Reference number 3502

Member of the Fire Protection Association of Australia

Lot 2, DP 112668, 105 Arthur Street, Forestville, NSW 2087.

Monday, 26 July 2021

Prepared and certified by:	Matthew Willis *BPAD – Level 3 Certified Practitioner* Certification No: BPD-PA 09337		26/07/2021
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-29 and BAL-19	
Is referral to the RFS required?		At the discretion of Council.	
Can this development comply with the requirements of PBP?		Yes	
Plans by "Leung Architects" (Appendix 1) dated.		13/7/2021	

Bushfire Planning Services

15 Parkcrest Place

Kenthurst NSW 2156

02 96543228

0428408577

mattw@bushfireconsultants.com.au

Bushfire Risk Assessment

Monday, 26 July 2021

Contact

Jeff Leung

Leung Architects

25 Killarney Drive

Killarney Heights NSW 2087

94535020

Subject Property

Lot 2, DP 112668

105 Arthur Street

Forestville NSW 2087

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 2, DP 112668, number 105 Arthur Street Forestville
Description of the Proposal	Alterations and additions to an existing dwelling
Plan Reference	13/7/2021
BAL Rating	BAL-29 and BAL-19
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	*Monday, 26 July 2021*
REPORT DATE	*Monday, 26 July 2021*
CERTIFICATION NO/ACCREDITED SCHEME	*FPAA BPAD A BPD-PA 09337*

Attachments:

- Bushfire Risk Assessment Report
- Recommendations

SIGNATURE: ---  ------ ***DATE:*** *-----Monday, 26 July 2021*

Contents.

1 Executive Summary.

Bushfire Planning Services has been requested to supply a bushfire compliance report on lot 2, DP 112668, 105 Arthur Street, Forestville.

The works proposed for the subject lot are for relatively minor alterations and additions to an existing dwelling, see attached plans for details.

The subject lot is on the southern side of Arthur Street and at its closest point to the hazard the proposed new work has a separation distance to the north-east of approximately 98.4m.

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 30.94°.

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 proposal has a separation distance of greater than 100m from any hazard to all but one direction, the north-west where it achieves greater than 90m separation.

The hazard to the north-west through to north is on land that slopes steeply downslope away from the proposal. The vegetation is classified as Sydney North Exposed Sandstone Woodland which is a Sydney Coastal Dry Sclerophyll Forest (SCDSF).

As can be seen in the aerial photographs in section 4 of this assessment the area has an open canopy and is more like a woodland than a forest, this will have an effect on the fire behaviour from this direction and will reduce the intensity of a fire on the steeply sloping lands.

The RFS currently has a position on lands where the slope exceeds 20 degrees downslope that a fire needs to be modelled and the calculated flame length is then laid flat on the ground and applied as the setback distance to avoid the lot being deemed as Flame Zone. In this instance the flame length based on SCDSF and a slope of 30.94 degrees downslope exceeds 140m, this is considered as an unrealistic flame length to come out of this area of bushland.

In addition, to most aspects there are developed lots between the hazard interface and the subject lot, for a flame lying flat on the ground to contact the subject lot it would need to pass through these houses first.

Given the above it is considered unlikely that flame contact would occur at the 90+ metre separation and that the primary mechanism of bushfire attack that to this proposal would be that from radiant heat and embers.

Modelling has shown that when the site specific variables of the slope, vegetation, elevation of receiver and separation distances are considered that the highest amount of radiant heat that the new works would be exposed to is less than 29kwm2 making the appropriate BAL BAL-29 to all exposed aspects.

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-29 on its exposed northern and western aspects, and BAL-19 on the southern and eastern 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	East	South	West
Vegetation type	Managed land/forest	Managed land	Managed land/forest	Managed land/forest
Slope	Greater than 20 degrees downslope	N/A	10-15 degrees downslope	15-20 degrees downslope
Setback within lot 2	6.4m	N/A	N/A	N/A
Setback outside lot 2	92m	N/A	105m	104m
Total setback	98.4m	N/A	105m	104m
Bal level	BAL-29[1]	N/A	N/A	N/A

Note: The above 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.

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.

[1] *By method 2 calculations.*

3 Block Description.

The subject block is situated on the southern side of Arthur Street in an established area of Forestville.

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 98.4m contain existing development or land that is otherwise not considered to be a significant bushfire hazard.

- Lot; 2
- DP; 112668.
- LGA; Northern Beaches.
- Area; 800.9m2.
- Address; 105 Arthur Street, Forestville.

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 2 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 north-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.

This area has been left intentionally blank.

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

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

Map 3.The highlighted area represents the open structure of the vegetation on the steeply sloping area of land.

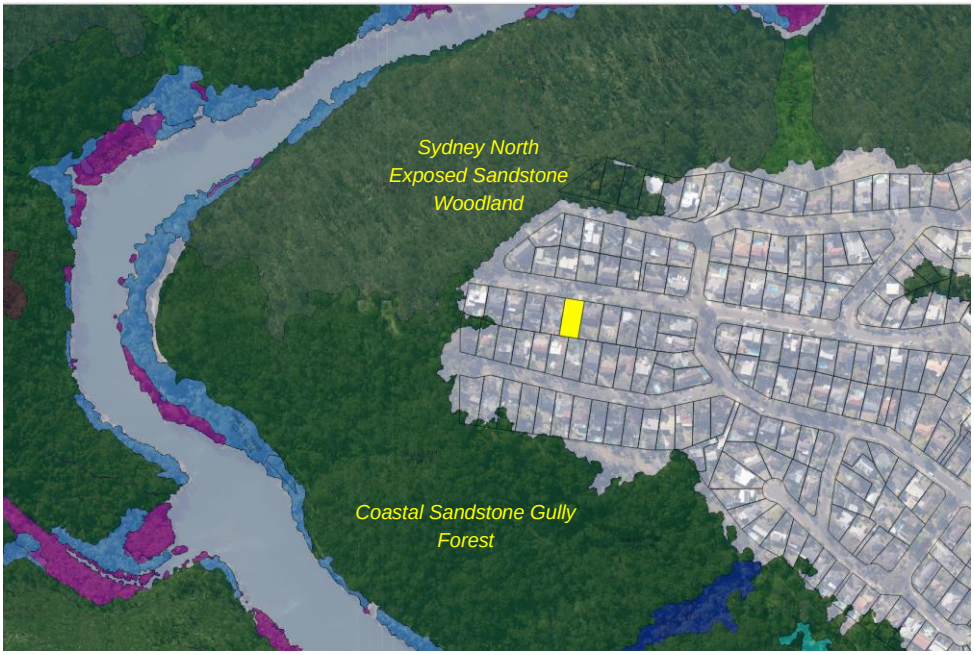


Table 1 outlines the vegetation orientation and distance from the development area.

Aspect	North	East	South	West
Vegetation type	Managed land/forest	Managed land	Managed land/forest	Managed land/forest
Setback within lot 2	6.4m	N/A	N/A	N/A
Off-site setback	92m	N/A	105m	104m
Total setback	98.4m	N/A	105m	104m

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.

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.

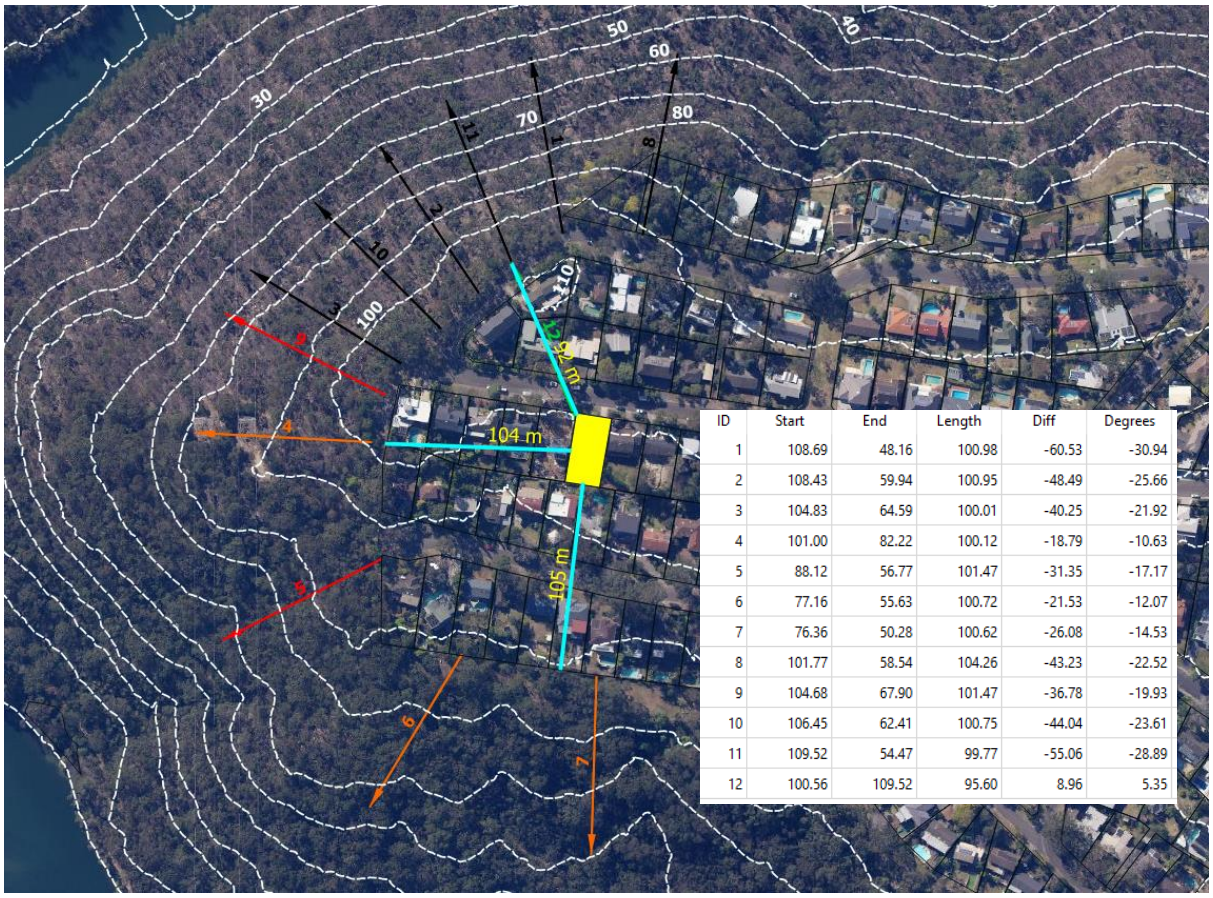


Table 2 shows the slope beneath the hazard.

Aspect	North	East	South	West
Slope	Greater than 20 degrees downslope	N/A	10-15 degrees downslope	15-20 degrees downslope

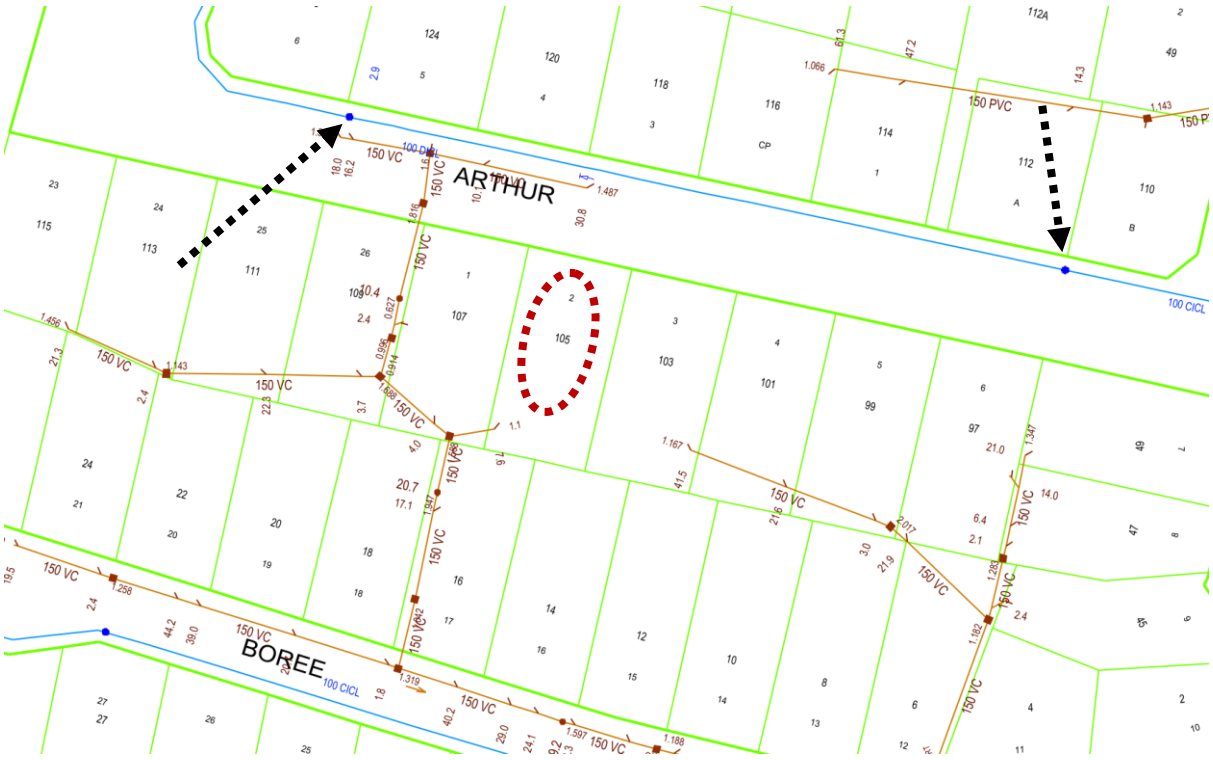
Table 2 - Any aspect marked with "N/A" in the table above indicates that it is considered there is no hazard in that direction.

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 Arthur Street.

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.

9 Compliance with Planning for Bushfire Protection setbacks.

A performance based assessment using method 2 of AS3959 has been used to calculate the BAL for this proposal.

The following variables have been used;

- FDI 100.
- 21.3 tph surface fuel.
- 27.3 tph total fuel.
- Elevation of receiver 6.6m.
- Effective slope of 30.94 deg d/s.
- Site slope 5.35 deg d/s.

Assessment Run

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

Assessment Details

Run Calc

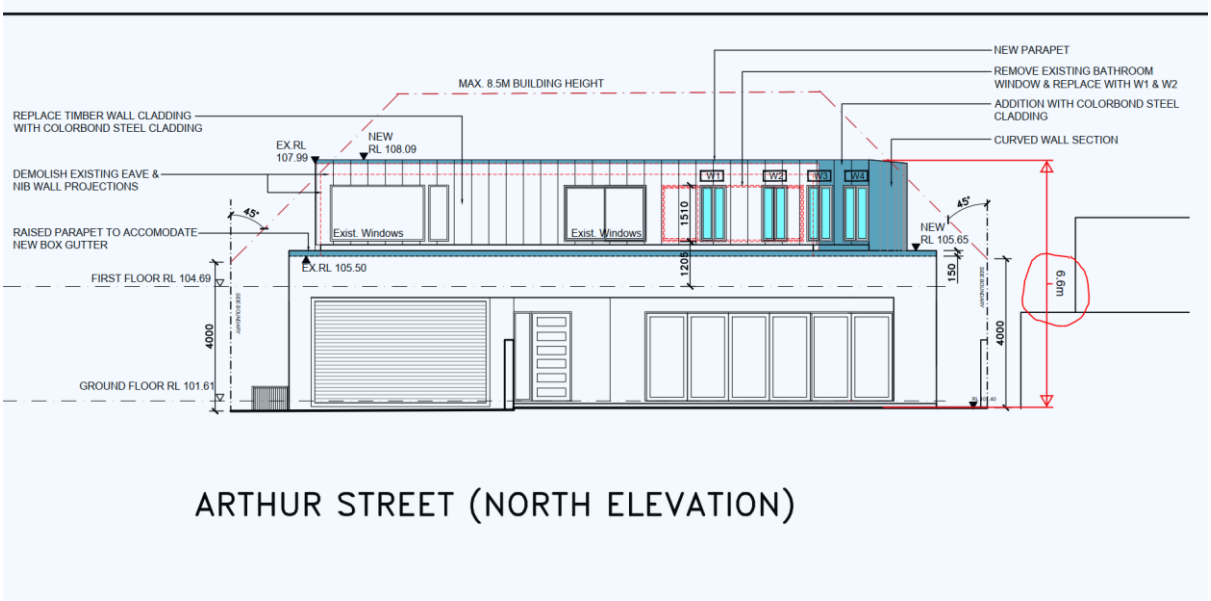
Run Description:	North-east			
Filter Vegetation Class:	NSW Comprehensive Fuel Loads			
Vegetation Type:	Sydney Coastal DSF			
Separation Distance (m):	98.4	Slope Unit:	Degrees	
Vegetation Slope:	30.94	Vegetation Slope Type:	Downslope	Override Slope Kataburn
Site Slope:	5.35	Site Slope Type:	Downslope	
Flame Width (m):	100	Flame Temp (K):	1090	
Elevation of Receiver (m):	6.6	Note: Leave as Default to copy peak elevation.		
Heat Shield Height (m):	0	Note: Measured directly against the vegetation.		
Heat Shield Width (m):	0	Note: Measured in the centre of the vegetation.		

Short Fire Run Inputs

Calculate Short Fire Run	☐	Fire Run (m):	0
Forest Flame Model:	McArthur	Vegetation Height (m):	1.4

Results

Radiant Heat (kW/m2):	28.5	Rate Of Spread (km/h):	21.61	Override ROS
Flame Length (m):	143.76	Transmissivity:	0.794	Override Transmissivity
Construction Level:	BAL FZ	Peak Elevation of Receiver (m):	32.37	
Fire Intensity (kW/m):	304854	Flame Angle (degrees):	28	Override Flame Angle
Inner Protection Area (m):	98	Maximum View Factor:	0.472	Override View Factor
Outer Protection Area (m):	0	Shielded View Factor:	0	



Plan 1. Shows the elevation of receiver used in the calculation of the BAL.

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 northern and western aspects.

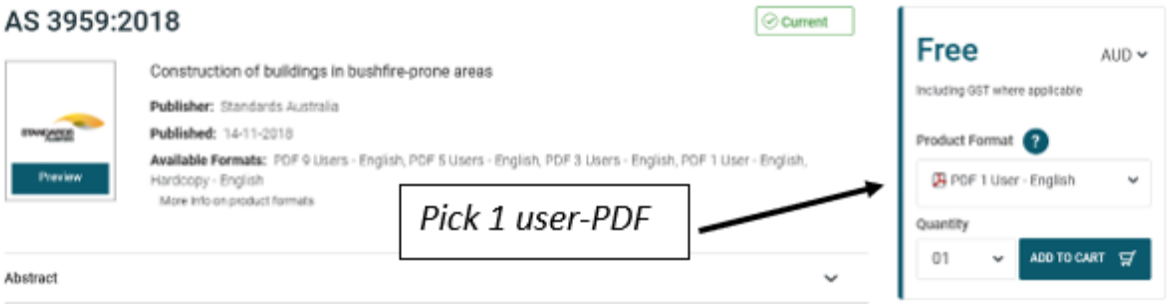
1. New construction on the northern and western aspects shall comply with the requirements of section 3 of Australian Standard AS3959-2018 "Construction of buildings in bush fire-prone areas" and,
2. New construction on the northern and western aspects shall also comply with the requirements of BAL-29 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.

Recommendation; all new work to the southern and eastern aspect.

3. New construction on the southern and eastern aspects shall comply with the requirements of section 3 of Australian Standard AS3959-2018 "Construction of buildings in bush fire-prone areas" and,
4. New construction on the southern and eastern aspects shall also comply with the requirements of and BAL-19 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.
5. New roofing valleys and guttering should be fitted with a non-combustible leaf protection to stop the accumulation of debris.

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 proposed development will have access to a reticulated water supply. There is at least one hydrant indicated within the required distance from the dwelling.

Recommendation;

Nil.

12.2 Electricity and Gas.

Recommendation;

6. 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;

7. At the commencement of building works and in perpetuity the entire property shall be managed as an Asset Protection Zone in accordance with the requirements of Planning for Bushfire Protection, the RFS document Standards for Asset Protection Zones and in a manner that does not create a bushfire hazard to the property.

14 Landscaping.

Recommendation;

8. Any new fencing is to be constructed in accordance with section 7.6 of Planning for Bushfire Protection 2019.
9. 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 development[2]:
    - 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);

[2]*Refer to referenced documents for a complete description.*

- 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

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 defendable 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	Achievable with the implementation of the recommendations in section 16

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).	
WATER AND UTILITY SERVICES: • 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: • 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

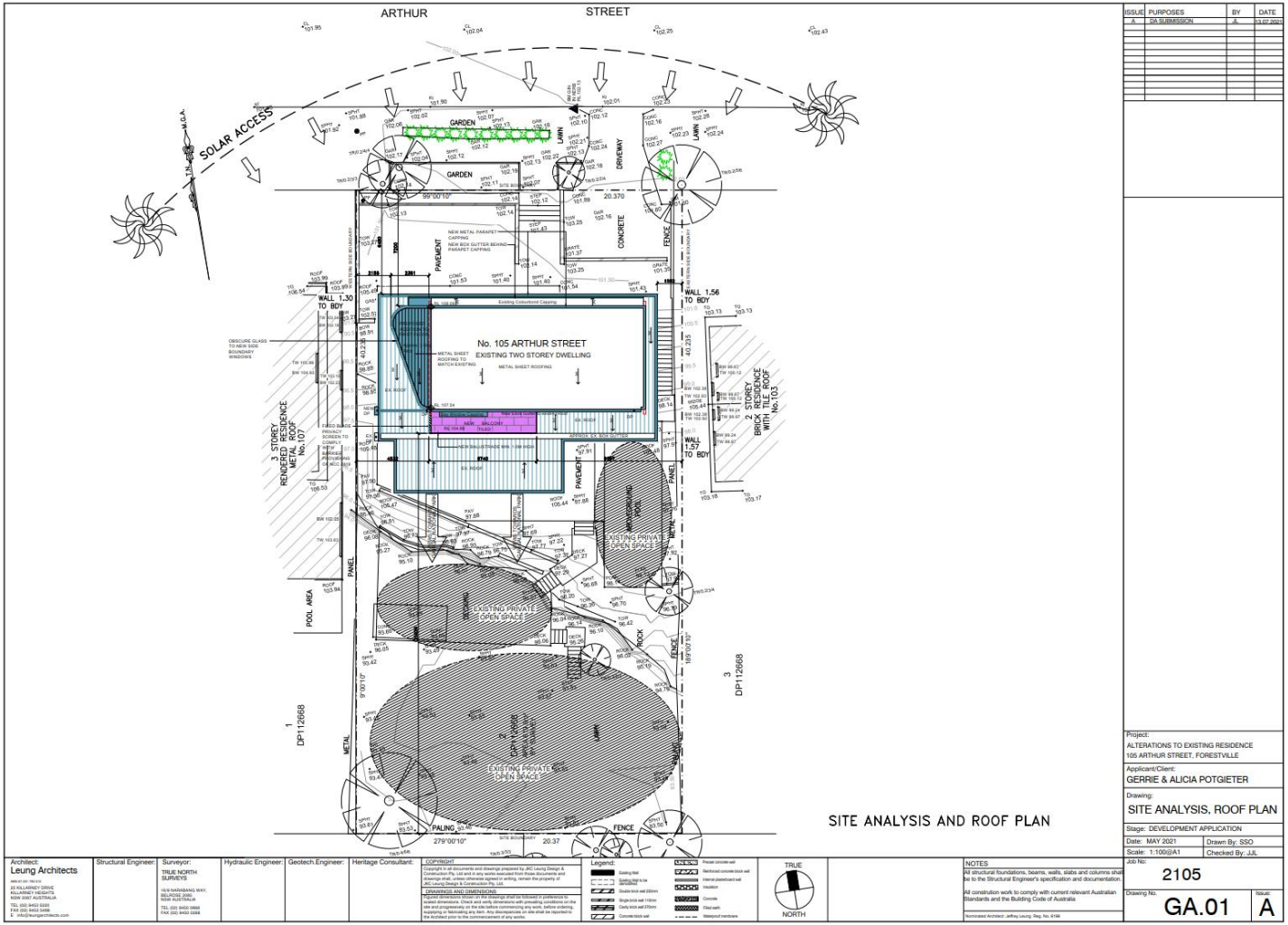
Grad Dip Planning for Bushfire Prone Areas

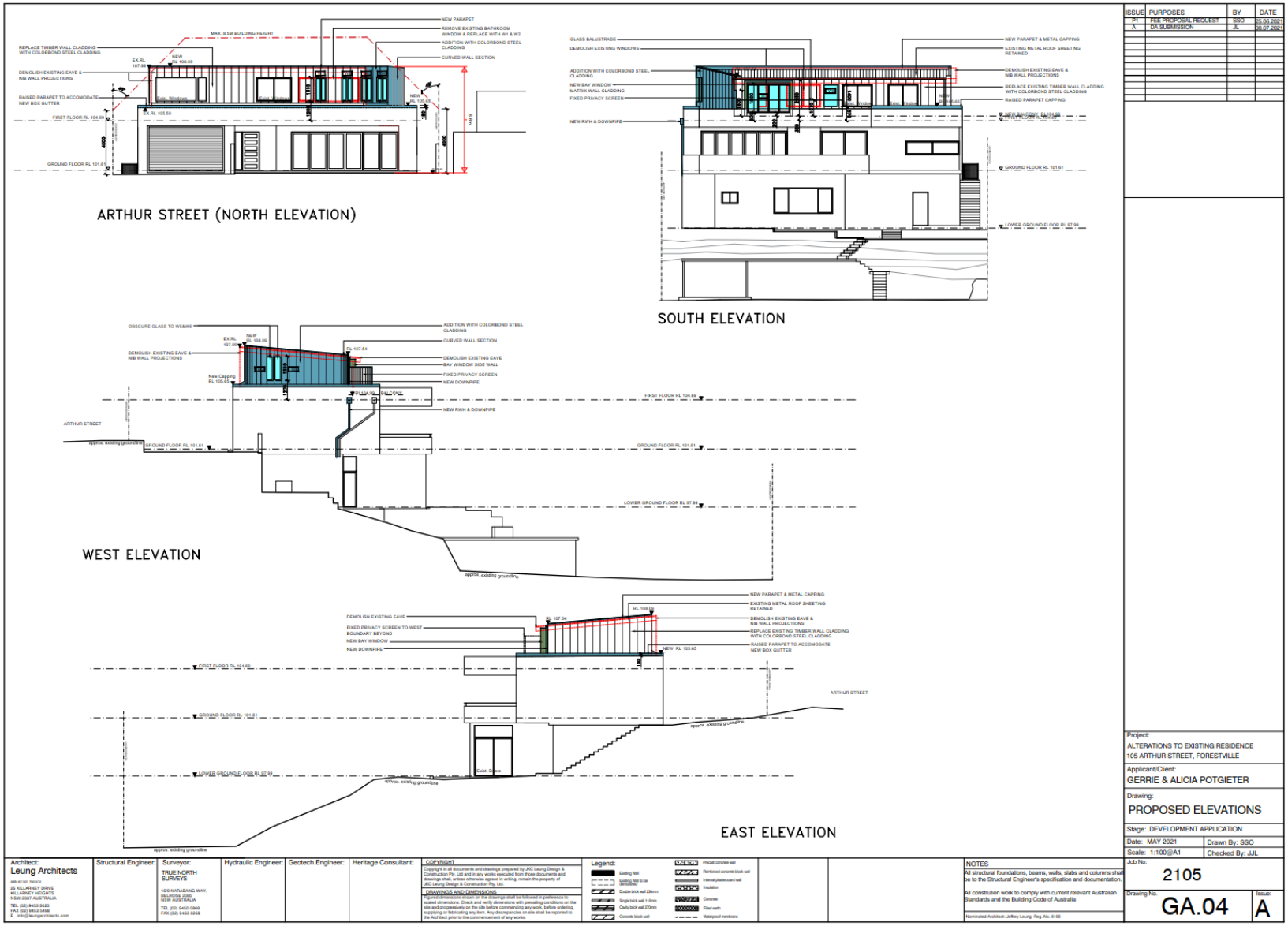
Bushfire Planning Services Pty Limited

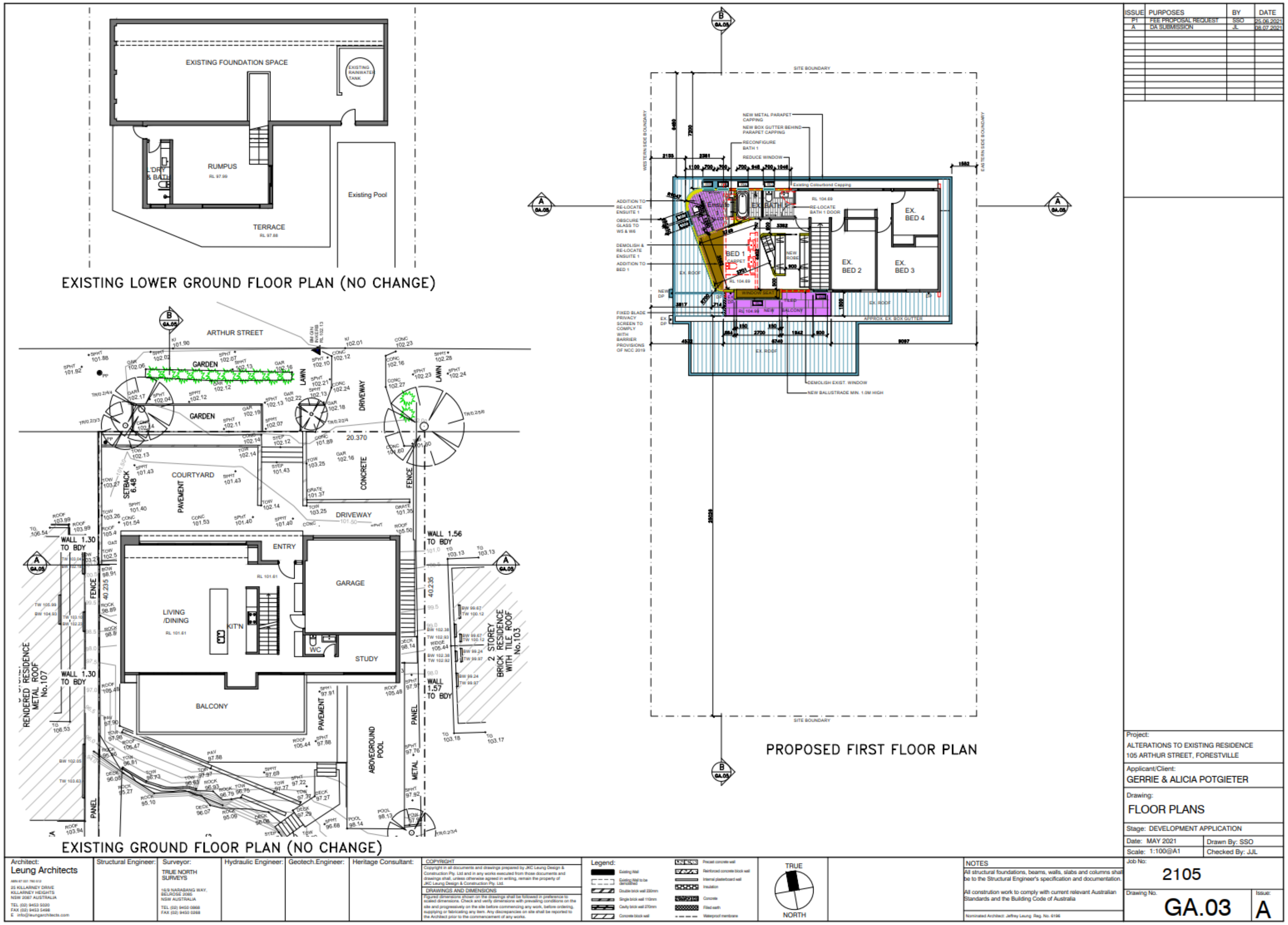
19 References.

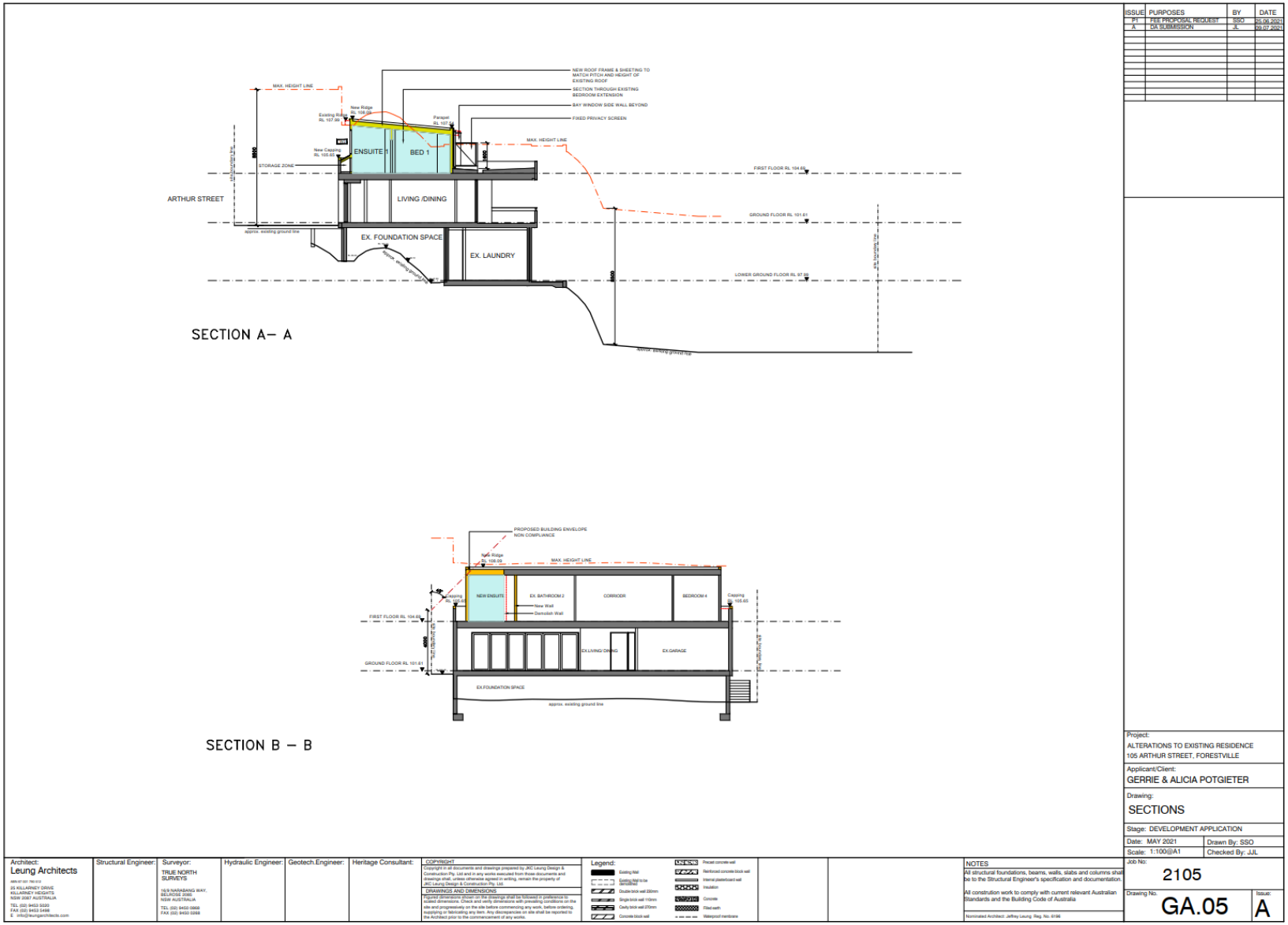
- *Australian Building Codes Board (2019). National Construction Code Volume One - Building Code of Australia. ABCB*
- *Australian Building Codes Board (2019). National Construction Code Volume two - Building Code of Australia. ABCB.*
- *Keith, D.A. (2004). Ocean Shores to Desert Dunes: The Native Vegetation 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 .




ARTHUR STREET (NORTH ELEVATION)
SOUTH ELEVATION
WEST ELEVATION
EAST ELEVATION
ISSUE | PURPOSES | BY | DATE
P1 | FEE PROPOSAL REQUEST | SSO | 25.06.2021
A | DA SUBMISSION | JL | 06.07.2021
Project:
ALTERATIONS TO EXISTING RESIDENCE
105 ARTHUR STREET, FORESTVILLE
Applicant/Client:
GERRIE & ALICIA POTGIETER
Drawing:
PROPOSED ELEVATIONS
Stage: DEVELOPMENT APPLICATION
Date: MAY 2021
Drawn By: SSO
Scale: 1:100@A1
Checked By: JJL
Job No:
2105
Drawing No.
GA.04
Issue:
A
Architect:
Leung Architects
Surveyor:
TRUE NORTH SURVEYS
Structural Engineer:
Hydraulic Engineer:
Geotech.Engineer:
Heritage Consultant:
COPYRIGHT
DRAWINGS AND DIMENSIONS
Legend:
NOTES


EXISTING LOWER GROUND FLOOR PLAN (NO CHANGE)
EXISTING FOUNDATION SPACE
RUMPUS
TERRACE
Existing Pool
PROPOSED FIRST FLOOR PLAN
EX. BED 4
EX. BED 2
EX. BED 3
BED 1
EX. ROOF
ARTHUR STREET
GARDEN
COURTYARD
DRIVEWAY
ENTRY
GARAGE
LIVING /DINING
KIT'N
STUDY
WC
BALCONY
ABOVEGROUND POOL
RENDERED RESIDENCE METAL ROOF No.107
2 STOREY BRICK RESIDENCE WITH TILE ROOF No.103
EXISTING GROUND FLOOR PLAN (NO CHANGE)
Architect: Leung Architects
Surveyor: TRUE NORTH SURVEYS
TRUE NORTH
NORTH
Project: ALTERATIONS TO EXISTING RESIDENCE 105 ARTHUR STREET, FORESTVILLE
Applicant/Client: GERRIE & ALICIA POTGIETER
Drawing: FLOOR PLANS
Stage: DEVELOPMENT APPLICATION
Date: MAY 2021
Drawn By: SSO
Scale: 1:100@A1
Checked By: JJL
Job No: 2105
Drawing No. GA.03
Issue: A


NEW ROOF FRAME & SHEETING TO MATCH PITCH AND HEIGHT OF EXISTING ROOF
SECTION THROUGH EXISTING BEDROOM EXTENSION
BAY WINDOW SIDE WALL BEYOND
FIXED PRIVACY SCREEN
MAX. HEIGHT LINE
ENSUITE 1
BED 1
STORAGE ZONE
ARTHUR STREET
LIVING /DINING
EX. FOUNDATION SPACE
EX. LAUNDRY
FIRST FLOOR RL 104.65
GROUND FLOOR RL 101.61
LOWER GROUND FLOOR RL 97.06
SECTION A– A
PROPOSED BUILDING ENVELOPE NON COMPLIANCE
MAX. HEIGHT LINE
NEW ENSUITE
EX. BATHROOM 2
CORRIDOR
BEDROOM 4
EX.LIVING DINING
EX.GARAGE
EX.FOUNDATION SPACE
SECTION B – B
ISSUE PURPOSES BY DATE
P1 FEE PROPOSAL REQUEST SSO 25.06.2021
A DA SUBMISSION JL 09.07.2021
Project:
ALTERATIONS TO EXISTING RESIDENCE
105 ARTHUR STREET, FORESTVILLE
Applicant/Client:
GERRIE & ALICIA POTGIETER
Drawing:
SECTIONS
Stage: DEVELOPMENT APPLICATION
Date: MAY 2021
Drawn By: SSO
Scale: 1:100@A1
Checked By: JJL
Job No:
2105
Drawing No.
GA.05
Issue:
A
Architect:
Leung Architects
Structural Engineer:
Surveyor:
TRUE NORTH SURVEYS
Hydraulic Engineer:
Geotech.Engineer:
Heritage Consultant:
COPYRIGHT
DRAWINGS AND DIMENSIONS
Legend:
NOTES
All structural foundations, beams, walls, slabs and columns shall be to the Structural Engineer's specification and documentation.
All construction work to comply with current relevant Australian Standards and the Building Code of Australia