

## Statement of Environmental Effects

For

100 Hilltop Road Avalon Beach. NSW 2107

Lot 2. DP 260241

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### Site Description and Topography.

The subject site is an overgrown treed vacant block of 1004 square metres that has never been built on, trees and vegetation on the block are typical of the trees and vegetation in the surrounding areas. The high end of the site sits on the Eastern boundary and borders Hilltop Road. Hilltop Road and the grass verge are on a much higher level than the site proper with an existing concrete crib wall supporting the bank. The crib wall varies in height across the block from the top of the grass verge to the site proper, the wall height from the grass verge on the North Eastern side is 2.85 metres to the site proper while the wall height from the grass verge on the South Western side is 4.52 metres to the site proper.

The site proper slopes down sharply in a North Westerly direction from Hilltop Road at an average of 26 degrees from with vertical drop offs from the exposed rock outcrops throughout the site. The site also slopes down significantly across the block from the North East to the South West as is evident from the varying heights at each end of the Crib retaining wall at the front of the site, being 2.85m and 4.52m.

On the southern side of the site sits a three storey brick dwelling with a swimming pool and an elevated carport with the southern corner having a nil setback to the front boundary, on the northern side of the site sits a modest one storey timber clad dwelling with an elevated carport, both surrounded by mature trees and dense vegetation.

### Site Zoning

The site is classified as: **Zone C4 Environmental Living.**

The proposed dwelling is a permissible development for this zoning.

### Zone Objectives.

1. To provide low impact residential development in areas with special ecological, scientific or aesthetic values.
2. To ensure that residential development does not have an adverse effect on those values.
3. To provide for residential development of a low density and scale integrated with the landform and landscape.
4. To encourage development that retains and enhances riparian and foreshore vegetation and wildlife corridors.

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### **Applicable Controls**

Pittwater Local Environmental Plan 2014 (LEP)

Pittwater 21 Development Control Plan (DCP)

### **The Development Proposal.**

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The proposed development is for a two and part three level, four bedroom and home office dwelling with a carport and off street car parking for two cars at the front of the dwelling, a portico incorporating different design elements highlights the dwelling entry. A passenger lift is included to give access to all three levels for one of the owners who has mobility issues. Tiled verandahs are included at the rear of the dwelling on level one and two for outdoor living and entertaining purposes as the extremely steep site cannot be utilised for this purpose.

### **Objectives of the development.**

To build a new, environmentally sensitive, low impact and energy efficient dwelling that suits the needs of the owners, complies with the future NCC 2022 Volume 2, Part H 8 of the Livable Housing Design, meets the Zone Objectives for C4, that sits lightly on and respects the site on which it sits while keeping the footprint of the dwelling to the minimum, to minimise ground disturbance and retain rock outcropping, all without cut and fill to the sensitive site and with excavation only for the footings for the support columns of the dwelling and carparking platform.

### **Design Constraints.**

Due to the height difference from the road level down to the site proper, the drop offs from the rock outcrops, the steep slope of the site proper longitudinally and also across the site, designing a dwelling that meets the owners needs, the zone Objectives and the Objectives of the Development without adding a fourth level and increasing the dwelling footprint means the dwelling fails to comply with Pittwater LEP 2014 4.3 Height of Buildings and D1.11 Building Envelope for the dwelling and D1.9 for the carport structure. However, allowances are made in the DCP for non compliance on difficult steep sites such as these and Clause 4.6 Variation reports ( Request to vary a development standard. ) are included with this development application.

Relevant photos are included with the Clause 4.6 Variations.

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### Front Building Line

**Carport.** The carport setback from the front boundary line varies from 312 mm to 2.200m. A Clause 4.6 Variation request is included with this Development Application.

**Dwelling.** The front wall of the dwelling is setback 7.440m minimum from the front boundary line, the front of the entry portico is setback 6.859m from the front boundary line.

### Sides and Rear Building Lines.

**Southern Side Boundary setback. (Dwelling)** The minimum setback from the dwelling corners is 1.227m while the dwelling walls exceed this setback.

**Northern Side Boundary setbacks. (Dwelling)** The minimum setback from the dwelling walls is 2.518m, the remaining walls exceed this setback.

**Rear Building line. (Dwelling)** The minimum setback from the dwelling is 19.800m.

**Southern Side Boundary setbacks. (Carport)** The carport setback from the side boundary line is 218mm. A Clause 4.6 Variation request is included with this Development Application.

**Northern Side boundary setback. (Carport)** The carport setback from the side boundary line is 6.050m.

### Building Envelope.

Due to the **Topography** of the site and the **Design Constraints** this control is not achievable, a Clause 4.6 Variation request is included with this Development Application.

### Height of Buildings.

Due to the **Topography** of the site and the **Design Constraints** this control is not achievable, a Clause 4.6 Variation request is included with this Development application.

### Parking.

Off street vehicle parking with a carport for two cars is included in this Development Application.

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### Building Colours and Materials. (See page A1.3 of the plans.)

**Walls.** Walls colour to be Grey Days in a Matt finish. Grey Days is a Berger mid grey colour.

**Roof.** Roof colour to be Shale Grey in a Matt finish. Shale grey is a Colorbond mid grey colour also but differs in colour by several shades when compared to Berger Grey Days. This will provide a pleasing contrast between the two surfaces.

**Windows.** Windows colour will be Pearl White gloss.

The proposed development will present as a single level dwelling when viewed from the street, this will ensure that the visual prominence of the development is minimised. The chosen colours will harmonise with the colours of the mature trees and vegetation on the adjoining sites and with the Pittwater views through the corridor between the proposed development and the existing development on the southern side. The blade walls on the sides of the portico and the balustrade walls on each side of the carparking platform will be clad in Granite stone to add a different element to the visual quality while the glass block windows on the upper wall above the carport roof will minimise the visual prominence of the development while providing natural light to the bathrooms inside the dwelling. The clean lines of the carport structure, the pitched roof Portico, the Pearl White windows and the granite cladding will give an informal beachside appearance to the development.

### Construction, Retaining walls, Terracing and Undercroft areas.

The proposed development will be lightweight **construction** comprising timber framed and clad walls, timber framed floors and timber framed roofs with colorbond roofing. Excavations on the site will be necessary only for the footings to support the structural steel supports on which the development will sit, thus minimising disturbance to the natural landforms. Any excess excavated material will be removed from site.

No **retaining walls** are proposed as part of this development.

No **terracing** is proposed as part of this development.

Tiled deck areas to comply with BAL, Flame Zone on level 1 and level 2 will provide **outdoor entertaining** areas for the development

**Undercroft** areas will remain undisturbed apart from removal of the trees as nominated in the Arboricultural Impact Assessment report that is included with this development application.

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### **Fences.**

No boundary fencing is being proposed as part of this development application due to the topography of the site.

### **Private Open Space.**

Private open space is provided to the rear on level one in the form of a tiled deck structure of 31.00 square metres with direct access from both bedrooms and the family/games room, privacy screening to 1.800m high is included on the southern side of the main deck area for privacy to the existing dwelling on that side, no screening is included on the northern side of the deck as it 1.500m deep and will be used as a walkway from the two bedrooms to the main deck area off the family/games room.

Private open space is provided to the rear on level two with direct access from the kitchen/dining area and the living room in the form of a tiled deck structure, privacy screening to 1.800m high is included on the southern and northern sides of the deck areas for privacy to the existing dwellings on each side.

### **Character as viewed from a public place.**

The most prominent public view of the proposed dwelling will be level three and this view will be from the cul de sac on Hilltop Road, the other two lower levels will not be visible from the road.

When viewed from the cul de sac, the development will present as a single level dwelling, this will ensure the visual prominence and bulk and scale of the development is minimised, does not dominate the streetscape and is secondary to the existing landscaping, trees and vegetation. Different design elements, all with clean lines, various roof forms, arrangement of windows, separate Portico and natural stone cladding are included to give the development a street presence and ensures the development is at a human scale.

A carport for the two car spaces at the front of the dwelling is included and is sensitively incorporated into the design with a continuous front support beam to allow a roof covering only over the two car spaces (With a void in front of the Portico) and allow the support posts for the front beam support to be located into the side balustrade walls.

A 3D image of the street view is included.

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### Landscaped Area.

When completed the landscaped area of the site will be **73.10%** . **Site cover calculations** are on page **8**. A **Landscape Plan** and **Landscape Design Statement** are included with this application.

### Acoustic Privacy.

The proposed development is designed to minimise noise transfer between dwellings, side boundary setbacks are adhered to providing separation in terms of noise transfer and screening is provided on applicable sides of open balconies.

### Visual Privacy.

Careful design has ensured privacy to and between the adjoining properties with screening to sides of balconies and use of translucent glass block windows and hi lite openable windows.

### Solar Access.

The proposed development has been designed to maximise solar access during winter and control solar access during summer through the glazing, window awnings and roof coverings over the deck areas. A **Basix Report** and a **NATHERs Report** are included with this application. Refer to the Shadow Diagrams that are included with the plans.

### View Sharing.

View sharing from adjoining properties and from a public place have been considered in the design of this development (Bearing in mind the Development Constraints.) by keeping the bulk and scale to a minimum and also by minimising the dwelling footprint in consideration of the dwellings on each side of the development. The single storey dwelling to the North is set well back on its site at a low elevation with the surrounding mature trees and vegetation being the prominent view, the development setback on this side is 2.50m. Equitable view sharing is achieved on this side by the larger 2.50m setback on this side and by supporting the elevated deck on steel posts only. The elevated three storey dwelling to the South has its closest part at 6.30m from the side boundary with the prominent view being Pittwater. The minimum side boundary setback from the front corner of the proposed development on this side is 1.227m at the front increasing down the site with the irregular side boundary line to 5.089m. Equitable view sharing is achieved on this side by the large boundary setbacks from both properties, by keeping the development to three levels and therefore eliminating the need to extend the footprint down the site.

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### **Basix Certificate.**

A Basix Certificate is included with this application. Certificate Number: 1317630S

### **Bushfire Report.**

A Bushfire report by Bushfire Planning and design is included with this application.

### **Clause 4.6 Variations.**

A Clause 4.6 Variation is included with this application in relation to Height of Buildings and carport setbacks.

### **Energy Performance Report**

A NATHers report prepared by 10 Star Building Assessments is included with this application.

### **Geotechnical report.**

A Geotechnical report prepared by White Geotechnical Group is included with this application.

### **Sediment and Erosion Control Plan.**

See Site Management on page A1.6 of the plans for the Sediment and Erosion Control Plan.

### **Shadow Diagrams and Certification**

See Shadow Diagrams on page A1.7 to page a 1.9 of the plans for the Shadow Diagrams. Certification of the Shadow Diagrams by Ian Sercombe (Architect) is included with this application.

### **Waste Management Plan.**

A Waste management Plan is included with this application.

### **Arboricultural Impact Assessment Report.**

An Arboricultural Impact Assessment report by Arborlogix is included with this application.

### **Stormwater Management Plan and OSD Plan.**

Stormwater Management & OSD plans by Nitma Consulting are included with this application.

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### Landscape Plan.

An extensive Landscape Plan with a two year maintenance program prepared by Andrew Davies, Landscape Designer is included with this application.

### Site Cover Calculations.

Area.	Size	Square Metres
Driveway section.	7.70m x 1.00m (Average)	7.70
Top landing.	4.00m x 1.20m	4.80
Stairs, Level 1.	5.20m x 1.20m	6.24
Carport/Entrance	11.85m x 7.115m	84.30
Stairs Southern Side	3.45m x 1.20m	4.14
Stairs Southern Side	7.50m x 1.20m	9.00
Dwelling (Part)	12.40m x 2.01m	24.92
Dwelling (Remainder)	13.30m x 9.70m	129.01
Dwelling Footprint.		270.11
Site Area		1004.00
Landscaped Open Space		733.89 Equalling: <b>73.10%</b>

NB. The rear elevated cantilevered deck has not been included in these site cover calculations.

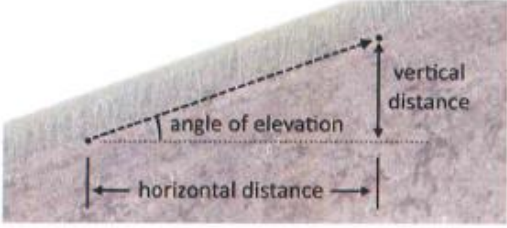
Prepared by: Oliver A Keaveney. Date: 23<sup>rd</sup> December2022



The proposed development as viewed from a public place.



Elevation grade calculator specific to the site.



Vertical distance ("rise") 13.03 [m](#) ▾

Horizontal distance ("run") 15.74 [m](#) ▾

Grade 0.8278

Grade in percentage 82.78 %

Angle of elevation 39.62 [deg](#) ▾

You might also see this elevation grade expressed in the ratio of 1 in 1.21. 😊

Check out 114 similar construction calculators

Air conditioner BTU → Aluminum weight →

Angle cut → ... 111 more

## Elevation Grade Calculator

Created by [Kenneth Alambra](#)

Reviewed by [Dominik Czernia](#), PhD candidate and [Jack Bowater](#)

Last updated: Sep 29, 2022



Table of contents:

- [What is elevation grade?](#)
- [Why do we need to know a particular terrain's elevation grade?](#)
- [How to calculate for the elevation grade and angle of elevation?](#)
- [Understanding elevation grade values](#)
- [How to determine the "rise" and "run."](#)
- [More about terrains](#)
- [FAQ](#)

This elevation grade calculator determines, and expresses in four different ways, the **slope** of an earthen surface. It may be given in terms of the angle of elevation from the horizontal plane, in terms of the percentage of deviation from the horizontal line, or simply in terms of the ratio of its "**rise to run**" or "**unit rise in run**". To calculate the slope of a line, and to learn more about slopes in general, you can check our [slope calculator](#). To learn more about how to find the **slope of the terrain** (or of the ground in general), keep reading.

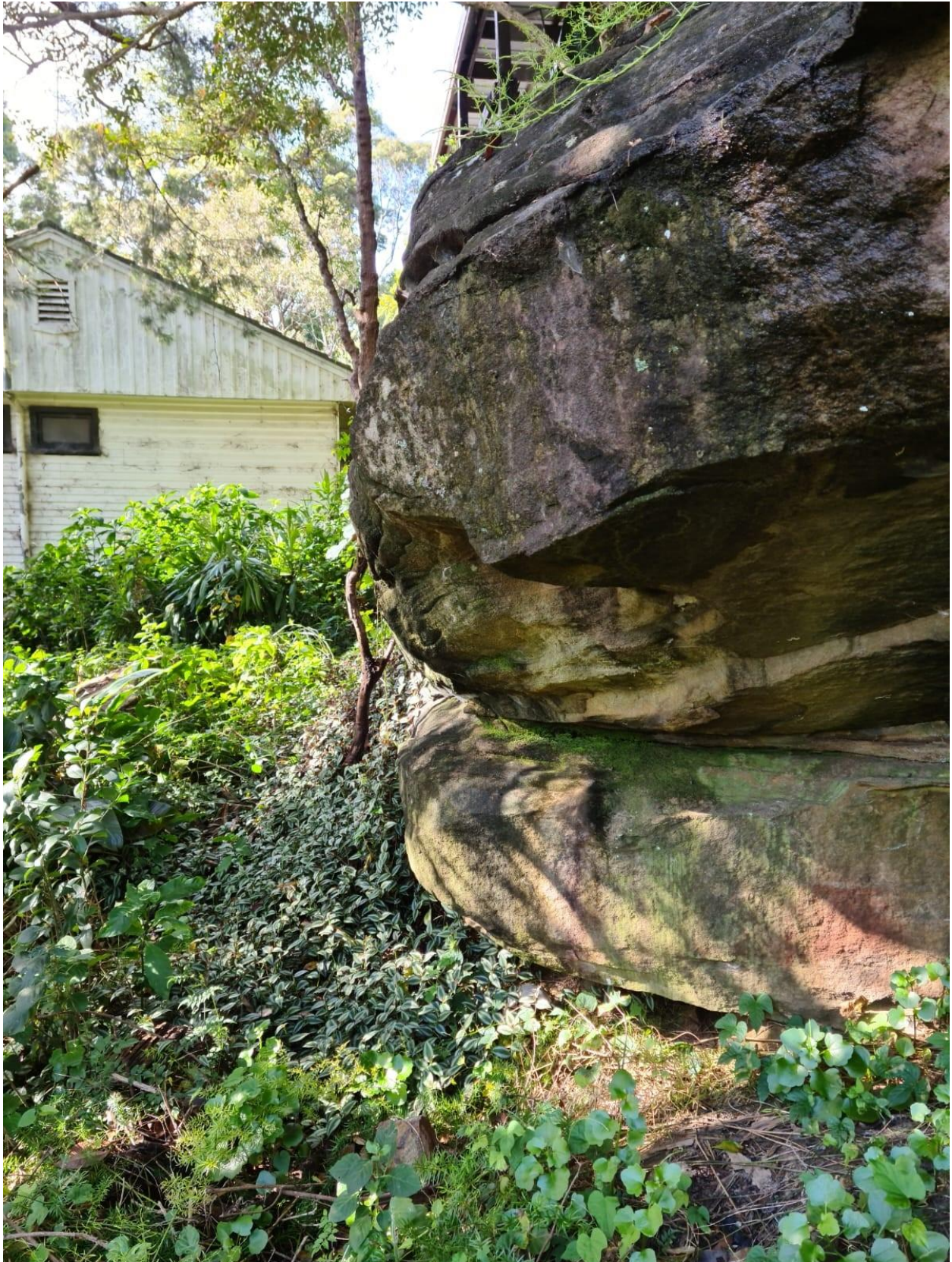


View of 102 Hilltop Road on the Southern side of the proposed development.





A sample of the rock drop-offs throughout the site.





The drop-off from the road level to the site proper.

