# GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
## FORM NO. 1 – To be submitted with Development Application

**Development Application for** _____
Name of Applicant

**Address of site** 11 Cook Terrace, Mona Vale

*The following checklist covers the minimum requirements to be addressed in a Geotechnical Risk* ***Declaration made by geotechnical engineer or engineering geologist or coastal engineer (where applicable) as part of a geotechnical report***

*I,* Ben White *on behalf of* White Geotechnical Group Pty Ltd
(Insert Name) (Trading or Company Name)

on this the 28/2/25 certify that I am a geotechnical engineer or engineering geologist or coastal engineer as defined by the Geotechnical Risk Management Policy for Pittwater - 2009 and I am authorised by the above organisation/company to issue this document and to certify that the organisation/company has a current professional indemnity policy of at least $10million.

I:
**Please mark appropriate box**

☒ have prepared the detailed Geotechnical Report referenced below in accordance with the Australia Geomechanics Society's Landslide Risk Management Guidelines (AGS 2007) and the Geotechnical Risk Management Policy for Pittwater - 2009

☒ am willing to technically verify that the detailed Geotechnical Report referenced below has been prepared in accordance with the Australian Geomechanics Society's Landslide Risk Management Guidelines (AGS 2007) and the Geotechnical Risk Management Policy for Pittwater - 2009

☐ have examined the site and the proposed development in detail and have carried out a risk assessment in accordance with Section 6.0 of the Geotechnical Risk Management Policy for Pittwater - 2009. I confirm that the results of the risk assessment for the proposed development are in compliance with the Geotechnical Risk Management Policy for Pittwater - 2009 and further detailed geotechnical reporting is not required for the subject site.

☐ have examined the site and the proposed development/alteration in detail and I am of the opinion that the Development Application only involves Minor Development/Alteration that does not require a Geotechnical Report or Risk Assessment and hence my Report is in accordance with the Geotechnical Risk Management Policy for Pittwater - 2009 requirements.

☐ have examined the site and the proposed development/alteration is separate from and is not affected by a Geotechnical Hazard and does not require a Geotechnical Report or Risk Assessment and hence my Report is in accordance with the Geotechnical Risk Management Policy for Pittwater - 2009 requirements.

☐ have provided the coastal process and coastal forces analysis for inclusion in the Geotechnical Report

**Geotechnical Report Details:**

Report Title: Geotechnical Report **11 Cook Terrace, Mona Vale**
Report Date: 28/2/25

Author: BEN WHITE

Author's Company/Organisation: **WHITE GEOTECHNICAL GROUP PTY LTD**

**Documentation which relate to or are relied upon in report preparation:**

Australian Geomechanics Society Landslide Risk Management March 2007.

White Geotechnical Group company archives.

I am aware that the above Geotechnical Report, prepared for the abovementioned site is to be submitted in support of a Development Application for this site and will be relied on by Pittwater Council as the basis for ensuring that the Geotechnical Risk Management aspects of the proposed development have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure, taken as at least 100 years unless otherwise stated and justified in the Report and that reasonable and practical measures have been identified to remove foreseeable risk.

Signature _____

Name Ben White

Chartered Professional Status MScGEOLAusIMM CP GEOL

Membership No. 222757

Company **White Geotechnical Group Pty Ltd**

# GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
## FORM NO. 1(a) - Checklist of Requirements for Geotechnical Risk Management Report for Development Application

**Development Application for** _____
Name of Applicant

**Address of site** 11 Cook Terrace, Mona Vale

*The following checklist covers the minimum requirements to be addressed in a Geotechnical Risk Management Geotechnical Report. This checklist is to accompany the Geotechnical Report and its certification (Form No. 1).*

**Geotechnical Report Details:**

Report Title: Geotechnical Report **11 Cook Terrace, Mona Vale**

Report Date: 28/2/25

Author: BEN WHITE

**Author's Company/Organisation: WHITE GEOTECHNICAL GROUP PTY LTD**

**Please mark appropriate box**

☒ Comprehensive site mapping conducted **20/2/25**
(date)

☒ Mapping details presented on contoured site plan with geomorphic mapping to a minimum scale of 1:200 (as appropriate)

☒ Subsurface investigation required
- ☐ No Justification _____
- ☒ Yes Date conducted **20/2/25**

☒ Geotechnical model developed and reported as an inferred subsurface type-section

☒ Geotechnical hazards identified
- ☒ Above the site
- ☒ On the site
- ☒ Below the site
- ☐ Beside the site

☒ Geotechnical hazards described and reported

☒ Risk assessment conducted in accordance with the Geotechnical Risk Management Policy for Pittwater - 2009
- ☒ Consequence analysis
- ☒ Frequency analysis

☒ Risk calculation

☒ Risk assessment for property conducted in accordance with the Geotechnical Risk Management Policy for Pittwater - 2009

☒ Risk assessment for loss of life conducted in accordance with the Geotechnical Risk Management Policy for Pittwater - 2009

☒ Assessed risks have been compared to "Acceptable Risk Management" criteria as defined in the Geotechnical Risk Management Policy for Pittwater - 2009

☒ Opinion has been provided that the design can achieve the "Acceptable Risk Management" criteria provided that the specified conditions are achieved.

☒ Design Life Adopted:
- ☒ 100 years
- ☐ Other _____
specify

☒ Geotechnical Conditions to be applied to all four phases as described in the Geotechnical Risk Management Policy for Pittwater - 2009 have been specified

☒ Additional action to remove risk where reasonable and practical have been identified and included in the report.

☐ Risk assessment within Bushfire Asset Protection Zone.

I am aware that Pittwater Council will rely on the Geotechnical Report, to which this checklist applies, as the basis for ensuring that the geotechnical risk management aspects of the proposal have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure, taken as at least 100 years unless otherwise stated, and justified in the Report and that reasonable and practical measures have been identified to remove foreseeable risk.

Signature _____

Name Ben White

Chartered Professional Status MScGEOLAusIMM CP GEOL

Membership No. 222757

Company **White Geotechnical Group Pty Ld**

# GEOTECHNICAL INVESTIGATION:

Alterations and Additions at **11 Cook Terrace, Mona Vale**

## 1. Proposed Development

**1.1** Lower and extend the existing garage and lower ground floor of the house by excavating to a maximum depth of ~3.0m.

**1.2** Extend the ground floor of the house at the N corner.

**1.3** Other minor internal and external alterations and additions.

**1.4** Details of the proposed development are shown on 16 drawings prepared by Hot House Architects, project number 1109HHA, drawings numbered DA001 to DA003, DA010, DA011, DA100, DA101, DA110, DA200, DA201, DA300 to DA302, DA500, DA600 and DA800, dated 27/2/25.

## 2. Site Description

**2.1** The site was inspected on the 20th February, 2025 and previously on the 17th November, 2020.

**2.2** This residential property is on the high side of the road and has a NW aspect. It is located on the gentle to moderately graded upper reaches of a hillslope. The natural slope rises across the property at an average angle of ~9°. The slope below the property gradually eases. The slope above the property continues at similar angles before reaching the crest of the hill.

**2.3** At the road frontage, a concrete driveway runs up the slope to a garage on the lower ground floor of the house (Photo 1). The part two storey house with garage (Photos 1 to 3) is supported on brick walls, concrete block walls, brick piers and a concrete slab. The exterior of the house shows no significant signs of movement. A stable and recently constructed pool is located at the uphill side of the house

(Photo 4). A stable low rendered masonry retaining wall supports a cut for the pool paving. A gently sloping lawn and timber shed are located between the pool and the uphill property boundary. No signs of slope instability were observed on the property. The adjoining neighbouring properties were observed to be in good order as seen from the street and subject property.

## 3. Geology

The Sydney 1:100 000 Geological Sheet indicates the site is underlain by the Newport Formation of the Narrabeen Group. This is described as interbedded laminite, shale, and quartz to lithic quartz sandstone.

## 4. Subsurface Investigation

Two hand Auger Holes (AH) were put down to identify the soil materials. Eight Dynamic Cone Penetrometer (DCP) tests were put down to determine the relative density of the overlying soil and the depth to weathered rock. The locations of the tests are shown on the site plan attached. It should be noted that a level of caution should be applied when interpreting DCP test results. The test will not pass through hard buried objects so in some instances it can be difficult to determine whether refusal has occurred on an obstruction in the profile or on the natural rock surface. This is expected to have occurred for DCP5. Due to the possibility that the actual ground conditions vary from our interpretation there should be allowances in the excavation and foundation budget to account for this. We refer to the appended "Important Information about Your Report" to further clarify. The results are as follows:

**AUGER HOLE 1** (~RL35.3) **–** AH1 (Photo 6)

| Depth (m) | Material Encountered |
|---|---|
| 0.0 to 0.3 | **TOPSOIL**, brown, moist, fine to medium grained with fine trace organic matter. |
| 0.3 to 0.5 | **CLAY**, light brown/orange, firm to stiff, moist. |

End of Hole @ 0.5m in firm to stiff clay. No watertable encountered.

**AUGER HOLE 2** (~RL31.7) **–** AH2 (Photo 7)

| **Depth (m)** | **Material Encountered** |
|---|---|
| 0.0 to 0.4 | **TOPSOIL**, clayey soil, dark brown, dry, fine to medium grained. |
| 0.4 to 0.7 | **CLAY**, orange, orange brown, firm to stiff, dry. |

End of Hole @ 0.7m in firm to stiff clay. No watertable encountered.

**DCP TEST RESULTS – Dynamic Cone Penetrometer**

Equipment: 9kg hammer, 510mm drop, conical tip. Standard: AS1289.6.3.2 -1997

| **Depth(m) Blows/0.3 m** | **DCP 1** (~RL34.8) | **DCP 2** (~RL35.3) | **DCP 3** (~RL35.4) | **DCP 4** (~RL35.7) | **DCP 5** (~RL34.5) | **DCP 6** (~RL32.7) | **DCP 7** (~RL31.7) | **DCP 8** (~RL33.8) |
|---|---|---|---|---|---|---|---|---|
| 0.0 to 0.3 | 6 | 6 | 4 | 3 | 16 | 17 | 9 | 8 |
| 0.3 to 0.6 | 8 | 8 | 8 | 18 | 20 | 24 | 8 | 8 |
| 0.6 to 0.9 | 13 | 12 | 21 | 20 | 15 | 4 | 9 | 9 |
| 0.9 to 1.2 | 40 | 30 | 30 | 30 | # | 38 | 17 | 20 |
| 1.2 to 1.5 | # | # | # | # | | 46 | 49 | 12 |
| 1.5 to 1.8 | | | | | | # | # | 13 |
| 1.8 to 2.1 | | | | | | | | # |
| | End of Test @ 1.2m | End of Test @ 1.1m | End of Test @ 1.1m | End of Test @ 1.1m | Refusal @ 0.8m | End of Test @ 1.5m | End of Test @ 1.5m | Refusal on Rock @ 1.7m |

#refusal/end of test. F=DCP fell after being struck showing little resistance through all or part of the interval.

***DCP Notes:***

DCP1 – End of Test @ 1.2m, DCP still very slowly going down, white impact dust on dry tip and orange clay in collar above tip.

DCP2 – End of Test @ 1.1m, DCP still very slowly going down, orange shale fragments on dry tip.

DCP3 – End of Test @ 1.1m, DCP still very slowly going down, orange shale fragments on dry tip.

DCP4 – End of Test @ 1.1m, DCP still very slowly going down, orange shale fragments on dry tip and orange clay in collar above tip.

DCP5 – Refusal @ 0.8m, DCP bouncing, orange sandy clay on moist tip.
DCP6 – End of Test @ 1.5m, DCP still slowly going down, orange clay and brown soil on moist tip.
DCP7 – End of Test @ 1.5m, DCP still slowly going down, orange clay and brown soil on moist tip.
DCP8 – Refusal on Rock @ 1.7m, DCP bouncing off rock surface, light and dark brown sandy soil on moist tip.

## 5. Geological Observations/Interpretation

The slope materials are colluvial at the near surface and residual at depth. The ground materials consist of a thin topsoil over Firm to Stiff clays. In the test locations, the clays merge into the weathered zone of the underlying rock at depths of between ~0.9m to ~1.5m below the current surface. The weathered zone of the underlying rock is interpreted as Extremely Low to Low Strength Shale. It is to be noted that this material is a soft rock and can appear as a mottled stiff clay when it is cut up by excavation equipment. See Type Section attached for a diagrammatical representation of the expected ground materials.

## 6. Groundwater

Ground water seepage is expected to move over the denser and less permeable clay and weathered shale layers in the sub-surface profile. Due to the slope and elevation of the block, the water table is expected to be many metres below the base of the proposed works.

## 7. Surface Water

No evidence of surface flows were observed on the property during the inspection. It is expected that normal sheet wash will move onto the site from above the property during heavy down pours.

## 8. Geotechnical Hazards and Risk Analysis

No geotechnical hazards were observed beside the property. The gentle to moderately graded slope that rises across the property and continues above and below is a potential

hazard (**Hazard One**). The proposed excavation is a potential hazard until retaining structures are in place (**Hazard Two**).

### Geotechnical Hazards and Risk Analysis - Risk Analysis Summary

| HAZARDS | Hazard One | Hazard Two |
|---|---|---|
| **TYPE** | The gentle to moderate slope that rises across the property and continues above and below failing and impacting on the property. | The proposed excavation for the garage and lower ground floor extension collapsing onto the worksite and undercutting the subject house during the excavation process. |
| **LIKELIHOOD** | 'Unlikely' ($10^{-4}$) | 'Possible' ($10^{-3}$) |
| **CONSEQUENCES TO PROPERTY** | 'Medium' (12%) | 'Medium' (25%) |
| **RISK TO PROPERTY** | 'Low' ($2 \times 10^{-5}$) | 'Moderate' ($2 \times 10^{-4}$) |
| **RISK TO LIFE** | $4.2 \times 10^{-7}$/annum | $7.4 \times 10^{-5}$/annum |
| **COMMENTS** | This level of risk is 'ACCEPTABLE' | This level of risk to life and property is 'UNACCEPTABLE'. To move the risk to 'ACCEPTABLE' levels, the recommendations in **Section 13** are to be followed. |

(See Aust. Geomech. Jnl. Mar 2007 Vol. 42 No 1, for full explanation of terms)

## 9. Suitability of the Proposed Development for the Site

The proposed development is suitable for the site. No geotechnical hazards will be created by the completion of the proposed development provided it is carried out in accordance with the requirements of this report and good engineering and building practice.

## 10. Stormwater

The fall is to the road. All stormwater from the proposed development is to be piped to the street drainage system through any tanks that may be required by the regulating authorities.

## 11. Excavations

An excavation to a maximum depth of ~3.0m is required for the proposed garage and lower ground floor extension. The excavation is expected to be through topsoil and clay, with Extremely Low to Low Strength Shale expected at depths of between ~0.9m to ~1.5m below the current surface.

Excavations through fill, soil, clay and Extremely Low to Low Strength Shale are expected to be carried out with an excavator and toothed bucket.

## 12. Vibrations

It is expected the proposed excavation will be carried out with an excavator and toothed bucket and the vibrations produced will be below the threshold limit for building or infrastructure damage using a domestic sized excavator up to 20 tonne.

## 13. Excavation Support Requirements

An excavation to a maximum depth of ~3.0m is required for the proposed garage and lower ground floor extension. The excavation comes underneath the existing house and flush with the perimeter walls + walls in foyer and entryway to remain.

Where the excavation comes underneath the existing house foundations, the structures supporting the house will need to be propped.

The existing house perimeter walls + walls in foyer and entryway to remain are to be underpinned to below the base of the excavation, prior to the excavation commencing. The extent of the area of the required underpinning is shown in orange on the attached Lower Ground Floor Plan. As there are vertical limits on the extent of the depth of underpin foundations several stages of underpinning and then excavation lowering will be required.

Underpinning is to follow the underpinning sequence ‘hit one miss two’. Under no circumstances is the bulk excavation to be taken to the edge of the wall and then underpinned. Underpins are to be constructed from drives that should not exceed 0.6m in

width along strip footings and should be proportioned according to footing size for other foundation types. Allowances are to be made for drainage through the underpinning to prevent a build-up of hydrostatic pressure. Underpins that are not designed as retaining walls are to be supported by retaining walls. The void between the retaining walls and the underpinning is to be filled with free-draining material such as gravel.

Where underpinning is not required (at the N corner of the excavation that is outside the footprint of the existing house), the soil portion of the excavation is to be battered temporarily at 1.0 Vertical to 2.0 Horizontal (26°) until the retaining walls are in place. Excavations through clay and shale are expected to stand at near vertical angles for short periods of time until the retaining walls are in place, provided the cut batters are kept from becoming saturated.

During the excavation process, the geotechnical consultant is to inspect the cut face in 1.5m intervals as it is lowered to ensure ground materials are as expected and that additional support is not required.

Upslope runoff is to be diverted from the cut faces by sandbag mounds or other diversion works. All unsupported cut batters are to be covered to prevent access of water in wet weather and loss of moisture in dry weather. The covers are to be tied down with metal pegs or other suitable fixtures so they cannot blow off in a storm. The materials and labour to construct the retaining walls are to be organised so on completion of the excavation they can be constructed as soon as possible. No excavations are to commence if heavy or prolonged rainfall is forecast. If the cut batters remain unsupported for more than a few days before the construction of the retaining walls they are to be temporarily supported until the retaining walls are in place.

All excavation spoil is to be removed from site following the current Environmental Protection Agency (EPA) waste classification guidelines.

## 14. Retaining Structures

For cantilever or singly propped retaining structures it is suggested the design be based on a triangular distribution of lateral pressures using the parameters shown in Table 1.

**Table 1 – Likely Earth Pressures for Retaining Structures**

| Unit | Earth Pressure Coefficients | | |
|---|---|---|---|
| | Unit weight ($kN/m^3$) | 'Active' $K_a$ | 'At Rest' $K_0$ |
| Topsoil | 20 | 0.40 | 0.55 |
| Residual Clays | 20 | 0.35 | 0.45 |
| Extremely Low to Low Strength Shale | 22 | 0.25 | 0.38 |

For rock classes refer to Pells et al "Design Loadings for Foundations on Shale and Sandstone in the Sydney Region".

It is to be noted that the earth pressures in Table 1 assume a level surface above the wall, do not account for any surcharge loads and assume retaining walls are fully drained. Ground materials and relevant earth pressure coefficients are to be confirmed on site by the geotechnical consultant.

All retaining structures are to have sufficient back-wall drainage and be backfilled immediately behind the structure with free draining material (such as gravel). This material is to be wrapped in a non-woven Geotextile fabric (i.e. Bidim A34 or similar), to prevent the drainage from becoming clogged with silt and clay. If no back-wall drainage is installed in retaining structures the full hydrostatic pressures are to be accounted for in the retaining structure design.

## 15. Site Classification

The site classification in accordance with AS2870-2011 is Class M.

## 16. Foundations

The proposed garage and lower ground floor extension is expected to be seated in Extremely Low Strength Shale or better at the uphill side. This is a suitable foundation material. On the downhill side where the weathered shale drops away with the slope, piers embedded no less than 0.6m into shale (as measured against the downhill side of each pier) will be required to maintain a uniform foundation material across the structure. This ground material is expected at depths of between ~0.9m to ~1.5m below the current surface. A maximum allowable bearing pressure of 600kPa can be assumed for footings embedded in Extremely Low Strength Shale or better. It should be noted that this material is a soft rock and a rock auger will cut through it so the builders should not be looking for refusal to end the footings.

The foundations supporting the existing house are currently unknown. Ideally, footings should be founded on the same footing material across the old and new portions of the structure. Where the footing material does change across the structure construction joints or similar are to be installed to prevent differential settlement, where the structure cannot tolerate such movement in accordance with a 'Class M' site.

As the bearing capacity of weathered shale reduces when it is wet, we recommend the footings be dug, inspected, and poured in quick succession (ideally the same day if possible). If the footings get wet, they will have to be drained and the soft layer of clay or shale on the footing surface will have to be removed before concrete is poured.

If a rapid turnaround from footing excavation to the concrete pour is not possible a sealing layer of concrete may be added to the footing surface after it has been cleaned and inspected.

The proposed driveway can be supported off the natural surface after any organic matter has been stripped. A maximum allowable bearing pressure of 100kPa can be assumed for soil of the natural surface.

***NOTE***: If the contractor is unsure of the footing material required it is more cost effective to get the geotechnical professional on site at the start of the footing excavation to advise on

footing depth and material. This mostly prevents unnecessary over excavation in clay like shaly rock but can be valuable in all types of geology.

## 17. Geotechnical Review

The structural plans are to be checked and certified by the geotechnical engineer as being in accordance with the geotechnical recommendations. On completion, a Form 2B will be issued. This form is required for the Construction Certificate to proceed.

## 18. Inspections

The client and builder are to familiarise themselves with the following required inspections as well as council geotechnical policy. We cannot provide geotechnical certification for the owners or the regulating authorities if the following inspections have not been carried out during the construction process.

- During the excavation process, the geotechnical consultant is to inspect the cut face in 1.5m intervals as it is lowered to ensure ground materials are as expected and that additional support is not required.

- All footings (including underpin foundations) are to be inspected and approved by the geotechnical consultant while the excavation equipment and contractors are still onsite and before steel reinforcing is placed or concrete is poured.

White Geotechnical Group Pty Ltd.

Reviewed By:

Dion Sheldon
BEng(Civil)(Hons) MIEAust NER,
Geotechnical Engineer.

Nathan Gardner B.Sc. (Geol. & Geophys. & Env. Stud.)
AIG., RPGeo Geotechnical & Engineering.
No. 10307
Engineering Geologist & Environmental Scientist.


*Photo 1*


*Photo 2*


*Photo 3*


*Photo 4*


*Photo 5: AH1 – Downhole is from left to right.*


*Photo 6: AH2 – Downhole is from left to right.*

## Important Information about Your Report

It should be noted that Geotechnical Reports are documents that build a picture of the subsurface conditions from the observation of surface features and testing carried out at specific points on the site. The spacing and location of the test points can be limited by the location of existing structures on the site or by budget and time constraints of the client. Additionally, the test themselves, although chosen for their suitability for the particular project, have their own limiting factors. The testing gives accurate information at the location of the test, within the confines of the test's capability. A geological interpretation or model is developed by joining these test points using all available data and drawing on previous experience of the geotechnical consultant. Even the most experienced practitioners cannot determine every possible feature or change that may lie below the earth. All of the subsurface features can only be known when they are revealed by excavation. As such, a Geotechnical report can be considered an interpretive document. It is based on factual data but also on opinion and judgement that comes with a level of uncertainty. This information is provided to help explain the nature and limitations of your report.

With this in mind, the following points are to be noted:

- If upon the commencement of the works the subsurface ground or ground water conditions prove different from those described in this report, it is advisable to contact White Geotechnical Group immediately, as problems relating to the ground works phase of construction are far easier and less costly to overcome if they are addressed early.

- If this report is used by other professionals during the design or construction process, any questions should be directed to White Geotechnical Group as only we understand the full methodology behind the report's conclusions.

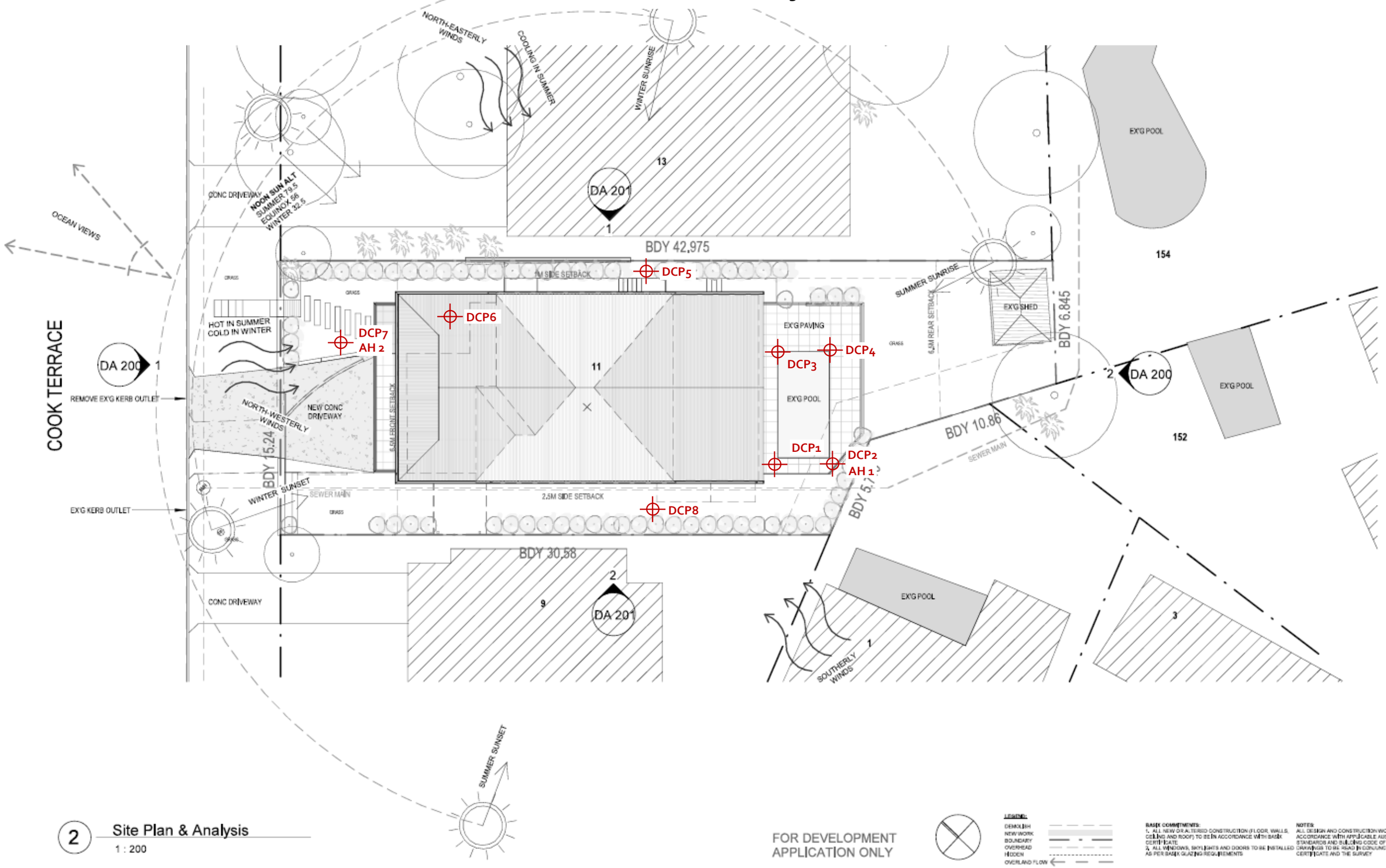
- The report addresses issues relating to your specific design and site. If the proposed project design changes, aspects of the report may no longer apply. Contact White Geotechnical if this occurs.

- This report should not be applied to any other project other than that outlined in section 1.0.

- This report is to be read in full and should not have sections removed or included in other documents as this can result in misinterpretation of the data by others.

- It is common for the design and construction process to be adapted as it progresses (sometimes to suit the previous experience of the contractors involved). If alternative design and construction processes are required to those described in this report, contact White Geotechnical Group. We are familiar with a variety of techniques to reduce risk and can advise if your proposed methods are suitable for the site conditions.

## SITE PLAN – showing test locations




2 Site Plan & Analysis
1 : 200

FOR DEVELOPMENT APPLICATION ONLY

LEGEND:
DEMOLISH
NEW WORK
BOUNDARY
OVERHEAD
HIDDEN
OVERLAND FLOW

BASIX COMMITMENTS:
1. ALL NEW OR ALTERED CONSTRUCTION (FLOOR, WALLS, CEILING AND ROOF) TO BE IN ACCORDANCE WITH BASIX CERTIFICATE.
2. ALL WINDOWS, SKYLIGHTS AND DOORS TO BE INSTALLED AS PER BASIX GLAZING REQUIREMENTS

NOTES:
ALL DESIGN AND CONSTRUCTION WORKS TO BE IN ACCORDANCE WITH APPLICABLE AUSTRALIAN STANDARDS AND BUILDING CODE OF AUSTRALIA. DRAWINGS TO BE READ IN CONJUNCTION WITH BASIX CERTIFICATE AND THE SURVEY


HOT HOUSE ARCHITECTS
Nominated Architect: Wade Stewart Cogle
NSW ARB Registration #: 10971
m: 0433 775 480
info@hothousestudio.com
p.o. box 26 newport nsw 2106
abn: 355 0579 1074


PRINT DATE: 27/02/2025 4:44:45 PM PRINT SIZE: A3

NOTES: Builder is to examine the site and verify conditions and dimensions. Any discrepancies must be brought to the architect's attention. Use figured dimensions only. Do not scale drawings. All work shall comply with the Building Code of Australia and relevant Australian Standards.



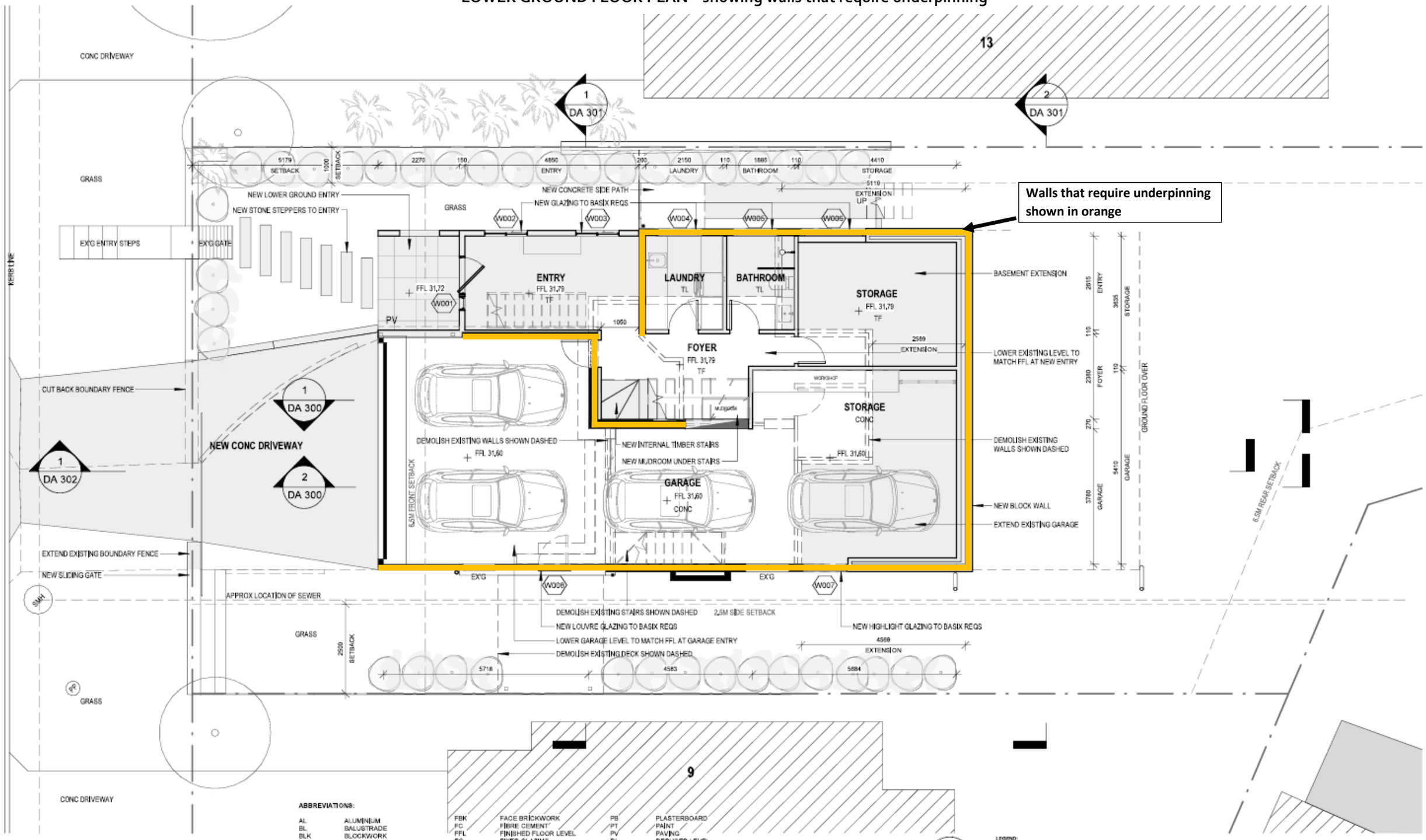
| ISSUE | DESCRIPTION | DATE |
|---|---|---|
| 01 | DA Issue | 27/02/25 |

CLIENT: SONJA & JEREMY MILLAR THOMSON
PROJECT: ALTERATIONS & ADDITIONS
ADDRESS: 11 COOK TERRACE, MONA VALE NSW
LOT: 24 DP: 16692

SITE PLAN
PROJECT NO. 1109HHA
DATE 27 February 2025
DRAWN BY: JG
CHECKED BY: WC
SCALE: As indicated

DA 010

# LOWER GROUND FLOOR PLAN – showing walls that require underpinning




1 Lower Floor
1 : 100

**ABBREVIATIONS:**

| | |
|---|---|
| AL | ALUMINIUM |
| BL | BALUSTRADE |
| BLK | BLOCKWORK |
| BT | BRICK TILE |
| CONC | CONCRETE |
| COS | CHECK ON SITE |
| CR | CEMENT RENDER |
| CT | CERAMIC TILE |
| DM | DEMOLISH |
| DP | DOWNPIPE |
| EXG | EXISTING |
| FBK | FACE BRICKWORK |
| FC | FIBRE CEMENT |
| FFL | FINISHED FLOOR LEVEL |
| FG | FIXED GLAZING |
| FR | FRIDGE |
| G | GUTTER |
| GL | GLAZING |
| HL | HEAD LEVEL |
| MDF | MEDIUM DENSITY FIBREBOARD |
| MR | METAL ROOF |
| OG | OPAQUE GLAZING |
| PB | PLASTERBOARD |
| PT | PAINT |
| PV | PAVING |
| RL | REDUCED LEVEL |
| SK | SKYLIGHT |
| TBA | TO BE ADVISED |
| TF | TIMBER FLOOR |
| WB | WEATHERBOARD CLADDING |
| WL | WALL LIGHT |
| WT1 | WALL TILE TYPE 1 |

FOR DEVELOPMENT APPLICATION ONLY

LEGEND:
DEMOLISH
NEW WORK
BOUNDARY
OVERHEAD
HIDDEN
OVERLAND FLOW

**BASIX COMMITMENTS:**
1. ALL NEW OR ALTERED CONSTRUCTION (FLOOR, WALLS, CEILING AND ROOF) TO BE IN ACCORDANCE WITH BASIX CERTIFICATE
2. ALL WINDOWS, SKYLIGHTS AND DOORS TO BE INSTALLED AS PER BASIX GLAZING REQUIREMENTS

**NOTES:**
ALL DESIGN AND CONSTRUCTION WORKS TO BE IN ACCORDANCE WITH APPLICABLE AUSTRALIAN STANDARDS AND BUILDING CODE OF AUSTRALIA. DRAWINGS TO BE READ IN CONJUNCTION WITH BASIX CERTIFICATE AND THE SURVEY


HOT HOUSE ARCHITECTS
Nominated Architect: Wade Stewart Cogle
NSW ARB Registration #: 10971
m: 0433 775 480
info@hothousestudio.com
p.o. box 26 newport nsw 2106
abn: 355 0579 1074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NOTES: Builder is to examine the site and verify conditions and dimensions. Any discrepancies must be brought to the architect's attention. Use figured dimensions only. Do not scale drawings. All work shall comply with the Building Code of Australia and relevant Australian Standards.



| ISSUE | DESCRIPTION | DATE |
|---|---|---|
| 01 | DA Issue | 27/02/25 |

CLIENT: SONJA & JEREMY MILLAR THOMSON

PROJECT: ALTERATIONS & ADDITIONS

ADDRESS: 11 COOK TERRACE, MONA VALE NSW

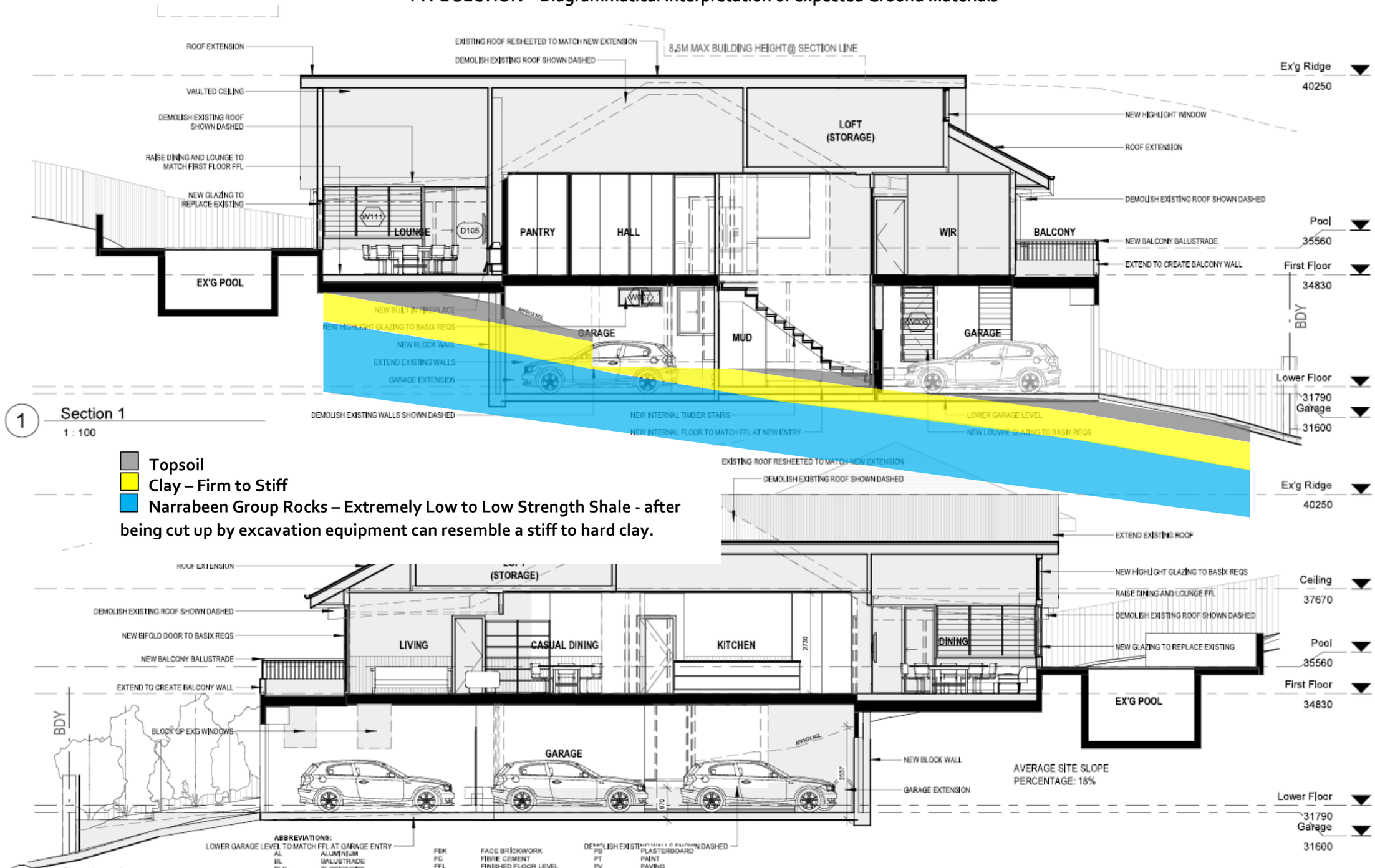
LOT: 24 DP: 16692

LOWER FLOOR

PROJECT NO. 1109HHA
DATE 27 February 2025
DRAWN BY: JG
CHECKED BY: WC
SCALE: As indicated

DA 100

# TYPE SECTION – Diagrammatical Interpretation of expected Ground Materials




Topsoil
Clay – Firm to Stiff
Narrabeen Group Rocks – Extremely Low to Low Strength Shale - after being cut up by excavation equipment can resemble a stiff to hard clay.

ABBREVIATIONS:
LOWER GARAGE LEVEL TO MATCH FFL AT GARAGE ENTRY

| | |
|---|---|
| AL | ALUMINIUM |
| BL | BALUSTRADE |
| BLK | BLOCKWORK |
| BT | BRICK TILE |
| CONC | CONCRETE |
| COS | CHECK ON SITE |
| CR | CEMENT RENDER |
| CT | CERAMIC TILE |
| DM | DEMOLISH |
| DP | DOWNPIPE |
| EXG | EXISTING |
| FBK | FACE BRICKWORK |
| FC | FIBRE CEMENT |
| FFL | FINISHED FLOOR LEVEL |
| FG | FIXED GLAZING |
| FR | FRIDGE |
| G | GUTTER |
| GL | GLAZING |
| HL | HEAD LEVEL |
| MDF | MEDIUM DENSITY FIBREBOARD |
| MR | METAL ROOF |
| OG | OPAQUE GLAZING |
| PB | PLASTERBOARD |
| PT | PAINT |
| PV | PAVING |
| RL | REDUCED LEVEL |
| SK | SKYLIGHT |
| TBA | TO BE ADVISED |
| TF | TIMBER FLOOR |
| WB | WEATHERBOARD CLADDING |
| WL | WALL LIGHT |
| WT1 | WALL TILE TYPE 1 |

DEMOLISH EXISTING WALLS SHOWN DASHED

FOR DEVELOPMENT APPLICATION ONLY

LEGEND:
DEMOLISH
NEW WORK
BOUNDARY
OVERHEAD
HIDDEN

BASIX COMMITMENTS:
1. ALL NEW OR ALTERED CONSTRUCTION (FLOOR, WALLS, CEILING AND ROOF) TO BE IN ACCORDANCE WITH BASIX CERTIFICATE
3. ALL WINDOWS, SKYLIGHTS AND DOORS TO BE INSTALLED AS PER BASIX GLAZING REQUIREMENTS

NOTES:
ALL DESIGN AND CONSTRUCTION WORKS TO BE IN ACCORDANCE WITH APPLICABLE AUSTRALIAN STANDARDS AND BUILDING CODE OF AUSTRALIA.
DRAWINGS TO BE READ IN CONJUNCTION WITH BASIX CERTIFICATE AND THE SURVEY


HOT HOUSE ARCHITECTS
Nominated Architect: Wade Stewart Cogle
NSW ARB Registration #: 10971
m: 0433 775 480
info@hothousestudio.com
p.o. box 26 newport nsw 2106
abn: 355 0579 1074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SECTIONS

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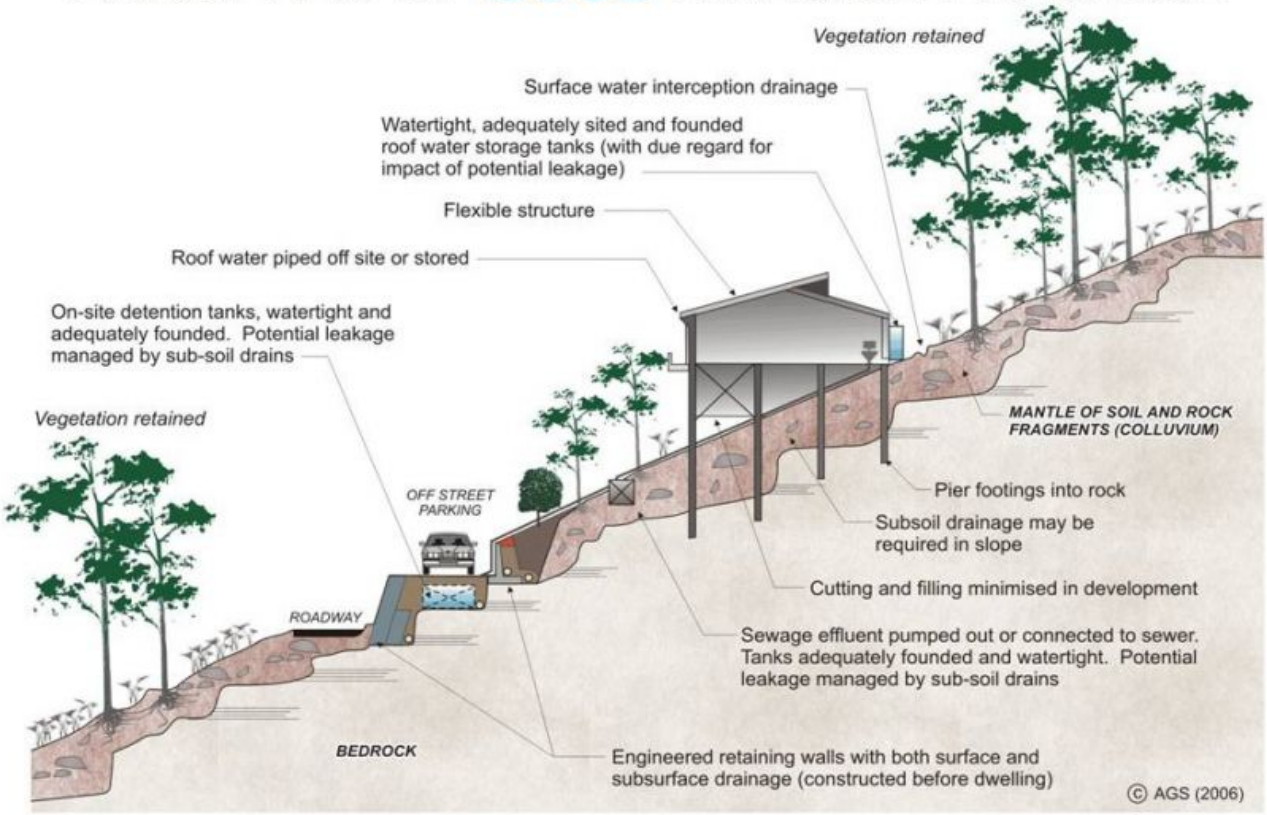
| DATE | 27 February 2025 | | |
| LOT: | 24 | DRAWN BY: | JG |
| DP: | 16692 | CHECKED BY: | WC |
| SCALE: | As indicated | | |

DA 300

# EXAMPLES OF **GOOD** HILLSIDE PRACTICE




# EXAMPLES OF **POOR** HILLSIDE PRACTICE