




Reference number 3358

Member of the Fire Protection Association of Australia

Lot 30, DP 13686, 888 Barrenjoey Road, Palm Beach, NSW 2108.

Thursday, 13 May 2021

Prepared and certified by:	Matthew Willis BPAD – Level 3 Certified Practitioner Certification No: BPD-PA 09337		13/05/2021
Can this proposal comply with AS3959-2018 (inc section 7.5, 7.5.1, 7.5.2, 7.5.3, 7.5.4 (where applicable) of the Rural Fire Services document Planning for Bushfire Protection 2019)?	Yes		
What is the recommended AS 3959-2018 level of compliance?	BAL-FZ and BAL-40		
Is referral to the RFS required?	Yes		
Can this development comply with the requirements of PBP?	Yes		
Plans by "Wyer & Co" (Appendix 1) dated.	26/04/2021		

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Bushfire Risk Assessment

Thursday, 13 May 2021

Contact

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Wyer & Co

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Potts Point NSW 2011

9362333

Subject Property

Lot 30, DP 13686

888 Barrenjoey Road

Palm Beach NSW 2108

BUSHFIRE RISK ASSESSMENT CERTIFICATE

THIS FORM IS TO BE COMPLETED BY A RECOGNISED CONSULTANT IN BUSHFIRE RISK ASSESSMENT IN ACCORDANCE WITH SECTION 79BA 1(b) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 NO 203

Property Address	Lot 30, DP 13686, number 888 Barrenjoey Road Palm Beach
Description of the Proposal	Alterations and additions to an existing dwelling
Plan Reference	26/04/2021
BAL Rating	BAL-FZ and BAL-40
Does the Proposal Rely on Alternate Solutions?	Yes

I, **Matthew Willis of Bushfire Planning Services Pty Ltd** have carried out a bushfire risk assessment on the above-mentioned proposal and property. A detailed Bushfire Assessment Report is attached which includes the submission requirements set out in Planning for Bushfire Protection 2019 together with recommendations as to how the relevant Specifications and requirements are to be achieved.

I hereby advise, in accordance with Section 4.14 of the Environmental Planning and Assessment Act 1979 No 203:

1. That I am a person recognised by the NSW Rural Fire Service as a qualified consultant in bushfire risk assessment; and
2. That subject to the recommendations contained in the attached Bushfire Risk Assessment Report the proposed development conforms to the relevant specifications and requirements*

*The relevant specifications and requirements being specifications and requirements of the document entitled Planning for Bush Fire Protection prepared by the NSW Rural Fire Service in co-operation with the Department of Planning and any other document as prescribed by Section 4.14 of the Environmental Planning and Assessment Act 1979 No 203.

I am aware that the Bushfire Assessment Report, prepared for the above-mentioned site is to be submitted in support of a development application for this site and will be relied upon by Northern Beaches Council as the basis for ensuring that the bushfire risk management aspects of the proposed development have been addressed in accordance with Planning for Bushfire Protection 2019.

REPORT REFERENCE	Thursday, 13 May 2021
REPORT DATE	Thursday, 13 May 2021
CERTIFICATION NO/ACCREDITED SCHEME	FPA A BPAD A BPD-PA 09337

Attachments:

- Bushfire Risk Assessment Report
- Recommendations

SIGNATURE: ---  ----- **DATE:** -----Thursday, 13 May 2021

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1 Executive Summary.

Bushfire Planning Services has been requested by Erica Rowe from Wyer & Co to supply a bushfire compliance report on lot 30, DP 13686, 888 Barrenjoey Road, Palm Beach.

The works proposed for the subject lot are for the alterations and additions to an existing dwelling. The works are separated into 2 areas, one to the east of the existing dwelling and another to the west. Both areas are separated from each other by the existing house, see attached plans for details.

The works to the east of the house are adjacent to areas of unmanaged vegetation and will be required to be constructed to BAL-Flame Zone requirements under either AS3959 or the Nash standard. The works to the west of the house achieve a separation distance large enough to enable the works to be undertaken to BAL-40 requirements. The flame length from the hazard to the east has been calculated and is less than the available separation distance.

The subject lot is on the eastern side of Barrenjoey Road and at its closest point to the hazard the proposed new work has a separation distance to the east of approximately 18m.

The vegetation that is considered to be the hazard to this proposal is situated on land that slopes down slope away from the property at an angle of approximately 26.66°.

For the purposes of this assessment this vegetation is considered to be Forest.

The remaining vegetation within the study area is contained within the boundaries of established allotments and is managed land and of low threat to this proposal.

The calculations and assumptions outlined in this report show that the development will be required to comply with the construction requirements of AS 3959-2018 BAL-FZ on its exposed eastern aspects, and BAL-40 on the western aspects and any additional construction requirements contained within section 7.5, 7.5.1, 7.5.2, 7.5.3, 7.5.4 (where applicable) of the Rural Fire Services document Planning for Bushfire Protection 2019.

The following table is a summary of the pertinent findings of this assessment.

Aspect	North	North East	South East	West
Vegetation type	Managed land	Managed land/forest	Managed land/forest	Managed land
Slope	N/A	All Upslope and Flat Land	All Upslope and Flat Land	N/A
Setback within lot 30	N/A	9m	18m	N/A
Setback outside lot 30	N/A	0m	0m	N/A
Total setback	N/A	9m	18m	N/A
Bal level	N/A	BAL-FZ	BAL-40	N/A

Aspect	North	North East	South East	West
<i>Note: The previous table is a summary of the significant variables used to determine the highest BAL for this proposal. THIS TABLE IS NOT INTENDED FOR CONSTRUCTION! Only the highest BAL level is shown, aspects marked as N/A will still have a BAL. Refer to section 11 for construction requirements for these other aspects.</i>				

2 General.

This proposal relates to the alterations and additions to an existing dwelling on the subject lot and its ability to comply with the rules and regulations for building in a bushfire prone area.

The methodology used on this report is based on Planning for Bushfire Protection 2019 (PBP) as published by the New South Wales Rural Fire Service.

Any wording that appears in *blue italics* is quotes from Planning for Bushfire Protection 2019. Some of the measurements used in this report have been taken from aerial photographs and as such are approximate only.

3 Block Description.

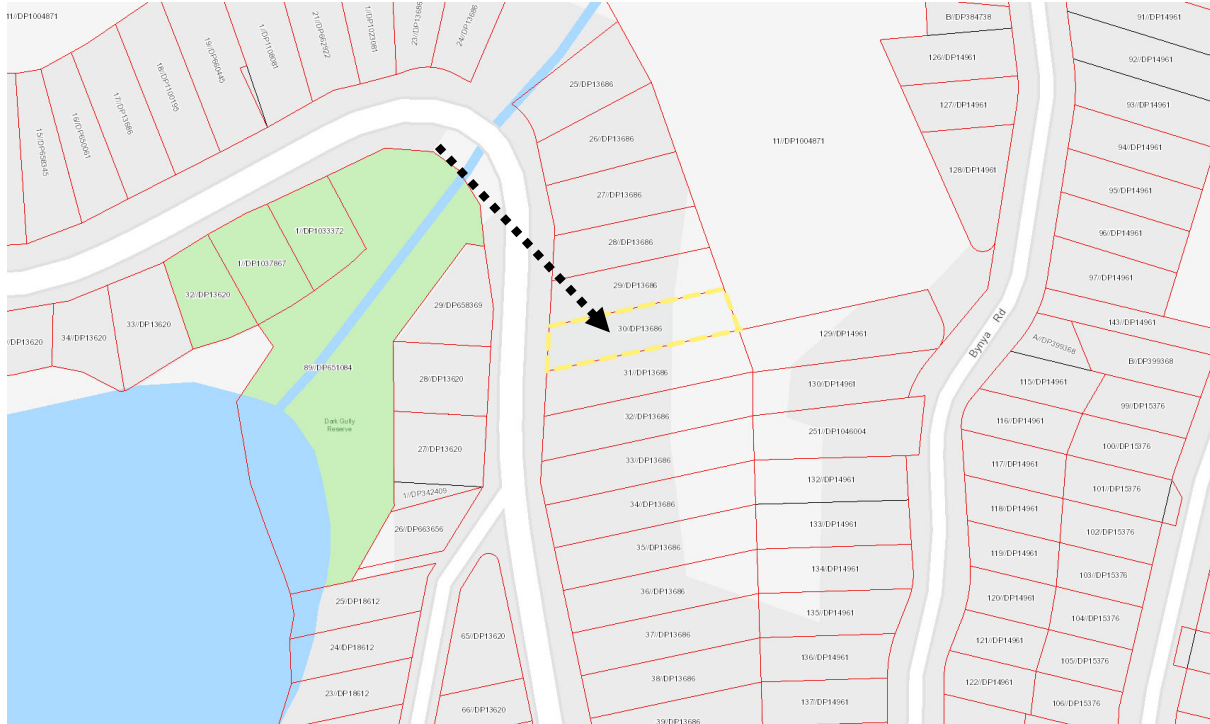
The subject block is situated on the eastern side of Barrenjoey Road in an established area of Palm Beach.

The lot currently contains a multi-level class 1 dwelling.

The lands surrounding the proposed site on the subject lot to a distance of at least 18m contain existing development or land that is otherwise not considered to be a significant bushfire hazard.

- Lot; 30
- DP; 13686.
- LGA; Northern Beaches.
- Area; 1003m².
- Address; 888 Barrenjoey Road, Palm Beach.

This section has been left blank.



Map 1 shows the cadastral layout around the subject lot.



Map 2 is an extract from the councils' bushfire prone land map. The map shows lot 30 to be within the buffer zone of category 1 bushfire vegetation.

4 Vegetation.

The study area for the vegetation is 140m surrounding the subject block.

The vegetation within the study area for this development is considered to be largely managed land.

The major potential hazard to this development is the vegetation within an area of undeveloped land to the east.

For the purpose of this assessment and compliance with Planning for Bushfire Protection this area of undeveloped land is considered to be Forest and is the hazard to this proposal.



Photo 1 - An overview of the vegetation within the general area.

This area has been left intentionally blank.



Photo 2 is a closer view of the vegetation in the area.

Table 1 outlines the vegetation orientation and distance from the development area.

Aspect	North	North East	South East	West
Vegetation type	Managed land	Managed land/forest	Managed land/forest	Managed land
Setback within lot 30	N/A	9m	18m	N/A
Off-site setback	N/A	0m	0m	N/A
Total setback	N/A	9m	18m	N/A

Table 1 - Any aspect marked with "N/A" in the table above indicates that it is considered there is none or only a secondary hazard in that direction.

This area has been left intentionally blank.

5 Known constraints on subject block.

I have not been informed or know of any places of cultural or environmental significance within the boundaries of the subject block. Given the nature of the surrounding land it is considered highly unlikely that anything of significance will be affected by this development.

6 Slope.

The slope of the land beneath the hazard that is most likely to influence bushfire behaviour has been calculated by topographical map analysis to a distance of 100m from the subject lot.

An extract of the topographical map for the area is shown below and the relevant slope analysis is shown in Table 2.



Table 2 shows the slope beneath the hazard.

Aspect	North	North East	South East	West
Slope	N/A	All Upslope and Flat Land	All Upslope and Flat Land	N/A

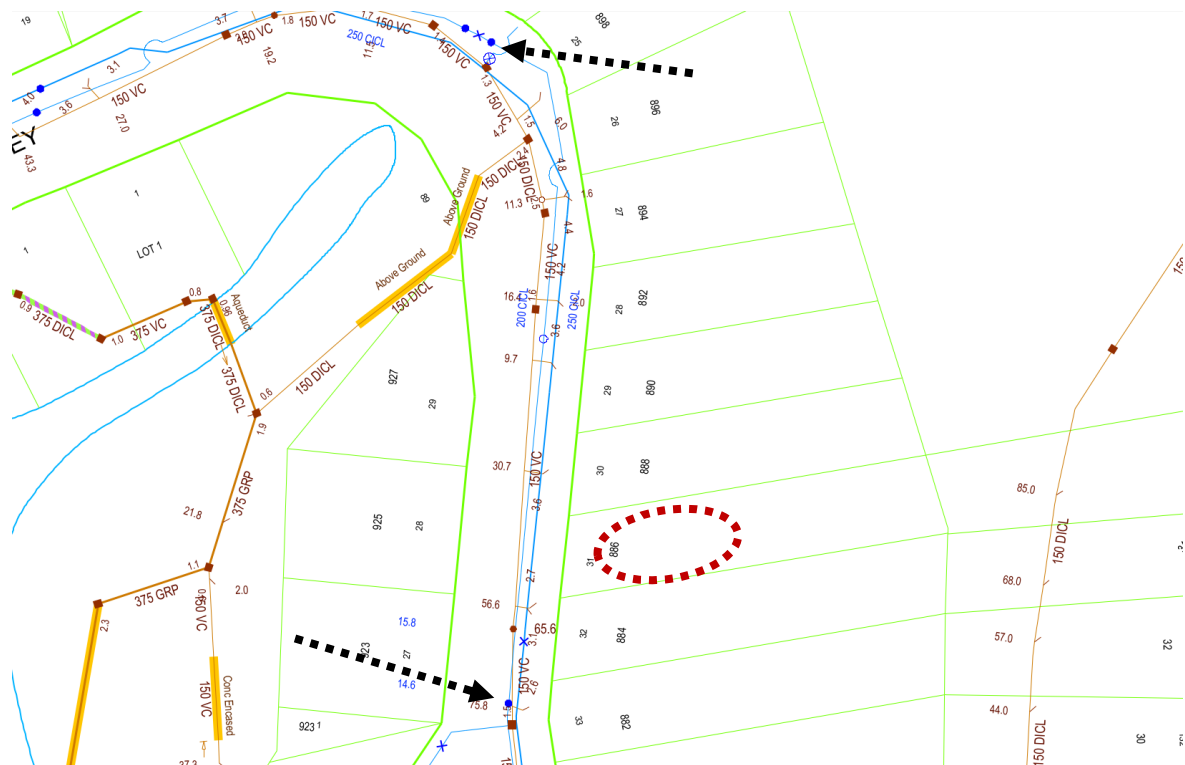
Table 2 - Any aspect marked with "N/A" in the table above indicates that it is considered there is no hazard in that direction.

7 Utilities.

7.1 Water.

The subject block will be serviced by a reticulated water supply.

The following map is an extract from Sydney waters hydrant map. Hydrants are indicated by a blue dot on a blue line. As can be seen there is at least one hydrant point indicated within close proximity of the property.



7.2 Electricity

Main's electricity is available to the block.

7.3 Gas

It is unknown if either bottled or mains gas is to be altered or installed in this proposal.

8 Access/Egress.

Access to the development site will be via a short private driveway from Barrenjoey Road.

All roads in the vicinity are considered to be capable of carrying emergency services vehicles and pedestrian access onto the lot is also considered to be adequate.

Analysis of development and recommendation.

9 Compliance with Planning for Bushfire Protection setbacks.

Based on the development design, vegetation classification, effective slope estimates and setback distance already outlined in this report the subject development will be required to comply with the deemed to satisfy construction requirements of AS 3959-2018 BAL-FZ and the RFS requirements on all fire prone aspects.

The following table is an extract from table A1.12.5 of Planning for Bushfire Protection 2019. This table is used to calculate the BAL for a proposal in an area with an FDI of 100.

The variables that have already been outlined in this assessment are highlighted in red with the highest BAL highlighted in yellow.

ALL UPSLOPE AND FLAT LAND	Keith Vegetation Formation	BUSHFIRE ATTACK LEVEL (BAL)				
		BAL-FZ	BAL-40	BAL-29	BAL-19	BAL-12.5
	Arid-Shrublands (acacia and chenopod)	< 5	5 -< 6	6 -< 9	9 -< 14	14 -< 100
	Forest (wet and dry sclerophyll) including Coastal Swamp Forest, Pine Plantations and Sub-Alpine Woodland	< 18	18 -< 24	24 -< 33	33 -< 45	45 -< 100
	Forested Wetland (excluding Coastal Swamp Forest)	< 7	7 -< 10	10 -< 14	14 -< 21	21 -< 100
	Freshwater Wetlands	< 4	4 -< 5	5 -< 7	7 -< 11	11 -< 100
	Grassland	< 8	8 -< 10	10 -< 15	15 -< 22	22 -< 50
	Grassy and Semi-Arid Woodland (including Mallee)	< 9	9 -< 12	12 -< 18	18 -< 26	26 -< 100
	Rainforest	< 8	8 -< 11	11 -< 16	16 -< 23	23 -< 100
	Short Heath	< 7	7 -< 9	9 -< 14	14 -< 20	20 -< 100
	Tall Heath	< 12	12 -< 16	16 -< 23	23 -< 32	32 -< 100

For the purpose of this assessment the eastern aspect has been chosen as the most potentially hazardous aspect due to the effective slope, potential run of fire and the prevailing fire weather of the area.

10 Siting.

The current site provides adequate separation between the proposed building and surrounding vegetation for a compliant structure to be built.

Recommendation;

Nil.

11 Construction and design.

All new work is to be undertaken in accordance with the relevant requirements of the NCC and AS3959 2018. The following recommendations are a minimum level of construction. Constructing the proposal to a higher level than that recommended is allowable under AS3959.

Recommendation; all new work to the eastern aspects.

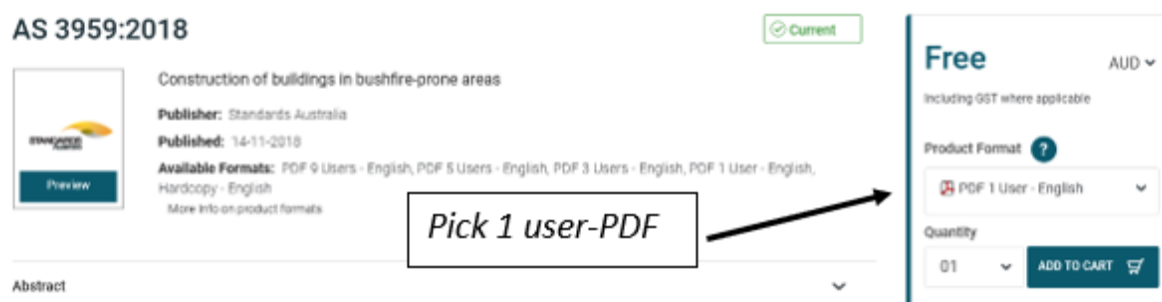
1. New construction on the eastern aspects shall comply with the requirements of section 3 of Australian Standard AS3959-2018 "Construction of buildings in bush fire-prone areas" and,
2. New construction on the eastern aspects shall also comply with the requirements of BAL-FZ Australian Standard AS3959-2018 "Construction of buildings in bush fire-prone areas" or NASH Standard "National Standard Steel Framed Construction in Bushfire Areas" and any additional construction requirements contained within section 7.5, 7.5.1, 7.5.2, 7.5.3, 7.5.4 (where applicable) of the Rural Fire Services document Planning for Bushfire Protection 2019.
3. And/or materials used are to be non-combustible.

Recommendation; all new work to the western aspect.

4. New construction on the western aspects shall comply with the requirements of section 3 of Australian Standard AS3959-2018 "Construction of buildings in bush fire-prone areas" and,
5. New construction on the western aspects shall also comply with the requirements of and BAL-40 Australian Standard AS3959-2018 "Construction of buildings in bush fire-prone areas" or NASH Standard "National Standard Steel Framed Construction in Bushfire Areas" and any additional construction requirements contained within section 7.5, 7.5.1, 7.5.2, 7.5.3, 7.5.4 (where applicable) of the Rural Fire Services document Planning for Bushfire Protection 2019.
6. And/or materials used are to be non-combustible.

AS-3959 2018 is now available as PDF for free from;

https://infostore.saiglobal.com/en-au/standards/as-3959-2018-122340_saig_as_as_2685241/



12 Utilities.

12.1 Water.

The subject lot will be connected to a reticulated water supply however the nearest hydrant point is beyond the maximum allowable distance for the furthest part of the proposal. As a result, a Static Water Supply (SWS) is required to be established and maintained on site to the following specifications.

7. A 5,000 L water supply is to be made available for firefighting purposes and be constructed in accordance with the following features.
 - A connection for firefighting purposes is located within the IPA or non-hazard side and away from the structure; 65mm Storz outlet with a ball valve is fitted to the outlet;
 - Ball valve and pipes are adequate for water flow and are metal;
 - Supply pipes from tank to ball valve have the same bore size to ensure flow volume;
 - Underground tanks have an access hole of 200mm to allow tankers to refill direct from the tank;
 - A hardened ground surface for truck access is supplied within 4m;
 - Above-ground tanks are manufactured from concrete or metal;
 - Raised tanks have their stands constructed from non-combustible material or bush fire-resisting timber (see Appendix F of AS 3959);
 - Unobstructed access can be provided at all times;
 - Underground tanks are clearly marked;
 - Tanks on the hazard side of a building are provided with adequate shielding for the protection of firefighters;
 - All exposed water pipes external to the building are metal, including any fittings;
 - A pump is to be provided with a minimum 5hp or 3kW petrol or diesel-powered pump, and are shielded against bush fire attack; any hose and reel for firefighting connected to the pump shall be 19mm internal diameter; and
 - If fitted, fire hose reels are constructed in accordance with AS/NZS 1221:1997 and installed in accordance with the relevant clauses of AS 2441:2005.
 - An 'SWS' marker shall be obtained from the local NSW Rural Fire Service and positioned for ease of identification by brigade personnel and other users of the SWS. In this regard:
 - a) Markers must be fixed in a suitable location so as to be highly visible; and
 - b) Markers should be positioned adjacent to the most appropriate access for the static water supply.
8. If the pool is to be used as a SWS recommendation 7 may be ignored however the following applies;
 - Unobstructed access can be provided at all times;

- Unless adequately shielded, all water pipes less than 300mm below the ground are metal, including any fittings;
- A pump is to be provided with a minimum 5hp or 3kW petrol or diesel-powered pump, and are shielded against bush fire attack; any hose and reel for firefighting connected to the pump shall be a minimum of 19mm internal diameter; and
- If fitted, fire hose reels are constructed in accordance with AS/NZS 1221:1997 and installed in accordance with the relevant clauses of AS 2441:2005.
- An 'SWS' marker shall be obtained from the local NSW Rural Fire Service and positioned for ease of identification by brigade personnel and other users of the SWS. In this regard:
 - a) Markers must be fixed in a suitable location so as to be highly visible; and
 - b) Markers should be positioned adjacent to the most appropriate access for the static water supply.

12.2 Electricity and Gas.

Recommendation;

9. Any new electricity or gas connections are to comply with the requirements of table 7.4a of Planning for Bushfire Protection.

13 Asset Protection Zone (APZ).

The Asset Protection Zone is *“An area surrounding a development managed to reduce the bushfire hazard to an acceptable level. The width of an APZ will vary with slope, vegetation and construction level”*.

Recommendation;

10. At the commencement of building works and in perpetuity the property around the building shall be managed as follows and as outlined within Planning for Bushfire Protection 2019 and the New South Wales Rural Fire Service document standards for Asset Protection Zones:
 - North as an Inner Protection Area to the property boundary.
 - East as an Inner Protection Area for at least 10m.
 - South as an Inner Protection Area for to the property boundary.
 - West as an Inner Protection Area to the property boundary.

14 Landscaping.

Recommendation;

11. Any new fencing is to be constructed in accordance with section 7.6 of Planning for Bushfire Protection 2019.

12. Any new landscaping to the site is to comply with the principles of Appendix 4 and section 3.7 of Planning for Bush Fire Protection 2019. In this regard the following landscaping principles are, where applicable, to be incorporated into the development¹:
- Suitable impervious areas being provided immediately surrounding the building such as courtyards, paths and driveways;
 - Grassed areas/mowed lawns/ or ground cover plantings being provided in close proximity to the building;
 - Restrict planting in the immediate vicinity of the building which may over time and if not properly maintained come in contact with the building;
 - Maximum tree cover should be less than 30%, and maximum shrub cover less than 20%;
 - Planting should not provide a continuous canopy to the building (i.e. trees or shrubs should be isolated or located in small clusters);
 - When considering landscape species consideration needs to be given to estimated size of the plant at maturity;
 - Avoid species with rough fibrous bark, or which retain/shed bark in long strips or retain dead material in their canopies;
 - Use smooth bark species of trees species which generally do not carry a fire up the bark into the crown;
 - Avoid planting of deciduous species that may increase fuel at surface/ ground level (i.e. leaf litter);
 - Avoid climbing species to walls and pergolas;
 - Locate combustible materials such as woodchips/mulch, flammable fuel stores away from the building;
 - Locate combustible structures such as garden sheds, pergolas and materials such timber garden furniture way from the building; and
 - Use of low flammability vegetation species.

15 Constraints on the subject block.

None known.

Recommendation;

Nil

¹Refer to referenced documents for a complete description.

16 Access/Egress.

All roads in the area are considered to be capable of handling emergency service vehicles. Access from the roadway onto the property is also considered to be adequate for firefighting purposes.

Recommendation

Nil

17 Compliance or non compliance with the specifications and requirements for bushfire protection measures.

APZ A defensible space is provided onsite. An APZ is provided and maintained for the life of the development.	Achievable with the implementation of the recommendations in section 13
SITING AND DESIGN: Buildings are sited and designed to minimise the risk of bush fire attack.	Achievable with the implementation of the recommendations in section 10
CONSTRUCTION STANDARDS: It is demonstrated that the proposed building can withstand bush fire attack in the form of wind, smoke, embers, radiant heat and flame contact.	Achievable with the implementation of the recommendations in section 11
ACCESS Safe, operational access is provided (and maintained) for emergency services personnel in suppressing a bush fire while residents are seeking to relocate, in advance of a bush fire, (satisfying the intent and performance criteria for access roads in sections 4.1.3 and 4.2.7).	Achievable with the implementation of the recommendations in section 16
WATER AND UTILITY SERVICES: <ul style="list-style-type: none"> adequate water and electricity services are provided for firefighting operations Gas and electricity services are located so as not to contribute to the risk of fire to a building. 	Achievable with the implementation of the recommendations in section 12
LANDSCAPING: <ul style="list-style-type: none"> it is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind driven embers to cause ignitions. 	Achievable with the implementation of the recommendations in section 14

18 Conclusions.

Based on the above report and with the implementation of the recommendation contained within this report the consent authority should determine that this development can comply with the requirements of AS 3959-2018 and 'Planning for Bushfire Protection' guidelines.

The recommendations contained within this report are to be implemented in their entirety. Changing one aspect may have an adverse effect on the rest of the recommendations.

Bushfires are affected by many external influences such as climactic conditions, vegetation type, moisture content of the fuel, slope of the land and human intervention to name a few and are difficult to predict.

This report does not intend to provide a guarantee that the subject property will survive if a bushfire should impact the surrounding area. The purpose of this report is to show the developments level of compliance or in some cases non-compliance with the New South Wales legislation regarding building in bushfire prone areas.

Where non-compliance is found measures will be suggested that should make the building less susceptible to the various attack mechanisms of a bushfire and comply with the performance requirements of the Building Code of Australia.

The opinions expressed in this report are based on the writers' experience and interpretation of the relevant guidelines and standards. Notwithstanding the above, these guidelines and standards are open to interpretation. All care has been taken to ensure that the opinions expressed in this report are consistent with past successful outcomes.

Some of the information used in the compilation of this assessment has been provided by the proponent or the proponent's representatives. While we believe this information to be true and have accepted the information in good faith however this company or its representatives will not accept any responsibility if the provided information is determined to be incorrect.

This document is to assist the consenting authorities with their assessment of this proposal. The recommendations contained in this assessment reflect the normal conditions that are typically applied by the consent authority for a proposal such as this however the conditions of consent for the proposal will be supplied by the certifying authority on approval of the development and may not necessarily be the same as the recommendations of this assessment.

The recommendations in this assessment are for planning guidance only, construction details and compliance with all building requirements are the responsibility of the Architect/Designer, Builder and Certifier.

To avoid confusion, unless specifically referenced by the consenting authority, it is strongly recommended that once this proposal has been approved that this document is no longer referenced and that only the official conditions of consent as reflected in documentation by the certifying body are used for construction guidance.

If any further clarification is required for this report, please do not hesitate to contact me using the details above.

Yours Sincerely



Matthew Willis

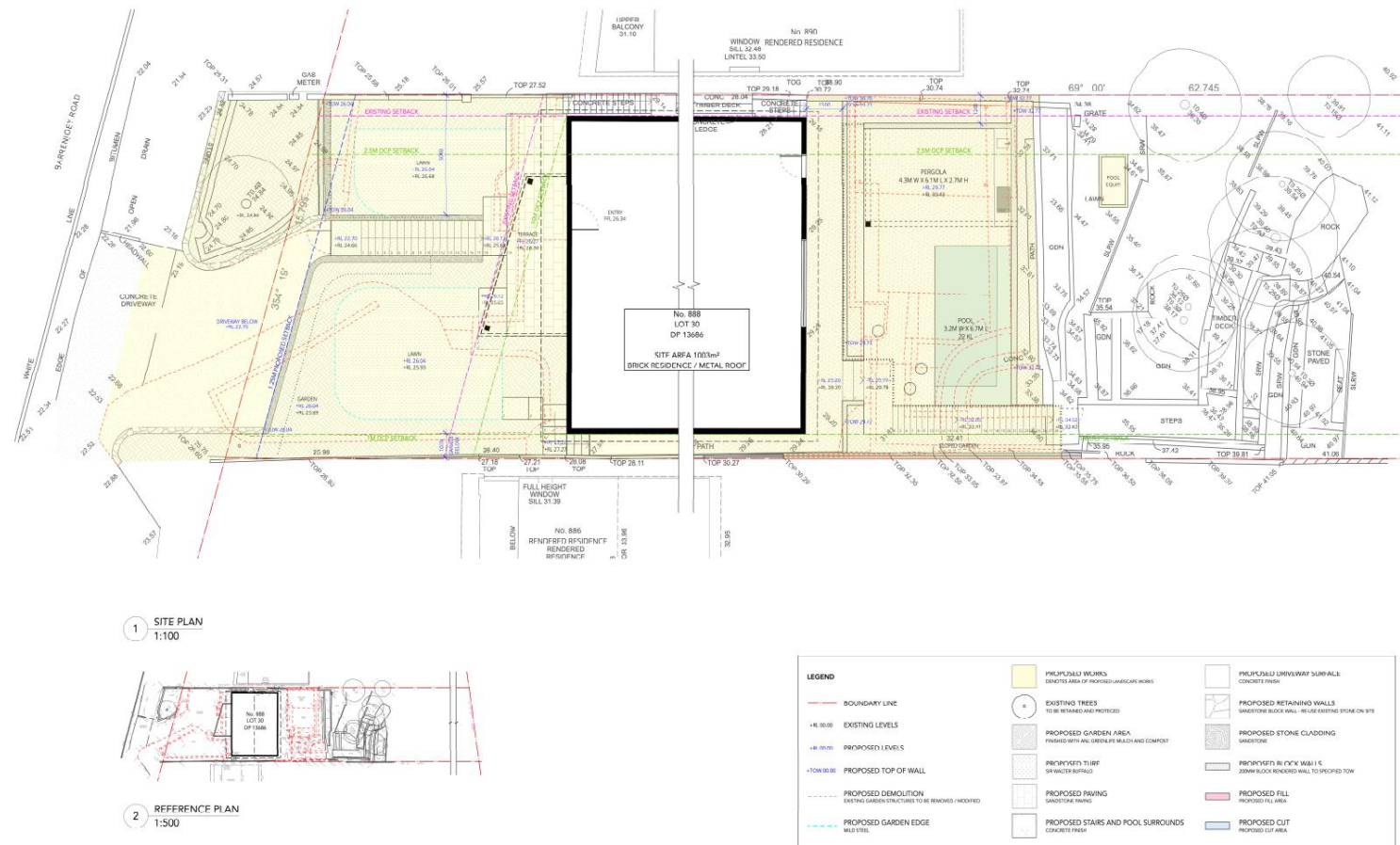
Grad Dip Planning for Bushfire Prone Areas

Bushfire Planning Services Pty Limited

19 References.

- *Australian Building Codes Board (2019). National Construction Code Volume One - Building Code of Australia. ABCB*
- *Australian Building Codes Board (2019). National Construction Code Volume two - Building Code of Australia. ABCB.*
- *Keith, D.A. (2004). Ocean Shores to Desert Dunes: The Native Vegetation of New South Wales and the ACT. NSW Department of Environment and Conservation.*
- *National Association of Steel Framed Housing (2014). "Steel Framed Construction in Bush Fire Areas. NASH*
- *Ramsay, C and Rudolph, L (2003) "Landscape and Building Design for Bush fire Areas". CSIRO Publishing, Collingwood.*
- *Resources and Energy NSW (2016). ISSC 3 Guide for the Managing Vegetation in the Vicinity of Electrical Assets. NSW Government*
- *Rural Fire Service NSW (2005) "Standards for Asset Protection Zones"*
- *Standards Australia (2018). "AS 3959, Construction of buildings in bush fire prone areas".*
- *Standards Australia (2018). "AS/NZS 1530.8.1 Methods for fire tests on building materials, components and structures - Tests on elements of construction for buildings exposed to simulated bush fire attack - Radiant heat and small flaming sources".*
- *Standards Australia (2018). "AS/NZS 1530.8.2 Methods for fire tests on building materials, components and structures - Tests on elements of construction for buildings exposed to simulated bush fire attack - Large flaming sources".*
- *Standards Australia (2014). "AS/NZS 1596 The storage and handling of LP Gas".*

20 Appendix 1 - Plans .



WYER & CO



PROJECT:
KEIGHERY RESIDENCE
888 Barrenjoey Rd, Palm Beach NSW 2108

DRAWING TITLE:
DEVELOPMENT APPLICATION
SITE PLAN

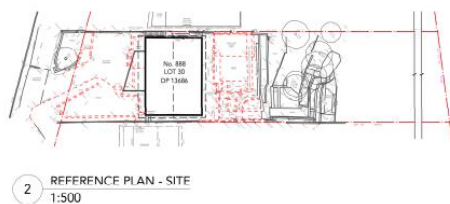
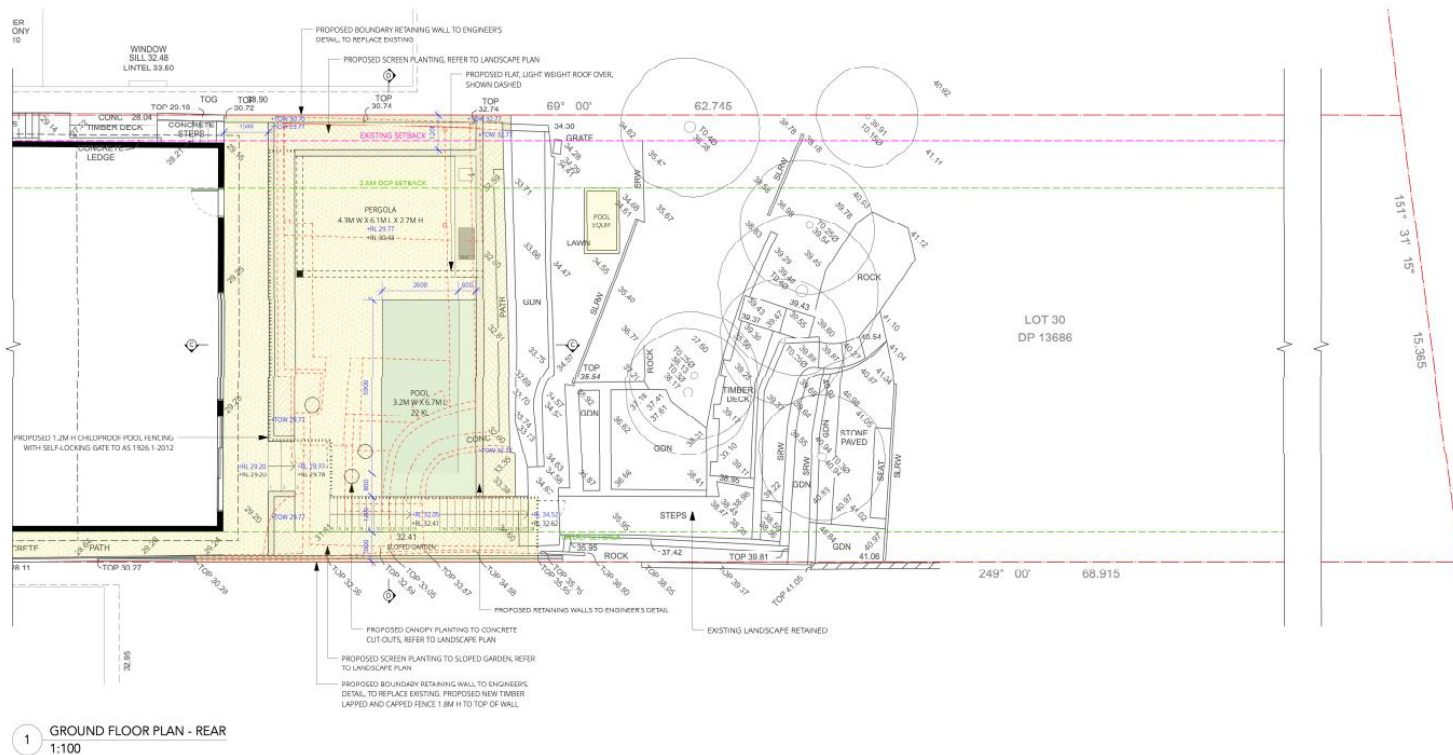
DATE: 20.03.2021
DRAWING NO: DA-1-0
SHEET: 1
SHEET COUNT: 12
DATE: 26.04.2021
A2
DRAWN BY: EB
CHECKED BY: EB
APPROVED BY: EB



2 GROUND FLOOR PLAN - FRONT
1:100

LEGEND	
	BOUNDARY LINE
	EXISTING LEVELS
	PROPOSED LEVELS
	PROPOSED TOP OF WALL
	PROPOSED DIMINUTION EXISTING GARDEN STRUCTURES TO BE REMOVED / MODIFIED
	PROPOSED GARDEN EDGE WALL STYLE
	EXISTING TREES TO BE RETAINED AND PROTECTED
	PROPOSED WORKS SCAPE AREA OF PROPOSED LANDSCAPE WORKS
	PROPOSED GARDEN AREA FINISHED WITH ANL GREENLIPS MULCH AND COMPOST
	PROPOSED TURF SEE WATER BUFFALO
	PROPOSED DRIVEWAY/SLIPWAY CONCRETE FINISH
	PROPOSED PAVING SANDSTONE PAVING
	PROPOSED STAIRS AND POOL SURROUNDS CONCRETE FINISH
	PROPOSED RETAINING WALLS SANDSTONE BLOCK WALL - 150mm EXISTING STONE ON SITE
	PROPOSED STONE CLADDING SANDSTONE
	PROPOSED RENDER FINISH CONCRETE FINISH
	PROPOSED ALUMINUM WALL 200mm BLOCK RENDERED WALL TO SPECIFIED TON
	PROPOSED FILL PROPOSED FILL AREA
	PROPOSED CUT PROPOSED CUT AREA

JOB No.	20.052	DATE	26.04.2021	A2
DRAWING No.	DA_5.0	DESIGN BY	ER	
REV	1	Paper/drawings shall take precedence over scale. Corrections must verify all dimensions, as all before continuing the work.		



LEGEND		
— BOUNDARY LINE	PROPOSED WORKS DENOTES AREA OF PROPOSED LANDSCAPE WORKS	PROPOSED RETAINING WALLS SANDSTONE BLOCK WALL - RE-USE EXISTING STONE ON SITE
+RL 00.00 EXISTING LEVELS	PROPOSED GARDEN AREA FINISHED WITH ANL GREENFIS MULCH AND COMPOST	PROPOSED STONE CLADDING SANDSTONE
+RL 00.00 PROPOSED LEVELS	PROPOSED TURF SIR WALTER BUFFALO	PROPOSED RENDER FINISH CONCRETE FINISH
+TOP 00.00 PROPOSED TOP OF WALL	PROPOSED DRIVEWAY SURFACE CONCRETE FINISH	PROPOSED BLOCK WALL 1.5 200MM BLOCK RENDERED WALL TO SPECIFIED TOP
--- PROPOSED DIMENSION EXISTING GARDEN STRUCTURES TO BE REMOVED / MODIFIED	PROPOSED PAVING SANDSTONE PAVING	PROPOSED FILL PROPOSED FILL AREA
--- PROPOSED GARDEN EDGE MULTISTEP	PROPOSED STAIRS AND POOL SURROUNDS CONCRETE FINISH	PROPOSED CUT PROPOSED CUT AREA
○ EXISTING TREES TO BE RETAINED AND PROTECTED		

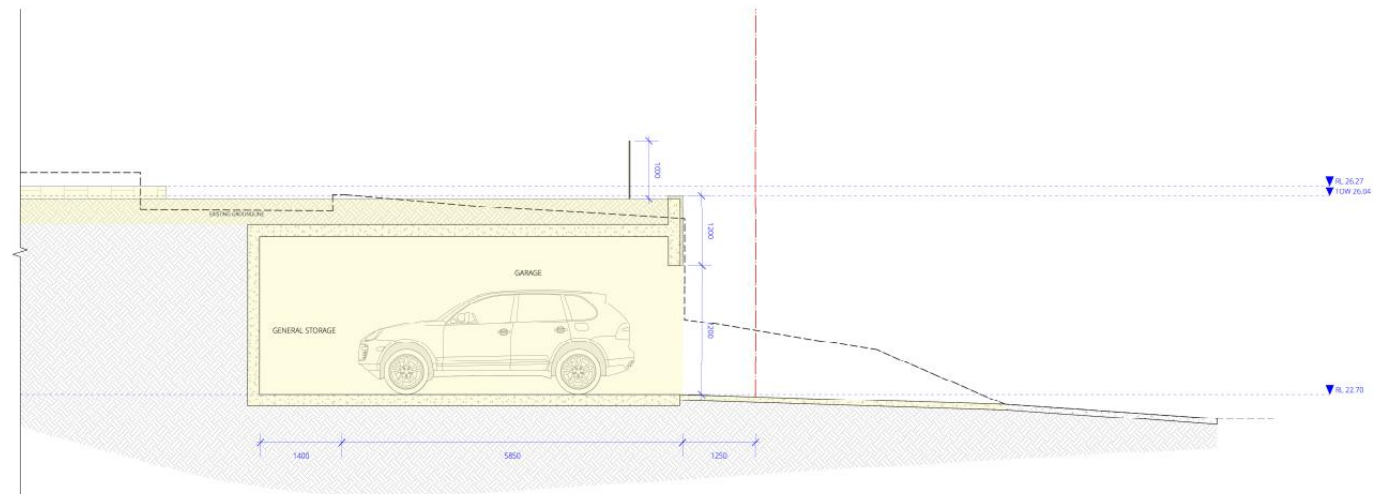
WYER & CO



PROJECT:
KEIGHERY RESIDENCE
888 Barrenjoey Rd, Palm Beach NSW 2108

DRAWING TITLE:
DEVELOPMENT APPLICATION
GROUND FLOOR PLAN - REAR

JOB No.: 25.023
DRAWING No.: DA_5.1
REV: 1
DATE: 24.04.2021
DRAWN BY: ER
CHECKED BY: [Signature]
Scale: 1:100



1 SECTION - BB
1:50

LEGEND			
	BOUNDARY LINE		PROPOSED WORKS DENOTES AREA OF PROPOSED LANDSCAPE WORKS
	EXISTING LEVELS +RL 00.00		PROPOSED GARDEN AREA FINISHED WITH A6L GREENLITE MULCH AND COMPOST
	PROPOSED LEVELS +RL 00.00		PROPOSED TURF 50mm WATER-BUFFALO
	PROPOSED TOP OF WALL +TOW 00.00		PROPOSED DRIVEWAY SURFACE CONCRETE FINISH
	PROPOSED DEMOLITION EXISTING GARDEN STRUCTURES TO BE REMOVED / MODIFIED		PROPOSED PAVING SANDSTONE PAVING
	PROPOSED GARDEN EDGE MILD STEEL		PROPOSED STAIRS AND POOL SURROUNDS CONCRETE FINISH
	EXISTING TREES TO BE RETAINED AND PROTECTED		PROPOSED RETAINING WALLS SANDSTONE BLOCK WALL - RE-USE EXISTING STONE ON SITE
			PROPOSED STONE CLADDING SANDSTONE
			PROPOSED RENDER FINISH CONCRETE FINISH
			PROPOSED BLOCK WALLS 200MM BLOCK RENDERED WALL TO SPECIFIED TOW
			PROPOSED FILL AREA PROPOSED FILL AREA
			PROPOSED CUT PROPOSED CUT AREA

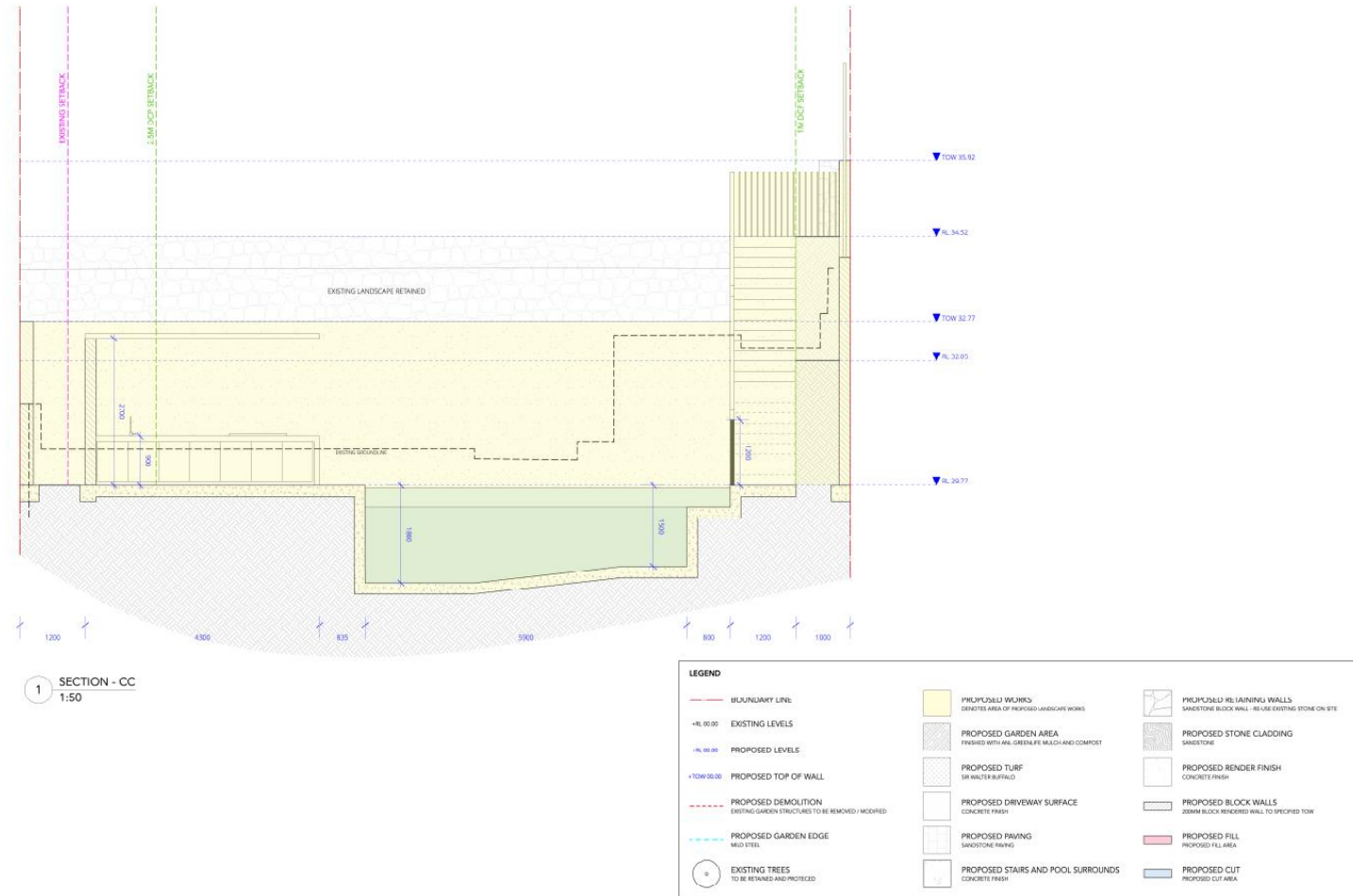
WYER & CO



PROJECT:
KEIGHERY RESIDENCE
888 Barrenjoey Rd, Palm Beach NSW 2108

DRAWING TITLE:
DEVELOPMENT APPLICATION
ELEVATION / SECTION

JOB NO.: 20.062
DRAWING NO.: DA-7.0
REV.: 1
DATE: 26.04.2021
DRAWN BY: ER
A2

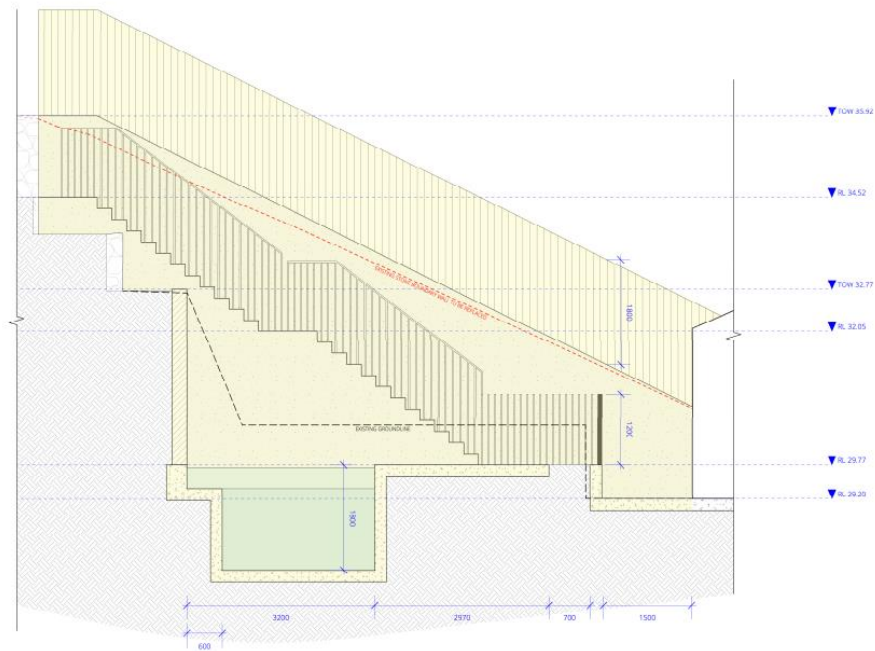


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PROJECT:
KEIGHERY RESIDENCE
888 Barrenjoey Rd, Palm Beach NSW 2108

DRAWING TITLE:
DEVELOPMENT APPLICATION
ELEVATION / SECTION

JOB No.: 20-062 DATE: 24.04.2021 A2
DRAWING No.: DA_2.1 DRAWN BY: ER
REV: 1
Revised drawings and any variations must be approved by the client and the relevant authorities before construction. All work must be done in accordance with the relevant standards and specifications. The client is responsible for ensuring that the drawing is used for the intended purpose.



1 SECTION - DD
1:50

LEGEND					
	BOUNDARY LINE		PROPOSED WORKS DENOTES AREA OF PROPOSED LANDSCAPE WORKS		PROPOSED RETAINING WALLS SANDSTONE BLOCK WALL - RE-USE EXISTING STONE ON SITE
	EXISTING LEVELS +RL 00.00		PROPOSED GARDEN AREA FINISHED WITH MULCH, GREENS, MULCH AND COMPOST		PROPOSED STONE CLADDING SANDSTONE
	PROPOSED LEVELS +RL 00.00		PROPOSED TURF SR WALTER BUFFALO		PROPOSED RENDER FINISH CONCRETE FINISH
	PROPOSED TOP OF WALL +TOW 00.00		PROPOSED DRIVEWAY SURFACE CONCRETE FINISH		PROPOSED BLOCK WALLS 200MM BLOCK RENDERED WALL TO SPECIFIED TOW
	PROPOSED DEMOLITION EXISTING GARDEN STRUCTURES TO BE REMOVED / MODIFIED		PROPOSED PAVING SANDSTONE PAVING		PROPOSED FILL PROPOSED FILL AREA
	PROPOSED GARDEN EDGE MILD STEEL		PROPOSED STAIRS AND POOL SURROUNDS CONCRETE FINISH		PROPOSED CUT PROPOSED CUT AREA
	EXISTING TREES TO BE RETAINED AND PROTECTED				

WYER & C^o

PROJECT:
KEIGHERY RESIDENCE
888 Barrenjoey Rd, Palm Beach NSW 2108

DRAWING TITLE:
DEVELOPMENT APPLICATION
ELEVATION / SECTION

JOB No. 25 082
DRAWING No. DA_7.2
REV 1
DATE: 24.04.2021
DRAWN BY: ER
A2
Figure 10: Elevation and Section Drawing. This drawing is a technical drawing and should be used in accordance with the relevant standards and specifications.