



Bushfire Hazard Assessment Report

For Proposed Alterations and Additions

114 Seaforth Crescent, Seaforth. NSW 2092



20th September 2023

Prepared By:
The Fire Consultants
Tel: 0418 460517
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20th September 2023



This certificate has been completed by a recognised consultant in Bushfire Risk Assessment in Accordance with Section 4.14 of the Environmental Planning and Assessment Act 1979.

<i>Property Address</i>	114 Seaforth Crescent, Seaforth. NSW 2092
<i>Description of Development</i>	Construction of alterations and additions to the existing dwelling
<i>References</i>	Plans as provided by applicant
<i>BAL Rating as per Table A1.12.5 of PBP 2019</i>	BAL-12.5
<i>Does Proposal rely on Alternate Solutions</i>	Yes
<i>Is Referral to NSW RFS Required</i>	Yes
<i>Date</i>	20/09/2023

I, Steve Brooks of The Fire Consultants have carried out a bushfire risk assessment on the above property and its proposal for development. A detailed report is attached. I certify that I am a person recognised by the NSW Rural Fire Service as a qualified consultant in bushfire risk management and that subject to any conditions contained in the attached bushfire risk assessment report the development conforms to the relevant specifications and requirements of Planning for Bushfire Protection 2019 (NSWRFS) and any other document as prescribed by Section 4.14 of the Environmental Planning and Assessment Act 1979. The Bushfire Assessment Report prepared for the above property will be relied upon by Council and may be submitted in support of the proposed Development Application for the property in ensuring that the bush fire requirements have been met in accordance with Planning for Bushfire Protection 2019 (NSWRFS).

BPAD - Certification No. 40765

Graduate Diploma Bushfire Planning and Design (UWS)

Graduate Certificate in Fire Investigation (CSU)

Wattlegrove Services Pty Ltd T/as The Fire Consultants

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Disclaimer

The assessment and recommendations contained in this Bush Fire Assessment are the views of TFC. The bushfire protection assessment, recommendations and strategies contained in this report are intended to address the submission requirements for developments on bush fire prone land as required by Section 100B of the RFS Act 1997 and or S 4.14 of the EP&A Act 1979.

Whilst care is taken in the assessment and report, TFC Ltd does not warrant that the information contained in this report will be free from error or omission. Also, there is no implied assurance nor guarantee that compliance with the strategies and recommendations contained in this report will result in a development application consent being granted by the approving authority. TFC will not be liable for any financial losses incurred throughout the development planning and application process, should an application not be successful.

A bushfire may be unpredictable and, in many cases, perform differently to the measurements and assumptions of this report and AS3959. Therefore the information contained in this report cannot be used as a guarantee against any damages or losses resulting from any bushfire events.

Document Control

Document Name	Project Ref	Date	Author	Status
114 Seaforth Cres	1	12/11/2021	S. Brooks	Complete
114 Seaforth Cres	2	15/03/2022	S.Brooks	Complete
114 Seaforth Cres	3 Amendment	20/09/2023	S.Brooks	Complete

Abbreviations Used

TFC – The Fire Consultants

PBP 2019 – Planning for Bushfire Protection (NSW Rural Fire Service)

RFS - Rural Fire Service

BCA - Building Code of Australia

EP&A Act- Environmental Planning and Assessment Act 1979

BAL - Bushfire Attack Level

APZ - Asset Protection Zone

FRNSW - Fire Rescue NSW

AS3959-2018 – Construction of buildings in bushfire prone areas

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Executive Summary

This report has been prepared as a Bushfire Hazard Assessment for the proposed construction of alterations and additions to the existing dwelling on the subject Lot located at 114 Seaforth Crescent, Seaforth. NSW 2092 in the Northern Beaches Council LGA.

The proposal is “Residential Infill Development” and has been identified as being bushfire prone and is subject to consideration under Section 4.14 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) (NSW RFS 2019).

The subject Lot is partly located within a Category 2 Bushfire Hazard Buffer Zone as per the Mid Coast Council LGA Bushfire Prone Land Map. However, the proposed development is not located within the Buffer Zone.

The nearest Bushfire Hazard Vegetation – Forest Classified Vegetation (Category 2 Bushfire Hazard Vegetation) is located 37m West of the proposed development.

Vegetation Category 2 is a lower bushfire risk than Category 1 and Category 3 but higher than the excluded areas. It is represented as light Orange on a bushfire prone land map and has a 30m Buffer Zone.

The proposed construction of alterations and additions to the existing dwelling has been found to be in the BAL – 12.5 range of AS3959-2018 *Construction of buildings in bushfire prone areas* as per the Method 2 Calculation of AS3959-2018. It will also need to meet the objectives, performance criteria and acceptable solutions of PBP 2019 (NSW RFS 2019).

This report makes recommendations to approve the proposal as it meets and exceeds the requirements of both the Building Code of Australia 2018 and *Planning for Bushfire Protection* 2019.

Building Elevation	Construction Standard
North	BAL -12.5 AS3959-2018
South	BAL -12.5
East	BAL -12.5
West	BAL -12.5

Table 1 – AS3959-2018 Construction Standards for the proposed alterations and additions

1. Introduction

This report forms a Bushfire Assessment Report to Northern Beaches Council for the purposes of Section 4.14 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The report identifies that the proposal can meet the requirements of *Planning for Bushfire Protection* (2019). This report has been prepared in accordance with the submission requirements of Appendix 2 of *Planning for Bushfire Protection* (NSW RFS 2019). The site is identified as being partly within a Category 2 Bushfire Hazard Vegetation Buffer Zone as per the Northern Beaches Council LGA Bushfire Prone Land Map and therefore compliance with Bushfire Legislation is required.

The proposed development is the construction of alterations and additions to the existing dwelling on the subject Lot.

2. Purpose of this Report

The purpose of a Bushfire Hazard Assessment report is to provide the consent authority, owners and RFS with a bushfire hazard determination consistent with the aim and objectives of *Planning for Bushfire Protection* 2019 (RFS) and Section 4.14 of the EP&A Act 1979. Such report provides the necessary recommendations for new building construction standards and any further bushfire mitigation measures appropriate having regard the hazard and particular circumstances of the development.

The recommendations provided in this report will assist Council and the Owner in proving a construction standard consummate with bushfire safety standards so that a safer level is provided should a bushfire occur on or near the property.

Property Details

Council:	Northern Beaches
Council Reference:	N/A
Address:	114 Seaforth Crescent, Seaforth. NSW 2092 Lot 116 DP 4889
Site Area:	1265sqm approx.
Zoning	R2 – Low Density Residential

3. Proposal

The proponent seeks to construct alterations and additions to the existing dwelling on the subject Lot located at 114 Seaforth Crescent, Seaforth. NSW 2092. The site is also known as Lot 116 DP 4889. It is bounded by residential development to the North, South and East with a recreational reserve and road to the West.

To the West, at 37m from the proposed development, is Forest Classified Vegetation and the Northern Beaches Council LGA Bushfire Prone Land Map indicates that the proposed development is partly located within Category 2 Bushfire Hazard Vegetation Buffer Zone.

The land is zoned R2 – Low Density Residential for residential purposes and the proposal is understood to comply with the requirements of the Northern Beaches Council LEP and DCP. This report only addresses the planning and construction issues relevant to the proposal. The proposal constitutes “Residential Infill Development” as defined and as such must meet the performance criteria and acceptable solutions outlined in Table 7.4a in of *Planning for Bushfire Protection* 2019.

Type of Proposal PBP 2019

☐	New Building	☒	Urban	☐	Dual Occupancy
☐	Rural Residential	☒	Alterations/Additions	☐	Isolated Rural

4. Scope of Report and Referenced Documents

The scope of this report is limited to the actual property concerned. A representative of TFC has visited the site and surrounding area but did not enter neighbouring private lands.

This report is based on requirements of the EP&A Act, *Planning for Bushfire Protection* 2019, the Building Code of Australia (BCA) and AS3959 - 2018 *Construction of buildings in Bushfire Prone areas*. The methodology for this report is outlined in Appendix 1 of PBP 2019. Vegetation and site information was gathered from site inspection, Council Vegetation data and Aerial Photos. The report used base drawings as provided by the applicant to TFC.



Image 1 - Aerial View of the subject Lot (NSW Government 2021)

5. Statement that the site is Bushfire Prone Land

The subject Lot has been identified on the Northern Beaches Council LGA Bushfire Prone Land Map which covers the entire site.

A copy of the bush fire prone land status is shown below (Figure 1).



Figure 1 – 114 Seaforth Crescent, Seaforth. NSW 2092 Bushfire Prone Land Map (NSW Government 2021). It should be noted that the Bushfire Prone Land Map above indicates that the subject Lot is identified as being partly within a Category 2 Bushfire Hazard Vegetation Buffer Zone.

Hazard

Bushfire Prone Land

- Vegetation Category 1
- Vegetation Category 2
- Vegetation Category 3
- Vegetation Buffer

6. Bushfire Hazard Assessment

6.1 Preface.

This bushfire hazard assessment has been done according to the guidelines of *Planning for Bushfire Protection* 2019 (NSWRFS). Properties that are located within a designated Bushfire Prone Area as identified by a Council Area Bushfire Prone Map and Registered with the NSWRFS, must have either a Bushfire Hazard Assessment or a Bushfire Hazard Certificate (in certain Complying Development instances) completed and submitted prior to Council or a Private Certifier being able to approve the development.

The proposed development is the construction of alterations and additions to the existing dwelling on the subject Lot, which is Residential Infill Development and as such, and must comply with Section 4.14 of the EP&A Act 1979 and Section 7 of PBP 2019.

The property is known as 114 Seaforth Crescent, Seaforth. NSW 2092 (Lot 116 DP 4889) and is within a residential area in the Northern Beaches Council Local Government Area. The property has direct access to Seaforth Crescent which runs to the West of the subject Lot.

The Classified Bushfire Hazard Vegetation that is a potential bushfire hazard to the proposal is Forest Classified Vegetation and is located 37m to the West of the proposed development.

6.2 Location

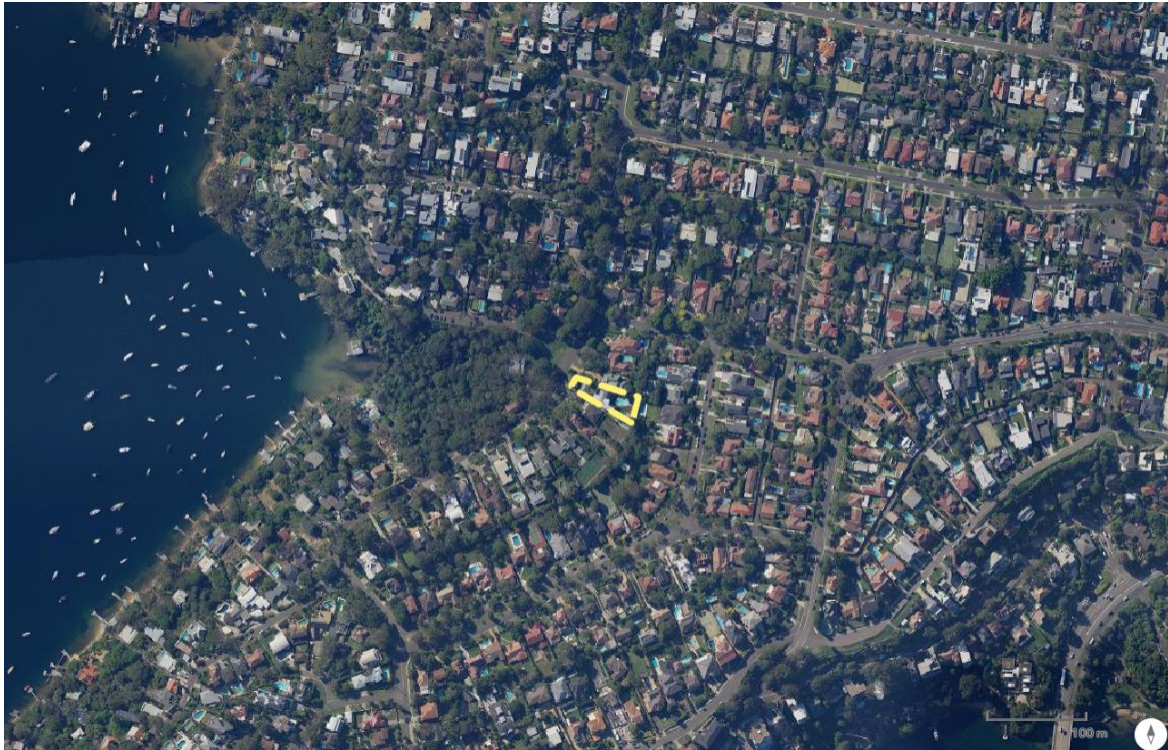


Image 2 - Site Aerial (NSW Government 2021)



Figure 2 - Street Location of Property (NSW Government 2021)

6.3 Vegetation.

The vegetation that is deemed the "Hazard" is mapped by Council on the applicable Bushfire Prone Land Map as Category 2 Bushfire Hazard Vegetation. The Lot is predominantly clear, and the Bushfire Hazard Vegetation formation identified, using "Keith 2004" identification, is Forest Classified Vegetation to the West of the subject Lot

The property is located within other residential properties to the North, South, and East. To the West of the proposed development is the Category 2 Bushfire Hazard Vegetation – Forest Classified Vegetation at 37m across Seaforth Crescent. The Category 2 Bushfire Hazard Vegetation abuts a recreational reserve.

Vegetation Category 2 is a lower bushfire risk than Category 1 and Category 3 but higher than the excluded areas. It is represented as light Orange on a bushfire prone land map and has a 30m Buffer Zone.

For the purposes of this compliance report this assessment notes that the property does not contain hazard upon it. The separation distance to the hazard is assessed as follows.

Direction	Distance to Hazard
North	>100m
South	>100m
East	>100m
West	37m

Table 2 – Distances to hazardous vegetation

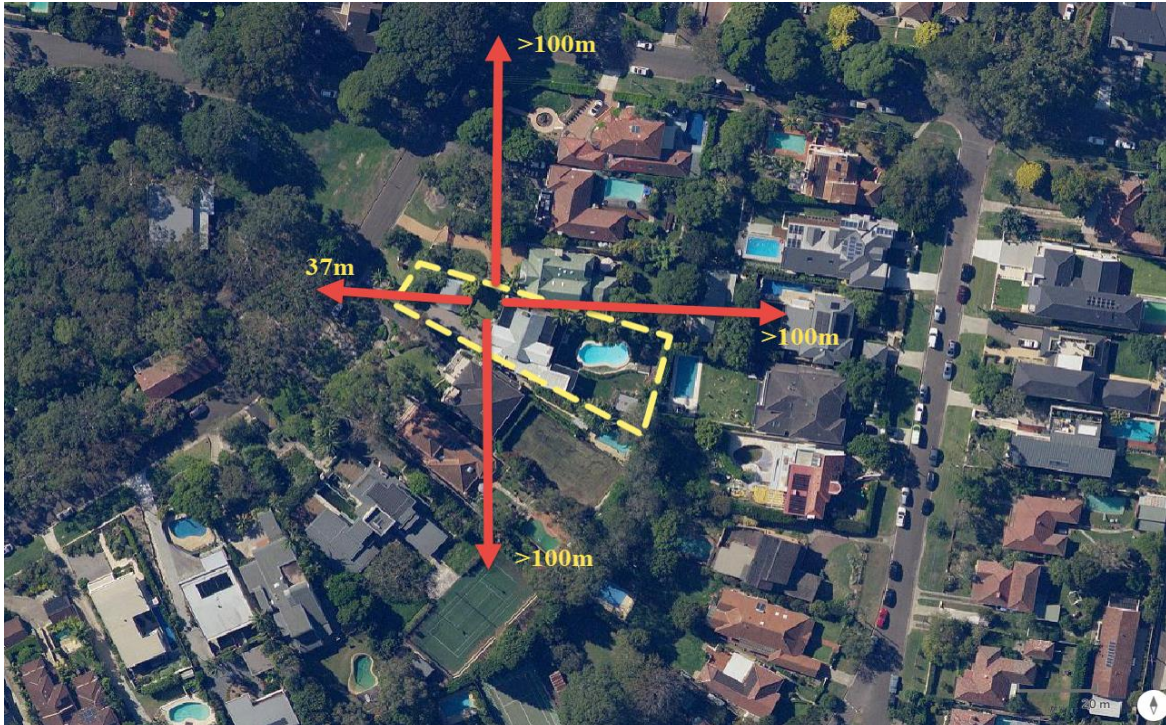


Image 3 - Indicates that the separation distance to Classified Bushfire Hazard Vegetation (NSW Government 2021)

6.4 Slope

The effective slope that would most significantly affect a bushfire is assessed for 100 metres from the building. The slope that is measured is under the hazard.

The effective slope under Forest Classified Vegetation in the Western aspect is 16° Downslope.

Since there is no Category 1 Bushfire Hazard Vegetation within 100m and there is no Category 2 Bushfire Hazard Vegetation within 30m in the Northern, Southern or Eastern aspects from the proposed development, the need to assess the slopes under the classified vegetation is not applicable in these aspects.

Direction	Effective Slope
North	N/A >100m to Cat 1 N/A >30m to Cat 2
South	N/A >100m to Cat 1 N/A >30m to Cat 2
East	N/A >100m to Cat 1 N/A >30m to Cat 2
West	16° Downslope

Table 3 – Indicates the effective slope under the hazardous vegetation

6.5 Asset Protection Zones (APZ)

The APZ for the proposed development on the subject Lot to Category 2 Bushfire Hazard Vegetation is >100m to the North, >100m to the South, >100m to the East and 37m to the West comprising of minimal distance on actual property and APZ made up of developed land in neighbouring Lots and public space.

The APZs, in all aspects, have neighbouring developed land and roads which meets the intent of Section 3.2 – Asset Protection Zones and Appendix 4 – APZ Requirements of PBP 2019.

Direction/Aspect	Effective Slope	Distance to Hazard	Required by PBP Table A1.12.2	Land-use	Vegetation type/Formation	Complies
North	N/A	>30m	N/A	Residential	Developed Land	Yes
South	N/A	>30m	N/A	Residential	Developed Land	Yes
East	N/A	>30m	N/A	Residential	Developed Land	Yes
West	16° Downslope	37m	N/A	Bushland Reserve	Forest	No

Table 4 - APZ distances

The proposal cannot meet the requirements of Table A1.12.2 Minimal Distances for APZs of PBP 2019 as the Western APZ of 37m is less than the required 56m. However, the proposal has exceptional circumstances via:

The proposal is a Residential Infill Development and the site constraints do not allow APZ requirements to be met.

A Method 2 Calculation of AS3959-2018 was used to determine the BAL Rating which resulted in BAL-12.5 being determined for the proposed development.

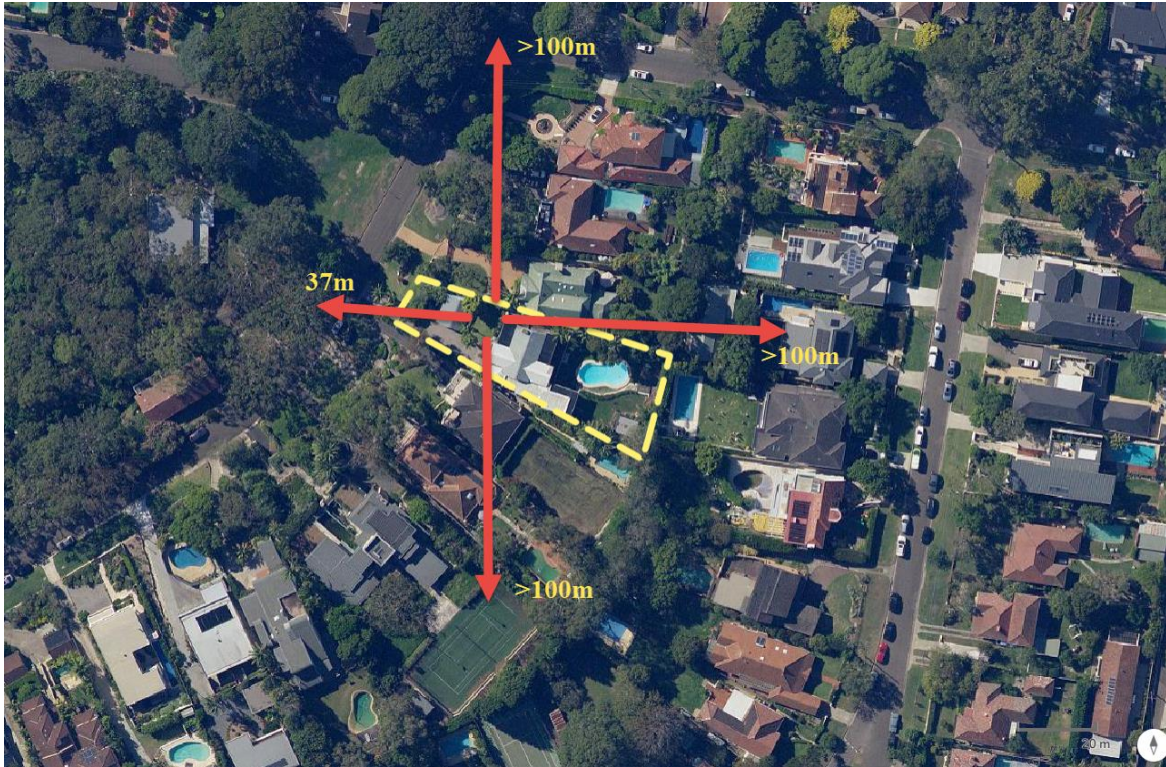


Image 4 – Indicates the APZ distances to Bushfire Hazard Vegetation (NSW Government 2021).

6.6 Hazard Assessment Determination

PBP refers to the appropriate construction standard for a development as determined by Table A1.12.5 of PBP 2019. This provides a recommendation for the Bushfire Attack (BAL) Level required for a development. The following Bushfire Attack Level have been determined for the proposed development at 114 Seaforth Crescent, Seaforth. NSW 2092.

However, I have used Method 2 of AS3959-2018 to determine the BAL Rating from the Forest Classified Vegetation in the Western aspect.

FDI Appropriate to Development – Northern Beaches Council LGA 100

Direction/ Aspect	Distance to Vegetation	Vegetation Formation	Slope in degrees	Construction Requirements AS3959-2018
North	>100m	N/A	N/A	BAL-LOW
South	>100m	N/A	N/A	BAL-LOW
East	>100m	N/A	N/A	BAL-LOW
West	37m	Forest	N/A	BAL-12.5

Table 5 - Summary of Building Compliance Requirements AS3959-2018.

The proposed development has been found to be in the BAL-12.5 range and must comply with the construction standards outlined in Sections 3 & 5 of AS3959-2018 Construction of buildings in bushfire prone areas. The proposal will also require compliance with Section 7.5 – Additional Construction Requirements of PBP 2019.

The final BAL Ratings for the proposed development has been found to be BAL-12.5 for the facades.

PBP allows where more than one facade is exposed to a hazard, then the facade with the highest requirement is used to determine the appropriate level of construction. Other facades may be reduced by one level of construction unless that facade is also subject to the same level of bushfire attack. Should the highest level be BAL-12.5 then the entire site shall be deemed as BAL - 12.5.

Bushfire Attack Assessor

Assessment Details

Site Street Address:

Site Suburb: Date:

Local Government Area: Fire Area:

Alpine Area: ☐

Assessment Run

Attack Assessment
Vegetation Characteristics
Short Fire Run Results
Calculation Constants
BAL Threshold Results

Assessment Details

Run Description:	West		
Filter Vegetation Class:	NSW Comprehensive Fuel Loads		
Vegetation Type:	Sydney Coastal DSF		
Separation Distance (m):	37	Slope Unit:	Degrees
Vegetation Slope:	16	Vegetation Slope Type:	Downslope
Site Slope:	5	Site Slope Type:	Downslope
Flame Width (m):	36.6	Flame Temp (K):	1090
Elevation of Receiver (m):	Default		
Heat Shield Height (m):	0	Note: Leave as Default to copy peak elevation.	
Heat Shield Width (m):	0	Note: Measured directly against the vegetation.	
		Note: Measured in the centre of the vegetation.	

☐ BAL Thresholds

☐ Override Slope Kataburn

Short Fire Run Inputs

Calculate Short Fire Run	☐	Fire Run (m):	100
Forest Flame Model:	McArthur	Vegetation Height (m):	0.9

Results

Radiant Heat (kW/m2):	10.35	Rate Of Spread (km/h):	7.71	☐ Override ROS
Flame Length (m):	22.18	Transmissivity:	0.799	☐ Override Transmissivity
Construction Level:	BAL 12.5	Peak Elevation of Receiver (m):	6.9	☐ Override Flame Angle
Fire Intensity (kW/m):	108741	Flame Angle (degrees):	66	☐ Override View Factor
Inner Protection Area (m):	37	Maximum View Factor:	0.17	
Outer Protection Area (m):	0	Shielded View Factor:	0	

Figure 3 – Method 2 of AS3959-2018 resulting in a BAL Rating of BAL-12.5 (Newcastle Bushfire Consulting bfaa V4.1 2022)

6.7 Compliance with PBP 2019

The proposed dwelling must also comply with the Performance Criteria and Acceptable Solutions of Table 7.4a of PBP 2019 for Infill Development. This assessment is provided below in detail.

Performance Criteria	Acceptable Solution	Compliance
Asset Protection Zones APZs are provided commensurate with the construction of the building; and A defendable space is provided.	An APZ is provided in accordance with Table A1.12.2 or A1.12.3 in Appendix 1.	Complies – The APZs in the Northern, Southern and Eastern aspects meet the required distances in Table A1.12.2. The Western aspect did not meet the required distance therefore a Method 2 Calculation of AS3959-2018 was used to determine the BAL.
APZs are managed and maintained to prevent the spread of a fire to the building.	APZs are managed in accordance with the requirements of Appendix 4 of PBP.	Complies – The APZ will be managed/maintained as an IPA within the subject Lot and in accordance with Appendix 4 of PBP.
The APZ is provided in perpetuity.	APZs are wholly within the boundaries of the development site.	Complies – the APZs are on Developed Maintained Land within the subject Lot, neighbouring Lots and public space which meets the intent of Section 3.2 of PBP 2019.
The APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is minimised	APZs are located on lands with a slope less than 18 degrees.	Complies – The APZ is on a slope <18 degrees Downslope and the APZ is made up of maintained within the subject Lot and maintained land on the neighbouring Lots.

In relation to access/egress:		
Firefighting vehicles are provided with safe, all-weather access to structures and hazard vegetation.	Property access roads are two-wheel drive, all-weather roads.	Complies - The subject Lot has direct access to Seaforth Crescent which allows occupants an egress route to safety. Seaforth Crescent is a sealed, two-wheel drive all-weather road and is suitable for fire appliances.
The capacity of access roads is adequate for firefighting vehicles	The capacity of road surfaces and any bridges/ causeways is sufficient to carry fully loaded firefighting vehicles (up to 23 tonnes), bridges and causeways are to clearly indicate load rating.	Complies - The capacity of Seaforth Crescent and surrounding roads is enough to carry fully loaded firefighting vehicles (up to 23 tonnes).
There is appropriate access to water supplies.	Hydrants are provided in accordance with the relevant clauses of AS 2419.1:2005.	Complies - Fire hydrants are provided in accordance with the relevant clauses of AS 2419.1:2005. There are reticulated fire hydrants located along Seaforth Crescent.
Firefighting vehicles can access the dwelling and exit the property safely	There are no specific access requirements in an urban area where an unobstructed path (no greater than 70m) is provided between the most distant external part of the proposed dwelling and the nearest part of the	Complies – There is an unobstructed path to the proposed development which does not place fire appliances or firefighters at risk. The proposed development is <70m from Seaforth Crescent.

	public access road (where the road speed limit is not greater than 70kph) that supports the operational use of emergency firefighting vehicles.	
In relation to Water Supplies An adequate water supply is provided for firefighting purposes	Reticulated water is to be provided to the development, where available; and a static water supply is provided where no reticulated water is available.	Complies - The site is connected to reticulated mains pressure water supply and there are reticulated mains pressure fire hydrants located along Seaforth Crescent.
In relation to Electricity Supply: The Location of electricity services limits the possibility of ignition of surrounding bushland or the fabric of buildings.	Where practicable, electrical transmission lines are underground; and where overhead, electrical transmission lines are proposed as follows: lines are installed with short pole spacing (30m), unless crossing gullies, gorges or riparian areas; and no part of a tree is closer to a power line than the distance set out in accordance with the specifications in ISSC3 Guideline for Managing Vegetation Near Power Lines	Complies – The existing dwelling is provided with electricity via existing supply which is clear of trees and branches

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In relation to Gas Supply: The location and design of gas services will not lead to ignition of surrounding bushland or the fabric of buildings.	Reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 and the requirements of relevant authorities, and metal piping is used; all fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side; Connections to and from gas cylinders are metal. Polymer-sheathed flexible gas supply lines are not used; and above-ground gas service pipes are metal, including and up to any outlets	Complies – The site is not connected to reticulated gas supply and any gas cylinders used shall comply with AS/NZS 1596:2014.
In relation to Construction Standards: The proposed building can withstand bush fire attack in the form of embers, radiant heat and flame contact.	BAL is determined in accordance with Tables A1.12.5 to A1.12.7; and construction provided in accordance with the NCC and as modified by section 7.5 (please see advice on construction in the flame zone).	Complies - The proposed development has been found to be in the BAL-12.5 range of AS3959-2018 and therefore must be constructed to meet the requirements outlined in Sections 3 & 5 of AS3959-2018 and Section 7.5 of PBP 2019

Proposed fences and gates are designed to minimise the spread of bush fire.	Fences and gates are constructed in accordance with section 7.6.	N/A
Proposed Class 10a buildings are designed to minimise the spread of bush fire.	Class 10a buildings are constructed in accordance with section 8.3.2.	Complies – BAL-12.5 Construction Standards apply.
In relation to Landscaping: Landscaping is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind-driven embers to cause ignitions.	Compliance with the NSW RFS ‘Asset protection zone standards’ (see Appendix 4); a clear area of low-cut lawn or pavement is maintained adjacent to the house; fencing is constructed in accordance with section 7.6; and trees and shrubs are located so that: the branches will not overhang the roof; the tree canopy is not continuous; and any proposed windbreak is located on the elevation from which fires are likely to approach	Complies – The APZ will be managed as an Inner Protection Area within the subject Lot with grassed areas to be maintained to a height of <100mm. Any proposed gardens on the subject Lot will be planned and maintained meet the standards outlined in Appendix 4 of PBP 2019 in relation to APZ Standards The proposed development is in a clear area with no trees or shrubs around the perimeter.

Table 6 – Performance Criteria and Acceptable Solutions of PBP 2019

7 Recommendations

- The proposed construction of alterations and additions has been found to be in the BAL-12.5 range and is recommended to be constructed to comply with the standards outlined in Sections 3 & 5 of AS3959-2018.
- The proposed construction of alterations and additions must be constructed to meet the standards outlined in Section 7.5 of PBP 2019.
- The existing APZ on the subject Lot is deemed an Inner Protection Area and as such any landscaping gardens and the like should comply with Appendix 4 PBP 2018.
- The occupants develop a Bushfire Emergency Plan to be able to be prepared for a bushfire event in the vicinity.

It is recommended Northern Beaches Council and the NSW Rural Fire Service approve the proposed development on the subject Lot located at 114 Seaforth Crescent, Seaforth. NSW 2092 in respect to Bushfire Requirements.

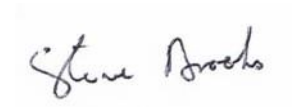
8. Conclusion

The proposed development on the subject Lot located at 114 Seaforth Crescent, Seaforth. NSW 2092 can meet the planning requirements of *Planning for Bushfire Protection* (NSW RFS 2019) and, are capable of meeting Australian Standard AS3959-2018 *Construction of buildings in bushfire prone areas* and the *Building Code of Australia* in relation to construction (ABCB 2019).

In accordance with the bushfire measures contained with this report and the site-specific assessment as per PBP and AS3959, it is our opinion that combined will provide a satisfactory level of bushfire safety to the property and satisfies the requirements of the RFS and Councils obligations for this area.

*The **Council** can determine the matter as complying with the specifications and requirements Planning for Bushfire Protection and Section 4.14 of the EP&A Act 1979*

Prepared by Steve Brooks



BPAD - Certification No. 40765

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Graduate Certificate in Fire Investigation (CSU)



FPA Australia Corporate Member

References.

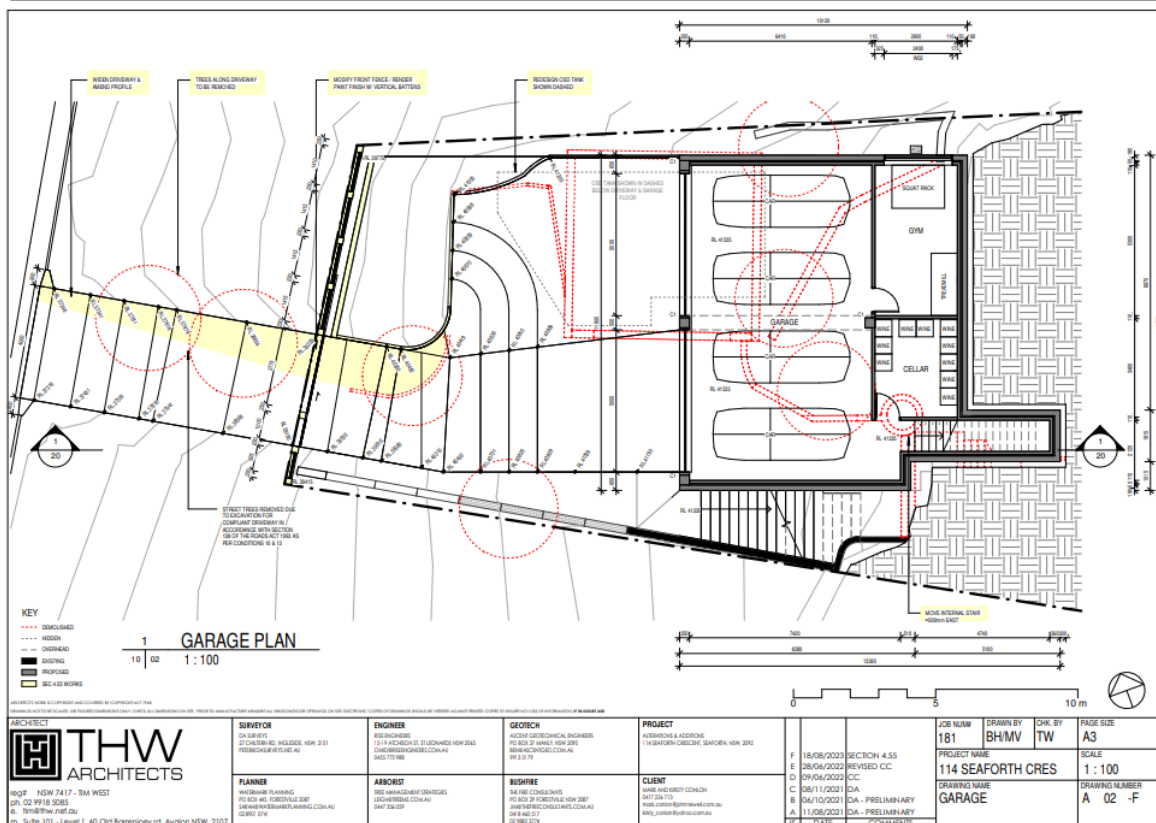
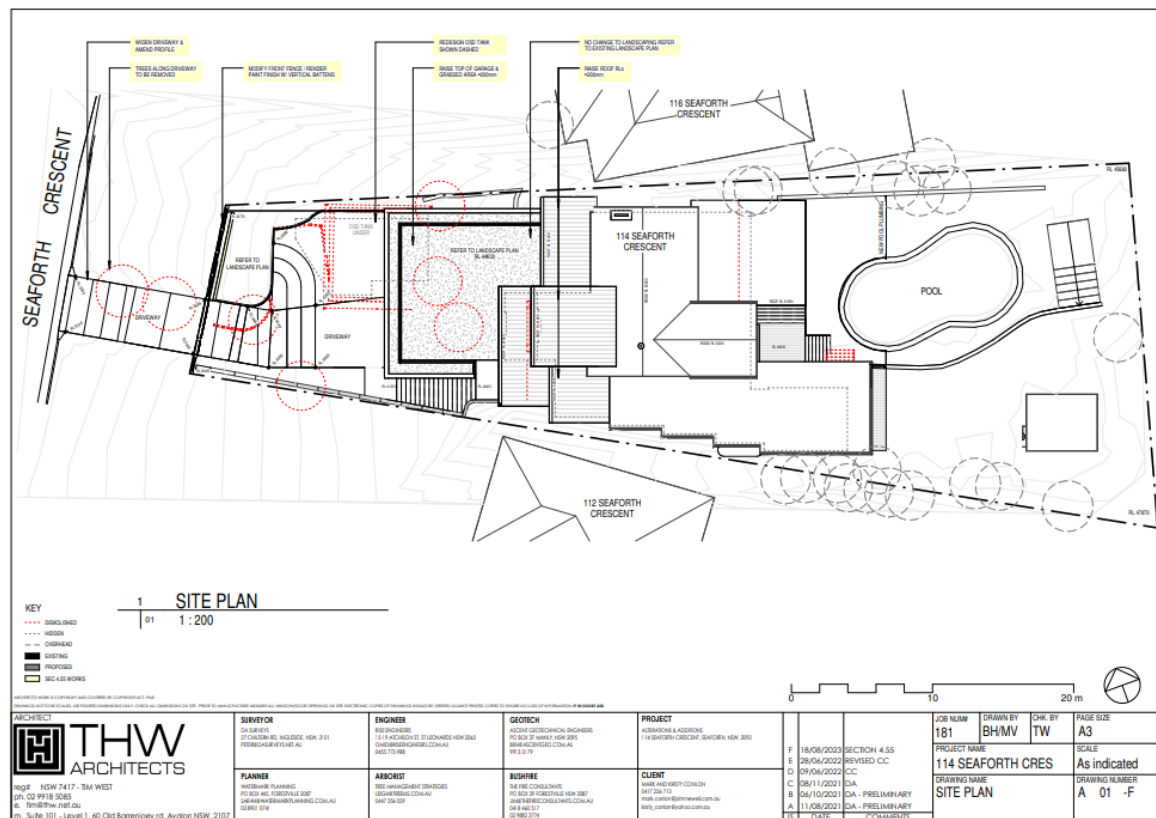
- Australian Building Codes Board (ABCB), 2019, *Building Code of Australia*, Volume 2, Canberra.
- Keith David, 2004, *Ocean Shores to Desert Dunes: the native vegetation of NSW and the ACT*, Dept of Environment and Conservation, NSW Government.
- NSW Rural Fire Service, 2019, *Planning for Bush Fire Protection*. Sydney
- NSW Rural Fire Service, 2021, website – www.rfs.nsw.gov.au :
- Standards Australia, AS 3959-2018 *Construction in Bushfire Prone Areas* (amended 2001) SAI Global, Melbourne.
- NSW Government *E-Planning Spatial Viewer* 2021
- NSW Government *Six Maps* 2021

Disclaimer

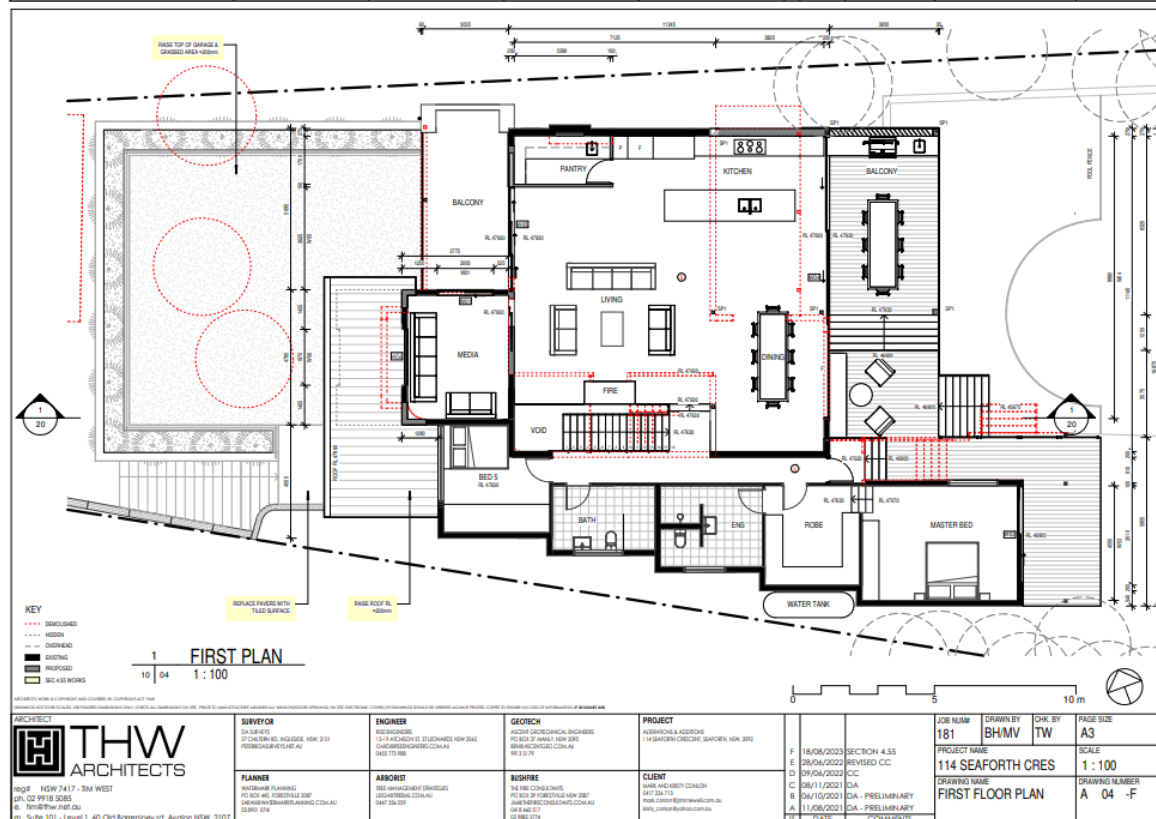
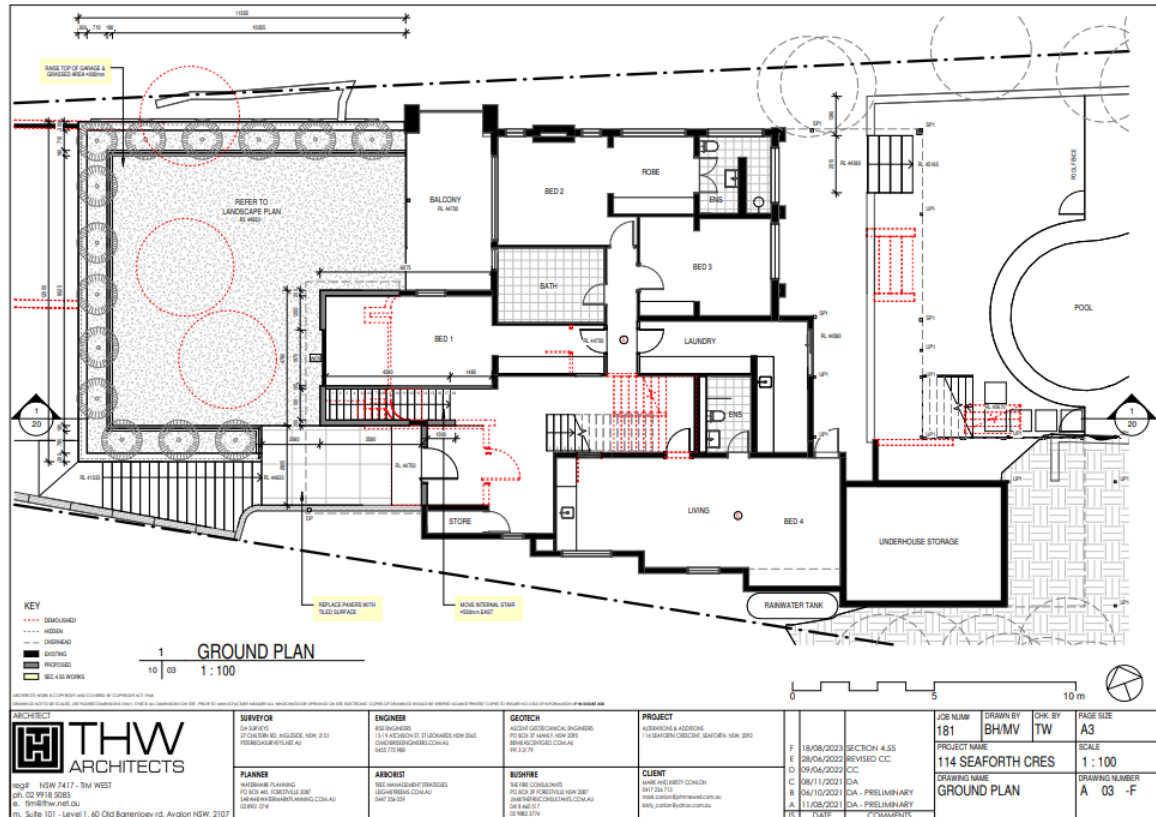
Disclaimer: Quote from Planning for Bushfire Protection, “notwithstanding the precautions adopted, it should always be remembered that bushfires burn under a wide range of conditions and an element of risk, no matter how small always remains”. Although the standard is designed to improve the performance of the building, there can be no guarantee, because of the variable nature of bushfires that any one building will withstand bushfire attack on every occasion.

The opinions and assessment in regard to bushfire development in a Bushfire Prone Area given by TFC are therefore given in good faith.

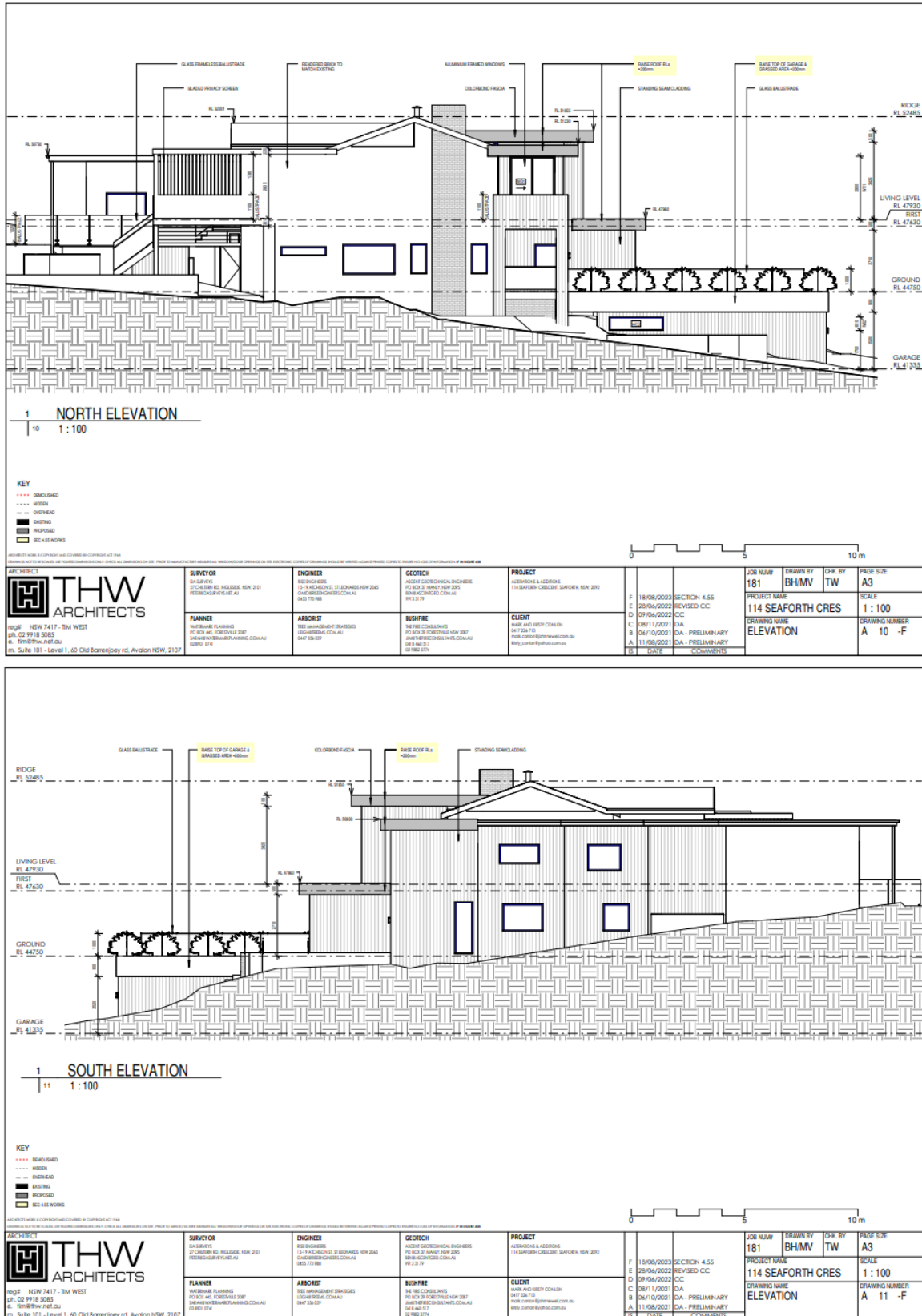
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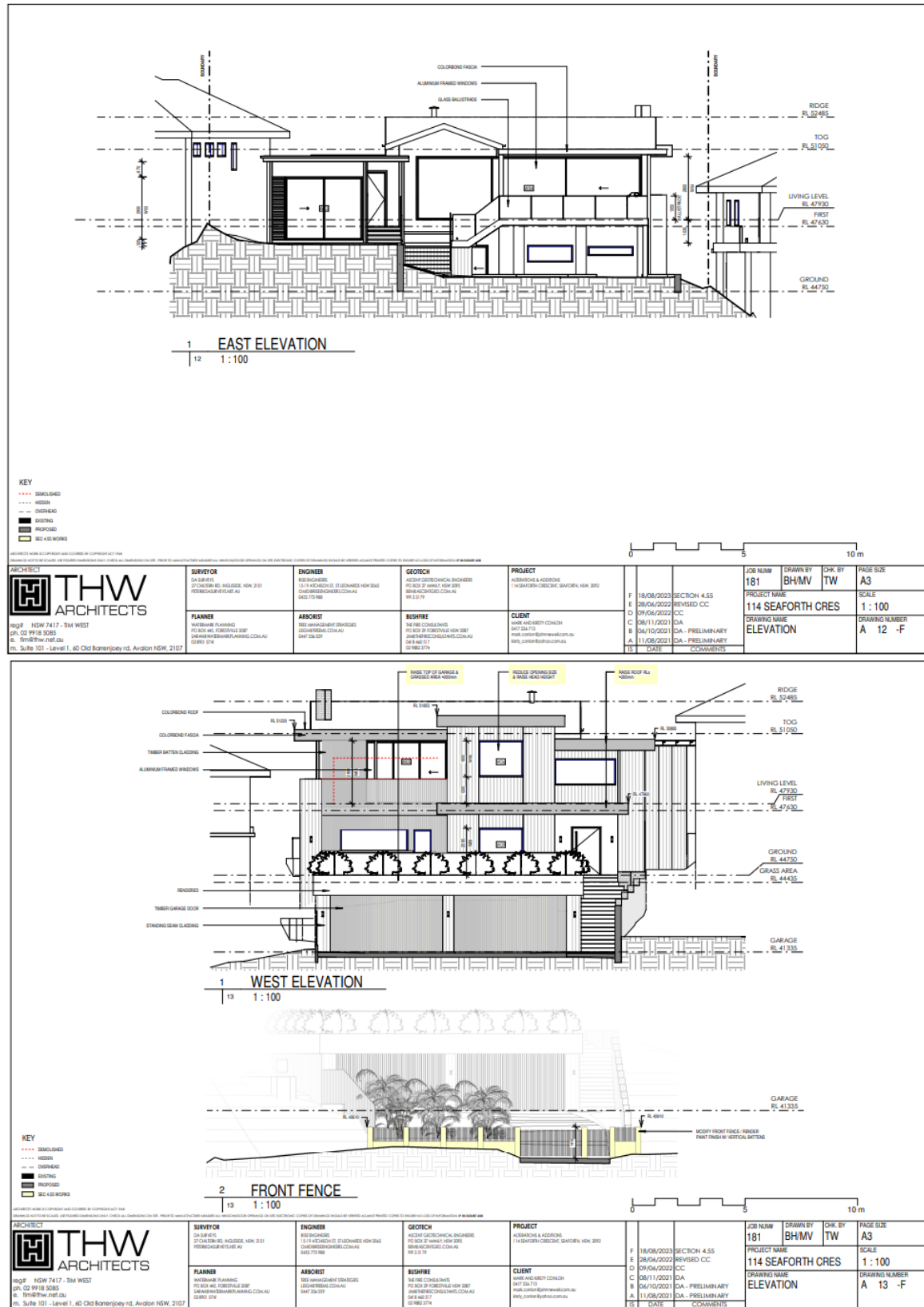
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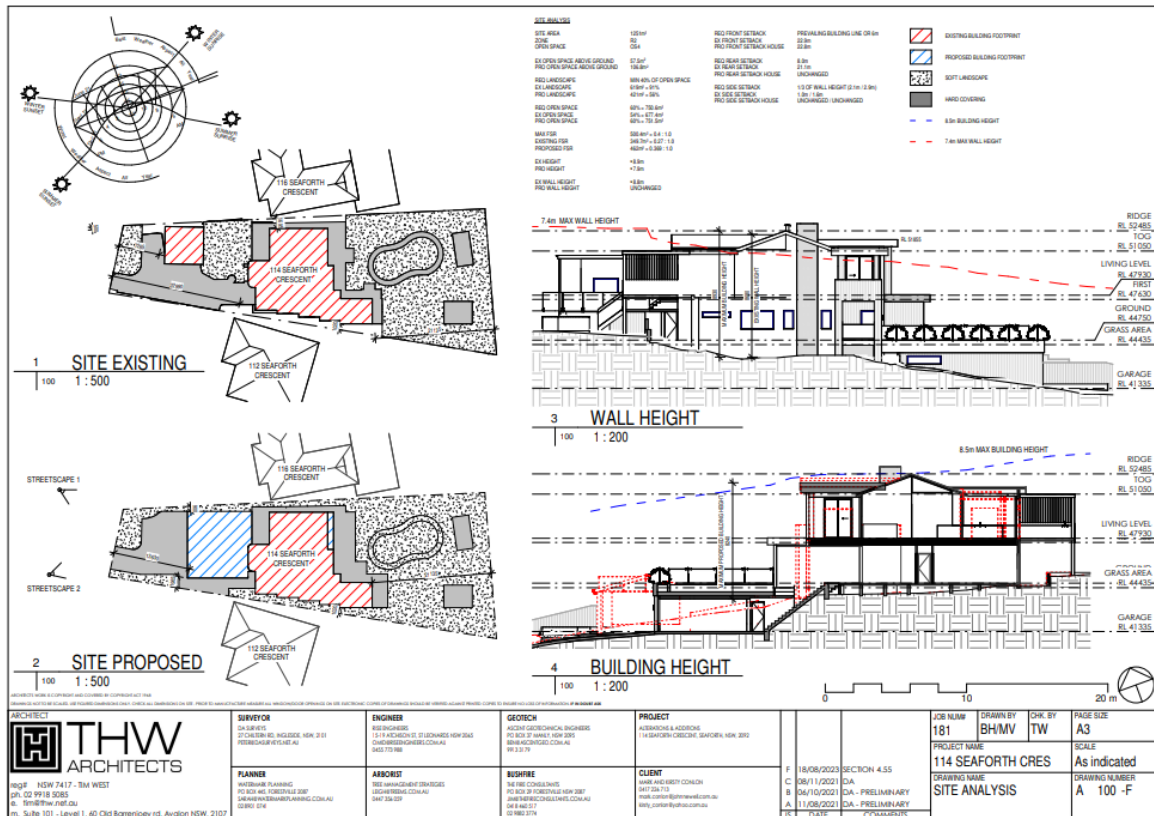
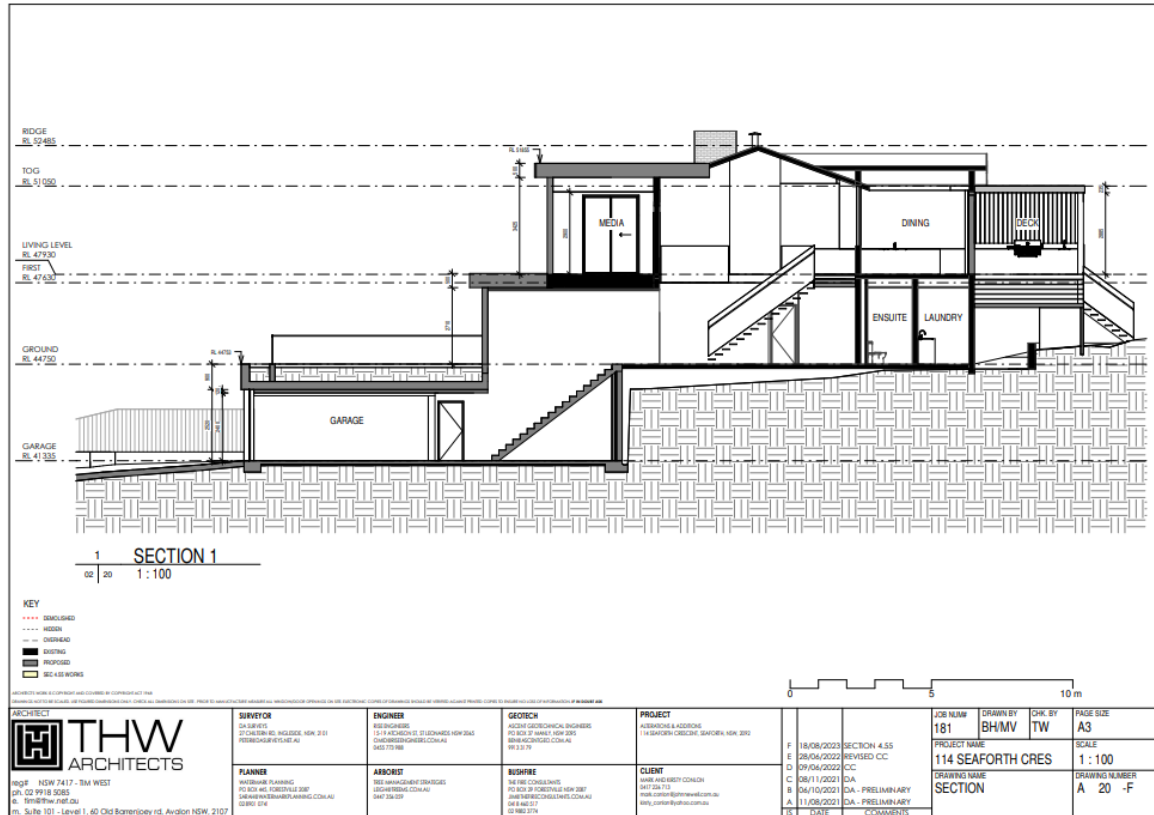
Bushfire Hazard Assessment 114 Seaforth Crescent, Seaforth. NSW 2092
20th September 2023



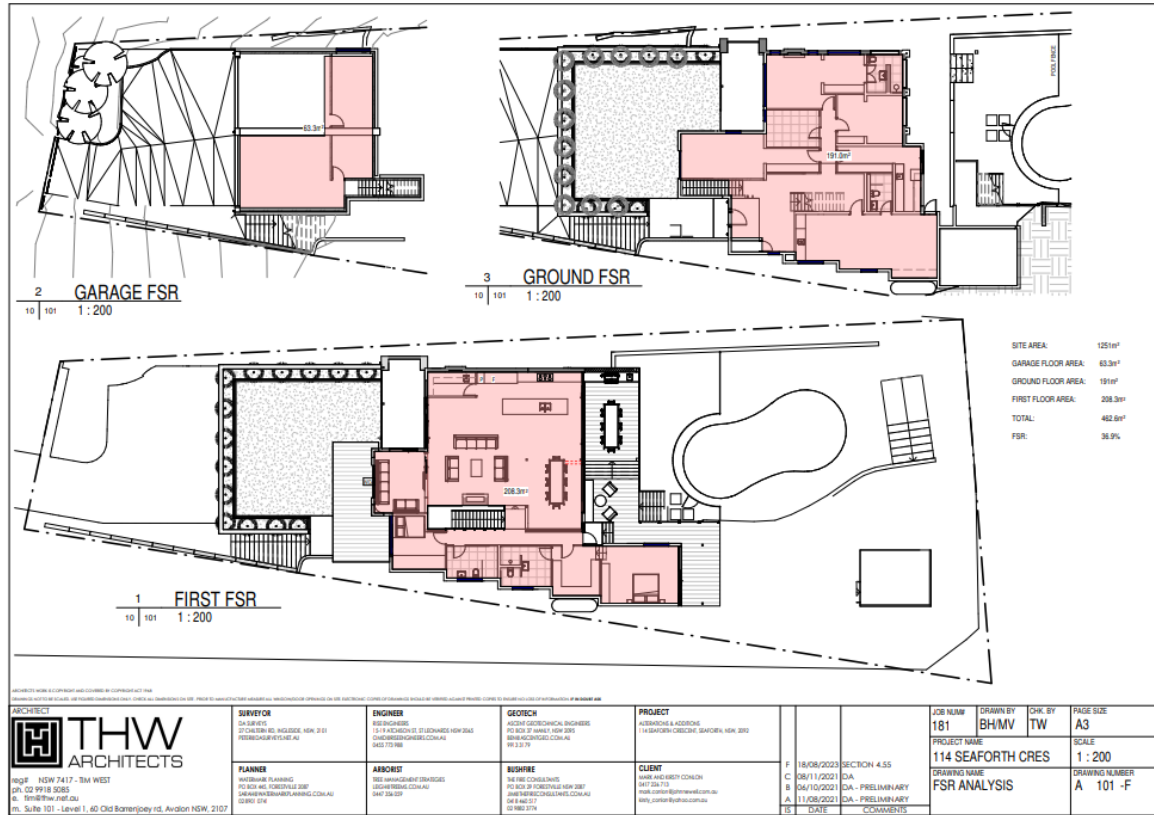
Bushfire Hazard Assessment 114 Seaforth Crescent, Seaforth. NSW 2092
20th September 2023



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20th September 2023



Bushfire Hazard Assessment 114 Seaforth Crescent, Seaforth. NSW 2092
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Appendix 2 - Site Photos



Photo 1 – Indicates a recreational reserve directly West of the subject Lot (Google 2021)



Photo 2– Indicates Seaforth Crescent looking South (Google 2021)