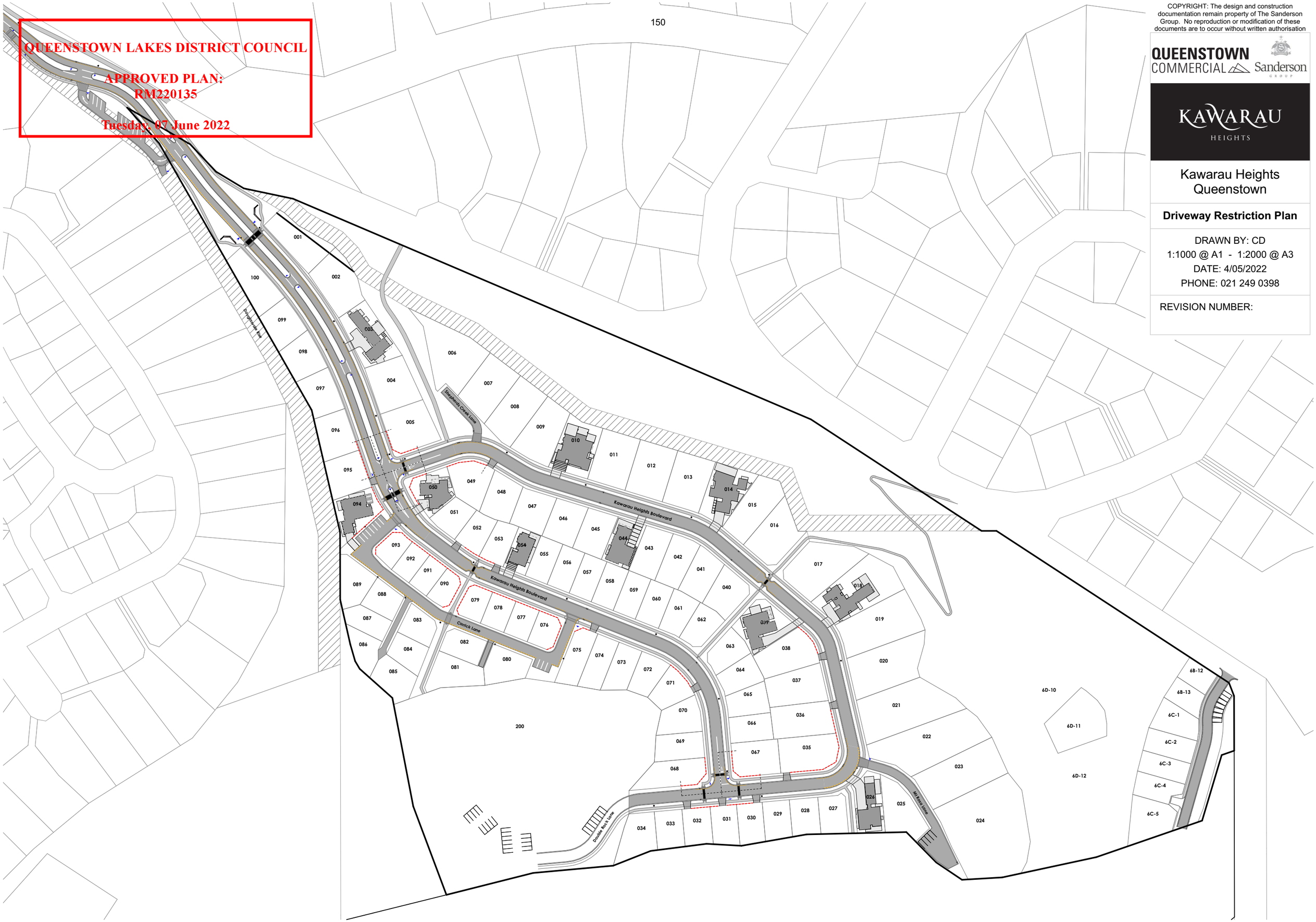
KAWARAU HEIGHTS

Kawarau Heights Queenstown

Driveway Restriction Plan

DRAWN BY: CD
1:1000 @ A1 - 1:2000 @ A3
DATE: 4/05/2022
PHONE: 021 249 0398

REVISION NUMBER:

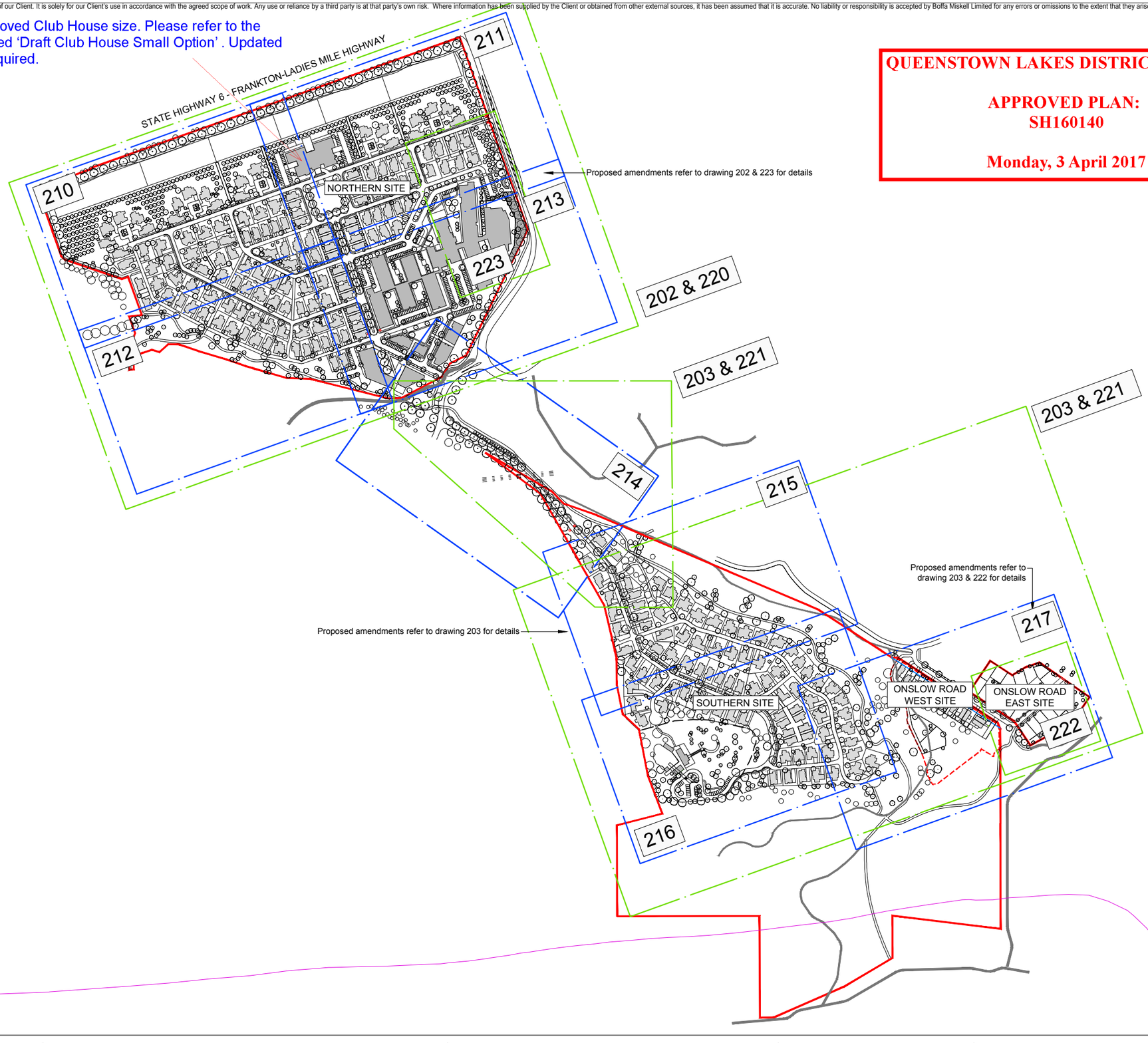


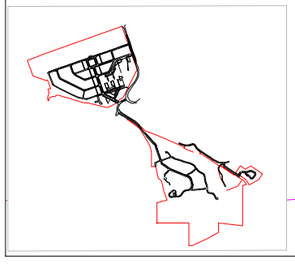
Not approved Club House size. Please refer to the plans titled 'Draft Club House Small Option' . Updated plans required.

QUEENSTOWN LAKES DISTRICT COUNCIL

APPROVED PLAN:
SH160140

Monday, 3 April 2017





NOTES

CONTRACTORS TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING WORK;

CONTRACTORS ARE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL UNDERGROUND SERVICES ON SITE PRIOR TO COMMENCING WORK;

FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

KEY

REV DATE DESCRIPTION

CLIENT .

For Resource Consent

QUEENSTOWN COUNTRY CLUB

MASTER PLAN SHEET LAYOUT

Design	KCh	Scale	Date
Drawn	SCa	NTS	2017.03.22
Check	JRe		
Appv'd	JrE		

DRAWING NO. C16005A_200

REVISION 3

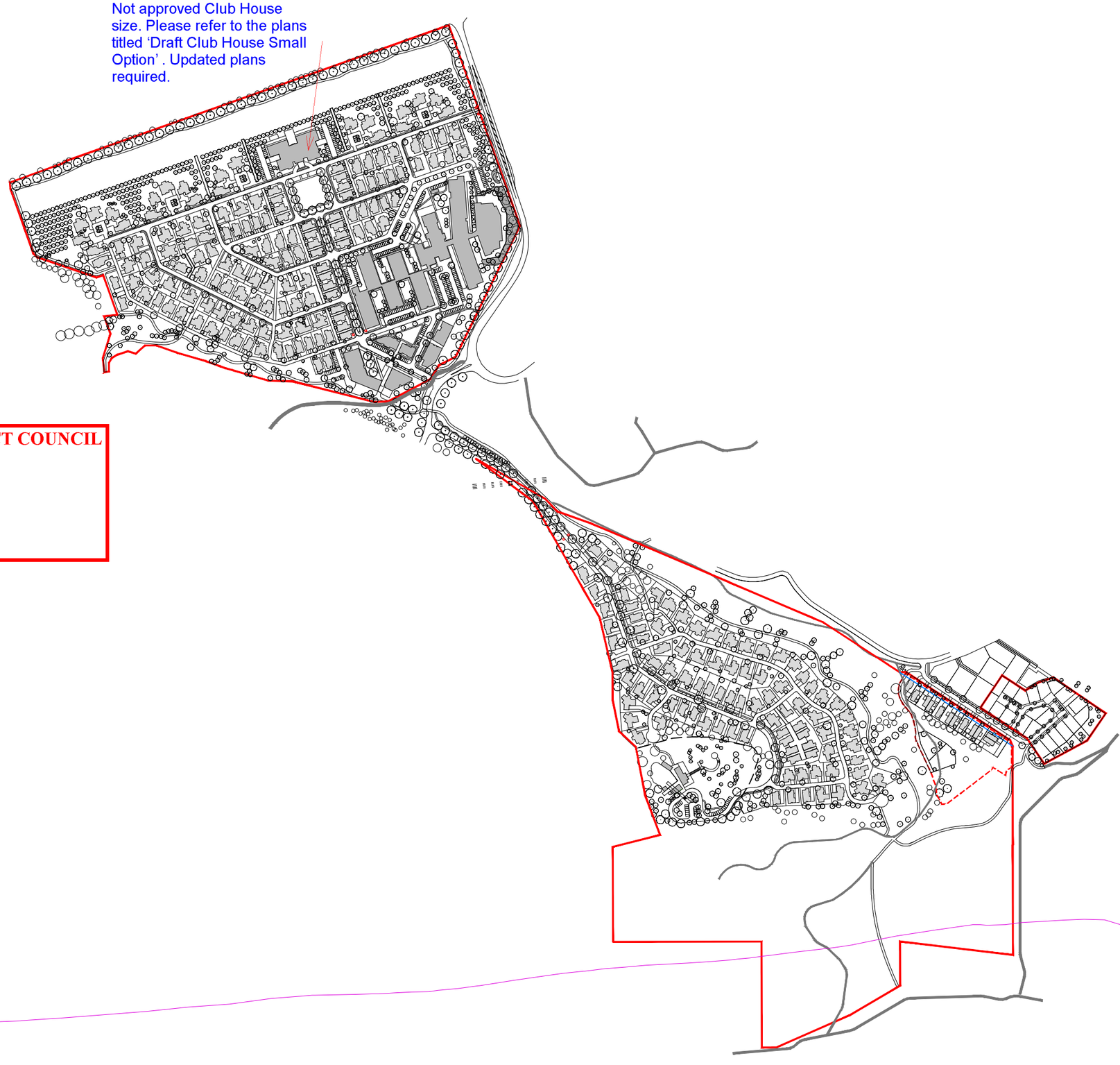
Boffa Miskell

Boffa Miskell Limited
Ground Floor, 4 Hazeldean Road 8024
PO Box 110, Christchurch 8140
New Zealand
Tel: +64 3 366 8891
www.boffamiskell.co.nz

Printed 22/03/2017 5:32:19 p.m.

U:\2016\C16005A_JRe_Sanderson_Resource_Consent\CAD\C16005A_0200-223_Plans_Resource_Consent.dwg

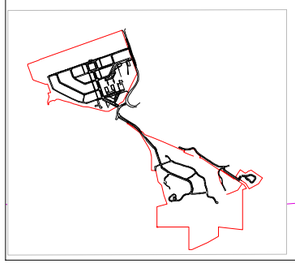
Not approved Club House size. Please refer to the plans titled 'Draft Club House Small Option' . Updated plans required.



QUEENSTOWN LAKES DISTRICT COUNCIL

APPROVED PLAN:
SH160140

Monday, 3 April 2017



Boffa Miskell Limited
Ground Floor, 4 Hazeldean Road 8024
PO Box 110, Christchurch 8140
New Zealand
Tel: +64 3 366 8891
www.boffamiskell.co.nz

Printed 22/03/2017 5:32:21 p.m.

NOTES

CONTRACTORS TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING WORK;

CONTRACTORS ARE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL UNDERGROUND SERVICES ON SITE PRIOR TO COMMENCING WORK;

FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

KEY

REV	DATE	DESCRIPTION

CLIENT
SANDERSON GROUP

For Resource Consent

QUEENSTOWN COUNTRY CLUB

MASTER PLAN

Design	KCh	Scale	Date
Drawn	SCa	NTS	2017.03.22
Check	JRe		
Appv'd	JrE		

DRAWING NO. C16005A_201

REVISION 3

U:\2016\C16005A_JRe_Sanderson_Resource_Consent\CAD\C16005A_0200-223_Plans_Resource_Consent.dwg

QUEENSTOWN LAKES DISTRICT COUNCIL

APPROVED PLAN:
SH160140

Monday, 3 April 2017

Proposed amendments

HARRIES LANE

JONES ROAD

TRANSMISSIONS LINES

TRANSMISSION LINES

EXISTING TRAIL

ONSLOW ROAD

NEW ROAD

BOAT SHED CAFE

SOUTHERN SITE

ONSLOW ROAD WEST SITE

ONSLOW ROAD EAST SITE

Proposed amendments refer to drawing 222 for details

LEGEND

- OVERALL DEVELOPMENT SITE BOUNDARY
- SUB-DEVELOPMENT SITE BOUNDARY
- EDGE OF KNOLL
- INTERNAL BOUNDARY SETBACK
- EXISTING TRAIL
- PROPOSED TRAIL
- EXISTING PROPERTY BOUNDARY
- EXISTING TREES
- PROPOSED TREES
- PROPOSED ENTRANCE FEATURE
- INDICATIVE BUILDING FOOTPRINT

1:1000 @ A1
1:2000 @ A3
0 10 20 30 40 50 60 70 80 90 100 m

NOTES

CONTRACTORS TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING WORK;

CONTRACTORS ARE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL UNDERGROUND SERVICES ON SITE PRIOR TO COMMENCING WORK;

FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

KEY

REV DATE DESCRIPTION

CLIENT
SANDERSON GROUP

For Resource Consent

QUEENSTOWN COUNTRY CLUB

SOUTHERN SITE,
ONSLOW EAST & WEST SITES

Design	KCh	Scale	Date
Drawn	SCa	1:1000 @ A1	2017.03.22
Check	JRe	1:2000 @ A3	
App'd	JrE		

DRAWING NO. C16005A_203A
REVISION 3

Boffa Miskell Limited
Ground Floor, 4 Hazeldean Road 8024
PO Box 110, Christchurch 8140
New Zealand
Tel: +64 3 366 8891
www.boffamiskell.co.nz

Printed 22/03/2017 4:17:06 p.m.

U:\2016\C16005A_JRe_Sanderson_Resource_Consent\CAD\C16005A_0200-223_Plans_Resource_Consent.dwg

QUEENSTOWN LAKES DISTRICT COUNCIL

APPROVED PLAN:
SH160140

Monday, 3 April 2017

Proposed amendments

HARRIES LANE

JONES ROAD

TRANSMISSIONS LINES

TRANSMISSION LINES

EXISTING TRAIL

ONSLOW ROAD

NEW ROAD

BOAT SHED CAFE

SOUTHERN SITE

ONSLOW ROAD WEST SITE

ONSLOW ROAD EAST SITE

Proposed amendments refer to drawing 222 for details

LEGEND

- OVERALL DEVELOPMENT SITE BOUNDARY
- SUB-DEVELOPMENT SITE BOUNDARY
- EDGE OF KNOLL
- INTERNAL BOUNDARY SETBACK
- EXISTING TRAIL
- PROPOSED TRAIL
- EXISTING PROPERTY BOUNDARY
- PROPOSED EASEMENT
- EXISTING TREES
- PROPOSED TREES
- PROPOSED ENTRANCE FEATURE
- INDICATIVE BUILDING FOOTPRINT

1:1000 @ A1
1:2000 @ A3
0 10 20 30 40 50 60 70 80 90 100 m

Boffa Miskell Limited
Ground Floor, 4 Hazeldean Road 8024
PO Box 110, Christchurch 8140
New Zealand
Tel: +64 3 366 8891
www.boffamiskell.co.nz

NOTES

CONTRACTORS TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING WORK;

CONTRACTORS ARE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL UNDERGROUND SERVICES ON SITE PRIOR TO COMMENCING WORK;

FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

KEY

REV	DATE	DESCRIPTION

CLIENT
SANDERSON GROUP

For Resource Consent

QUEENSTOWN COUNTRY CLUB

SOUTHERN SITE,
ONLSOW EAST & WEST SITES

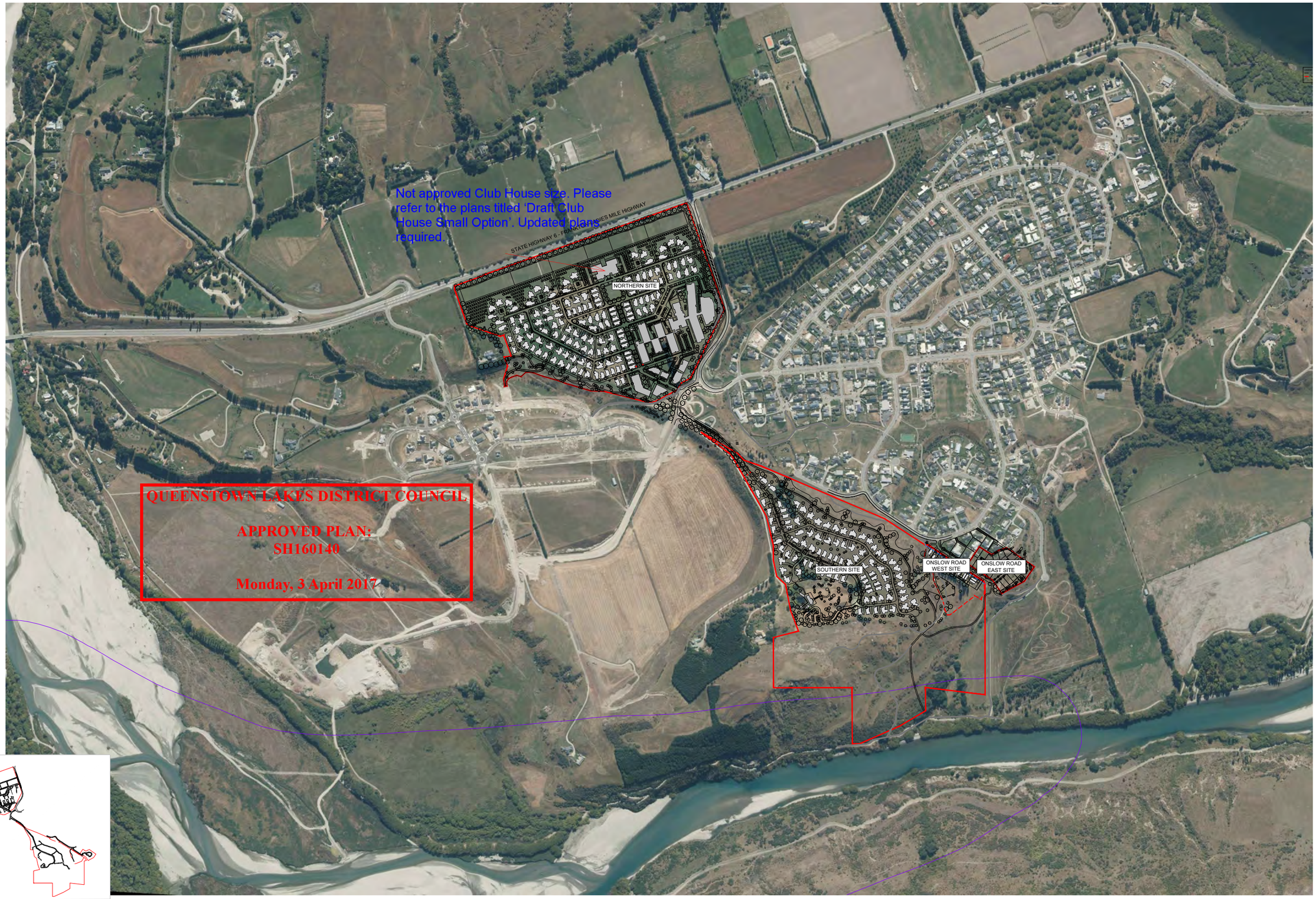
Design	KCh	Scale	Date
Drawn	SCa	1:1000 @ A1	2017.03.22
Check	JRe	1:2000 @ A3	
App'd	JrE		

DRAWING NO. C16005A_203

REVISION 3

Printed 22/03/2017 4:17:08 p.m.

U:\2016\C16005A_JRe_Sanderson_Resource_Consent\CAD\C16005A_0200-223_Plans_Resource_Consent.dwg



NOTES

CONTRACTORS TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING WORK;

CONTRACTORS ARE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL UNDERGROUND SERVICES ON SITE PRIOR TO COMMENCING WORK;

FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

KEY

REV DATE DESCRIPTION

CLIENT

For Resource Consent

QUEENSTOWN COUNTRY CLUB

MASTER PLAN

Design	KCh	Scale	Date
Drawn	SCa	NTS	2017.03.22
Check	JRe		
Appv'd	JrE		

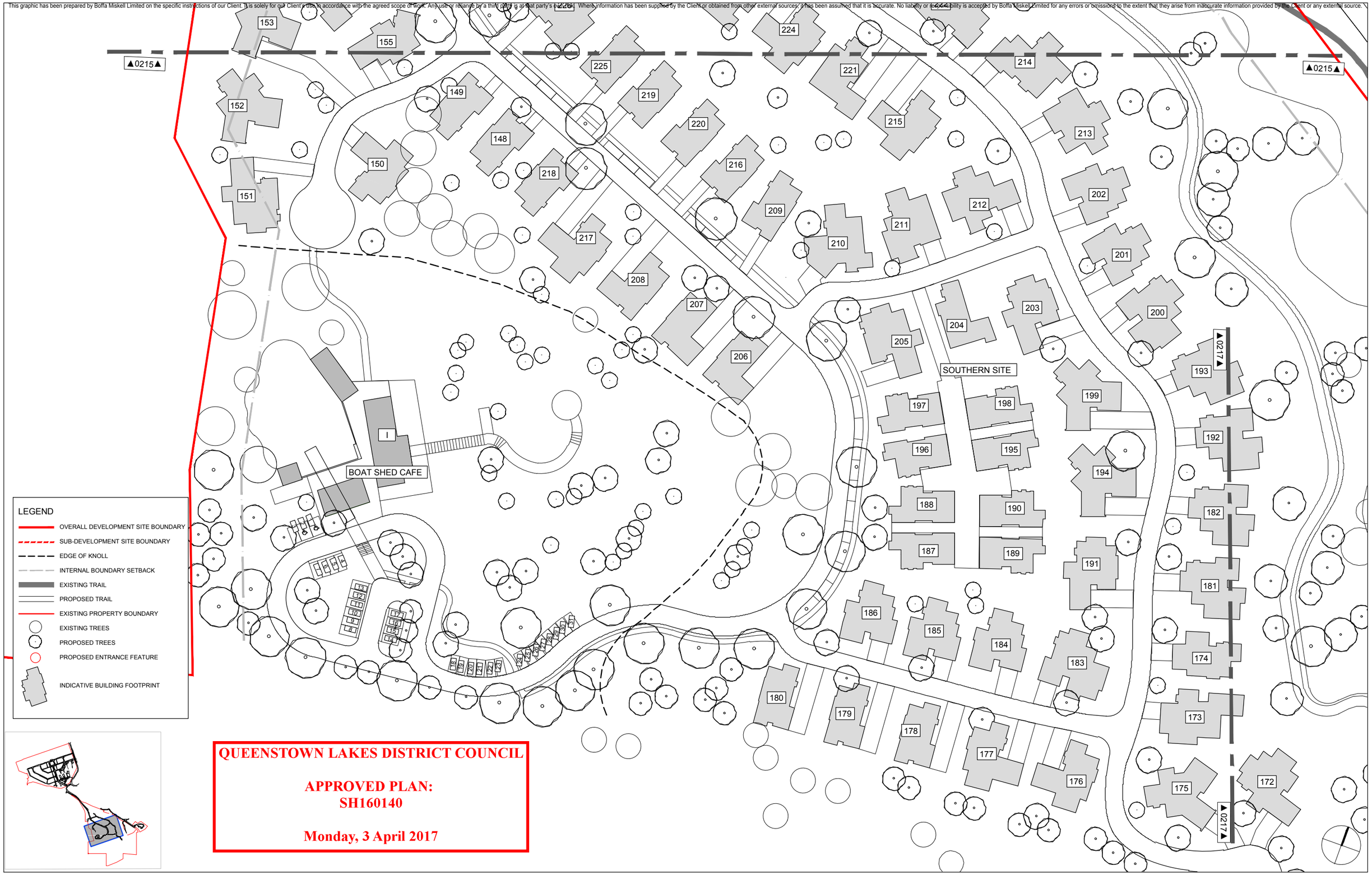
DRAWING NO. C16005A_204

REVISION 3

Boffa Miskell

Printed 22/03/2017 5:05:56 p.m.

U:\2016\C16005A_JRe_Sanderson_Resource_Consent\CAD\C16005A_0204-244_RC_Plans_Aerials_and_Contours.dwg



QUEENSTOWN LAKES DISTRICT COUNCIL

APPROVED PLAN:
SH160140

Monday, 3 April 2017

1:500 @ A1
1:1000 @ A3
0 5 10 15 20 25 30 35 40 45 50 m

Boffa Miskell Limited
Ground Floor, 4 Hazeldean Road 8024
PO Box 110, Christchurch 8140
New Zealand
Tel: +64 3 366 8891
www.boffamiskell.co.nz

Printed 22/03/2017 4:17:27 p.m.

NOTES

CONTRACTORS TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING WORK;

CONTRACTORS ARE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL UNDERGROUND SERVICES ON SITE PRIOR TO COMMENCING WORK;

FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

KEY

REV DATE DESCRIPTION

CLIENT
SANDERSON GROUP

For Resource Consent

QUEENSTOWN COUNTRY CLUB

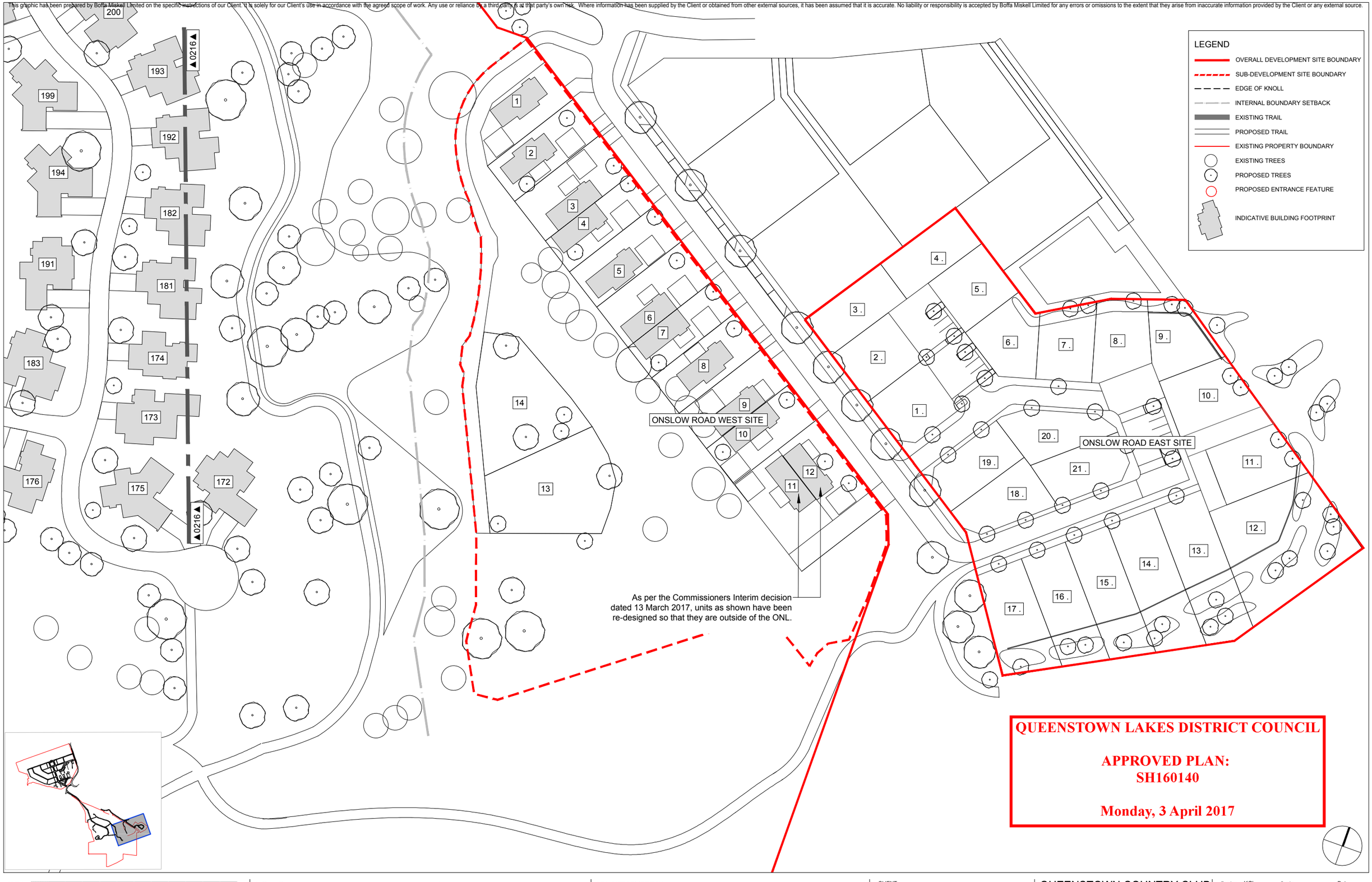
MASTER PLAN
SHEET 7

Design	KCh	Scale		Date
Drawn	SCa	1:500 @ A1		2017.03.22
Check	JRe	1:1000 @ A3		
Appv'd	JrE			

DRAWING NO. C16005A_216

REVISION 2

U:\2016\C16005A_JRe_Sanderson_Resource_Consent\CAD\C16005A_0200-223_Plans_Resource_Consent.dwg



QUEENSTOWN LAKES DISTRICT COUNCIL

APPROVED PLAN:
SH160140

Monday, 3 April 2017

1:500 @ A1
1:1000 @ A3
0 5 10 15 20 25 30 35 40 45 50 m

Boffa Miskell Limited
Ground Floor, 4 Hazeldean Road 8024
PO Box 110, Christchurch 8140
New Zealand
Tel: +64 3 366 8891
www.boffamiskell.co.nz

Printed 24/03/2017 12:17:32 p.m.

NOTES

CONTRACTORS TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING WORK;

CONTRACTORS ARE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL UNDERGROUND SERVICES ON SITE PRIOR TO COMMENCING WORK;

FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

KEY

REV DATE DESCRIPTION

CLIENT
SANDERSON GROUP

For Resource Consent

QUEENSTOWN COUNTRY CLUB

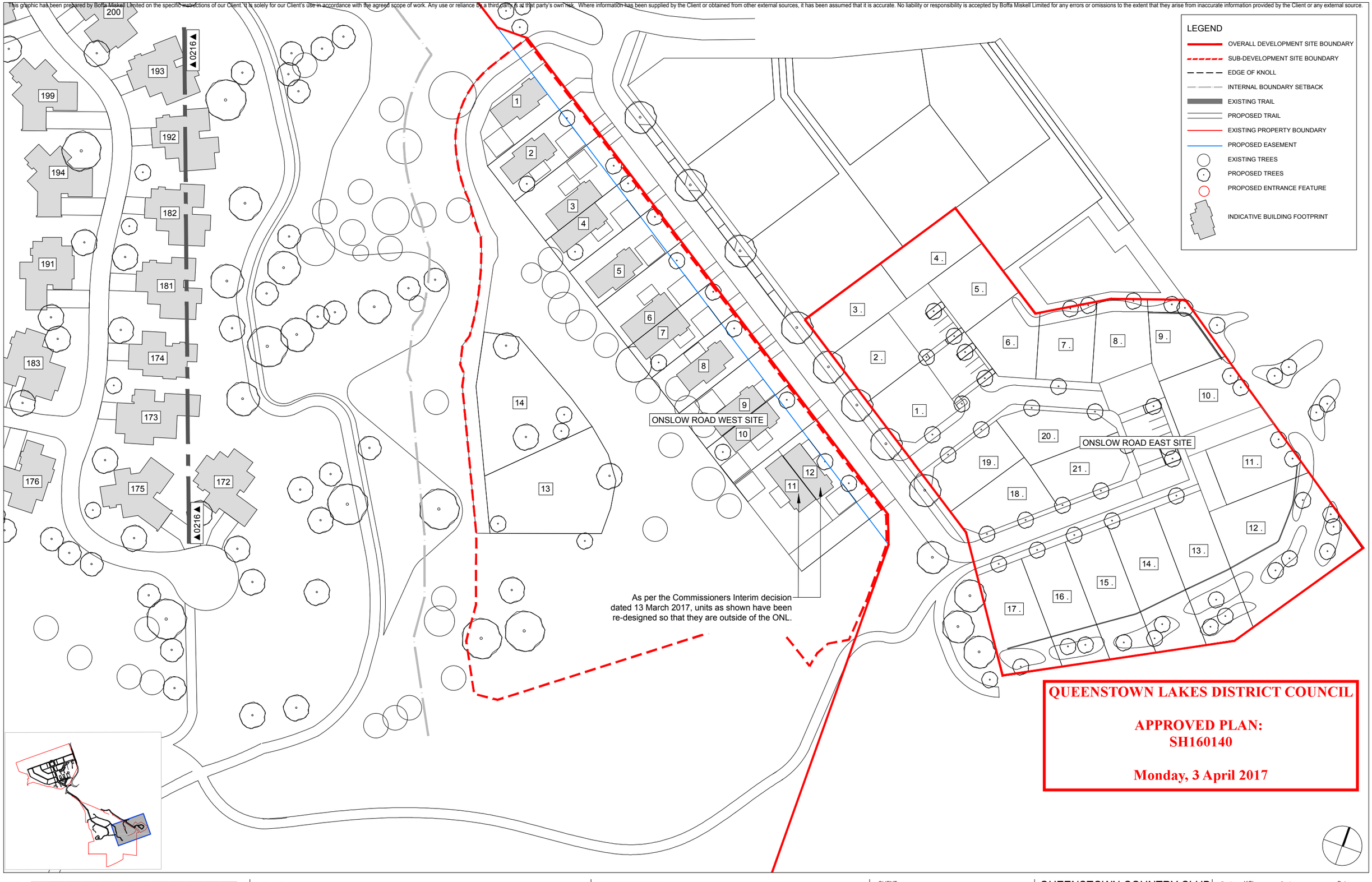
MASTER PLAN
SHEET 8

Design	KCh	Scale	Date
Drawn	SCa	1:500 @ A1	2017.03.22
Check	JRe	1:1000 @ A3	
Appv'd	JrE		

DRAWING NO. C16005A_217

REVISION 4

U:\2016\C16005A_JRe_Sanderson_Resource_Consent\CAD\C16005A_0200-223_Plans_Resource_Consent.dwg



QUEENSTOWN LAKES DISTRICT COUNCIL

APPROVED PLAN:
SH160140

Monday, 3 April 2017

1:500 @ A1
1:1000 @ A3
0 5 10 15 20 25 30 35 40 45 50 m

Boffa Miskell Limited
Ground Floor, 4 Hazeldean Road 8024
PO Box 110, Christchurch 8140
New Zealand
Tel: +64 3 366 8891
www.boffamiskell.co.nz

Printed 24/03/2017 12:17:34 p.m.

NOTES

CONTRACTORS TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING WORK;

CONTRACTORS ARE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL UNDERGROUND SERVICES ON SITE PRIOR TO COMMENCING WORK;

FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

KEY

REV	DATE	DESCRIPTION

CLIENT
SANDERSON GROUP

For Resource Consent

QUEENSTOWN COUNTRY CLUB

MASTER PLAN
SHEET 8

Design	KCh	Scale	Date
Drawn	SCa	1:500 @ A1	2017.03.22
Check	JRe	1:1000 @ A3	
Appv'd	JrE		

DRAWING NO. C16005A_217A
REVISION 4

U:\2016\C16005A_JRe_Sanderson_Resource_Consent\CAD\C16005A_0200-223_Plans_Resource_Consent.dwg

QUEENSTOWN LAKES DISTRICT COUNCIL

APPROVED PLAN:
SH160140

Monday, 3 April 2017

Proposed amendments

HARRIES LANE

JONES ROAD

ONSLOW ROAD

NEW ROAD

TRANSMISSIONS LINES

TRANSMISSION LINES

EXISTING TRAIL

BOAT SHED CAFE

SOUTHERN SITE

ONSLOW ROAD WEST SITE

ONSLOW ROAD EAST SITE

Proposed amendments refer to drawing 222 for details

LEGEND

- OVERALL DEVELOPMENT SITE BOUNDARY
- SUB-DEVELOPMENT SITE BOUNDARY
- EDGE OF KNOLL
- EXISTING CONTOURS 1.0m
- INTERNAL BOUNDARY SETBACK
- EXISTING TRAIL
- PROPOSED TRAIL
- EXISTING TREES
- PROPOSED TREES
- PROPOSED ENTRANCE FEATURE
- INDICATIVE BUILDING FOOTPRINT

1:1000 @ A1
1:2000 @ A3
0 10 20 30 40 50 60 70 80 90 100 m

Boffa Miskell

Printed 22/03/2017 5:07:31 p.m.

NOTES

CONTRACTORS TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING WORK;

CONTRACTORS ARE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL UNDERGROUND SERVICES ON SITE PRIOR TO COMMENCING WORK;

FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

KEY

REV DATE DESCRIPTION

CLIENT
SANDERSON GROUP

CONSULTANTS

For Resource Consent

QUEENSTOWN COUNTRY CLUB

SOUTHERN SITE,
ONLSOW EAST & WEST SITES

Design	KCh	Scale		Date
Drawn	SCa	1:1000 @ A1		2017.03.22
Check	JRe	1:2000 @ A3		
Appv'd	JrE			

DRAWING NO. C16005A_221

REVISION 5

U:\2016\C16005A_JRe_Sanderson_Resource_Consent\CAD\C16005A_0204-244_RC_Plans_Aerials_and_Contours.dwg

QUEENSTOWN LAKES DISTRICT COUNCIL

APPROVED PLAN:
SH160140

Monday, 3 April 2017

Proposed amendments

HARRIES LANE

JONES ROAD

ONSLOW ROAD

TRANSMISSIONS LINES

TRANSMISSION LINES

EXISTING TRAIL

NEW ROAD

BOAT SHED CAFE

SOUTHERN SITE

ONSLOW ROAD WEST SITE

ONSLOW ROAD EAST SITE

Proposed amendments refer to drawing 222 for details

LEGEND

- OVERALL DEVELOPMENT SITE BOUNDARY
- SUB-DEVELOPMENT SITE BOUNDARY
- EDGE OF KNOLL
- EXISTING CONTOURS 1.0m
- INTERNAL BOUNDARY SETBACK
- EXISTING TRAIL
- PROPOSED TRAIL
- EXISTING TREES
- PROPOSED TREES
- PROPOSED ENTRANCE FEATURE
- INDICATIVE BUILDING FOOTPRINT
- PROPOSED EASEMENT

1:1000 @ A1
1:2000 @ A3
0 10 20 30 40 50 60 70 80 90 100 m

Boffa Miskell

Printed 22/03/2017 5:42:32 p.m.

NOTES

CONTRACTORS TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING WORK;

CONTRACTORS ARE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL UNDERGROUND SERVICES ON SITE PRIOR TO COMMENCING WORK;

FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

KEY

REV DATE DESCRIPTION

CLIENT
SANDERSON GROUP

CONSULTANTS

For Resource Consent

QUEENSTOWN COUNTRY CLUB

SOUTHERN SITE,
ONLSOW EAST & WEST SITES

Design	KCh	Scale		Date	
Drawn	SCa	1:1000 @ A1		2017.03.22	
Check	JRe	1:2000 @ A3			
Appv'd	JrE				

DRAWING NO. C16005A_221A

REVISION 5

U:\2016\C16005A_JRe_Sanderson_Resource_Consent\CAD\C16005A_0204-244_RC_Plans_Aerials_and_Contours.dwg

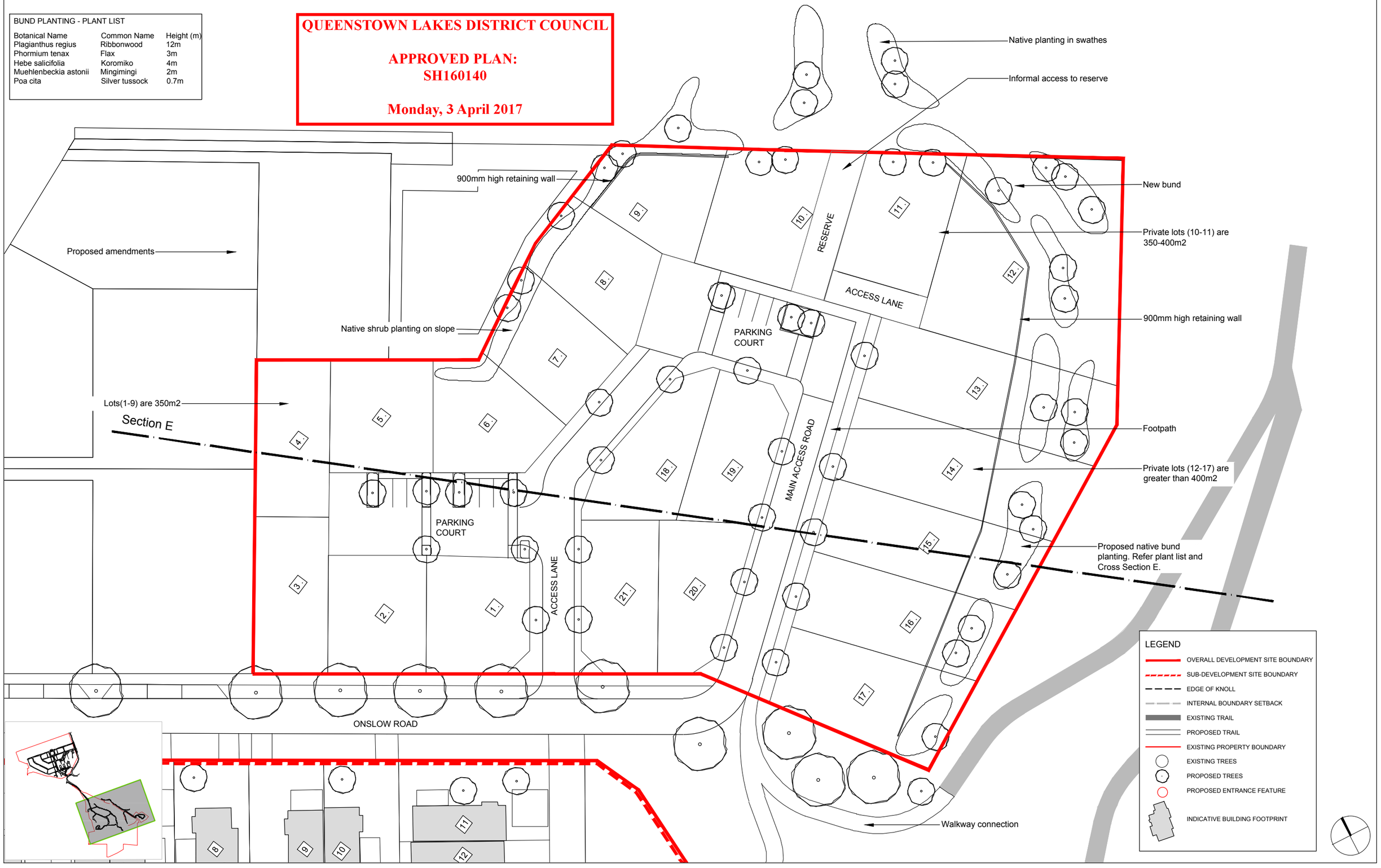
BUND PLANTING - PLANT LIST

Botanical Name	Common Name	Height (m)
Plagianthus regius	Ribbonwood	12m
Phormium tenax	Flax	3m
Hebe salicifolia	Koromiko	4m
Muehlenbeckia astonii	Mingimingi	2m
Poa cita	Silver tussock	0.7m

QUEENSTOWN LAKES DISTRICT COUNCIL

APPROVED PLAN:
SH160140

Monday, 3 April 2017



Boffa Miskell Limited
Ground Floor, 4 Hazeldean Road 8024
PO Box 110, Christchurch 8140
New Zealand
Tel: +64 3 366 8891
www.boffamiskell.co.nz

Printed 22/03/2017 4:17:33 p.m.

NOTES

CONTRACTORS TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING WORK;

CONTRACTORS ARE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL UNDERGROUND SERVICES ON SITE PRIOR TO COMMENCING WORK;

FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

KEY

REV DATE DESCRIPTION

CLIENT: SANDERSON GROUP

CONSULTANTS

For Resource Consent

QUEENSTOWN COUNTRY CLUB

ONSLOW SITE

Design	KCh	Scale	Date
Drawn	SCa	1:300 @ A1	2017.03.22
Check	JRe	1:600 @ A3	
Appv'd	JrE		

DRAWING NO. C16005A_222

REVISION 4

U:\2016\C16005A_JRe_Sanderson_Resource_Consent\CAD\C16005A_0200-223_Plans_Resource_Consent.dwg

BUND PLANTING - PLANT LIST

Botanical Name	Common Name	Height (m)
Plagianthus regius	Ribbonwood	12m
Phormium tenax	Flax	3m
Hebe salicifolia	Koromiko	4m
Muehlenbeckia astonii	Mingimingi	2m
Poa cita	Silver tussock	0.7m

QUEENSTOWN LAKES DISTRICT COUNCIL

APPROVED PLAN:
SH160140

Monday, 3 April 2017

Native planting in swathes
Informal access to reserve
900mm high retaining wall
New bund
Proposed amendments
Private lots (10-11) are 350-400m2
Native shrub planting on slope
900mm high retaining wall
Lots(1-9) are 350m2
Section E
Footpath
Private lots (12-17) are greater than 400m2
Proposed native bund planting. Refer plant list and Cross Section E.
Walkway connection
ONSLOW ROAD

RESERVE
ACCESS LANE
PARKING COURT
MAIN ACCESS ROAD
PARKING COURT
ACCESS LANE

LEGEND
- OVERALL DEVELOPMENT SITE BOUNDARY
- SUB-DEVELOPMENT SITE BOUNDARY
- EDGE OF KNOLL
- INTERNAL BOUNDARY SETBACK
- EXISTING TRAIL
- PROPOSED TRAIL
- EXISTING PROPERTY BOUNDARY
- PROPOSED EASEMENT
- EXISTING TREES
- PROPOSED TREES
- PROPOSED ENTRANCE FEATURE
- INDICATIVE BUILDING FOOTPRINT

Boffa Miskell Limited
Ground Floor, 4 Hazeldean Road 8024
PO Box 110, Christchurch 8140
New Zealand
Tel: +64 3 366 8891
www.boffamiskell.co.nz

Printed 22/03/2017 4:17:34 p.m.

NOTES

CONTRACTORS TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING WORK;

CONTRACTORS ARE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL UNDERGROUND SERVICES ON SITE PRIOR TO COMMENCING WORK;

FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

KEY

REV DATE DESCRIPTION

CLIENT
SANDERSON GROUP

CONSULTANTS

For Resource Consent

QUEENSTOWN COUNTRY CLUB

ONSLOW SITE

Design	KCh	Scale	Date
Drawn	SCa	1:300 @ A1	2017.03.22
Check	JRe	1:600 @ A3	
Appv'd	JrE		

DRAWING NO. C16005A_222A
REVISION 4

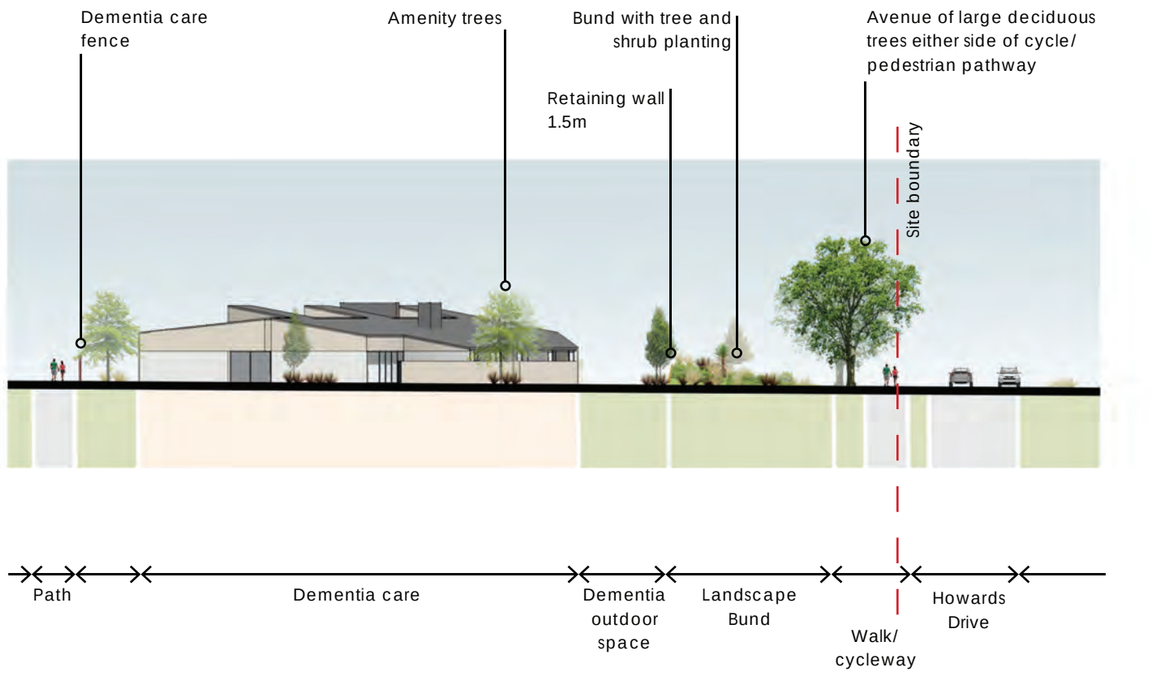
U:\2016\C16005A_JRe_Sanderson_Resource_Consent\CAD\C16005A_0200-223_Plans_Resource_Consent.dwg

QUEENSTOWN LAKES DISTRICT COUNCIL

APPROVED PLAN:
SH160140

Monday, 3 April 2017

Cross Sections D - E Location Plan



INDICATIVE CROSS SECTION D - DEMENTIA CARE ON HOWARDS DRIVE

Refer to Drawing C16005A_223 for plan information.

Example of native planting on a slope as part of the proposed Landscape bund facing Howards Drive. Exotic and native species proposed on bund slopes facing Dementia Care.

Bund Planting*

Botanical Name	Common Name
Chionochloa rigida	Narrow-leaved tussock
Coprosma propinqua	Mingimingi
Coprosma rhamnoides	Coprosma
Discaria toumatou	Matagouri, wild Irishman
Hebe salicifolia	Koromiko
Phormium cookianum	Mountain flax/harakeke
Poa cita	Silver tussock
Lavender	Lavandula angustifolia
Rosa spp	Flower carpet rose assorted

Refer to Amenity Trees plant list for tree planting on bund

Boffa Miskell

Printed 23/01/2017 7:52:46 p.m.

NOTES

CONTRACTORS TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING WORK;

CONTRACTORS ARE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL UNDERGROUND SERVICES ON SITE PRIOR TO COMMENCING WORK;

FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

KEY

REV DATE DESCRIPTION

CLIENT SANDERSON GROUP

CONSULTANTS

For Resource Consent

QUEENSTOWN COUNTRY CLUB

SECTION D

Design KCh
Drawn SCa
Check JRe
Appv'd JrE

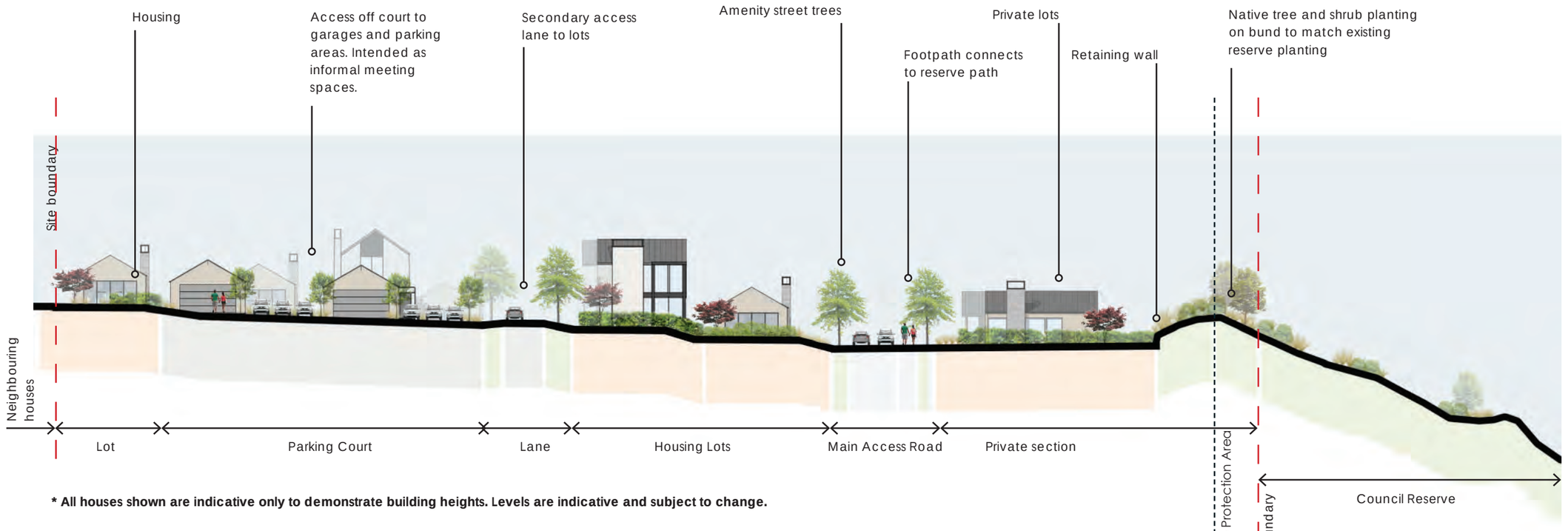
Scale NTS

Date 2017.02.03

DRAWING NO. C16005A_233

REVISION

U:\2016\C16005A_JRe_Sanderson_Resource_Consent\CAD\C16005A_0200-222_Plans_Resource_Consent_2.dwg



*** All houses shown are indicative only to demonstrate building heights. Levels are indicative and subject to change.**

INDICATIVE CROSS SECTION E - ONSLOW ROAD SUBDIVISION

Refer to Drawing C16005A_222 for plan information.

Example of a community close or court as seen in Reading Close, Jacks Point development, Queenstown.

Native tree and shrub planting on neighbouring Council Reserve. Proposed planting on the bund bordering the reserve should match the existing planting. Planting of 0.7 metres to 12 metres in height will help to screen the visibility of the houses.

Bund Planting

Botanical Name	Common Name	Height (m)
Plagianthus regius	Ribbonwood	12m
Phormium tenax	Flax	3m
Hebe salicifolia	Koromiko	4m
Muehlenbeckia astonii	Mingimingi	2m
Poa cita	Silver tussock	0.7m

Boffa Miskell

Printed 12/12/2016 1:56:31 p.m.

NOTES

CONTRACTORS TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING WORK;

CONTRACTORS ARE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL UNDERGROUND SERVICES ON SITE PRIOR TO COMMENCING WORK;

FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

KEY

REV DATE DESCRIPTION

CLIENT SANDERSON GROUP

CONSULTANTS

For Resource Consent

QUEENSTOWN COUNTRY CLUB

SECTION E

Design KCh | Drawn SCa | Check JRe | Appv'd JrE | Scale NTS | Date 2016.12.12

DRAWING NO. C16005A_234 REVISION

U:\2016\C16005A_JRe_Sanderson_Resource_Consent\CAD\C16005A_0200-222_Plans_Resource_Consent.dwg