

Reference: 172103_C2_DA_02

09 July 2021

Frasers Property Ivanhoe Pty Ltd
Level 2, 1C Homebush Bay Drive,
Rhodes NSW 2138 Australia

Attention: Chris Koukoutaris

RE: DA Letter of Support | Ivanhoe Estate – Stage 2 | Lot C2

This advice is provided as support to the Development Application for Lot C2 of the Ivanhoe Estate redevelopment, a State Significant Development (SSD) submitted to the Department of Planning and Environment (DPE) pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act). It has been prepared for Aspire Consortium on behalf of NSW Land and Housing Corporation.

In September 2015 the Ivanhoe Estate was rezoned by DPE as part of the Macquarie University Station (Herring Road) Priority Precinct, to transform the area into a vibrant centre that benefits from the available transport infrastructure and the precinct's proximity to jobs, retail and education opportunities within the Macquarie Park corridor.

The Ivanhoe Estate is currently owned by NSW Land and Housing Corporation and comprised 259 social housing dwellings. The redevelopment of the Ivanhoe Estate is part of the NSW Government Communities Plus program, which seeks to deliver new communities where social housing blends with private and affordable housing, with good access to transport, employment, improved community facilities and open space.

The Communities Plus program seeks to leverage the expertise and capacity of the private and non-government sectors. As part of this program, Aspire Consortium, comprising Frasers Property Australia and Mission Australia Housing, were selected as the successful proponent to develop the site in July 2017.

In September 2017, DPE issued the Secretary's Environmental Assessment Requirements for a comprehensive Masterplan application that will establish the framework for the staged redevelopment of the site. This Development Application for Lot C2 of the Ivanhoe Estate redevelopment represents the 2nd stage of detailed works pursuant to the Ivanhoe Estate Masterplan.

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The Ivanhoe Estate site is located in Macquarie Park near the corner of Epping Road and Herring Road within the Ryde Local Government Area (LGA). The site is approximately 8.2 hectares and previously comprised 259 social dwellings, comprising a mix of townhouse and four storey apartment buildings set around a cul-de-sac street layout

Immediately to the north of the site are a series of four storey residential apartment buildings. On the north-western boundary, the site fronts Herring Road and an adjacent residential development site. Epping Road runs along the south-western boundary of the site and Shrimptons Creek, an area of public open space, runs along the south-eastern boundary. Vehicle access to the site is via Herring Road.

Ivanhoe Estate comprised of 17 individual lots owned and managed by the NSW Land and Housing Corporation. The Masterplan site also incorporates adjoining land, being a portion of Shrimptons Creek and part of the commercial site at 2-4 Lyonpark Road. This land is included to facilitate a bridge crossing and road connection to Lyonpark Road.

The purpose of this statement is to provide confidence to the Consent Authority that prior to the issue of Development Application (DA) Consent, that the proposed development known as Ivanhoe Estate Stage 2 - Lot C2, will be formally assessed by an Accredited C10 Fire Safety Engineer and demonstrated to fully comply with the Performance Requirements of the Building Code of Australia (BCA), as applicable within New South Wales.

The proposed site forms as an extension to the Ivanhoe C1 building located to the east of the C2 development. C2 is listed a "village green and community centre" hence mostly comprising of external landscaping for community activities supported by an indoor public swimming pool, gymnasium and multiple public use function rooms. A small café is located at the north of the development with on grade access provided from "Main Street". The lowest level is provided with direct access into the Ivanhoe C1 Basement Level 03 carpark and will accommodate the C2 plant equipment for the pool and community centre above.

The C2 extension comprises of three (3) trafficable storeys of Class 6 retail and Class 9b assembly building. As an extension and amalgamation as a united building to C1, C2 must adopt the DTS requirements for a building with an effective height greater than 50m and hence comply with Type A construction provisions. The Ivanhoe C2 building design incorporates design features that do not fully meet the prescriptive Deemed-to-Satisfy (DTS) provisions of the BCA. As a result of the design not conforming to the DTS provisions of the BCA, the building solution applied shall be performance based rather than wholly prescriptively based.

In undertaking this review Affinity Fire Engineering has reviewed the Development Application submission architectural drawings prepared by architects CHROFI (Ivanhoe Village Green & Community Centre, Project Number 2041, Dated: 23/06/2021, DA Issue 4) and the BCA compliance advice provided by AE&D Pty Ltd (Report Ref: 11067.1, Revision: 02, Dated: 09/07/2021) and have provided fire safety engineering advice through emails, meetings, mark ups and workshops with recommended design changes to be incorporated in order to achieve a level of safety that enables the design to meet the performance provisions of the BCA.



Based on these documents, Affinity Fire Engineering's review and advice confirms that the proposed design incorporates features that have been identified to not meet the prescriptive Deemed-to-Satisfy (DtS) provisions of the BCA. As a result of the design not conforming to the DtS provisions of the BCA, the building solution applied shall be performance based rather than wholly compliant with the BCA.

In particular, the fire safety strategy and fire engineering design shall focus on the following site critical design issues in order to confirm compliance with the Performance Requirements of the BCA:-

- ▶ Occupant egress in the event of a fire emergency and the maintenance of tenable conditions for occupant evacuation and fire brigade intervention;
- ▶ Fire and smoke spread throughout the building and its impact on occupant egress;
- ▶ Site access and fire services design to facilitate fire brigade intervention.

Amongst other matters which may be established through the full design development stages, the fire safety strategy and associated reports shall incorporate assessment of the following non-conformances with the DtS provisions of the BCA:

- ▶ Travel distances exceeding 20m to a Point of Choice from the Basement Floor plant rooms departing from BCA Clause D1.4 and addressing Performance Requirements DP4 and EP2.2.
- ▶ The distance between alternative exits via the Basement level plant area exceeds 60m departing from the BCA Clause D1.5 and addressing Performance Requirement DP4 and EP2.2
- ▶ The internal door swing of the Upper Ground Floor entry foyer to the Community 1 and 2 and café departing from BCA Clause D2.20 and addressing Performance Requirement DP2.
- ▶ Through consultation with Fire & Rescue NSW, assess the external fire hydrants that provide protection to C2 to be located within 10m of the building and not be protected in accordance with AS2419.1-2005 – BCA Clause E1.3 and E1.5, and addressing Performance Requirement EP1.3.
- ▶ The fire sprinkler isolation valve to be located within the C1 fire pumproom and hence not located with direct access to open space departing from BCA Specification E1.5 and addressing Performance Requirement E1.4.
- ▶ Omission of automatic zone pressurisation from the C2 departing from BCA Clause E2.2 and addressing Performance Requirement EP2.2.

The identified list of deviations from the prescriptive BCA provisions is a non-exhaustive list as result of the limited services design input at this concept design phase, which may be increased once full services design input is received.

The subject design for the community and retail extension of the C1 residential development known as Lot C2 within Stage 2 of the Ivanhoe Estate is considered by Affinity Fire Engineering to not compromise the expected fire safety strategy, fire brigade intervention or conformance with the building regulations. Hence, Affinity Fire Engineering anticipate that the fire safety engineering assessment to be conducted as part of the Construction Certificate stage will achieve compliance with the Performance Requirements of the BCA.

It is noted that this document should not be used for Construction Documentation as the formal fire engineering process and assessment is required to be completed prior.



We trust that the above information is sufficient for Consent Authority's needs with respect to fire safety design and compliance with the relevant building regulations in this regard. Should any further information be required for a determination to be made please contact the undersigned on 02 9194 0590.

Yours faithfully

A handwritten signature in black ink, appearing to read 'T O'Dwyer'.

Thomas O'Dwyer

Director,

Affinity Fire Engineering

Fire Safety Engineer - BDC 0766

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