

From: [Meg D'Souza](#)
To: [Andrew Harrigan](#)
Cc: [Chloe Chalk](#); [olga@fortifygeotech.com.au](#); [jeremy.murray@actgeoeng.com.au](#); [Erin Murphy](#); [DPE PSVC Alpine Resorts Mailbox](#)
Subject: Re: Request for Information - DA 24/448 - Sonnblick Lodge Demolition
Date: Tuesday, 12 November 2024 2:10:28 PM
Attachments: [image001.png](#)
[image002.png](#)
[Outlook-Logo_Desc.png](#)

Hi Andrew,

I can confirm that the Department requires the following information, in addition to the updated geotechnical report:

- **Development plans and elevations** - noting that the retaining walls, driveway and footings are proposed to be retained, the Department requires plans that illustrate this to assist with the assessment. The plans should include the following:
 - Site boundaries and adjoining development
 - Site levels
 - The location of development which is to be demolished or removed, including both the building and any handstand, stairs, retaining walls etc
 - Noting that some of the walls of the lodge form the retaining walls for the site, clearly indicate extent of wall demolition and retaining wall retention. Additionally, clearly indicate the extent to which the driveway and footings will be retained
 - Location, width depth and top and bottom levels of retaining walls to be retained
- **Stormwater Management Plan**, including details of proposed methods of draining the land
- While a Landscape Concept Plan is not specifically required, the following should be provided within the relevant documentation (e.g. within the SEMP):
 - location and species of any vegetation proposed to be removed
 - proposed landscaping and treatment of the land, including any proposed revegetation works
 - erosion and sediment control measures

Kind regards,

Meg D'souza
Planning Officer, Regional Assessments
Development Assessment and Sustainability
Department of Planning, Housing and Infrastructure

T (02) 6650 7197 | E meg.dsouza@planning.nsw.gov.au

4 Parramatta Square, 12 Darcy Street Parramatta 2150
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I acknowledge the traditional custodians of the land and pay respects to Elders past and present. I also acknowledge all the Aboriginal and Torres Strait Islander staff working with NSW Government at this time.

From: Andrew Harrigan <Andrew_Harrigan@evt.com>
Sent: Friday, 1 November 2024 3:56 PM
To: Meg D'Souza <meg.dsouza@planning.nsw.gov.au>
Cc: Louise Densmore <louise.densmore@dpie.nsw.gov.au>; Mark Brown <mark.brown@dpie.nsw.gov.au>; Daniel James <Daniel.James@planning.nsw.gov.au>; DPE PSVC Alpine Resorts Mailbox <alpineresorts@planning.nsw.gov.au>; Chloe Chalk <chloe_chalk@evt.com>; olga <olga@fortifygeotech.com.au>; jeremy.murray <jeremy.murray@actgeoeng.com.au>
Subject: RE: Request for Information - DA 24/448 - Sonnblick Lodge Demolition

Thanks Meg,

A revised demolition plan was provided in August 2024 as was a site survey plan.

So we are all clear can you please outline the relevant deficiencies of the August Plan that need addressing? I have copied Olga and Jeremy from Fortify Geotech who had prepared the demolition plan.

Information Matrix

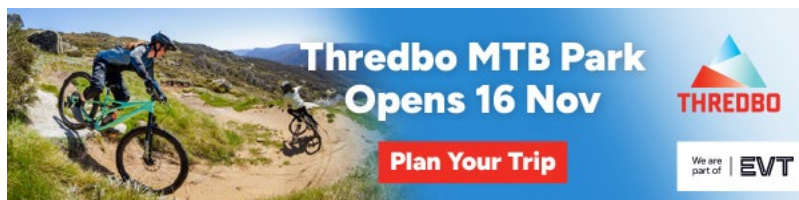
	Additions to existing building	External alterations to existing building	Internal alterations to existing building	Demolish a building	Erect a new building	Earthworks including filling	Subdivision	Other development
1. Locality plan	✓	✓	✓	✓	✓	✓	✓	0
2. Lease survey plan	✓	✓	0	✓	✓	0	✓	0
3. Site analysis plan	✓	✓	0	X	✓	✓	✓	0
4. Shadow analysis plan	0	0	X	X	✓	X	X	0
5. Development plans and elevations	✓	✓	✓	0	✓	✓	✓	0
6. Notification plans	✓	✓	0	0	✓	0	✓	0
7. Landscape concept plan	0	0	0	0	✓	✓	✓	0
8. Stormwater management plan	0	0	X	0	✓	✓	✓	0
9. Site environmental management plan (SEMP)	0	0	0	✓	✓	✓	✓	0
10. Bushfire Assessment Report	✓	✓	X	X	✓	X	✓	0
11. Geotechnical report and/or site classification **	0	0	X	0	0	0	0	0
12. Statement of environmental effects	✓	✓	✓	✓	✓	✓	✓	✓
13. Essential Services location plan	✓	0	✓	X	0	X	X	0
14. Colour and Material Samples	✓	✓	X	X	✓	X	X	0
15. The Disability (Access to Premises – buildings) Standards 2010	0	0	0	0	0	0	0	0

Key

- ✓ Plan required.
- 0 Plan may be required. Please check with Alpine Resorts Team on 02 6456 1733.
- X Plan not required.
- * This includes internal alterations that do not involve any increase in overall floor space, bed numbers or structural changes.
- ** This report and/or classification is/are required if specified in Geotechnical Policy – Kosciuszko alpine resorts.

Kind regards

Andrew Harrigan
Property and Development Manager
Kosciuszko Thredbo Pty Ltd
PO Box 92 Thredbo NSW 2625
M: 0423422860
andrew_harrigan@evt.com | thredbo.com.au



From: Meg D'Souza <meg.dsouza@planning.nsw.gov.au>
Sent: Friday, 1 November 2024 3:35 PM
To: Andrew Harrigan <Andrew_Harrigan@evt.com>
Cc: Louise Densmore <louise.densmore@dpie.nsw.gov.au>; Mark Brown <mark.brown@planning.nsw.gov.au>; Daniel.James <Daniel.James@planning.nsw.gov.au>; alpineresorts <alpineresorts@planning.nsw.gov.au>; Chloe Chalk <chloe_chalk@evt.com>
Subject: Re: Request for Information - DA 24/448 - Sonnblick Lodge Demolition

Hello Andrew,

Please note that, in addition to the information requested in the email below, the Department is also awaiting a detailed demolition plan. The documents must be based on an accurate site survey plan and show:

- Site boundaries and adjoining development
- Site levels
- The location of development which is to be demolished or removed, including both the building and any handstand, stairs, retaining walls etc
- Noting that some of the walls of the lodge form the retaining walls for the site, clearly indicate extent of wall demolition and retaining wall retention
- Location, width depth and top and bottom levels of retaining walls to be retained
- Location and species of any vegetation proposed to be removed

- Proposed Sediment and Erosion control measures
- Proposed landscaping and treatment of the land
- Proposed methods of draining the land

Please let me know if there are any questions or issues.

Regards,

Meg D'souza

Planning Officer, Regional Assessments
Development Assessment and Sustainability
Department of Planning, Housing and Infrastructure

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From: Meg D'Souza <meg.dsouza@planning.nsw.gov.au>

Sent: Thursday, 24 October 2024 12:07 PM

To: Andrew Harrigan <Andrew_Harrigan@evt.com>

Cc: Louise Densmore <louise.densmore@dpie.nsw.gov.au>; Mark Brown <mark.brown@dpie.nsw.gov.au>; Daniel James <Daniel.James@planning.nsw.gov.au>; Chloe Chalk <chloe_chalk@evt.com>; DPE PSVC Alpine Resorts Mailbox <alpineresorts@planning.nsw.gov.au>

Subject: Request for Information - DA 24/448 - Sonnblick Lodge Demolition

Hello Andrew,

The Department commissioned a further peer review the updated geotechnical report prepared by Fortify Geotech (formerly ACT Geotechnical Engineers Pty Ltd) dated August 2024 as part of its assessment of the application.

The outcome of the review has found that the geotechnical information provided in support of the application has improved, however that it continues to be insufficient. On the basis, the Department is not yet satisfied that the geotechnical information adequately considers and responds to the geotechnical risks associated with the proposal. Please see **Attachment A** for a copy of the review and additional matters to be addressed.

The Department requests, pursuant to section 36 of the *Environmental Planning and Assessment Regulation 2021* (E&PA Regulation), that you provide an updated geotechnical report and accompanying certification that responds to the matters raised in the **Attachment A**.

The additional information must be given to the Department within 90 days from the date of this letter, being **16 January 2025**. Should you require an extension to the timeframe, you are requested to contact the Department and set out your request for an extension in writing.

Since lodgement of the DA, 189 days have elapsed in the assessment period under Part 4 Division 4 of the EPA Regulation. In accordance with Part 4 Division 4 of the EPA Regulation, the assessment period ceases to run during the period between this request for additional information and the day on which you provide the additional information, or on which you notify (or are taken to have notified) the Department that the additional information will not be provided.

If you have any enquiries in relation to the above, please note that your enquiry must be directed to the Department and not the independent geotechnical consultancy firm. Please contact Meg D'souza on meg.dsouza@planning.nsw.gov.au or via alpineresorts@planning.nsw.gov.au if you have any queries.

Regards,

Meg D'souza

A/Team Leader, Regional Assessments
Development Assessment and Sustainability
Department of Planning, Housing and Infrastructure

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Attachment A

The Department acknowledges that the Fortify Geotech report (dated August 2024) has been provided in good faith and has adhered to several of the recommendations provided in the initial geotechnical peer review.

However, the most recent peer review has advised that the Fortify Geotech report identified additional issues and contradictions that were not addressed through the analysis provided in the Geotechnical Investigation and Slope Stability Risk Assessment from ACT Geotechnical Engineers (dated 26 April 2022). Overall, there are several shortcomings with the risk assessment which cannot be overlooked and ultimately do not comply with the Geotechnical Policy.

Therefore, from the independent review of the Fortify Geotech report, the Department requests that you address the following matters:

- **Risk calculations** - there are many errors and inconsistencies with the values used in some of the risk calculations. Some examples include:
 - Likelihood values -
 - Sections 5.2.3, 5.2.4, 5.2.5 and 5.2.6 the likelihood values are stated to be 10^{-4} , 10^{-4} , 10^{-3} , and 10^{-3} respectively however in Table 5-2, all the likelihood values used to calculate risks are stated to be 10^{-5} : Furthermore, the likelihood values used in the risk to property assessment (Table 5-1 of the Fortify Geotech report) are different to those used in Table 5-2, despite the hazards being the same. Likelihood estimation is a crucial part of the risk assessment process and needs to be transparent and defensible.
 - Some of the likelihood values used in the risk assessment appear to be based on the slope stability analysis presented in the report. For example, “slope stability modelling for existing slope indicated $FOS > 1.5$ ”. However, this stability analysis is based on presumed geotechnical parameters which have no immediate justification through previous testing. In addition, some of the parameters (in particular the drained cohesion c') are considered to be significantly non-conservative with values of $c' = 25$ kPa for residual soils and colluvium having unrealistic implications on the factor of safety. As such, the presented stability analysis and the subsequent modes of failure cannot be justified nor considered to be reliable.
 - The quantitative risk assessment has introduced a conditional probability factor called “The probability of being Trapped”. This is not used in AGS (2007) and appears to be used by the authors to further downgrade the vulnerability values. The basis for the numbers used is not supported / described in the text of the Fortify Geotech report.
 - The report has summed all the calculated individual risks to produce a so called “total risk” and stated in the introduction of the report that “the level of total risk to be proposed for neighbouring dwellings is “Very Low” and “Low”. It is not appropriate to sum probabilities because the resulting number ceases to a probability (i.e. it is not a risk, but rather an arbitrary number). There are no risk criteria to compare this number against and the statement regarding total risk has no meaning.
 - The calculations for societal risk presented in Table 5-2 and Plate 3 of the Fortify Geotech report are incorrect. Societal risk is the risk of multiple fatalities or injuries in society as a whole: one where society would have to carry the burden of a landslide causing a number of deaths (NPWS 2023). The assessment of societal risk requires the calculation of F, and N (F-N pair), where:
 - F is the annual probability of N or more fatalities and;
 - N is the expected number of fatalities.
 - Table 5-2 in the Fortify Geotech report states that F is equal to (i.e. the same) as the calculated risk for person most at risk. This is not correct. As stated above, F is the annual probability of N or more fatalities, which in this scenario is the likelihood $(P(H)) \times$ Probability of Spatial Impact $(P(S: H))$.
 - N is calculated by multiplying the average number of people exposed to the hazard by the vulnerability. The Fortify Geotech report has done this however they have also multiplied it by the conditional probability factor they introduced called “The probability of being Trapped”. This is incorrect.
- **Location of hazards** - The interpretive cross section (Cross Section A-A') presented in the report does not show / annotate the location of the hazards discussed in the report.
- **Additional hazard mode** - An earlier Arup report cited in the Fortify Geotech report postulated a “Deep seated landslide with scarp located upslope in lot 720. The rupture surface of that landslide was assumed running beneath existing retaining walls and Bobuck Lane embankment”. This seems inconsistent with the Fortify assumption/observation that the tension cracks on the inner lane of Bobuck Lane are associated with this slide. This implies that there may be another hazard mode that has not been recognised.
- **Landslide risk** - The previous ACT Geotech report discussed “signs of soil movements below Bobuck Lane” that could be evidence of a large-

scale landslide feature. This included a series of tension cracks in the asphalt road pavement on the outer lane of Bobuck Lane. The updated Fortify Geotech report states that “No further progress of the existing cracking was noted over the 1.5 years”. The report also mentions that “Two inclinometers (with a 12-month monitoring period) were installed on Bobuck Lane, including URS02 (~15m SW) and KTB25 (~32m SW), which were monitored by TfNSW. The authors did not have access to the monitoring data on the inclinometers.” The report goes on to say that this landslide feature is “inactive”. Without monitoring data at the site there is no basis to make this assumption. The observation that the tension cracks appear unchanged over the relatively short period 1.5 years is irrelevant as the presence of such cracks indicates past subsurface movement of an as yet undetermined nature.

- **Retaining wall condition** - The report states that “The initial inspection in April 2023 revealed signs of possible distress of retaining walls and soil movement underneath Bobuck Lane and the rear batter”, however these observations are dismissed in later discussion regarding retaining wall conditions and the estimation of likelihood of failure of these walls: “The inspected retaining walls are in good condition with no signs of failure”. This does not correlate with observations only a year ago and suggest such implications for movement have been discounted in the latest report.
- **Site investigations** - While the extent of investigations undertaken on the site remains limited, for the purposes of providing information to support risk assessments associated with the demolition works, the report generally complies with Section 4.1(c) of the Geotechnical Policy. However, it should be noted that more detailed geotechnical investigations will need to be carried out on the site to support any future developments on the site.
- **Buttressing** -
 - Table 5-1 of the Fortify Geotech states that “The existing retaining walls will be buttressed by caged gabion walls/ mass concrete or rock /recycled concrete buttress” and that the proposed buttressing design is provided in Section 6.3 of the report. However, Section 6.3 doesn’t have a buttressing design. Instead, this section of the report contains general recommendations for permanent batter slopes. It is also noted that Figure 5 attached to the report contains a conceptual sketch of the proposed stabilisation measures however there are no design drawings.
 - The placement of fill buttresses on the slope will impose a substantial surcharge on the slope, which may already be at a marginal level of stability. The Fortify Geotech report has not presented any geotechnical analyses for this proposed design. Geotechnical analyses need to be undertaken to ensure that the design can achieve an acceptable Factor of Safety.
- **Batters** - Section 6.3 and Figure 5 of the report state that “permanent unsupported cut and fill soil batters should be formed at no steeper than 2(H): 1(V).” Given that the existing slope is currently steeper than 2(H): 1(V) it would appear this recommendation is not achievable. This issue will need to be addressed in the next version of the Fortify Geotech report.