



Building Code & Bushfire Hazard Solutions

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Lendlease
Exchange Place, 300 Barangaroo Avenue
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29th June 2020
Our Ref. 160107D

**Re: GLENAEON RENEWAL DEVELOPMENT
PRECINCT 199 FOREST WAY & PRECINCT 207 FOREST WAY, BELROSE NSW 2085
RESPONSE TO NORTHERN BEACHES COUNCIL PRELODGE MENT ADVICE FOR
PLM2019/0180**

This letter has been prepared by Building Code & Bushfire Hazard Solutions P/L (BCBHS) in response to prelodgement advice issued by Northern Beaches Council Referral Comments for PLM2019/0180. Specifically this letter addresses the bushfire related comments provided by the Natural Environment Unit.

BCBHS was engaged by Lendlease early in the site investigation phase of this proposal as it was established from the onset that key objectives would be minimising environmental impact and providing not just technical compliance with Planning for Bush Fire Protection 2006, but ensuring a better bushfire safety outcome for the entire village. BCBHS has worked alongside Keystone Ecological (engaged ecologist) to ensure these objectives were achieved and maintained throughout the design process.

These key objectives underpinned the design for both the 199 Forest Way Precinct and 207 Forest Way Precinct.

Early activities for this proposal included BCBHS and Lendlease representatives meeting with the NSW Rural Fire Service (RFS), via their Pre-DA Advice pathway, to ensure the application would address any specific additional considerations they deemed appropriate. At this stage it was reaffirmed by the RFS that the proposal must achieve a better bushfire outcome for the entire village than if the development did not proceed, which included the formalisation of the Asset Protection Zones (APZs) onsite.

In relation to Building D, Council is maintaining concern illustrated in previous advice that the proposed building is located closer to the hazard on adjoining properties to the east and that the vegetation classification and effective slope to the east is incorrect.

It is important to note that the RFS have assessed the proposal, including Building D, and issued their General Terms of Approval under Division 4.8 of the 'Environmental Planning and Assessment Act 1979' and Bushfire Safety Authority under section 100B of the 'Rural Fires Act 1997' (ref D18/6902, dated 17th October 2019). Collectively the entire consultation period with the RFS has seen the proposal reviewed by a Development and Assessment Officer, an Acting Team Leader, a Team Leader and the Manager of Planning and Environment Services at the NSW Rural Fire Service.

We are of the opinion that the proposal demonstrates compliance with all relevant specifications and requirements of Planning for Bush Fire Protection 2006.

It is acknowledged that on 1st March 2020 Planning for Bush Fire Protection 2019 was legislated under the *Environmental Planning and Assessment Regulation 2000*. While the *Rural Fires Regulation 2013* maintains reference to Planning for Bush Fire Protection 2006 it is understood that the NSW Rural Fire Service are applying the newer version (PBP 19) for new section 100b applications.

In this regard we have engaged with Mr Adam Small (Development Assessment and Planning Officer, NSW Rural Fire Service) to ascertain whether PBP 19 would be applied to this modification. It was confirmed that the RFS would seek to apply PBP 19.

In addition to this clarification was sought as to whether the Pre-DA advice from the NSW RFS was still valid, as it references PBP 06. The response from Mr Small was the Pre-DA advice remains current however where reference is made to PBP 06 it should be read as PBP 19.

For the benefit of the NSW Rural Fire Service the subject modification remains largely consistent with the original application which they issued their General Terms of Approval under Division 4.8 of the 'Environmental Planning and Assessment Act 1979' and Bushfire Safety Authority under section 100B of the 'Rural Fires Act 1997' (ref D18/6902, dated 17th October 2019). This application relates to the reinstatement of Building D and adjustment to the location of the approved ponds. All aspects of the previous application remain current and not subject to this modification.

In the prelodgement comments Council has assessed 'the new building' as being closer to the hazard and consequently is of the opinion that it does not satisfy the objectives of Planning for Bush Fire Protection.

Council has correctly identified that the Precinct 207 Forest Way site is eligible for assessment under section 4.2.5 'SFPPs as infill' of PBP 06 (now s6.4 of PBP 19) as it relates to the redevelopment of an existing SFPP development approved prior to 1st August 2002.

In this regard s6.4 of PBP 19 states:

new buildings should be located as far from the hazard as possible and should not be extended towards or situated closer to the hazard than the existing buildings (unless they can comply with section 6.8)

As acknowledged by Council the 'hazard exists as native vegetation (Forest), both on site and within the adjoining lots less than 100 metres to the east and south-east.' The result of the bushfire hazard onsite is that several existing dwellings onsite are currently located within the designated Flame Zone.

The management of the now approved APZ results in the bushfire 'hazard' interface being redefined to the property boundary rather than including vegetation within the subject site.

The approved formalized management of the APZ and subsequent redefined hazard interface results in proposed Building D being located further from the hazard interface than other existing buildings within the subject site.

In relation to Council's concern regarding the reported vegetation classification and effective slope to the east, following the approved vegetation management (APZ) onsite the residual vegetation is considered to achieve the threshold for 'Remnant' vegetation as described in A1.11 of PBP 19.

This classification allows for a Rainforest structure to be used to determine the APZs and Bushfire Attack Level.

It should also be noted by Council that aside from the RFS approving the original application, inclusive of Building D and the accompanying assessment / justification, the RFS also acknowledged the 'reduced hazard immediately east of the site' in their Pre-DA advice to the applicant.

In accordance with A2.3 of PBP 06 the effective slope was measured along the length of the Remnant. Our assessment which accompanied the original Development Application was subsequently accurate to PBP 06. This was confirmed with the NSW RFS approving the entirety of the proposal, including proposed Building D.

It is acknowledged that PBP 19 no longer references the slope being measured along the length of the Remnant and therefore we have updated our assessment to be consistent with the now enforced PBP 19.

The following table reflects the updated assessment:

Building D:

	North	East	South	West
Vegetation structure	Maintained grounds	Remnant	Forest	Maintained grounds
Effective slope within hazard	n/a	5 - 10 degrees down	0 – 5 degrees down	n/a
Minimum APZ for new SFPP (10 k/Wm²)	n/a	57 metres	79 metres	n/a
Available APZ (separation)	>100 metres	30 metres	70 metres	>100 metres
Significant Landscape Features	Proposed Building B	Neighbouring private allotments	Existing apartments	Proposed Building C
Threatened Species	APZ approved	APZ approved	APZ existing	APZ existing
Aboriginal Relics	APZ approved	APZ approved	APZ existing	APZ existing
Bushfire Attack Level	BAL Low	BAL 19	BAL 12.5	BAL Low

Asset Protection Zones Compliance

The Glenaeon Renewal development for Precinct 207 Forest Way of the existing Glenaeon Retirement Village site is eligible for assessment under section 6.4 'Development of existing SFPP facilities' of PBP as it relates to the redevelopment of an existing SFPP development approved prior to 1st August 2002.

In this regard proposed Building D is located further from the bushfire hazards than the existing apartments, is outside the designated Flame Zone (within BAL 19) and will be constructed to the corresponding Bushfire Attack Level.

Construction Level Compliance

The highest Bushfire Attack Level to proposed Building D was determined from Table 1.12.5 of PBP 19 to be 'BAL 19'.

Proposed Building D within Precinct 207 Forest Way is required to comply with section 3 and BAL 19 under section 6 of AS 3959 – 2018 and section 7.5 of PBP 2019.

In applying A1.8 of PBP 19 the western elevation has been downgraded to BAL 12.5 due to shielding provided by the building itself.

In this regard the following update recommendation is provided for proposed Building D:

Construction

1. New roofing and all new construction facing north, east and south for Building D shall comply with section 6 (BAL 19) Australian Standard AS3959-2009 'Construction of buildings in bush fire-prone areas' 2018 and section 7.5 of 'Planning for Bush Fire Protection' 2019.
2. New construction facing west for Building D shall comply with section 5 (BAL 12.5) Australian Standard AS3959-2009 'Construction of buildings in bush fire-prone areas' 2018 and section 7.5 of 'Planning for Bush Fire Protection' 2019.

Reference is also made by Council to the existing development relying upon an APZ within an adjoining allotment to the south. The proposal has no reliance on the informal APZ to the south of the existing village. Furthermore the proposal does not rely on any APZs that would extend off site to the east.

Finally Council has raised concern regarding the building design, especially the roof design and large areas of glazing facing the hazard, and requested a design review 'to ensure the safety of the building, the residents and emergency services workers.

It is interesting that Council has identified a concern for building safety, residents and emergency services workers when it relates to building design however by their own admission it did not support the APZ within the site which provides far greater protection to buildings (existing and approved / proposed), residents and emergency service workers.

Our revised assessment under PBP 19 has concluded proposed Building D must comply with section 6 (BAL 19) Australian Standard AS3959-2009 'Construction of buildings in bush fire-prone areas' and section 7.5 of 'Planning for Bush Fire Protection' 2019.

It should be noted that the application of BAL 19 to proposed Building D is higher than the BAL 12.5 already approved by the NSW Rural Fire Service.

PBP describes BAL 19 as:

Attack by burning debris is significant with radiant heat flux (not greater than 19kW/m²) threatening some building elements (such as screened glass). Specific construction requirements for embers and radiant heat are warranted.

In addition to the building complying with the requirements of AS3959 – 2018 proposed Building D must also comply with Type A construction under the National Construction Code, which does not permit the use of external combustible materials. The general construction type will comprise of brick, concrete panel walls, concrete frame, concrete slab floors and steel roofing. The building will also be fitted with an internal fire sprinkler system and other required essential fire safety measures (e.g. hydrants, hose reels, detection and warning systems).

It is of our opinion that the current design of Building D is acceptable and in conjunction with the general construction type is more than capable of providing protection to residents.

Should you have any questions or require any further detail please do not hesitate in contacting us.

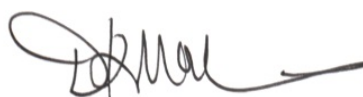
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