



Our Ref: F201584\_SSDA\_03

27 August 2021

Roberts Co  
Level 54, Governor Phillip Tower  
1 Farrer Place, Sydney NSW 2000

**Attention: Chris Billinghamurst**

Dear Chris,

**RE: Sydney Olympic Park High School | Development Application Letter | 7-11 Burroway Road, Wentworth Park**

The purpose of this statement is to provide confidence to the Consent Authority that prior to the issue of any development consent for the above project the building design shall fully comply with the Performance Requirements of the Building Code of Australia (BCA), as applicable within New South Wales.

## 1.1 PROPOSAL

The proposed development is for the construction of a school whereby the project is known as Sydney Olympic Park new high school. The school is to be developed in two stages. The SSD application will seek consent for both Stage One and Stage Two. While Stage Two is submitted as part of this proposal, construction is subject to approval of additional funding.

Stage One will provide for a Stream 5 high school, catering for up to 850 students. Stage Two will bring the school up to a stream 9 school capability catering up to 1,530 students.

The design features a six storey building. To the north of the site, a hall building (for sports and performance) is proposed.

The play space required to meet the need of students for Stage One can be generally accommodated onsite, within the 9,511sqm available. Additional play space may be required to accommodate the increased student numbers anticipated during Stage 2. The proposed adjoining play space comprises an area of around 8,800sqm, and will be subject to a Joint Use Arrangement and available for public use outside school hours. The future Wentworth Point Peninsula Park will result in an open space area of approximately 4 ha.

The remainder of the peninsula (TfNSW land) is under review and will be subject to a separate approval process. Redevelopment of this land will include the new access road proposed off Burroway Road along the eastern boundary of the subject site and is proposed to include car parking, drop-off zones and delivery zones.

## 1.2 SITE DESCRIPTION

The proposed development is located within the peninsula of Wentworth Point at 7-11 Burroway Road, Wentworth Park across parts of three lots; Lot 202 DP1216628, Lot 203 DP1216628 and Lot 204 DP1216628. The site forms part of the Wentworth Point Planned Precinct, which was rezoned in 2014 for the purposes of high density residential, public recreation, school and business purposes.

The site is approximately 9,511sqm in area, with a frontage of approximately 91m to Burroway Road. It currently contains vacant land, which is cleared of all past development, and almost entirely cleared of native vegetation.

The surrounding area is generally characterised by high rise residential and mixed-use developments. The site is directly adjacent to the Wentworth Point Peninsula Park and immediately east of Wentworth Point Public School.



**Figure 1: Site Aerial Map**

**Source: Mecone**

### 1.3 FIRE SAFETY ASSESSMENT AND FIRE ENGINEERING DESIGN

The new works incorporate design measures 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 rather than wholly prescriptively based. As a result CORE Engineering Group have been engaged to develop a fire safety strategy that will satisfy the Performance Requirements as identified through the Building Code of Australia compliance report.

In particular, the fire safety assessment and fire engineering design shall focus on the following significant issues of life safety:-

- Review of proposed essential services required
- Assessment of access and egress for the safe evacuation of occupants and fire brigade intervention in the event of a fire
- Review of the proposed compartmentation requirements
- Analysis of fire and smoke spread throughout the building
- Assessment of the measures to best suit fire brigade intervention

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 9299 6605.

Yours faithfully

Christie Tran

**Fire Safety Engineer**

**FIRE ENGINEERING STATEMENT FOR DEVELOPMENT APPLICATION**

<b>CERTIFICATE NO. :</b>	F201584_SSDA_03
<b>PROPERTY DETAILS:</b>	Sydney Olympic Park High School, 7-11 Burroway Road, Wentworth Park
<b>CLIENT :</b>	Roberts Co
<b>DATE :</b>	27 August 2021

**BUILDING DESCRIPTION**

<b>DESCRIPTION OF WORKS:</b>	Construction of a six storey school and an ancillary hall building (for sports and performance)
<b>CLASSIFICATION(S):</b>	Class 9b (School and Assembly), Class 5 (Office)
<b>RISE IN STOREYS:</b>	Six (6)
<b>CONSTRUCTION:</b>	Type A
<b>EFFECTIVE HEIGHT:</b>	20m

**BASIS OF STATEMENT**

This statement is to the best of our knowledge and belief, true and accurate and is based upon: –

- BCA Review prepared by BCA Logic dated 19 August 2021.
- DA Drawings prepared by Woods Bagot dated 16 August 2021 and 18 August 2021.
- The Environmental Planning & Assessment Regulation 2000.
- Core Engineering's previous experience on similar projects.

**PROPOSED FIRE ENGINEERING STRATEGY**

Specifically, amongst other matters which may be established in the design development, the following matters are identified which shall be addressed in the fire safety strategy: -

<b>DTS PROVISION</b>	<b>NON-CONFORMANCE</b>	<b>PROPOSED PERFORMANCE SOLUTION</b>
C3.2	Protection of external walls and openings in them, within 3 m of eastern allotment boundary	Details of future road to the east of the boundary to be provided
D1.4 D1.5	Extended travel distances to the nearest exit and between alternative exits ( <i>exact measurements TBC – based on fitout and architectural design development</i> )	<ul style="list-style-type: none"><li>• Smoke detectors provided throughout on reduced spacing.</li><li>• External walkways well ventilated.</li></ul>
D1.7	Discharge of external stairways which require occupants to pass under a covered area prior to reaching the road/open space	<ul style="list-style-type: none"><li>• Non-combustible construction</li><li>• Alternative egress paths</li><li>• Smoke detection throughout</li><li>• Walkways are open on their sides / well ventilated</li></ul>

DTS PROVISION	NON-CONFORMANCE	PROPOSED PERFORMANCE SOLUTION
E1.4	Fire hose reel coverage to fire separated storerooms	<ul style="list-style-type: none"> <li>Where storerooms are fire separated, fire hose reels need not be provided within the room itself, reliant on portable fire extinguishers being provided instead.</li> </ul>
E2.2 NSW Table E2.2b	Rationalised smoke hazard management to gymnasium and studio stages	<ul style="list-style-type: none"> <li>Depending on the fire safety systems installed and detailed smoke and egress modelling, the extraction rates may be reduced.</li> </ul>

The holistic fire safety strategy relies on following measures complying with the DtS Provisions of the BCA:

- Fire compartmentation sizes must comply with Table C2.2 i.e. must not exceed 8,000 m<sup>2</sup> or 48,000 m<sup>3</sup>.
- Spandrels constructed in accordance with DtS Provision C2.6 to provide vertical separation of openings in external walls.
- Protection of the external wall and openings in them, within 6 m of the external stairs to be in accordance with the requirements of DtS Provision D1.8:
  - External walls within 6 m of the exit (incl. the landing) must achieve an FRL of 60/60/60.
  - No openings permitted within 3 m of the exit (incl. the landing).
  - Openings within 3 to 6 m of the exit (incl. the landing) must be protected in accordance with Provision C3.4 e.g. external wall wetting sprinklers.
  - Doors in this construction to be automatic or self-closing.
  - The above requirements are also applicable for the discharge path to the road/open space.

## CONCLUSION

The design which has been proposed in the development application is not considered to compromise the proposed fire safety strategy, nor compromise conformance with the building regulations. In other words, the fire safety strategy will have immaterial impact on the design of the built form presented in the architectural drawings.

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 9299 6605.

**Author:**



Christie Tran

**Fire Safety Engineer**

**MEng (Fire Protection)**

**Verified:**



Sandro Razzi

**Accredited Fire Engineer (C10) – BPB 0501**

**FIEAust CPEng 2180287 (Fire Safety)**