

Fire Management Report

Detailed State Significant Development Application
Site C, Crows Nest over station development

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1 Introduction

1.1 Purpose

This Fire Engineering DA report supports a State Significant Development (SSD) Application for the detailed design, construction and use of Over Station Development (OSD) on Site C of the Crows Nest Station precinct. It is submitted to the Department of Planning, Industry and Environment (DPIE) pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

On 9 January 2017, the Minister for Planning (the Minister) approved the Sydney Metro City & Southwest - Chatswood to Sydenham application lodged by Transport for NSW (TfNSW) as a Critical State Significant Infrastructure (CSSI) project (reference SSI 15_7400), hereafter referred to as the CSSI Approval. The CSSI Approval includes all physical work required to construct the CSSI, including the demolition of existing buildings and structures on each site. Importantly, the CSSI Approval also includes provision for the construction of below and above ground structures and other components of the future OSD (including building infrastructure and space for future lift cores, plant rooms, access, parking and building services, as relevant to each site). The rationale for this delivery approach, as identified within the CSSI application is to enable the OSD to be more efficiently built and appropriately integrated into the metro station structure.

Sydney Metro is seeking to develop an OSD commercial building located above and integrated with the Clarke Street entrance to the Crows Nest Station. It represents the next phase in the realisation of the Crows Nest Station precinct. It follows and is pursuant to the Concept SSD Application (SSD 9579), granted consent on 23 December 2020 which established the planning and assessment framework for all OSD within the Crows Nest Station precinct. This detailed SSD Application has been prepared to be consistent with the Concept SSD Application in accordance with Division 4.4 of the EP&A Act.

The Concept SSD Application established the building envelopes (i.e. volumetric parameters), maximum gross floor area (GFA), minimum non-residential GFA, land uses, future subdivision (if required) and general development strategies to inform the future detailed design of the OSD.

The Concept SSD Application approved the following key parameters with regard to Site C:

- **Maximum building height** – RL 127 metres or 9 storeys (includes two station levels and conceptual OSD space approved under the CSSI Approval)
- **Maximum building services zone** – RL 132 or 5 metres to accommodate lift overruns, rooftop plant and services
- **Gross floor area** – maximum of 3,100 square metres
- **Land uses** – commercial office premises (of which two floors could be provided as social infrastructure), including the use of approximate conceptual areas associated with the OSD which have been provisioned for in the Crows Nest station box (CSSI Approval) including areas above ground level (i.e. OSD lobbies and associated spaces)
- **Strategies** – for modulation and expression of built forms, loading, vehicular and pedestrian access arrangements, utilities and services provision, managing stormwater and drainage, achievement of ecological sustainable development, providing public art, signage zones, and a design excellence framework.

1.2 Overview of the Proposed Development

This application seeks approval for the following:

- The design, construction and operation of a new nine storey (plus rooftop plant) commercial OSD tower consistent with the building envelope for Site C established under the approved Concept SSD Application
- The detailed design and delivery of interface areas within the approved station box that contain OSD exclusive elements including the entry lobby, bicycle parking and end of trip facilities, and plant not associated with the rail infrastructure
- Vehicle loading associated with the OSD office space being provided
- Works related to the provision of services, management of drainage and flooding, and the mitigation of construction noise and vibration
- Provision of rooftop building identification signage zones.

1.3 Project Background

Crows Nest Station forms a part of the Metro – City & Southwest project (SMCSW), which is a 30 km extension of metro rail from the end of Sydney Metro Northwest at Chatswood through Sydney CBD to Bankstown. SMCSW comprises of seven new metro stations and 11 upgraded stations.

Crows Nest Station is one of the new underground metro stations and is located on the Pacific Highway between Oxley Street and Hume Street. The potential impacts of the Over Station Development (OSD) above Crows Nest Station has been considered, however the station portion will be subject to a separate design, approvals and construction process.

Refer to Figure 1.1 for the Sydney Metro alignment.

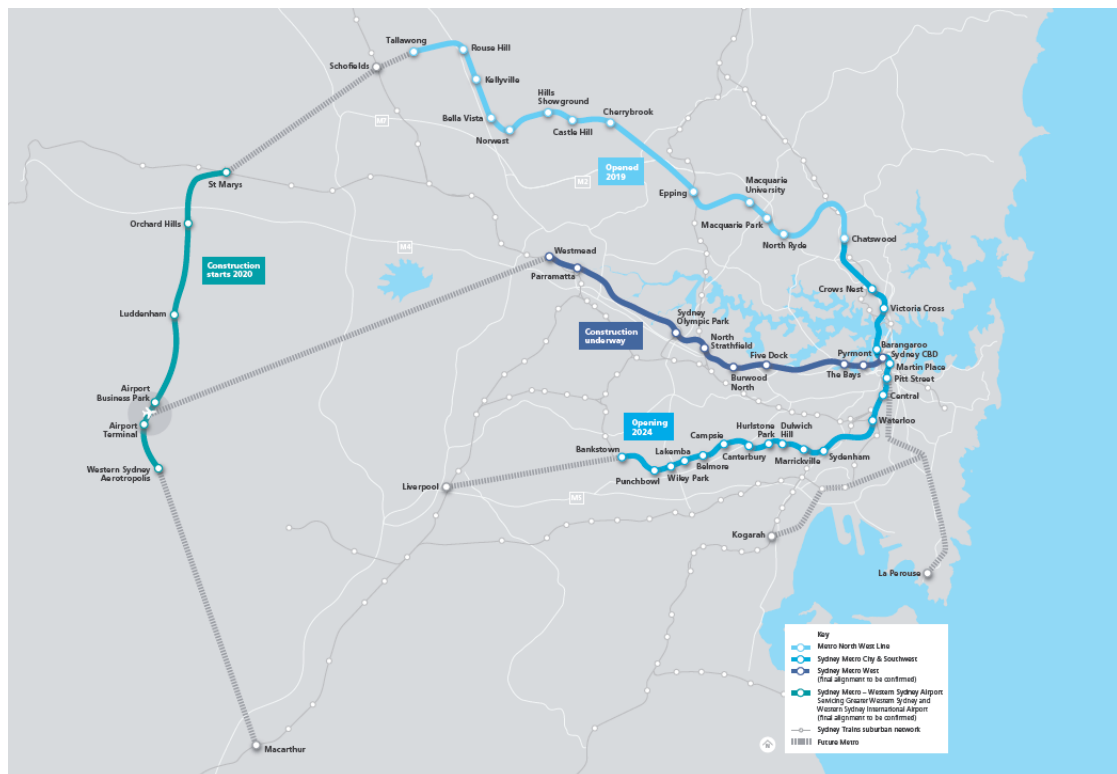


Figure 1.1 - Sydney Metro network

1.4 Relevant Stakeholders

The relevant design team stakeholders are identified in Table 1.1.

Role	Team Member	Organisation
Client	Dayle Bennett	Sydney Metro
Principal Project Manager	Sav Dell'Aquila	SMEC
Architect	Renu Varshney	Woods Bagot
Crown Certifier	Stuart Boyce Matthew McNamara	BCA Logic
NDY Project Manager	Nicholas La Porta	Norman Disney & Young
Fire Safety Engineer	Frazer MacDonald (C10) Joshua Mathen Daniel Lam	

Table 1.1 – Relevant Stakeholders

1.5 Fire engineering process

The fire engineering process to be followed, as outlined in the International Fire Engineering Guidelines, is as follows:

- Stage 1 - Fire Engineering Brief
 - As per the International Fire Engineering Guidelines, the Fire Engineering Brief provided a consensus for all stakeholders on the fire safety components of the designs being considered and the design options that need to be considered
 - The objectives of the FEB are to: agree the Trial Concept Design, assessment methodology and acceptance criteria prior to undertaking the analysis
 - A Fire Engineering Brief was issued on 18 February 2020 for design team and Certifier comments.
- Stage 2 - Fire Engineering Report
 - The Fire Engineering Report provides the justification and fire engineering analysis of the Trial Concept
 - Design that has been detailed within the Fire Engineering Brief. The Fire Engineering Report (FER) confirms all requirements of the Performance Solution in the Fire Safety Design.
 - A Fire Engineering Report was issued on 27 April 2020 for design team and Certifier approval.
- Stage 3 - Construction
 - Implementation of the Fire Safety Design in construction is the responsibility of designers, contractors and the builder.
 - On this project, NDY is not currently been engaged for the Fire Engineering construction phase.

1.6 NSW Regulatory Framework

The following New South Wales Legislation is applicable:

- NSW Environmental Planning and Assessment Act, 1979 and subsequent amendments.

This report has been prepared to meet the legislative requirements of the NSW *Environmental Planning and Assessment Act 1979*, to support the application for a Crown Certificate.

BCA Logic is the Certifying Authority for purposes of assessing an application for a Crown Certificate for this project.

1.7 Fire Brigade Referral

It is understood that under the EP&A Act 1979, the Fire Engineering Performance Solutions do not require fire brigade referral for Crown Certification based on the BCA Report.

The Crows Nest OSD Site C SEARs (application Number SSD-13852803) do not specify the requirement for referral of the Performance Solutions with Fire and Rescue NSW (FRNSW) however we note that the Development Consent (File EF18/33713 dated 23 December 2020) specifies the requirement for consultation with Fire and Rescue NSW under section A25 and A23.

Fire brigade referral shall be undertaken for Site C OSD during the design development stage by using FRNSW's approval process. This follows the standard regulatory process. A Fire Engineering Brief Questionnaire (FEBQ) shall be prepared for submission during the design stage of the project.

It is also noted that Fire brigade referral for Crow's Nest Station is currently underway and is a separate approval process to Site C OSD.

1.8 Design Team Documentation

The following key documents have been relied upon for the development of this report.

- a) Updated BCA and Access Assessment Report prepared by BCA (refer Appendix B).

2 Building Characteristics

2.1 Site Description

The Crows Nest Station precinct is located between the Pacific Highway and Clarke Street (eastern side of the Pacific Highway) and Oxley Street and south of Hume Street, Crows Nest. It is wholly located within the North Sydney Local Government Area, however, it is also near the boundary of both the Willoughby and Lane Cove Local Government Areas.

The Over Site Development Site C (OSDC) works comprise a separate development extending above the eastern entry portal to the underground Metro Station to be constructed on Pacific Highway, between Oxley Street and Hume Street, Crows Nest. The proposed development is for the new commercial office building located above the Clarke Street concourse entrance, as highlighted in red in the following figure.

The approved Concept SSD Application encompasses three sites that make up the Crows Nest Station precinct. Of relevance to this application is Site C that comprises one lot on the north-western corner of Hume Street and Clarke Street (14 Clarke Street, Crows Nest). Site C has a site area of 608 square metres.

This SSD Application relates only to the detailed design and delivery of Site C, with applications for Sites A and B to be undertaken separately in the future.

2.2 Proposed Works

The scope of works of the proposed OSD Site C is highlighted in red below. The station portions of the building are highlighted in grey. Note the Ground Level and Level 1 contains portions of both the station and the OSD Site C (refer Figure 2.1). Levels 1 to 8 as commercial office spaces and Level 9 and Roof as plant form the remainder of the OSD Site C development (refer Figure 2.3).

The grey highlighted areas in the following diagrams do not form part of this project and are completely separated by fire-rated construction and independent fire safety systems.

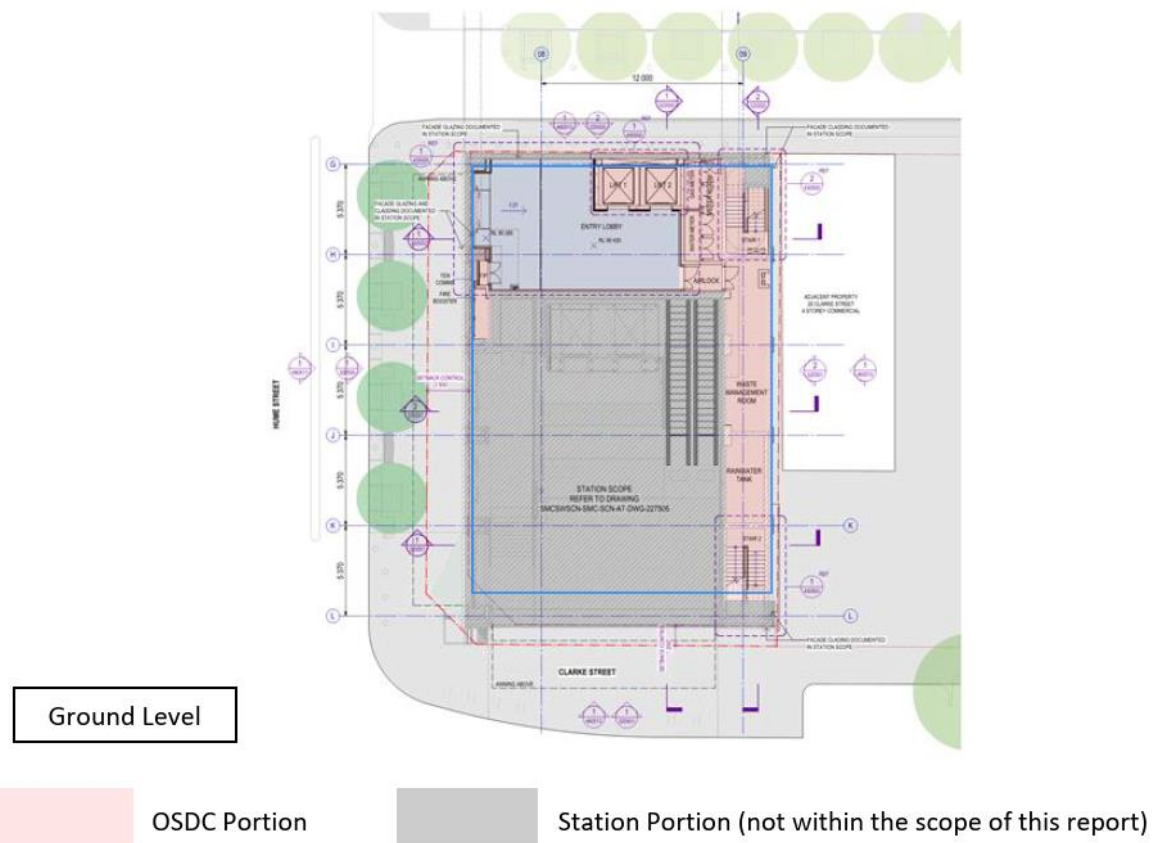


Figure 2.1 – Ground Level Site C Scope

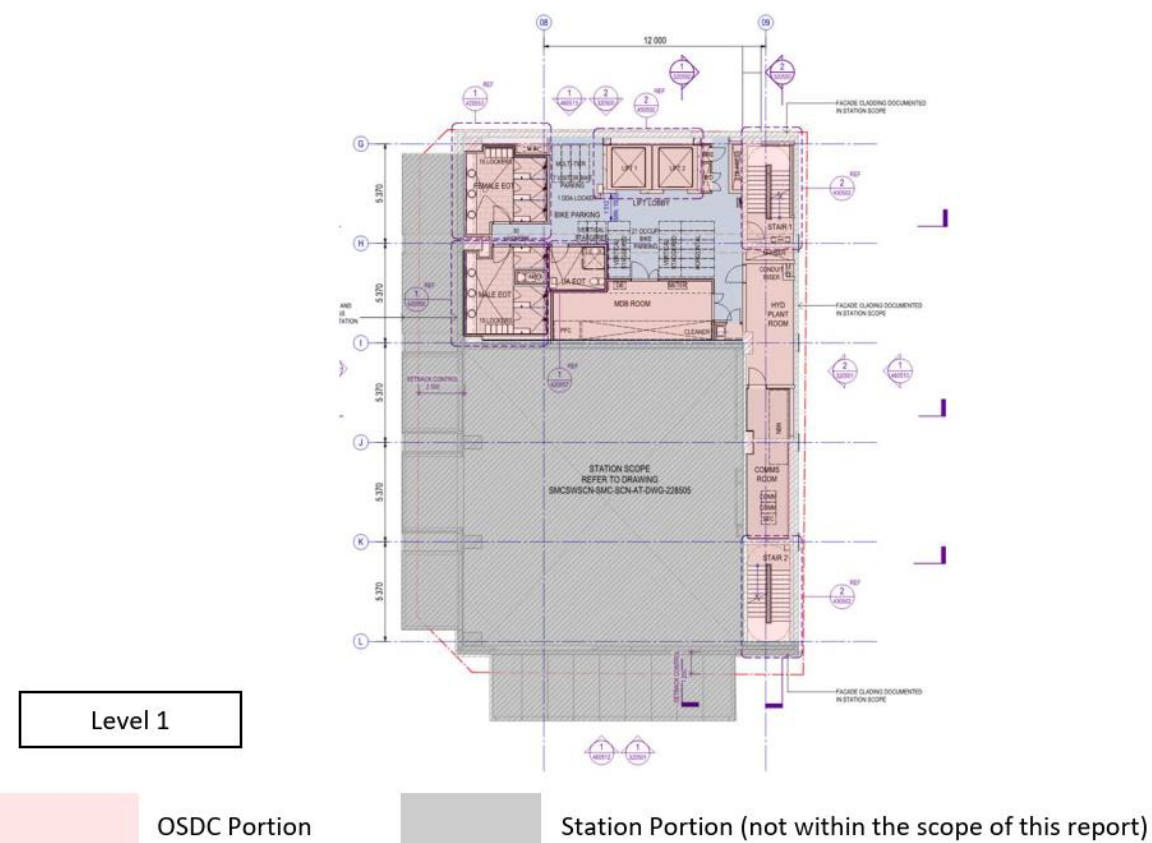


Figure 3.2 – Level 1 Site C Scope

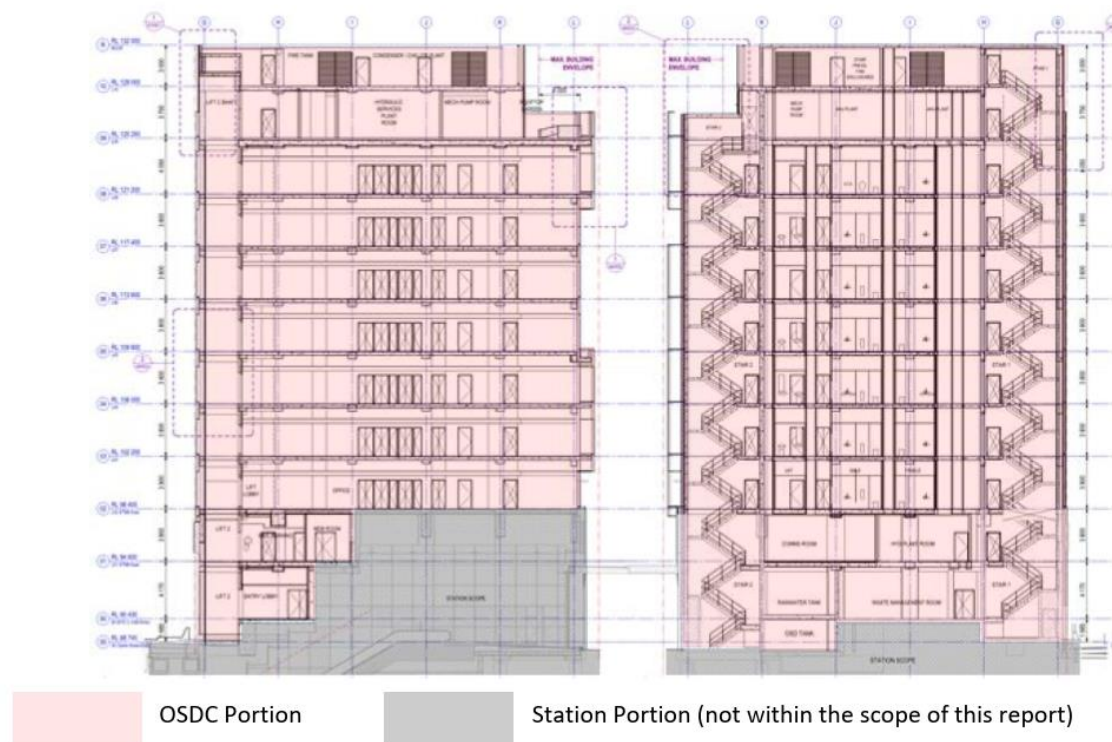


Figure 4.3 – Longitudinal Sections Site C Scope

2.3 Crows Nest Station Performance Solutions

Performance Solutions relating to the station (including the Site C portal area) are addressed in a separate Fire Engineering Report developed for the station, issued by NDY, project number 30012631, reference SMCSWSCN-SMC-SCN-FL-REP-000002. The version current at the time of issuance of this document is revision D, dated 19 February 2021. A detailed design has been undertaken as part of the Crows Nest Station FER to ensure integration of the Station and OSD developments.

It is noted that Site A Over Station Development (OSDA) and Site B Over Station Development (OSDB) are potential future developments which do not form part of this project or approvals process.

2.4 BCA Reference Criteria

The BCA criteria in Table 2.1 is referenced from the BCA and Access Assessment Report prepared by BCA Logic (refer Appendix B).

BCA DTS Criteria		Project
A6	BCA Classification	Ground Level – Class 9b (Railway Station Entrance)*, Class 5 (Office Entry Foyer) Levels 1 to 9 – Class 5 (Commercial Office Space and Ancillary Plant area)
C1.2	BCA Rise in Storeys	10
C1.1	BCA Type of Construction	Type A
Schedule 3	Effective Height	>25m (36.505m)

BCA DTS Criteria		Project
C2.2	Fire Compartment Max Area / Volume	8,000 m ² Maximum Floor Area 48,000 m ³ Maximum Volume

*Note: The Class 9b Station Entrance portion is not addressed by this report.

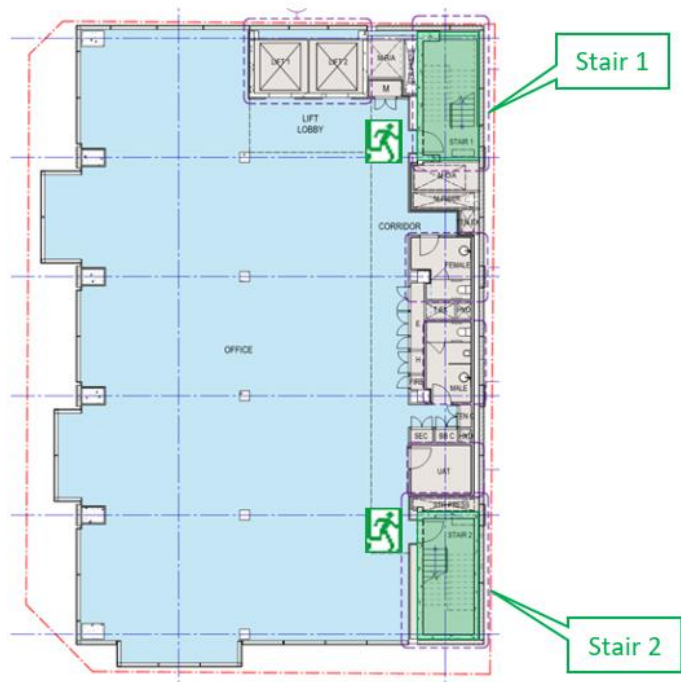
2.5 Egress

Egress from Ground Level and Level 1 are provided with access to a single exit in lieu of two exits, which is proposed to be addressed by a Performance Solution. Refer Figure 2.4.

Egress is provided from Levels 1 to 10 of the OSDC building via the fire-isolated Stair 1. Egress is also provided from Levels 2 to 9 via the fire-isolated Stair 2. Refer to Figure 2.5 and Figure 2.6.

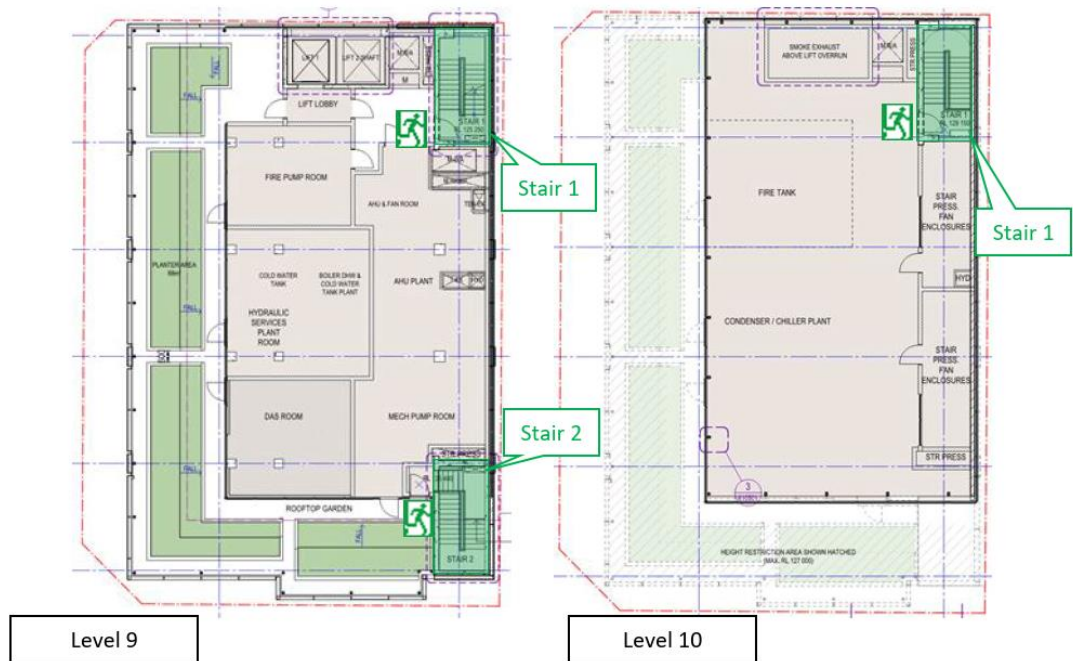


Figure 5.4 – Ground Level and Level 1 Single Exits



Exits

Figure 6.5 – Level 2-8 (Typical) Exits



Level 9

Level 10



Exits

Figure 7.6 – Level 9 and Level 10 Exits

3 Performance Solutions

It has been identified that the areas within the design of the OSD Site C development do not comply with the DTS provisions of the 2019 Building Code of Australia (BCA). As such, NDY has been engaged by SMEC on behalf of Sydney Metro to develop a fire strategy and Performance Solutions to address the departures from the BCA.

The Performance Solutions to be addressed are summarised below in Table 3.1, as identified in the BCA and Access Assessment Report prepared by BCA Logic (Appendix B). A detailed assessment of the non-compliances are to be provided within the Fire Engineering Report which is issued at AFC.

The below non-compliances are only applicable to the Site C Over Station Development. This report is not applicable to the Station portion of the development.

#	BCA DTS Clause	Description of Departures from DTS	Performance Requirements
1	C2.7	Required fire separation between OSDC and the station portion to be achieved by both vertical and horizontal separation, where the DTS Provisions include vertical separation only.	CP2
2	E1.8, E2.2	Smoke hazard management, alarm and evacuation strategy and fire brigade intervention are limited to the OSDC development, in lieu of throughout the station and OSDs united building as required due to connectivity between them. Fire control centre and smoke hazard management are to be dedicated to the OSDC.	EP2.2, EP1.6
3	C2.10(c)	Western wall of emergency lift shaft is not contained within a shaft of 120/120/120 FRL.	CP2
4	D1.2	Access to a single exit in lieu of two exits on Ground Level (Lobby) and Level 1 (Plant/EOT).	DP4, EP2.2
5	E1.3	Fire hydrant landing valve in Stair 2 serving Level 9 is located on the mid landing, in lieu of the landing of the level served.	EP1.3
6	Table E2.2a	Stair pressurisation door velocity performance limited on Level 1 (single stair connection only) and Level 9 Roof (Terrace/Plant) as relief air paths are not available or direct to outside.	EP2.2
7	Table E2.2a	The zone pressurisation system is not provided to Ground, Level 1 (Plant and EOT) and Level 9 Roof Plant levels, in lieu of throughout all areas of the building.	EP2.2

Table 3.1 – Departures from DTS Provisions

4 Proposed Fire Safety Design

4.1 General

The following recommendations are proposed to be implemented to achieve the objectives of the fire safety strategy.

It is noted any building feature that is not referred to or affected by below are to comply with the BCA Deemed-to-Satisfy Provisions, relevant Australian Standards, National, State and Local Legislation as applicable.

Should any changes to the building design or layout occur during the design, construction process or in the future during the life of the building, then this alteration is to be assessed by the person responsible for the change against the below recommendations.

4.2 Summary

Table 4.1 outlines the fire safety systems to be installed in the OSDC, based on the BCA and Access Assessment Report prepared by BCA Logic (refer Appendix B).

It is noted that all fire safety systems within the OSDC are to be fully independent of the Station systems, with a mimic panel for OSDC located within the Station Fire Control Room interfaced to provide alarm notification to Station operators.

OSDC Fire Safety Systems	Standard of Performance
Automatic Fire Detection & Alarm System	BCA Clause E2.2 and Specification E2.2a, AS 1670.1-2018, AS 1670.3-2018, AS 1670.4-2018 and the OSDC FER.
Smoke Detectors & Heat Detectors	BCA Clause E2.2 and Specification E2.2a, AS 1668.1-2015 and the OSDC FER.
Mechanical Air Handling Systems (Zone Pressurisation System and Fire Isolated Exit Pressurisation System)	BCA Clause E2.2 and Table E2.2a, AS 1668.1-2015 and the OSDC FER.
Automatic Fire Suppression System (General Sprinklers and Combined Sprinklers and Hydrant)	BCA Clause E1.5 and Specification E1.5, AS 2118.1-2017 and AS 2118.6-2012.
Sound System and Intercom System for Emergency Purposes (SSISEP)	BCA Clause E4.9 and AS 1670.4-2018.
Emergency Lighting	BCA Clauses E4.2 and E4.4 and AS/NZS 2293.1-2018.
Exit Signs	BCA Clauses E4.5, E4.6 and E4.8 and AS/NZS 2293.1-2018.
Fire Hydrant System	BCA Clauses E1.3 and C2.12, AS 2419.1-2005, FRNSW Technical Sheet D15/45534.V9 issued 10/01/19 and this report.
Portable Fire Extinguishers	BCA Clause E1.6 and AS2444-2001.
Fire Control Centre (FCC)	BCA Clause E1.8 and Specification E1.8 and the OSDC FER.

Table 4.1 – Fire Safety Systems Summary

4.3 Fire Resistance and Compartmentation

4.3.1 General

- a) The OSDC building is to be of Type A construction in accordance with BCA DTS provisions for a Class 5/9b building.
- b) The OSDC shall comply with BCA DTS Clause C2.2 fire compartment area and volume limits (<8,000 m² and 48,000 m³ respectively). Compliance with this clause has been confirmed by the BCA Consultant.

4.3.2 Fire compartmentation

- a) The Station portions and OSDC portions shall be fire separated by construction achieving a FRL of 120/120/120, supported by a Performance Solution to address the horizontal separation elements. Refer to Figure 4.1 for indicative separating boundaries between the Station and OSDC.
- b) There shall be no service penetrations through the firewall separation between the Station and OSDC. Refer to the figure below.

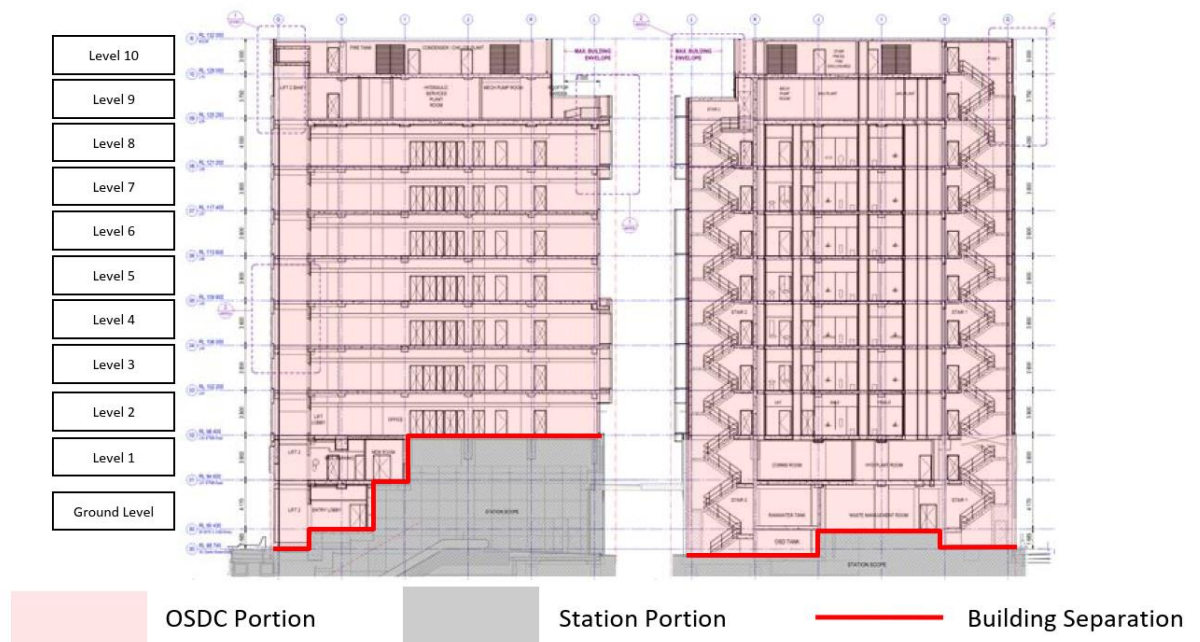


Figure 4.1 – Fire Separation between Station and OSDC

4.3.3 Emergency Lift Shaft Construction

- a) The western wall of the emergency lift shaft connecting Ground Level to Level 9 (indicated in blue in Figure 4.2) shall not provide structural support to the emergency lift shaft.
- b) The western wall of the emergency lift shaft connecting Ground Level to Level 9 (indicated in blue in Figure 4.2) shall not be within 6 m of a fire-source feature.
- c) The construction of the remaining three sides of the emergency lift shaft connecting Ground Level to Level 9 (indicated in red in Figure 4.2) shall achieve a minimum FRL of 120/120/120.

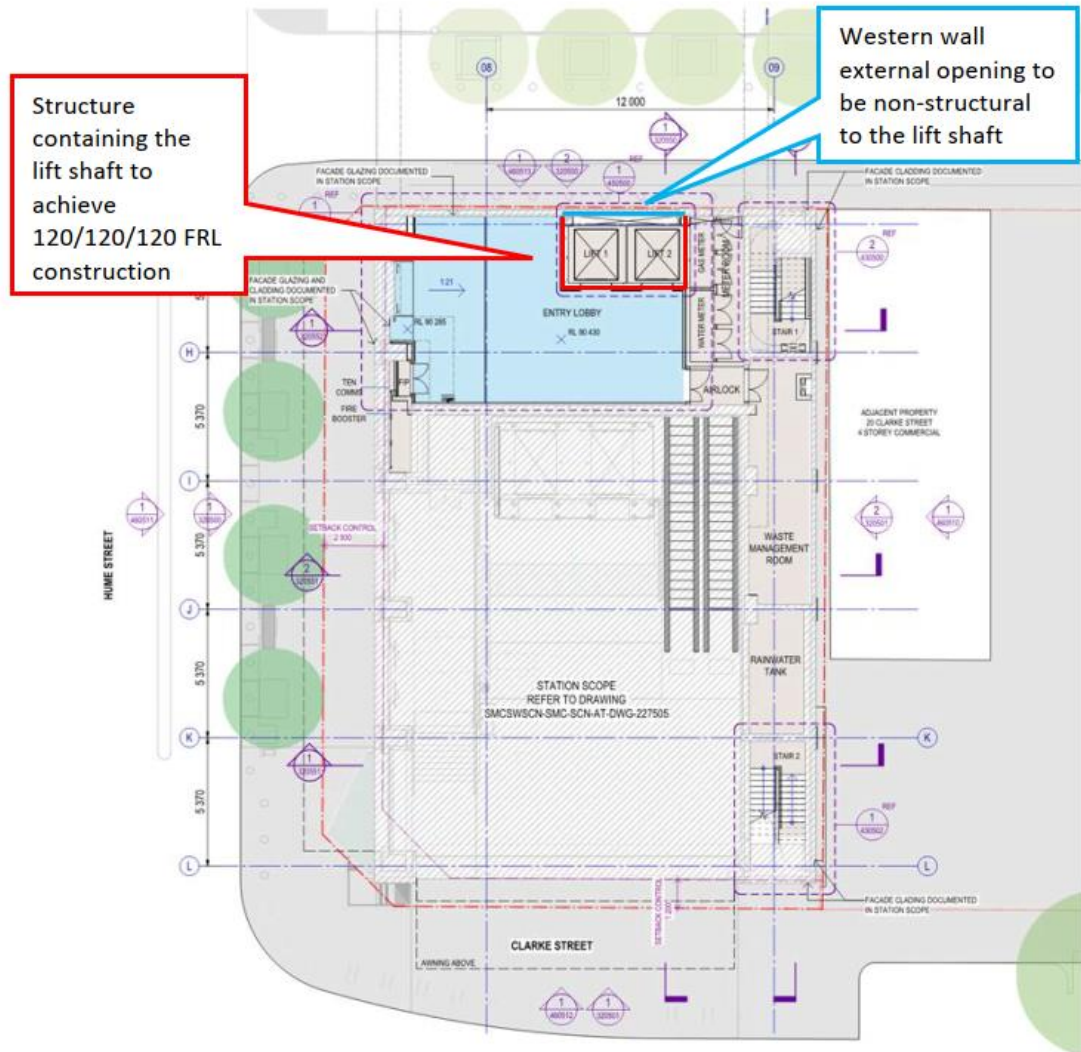


Figure 4.2 – Emergency Lift Shaft Construction

4.4 Egress

- a) Access to a single exit in lieu of two exits on Ground Level (Lobby) and Level 1 (Plant/EOT) is permitted, as addressed by a Performance Solution. Refer to Figure 4.3.
- b) Level 1 and Level 9 Roof shall not have internal connections of occupied spaces between exits (i.e. On Level 9, Stair 1 exit shall be direct to inside only and Stair 2 exit shall be direct to outside only).
- c) Travel distances on all levels, including Ground Level and Level 1, shall comply with BCA DTS provisions.



Figure 4.2 – Ground Level and Level 1 Single Exits

4.5 Fire Safety Systems

4.5.1 Fire detection and alarm system

Fire detection and alarm systems within OSDC shall be provided in accordance with BCA Clause E2.2 and

Specification E2.2a, except the following:

- i) Full AS 1670.1-2018 smoke detection coverage shall be provided to Ground Level and Level 1 (i.e. 10 m spacing to all areas and enclosures in lieu of 15 m spacing, as required by Section 7).
- ii) Interconnection of the fire alarm shall be provided to the Station, with the OSDC's Fire Indicator Panel on the Ground Level (Lobby), to be linked to a mimic panel within the Station's Fire Control Room.

The intended operation is an alarm activated in the OSDC shall only evacuate the OSDC, with alarm notification automatically provided to the Station's Fire Indicator Panel only. Similarly, an alarm originating in the Station shall not evacuate the OSDC.

4.5.2 Mechanical Ventilation and Smoke Hazard Management Systems

Mechanical ventilation and smoke hazard management systems shall be provided throughout the building in accordance with BCA Clause E2.2, Table E2.2a, and AS 1668.1-2015, except as modified in the following sub-sections.

4.5.2.1 Stair Pressurisation System

Stair pressurisation system and door velocity performances on all levels within the OSDC shall be provided in accordance with BCA DTS provisions, except the following:

- i) The stair pressurisation door velocity performance on Level 1 (single stair connection only) and Level 9 (Terrace/Plant) is not required to be achieved, due to

relief air paths being restricted to the façade (Stair 1, Level 1 and Level 9) or direct to outside (Stair 2, Level 9). Refer Figure 4.4 and Figure 4.5 as indicated in blue.

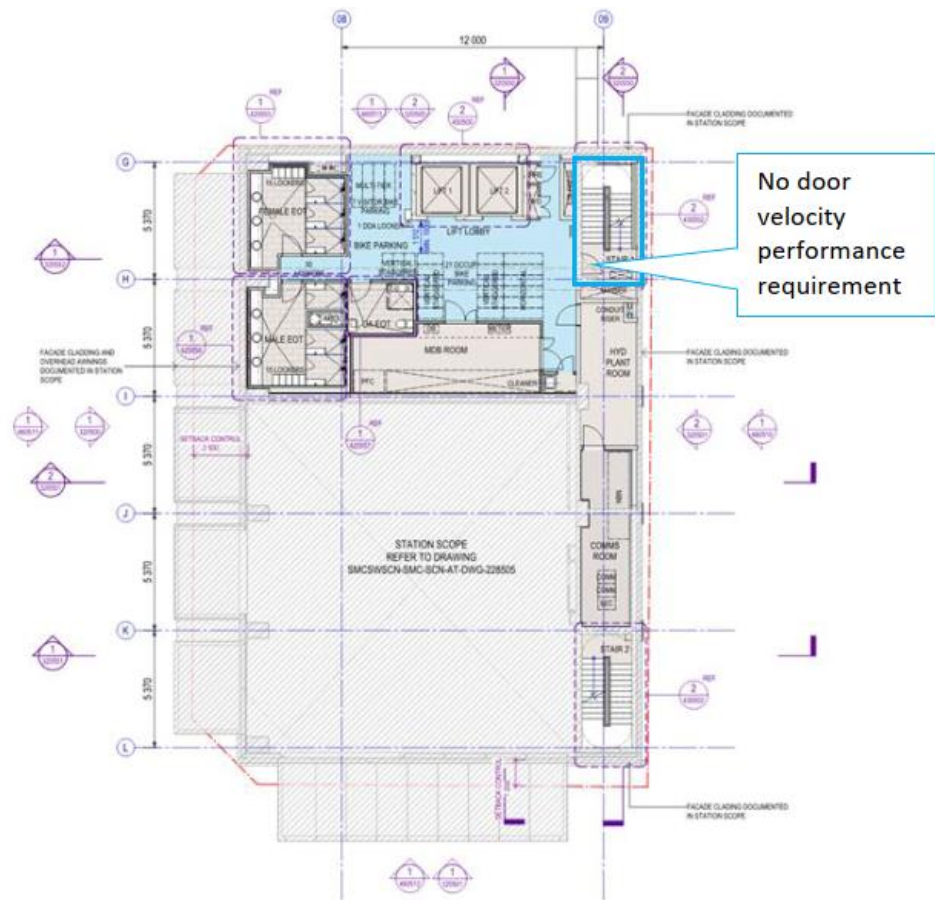


Figure 4.4 – Level 1 Limited Door Velocity Performance

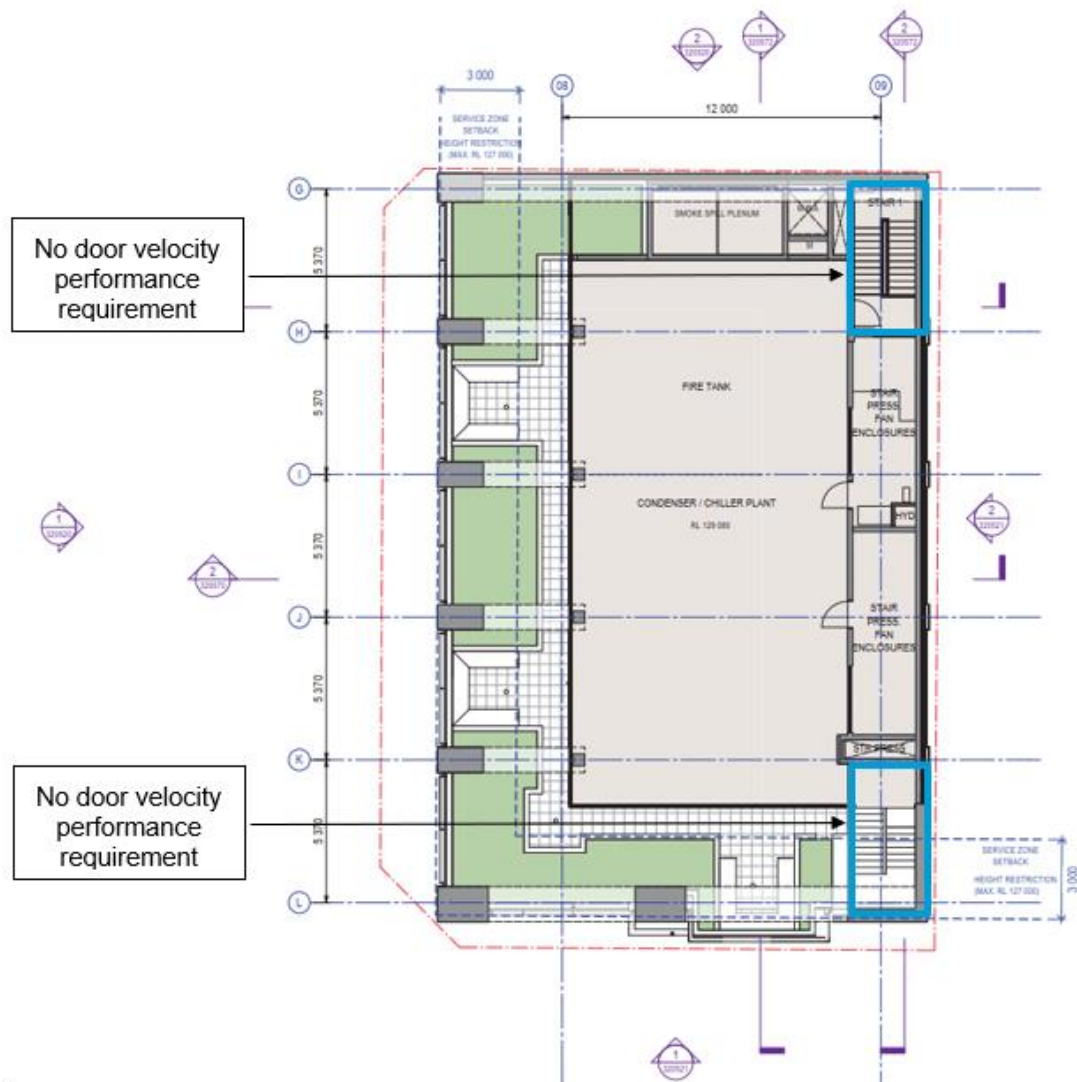


Figure 4.5 – Level 9 Roof Plant Limited Door Velocity Performance

4.5.2.2 Zone Pressurisation System

A zone pressurisation system shall be provided throughout OSDC in accordance with BCA DTS Provisions, except as follows:

- a) A zone pressurisation system is permitted to not be provided within Ground Level, Level 1 (Plant and EOT) and Level 9 (Plant).
- b) When a fire alarm occurs on Ground, Level 1 or Level 9, the remaining levels shall pressurise. However, Level 2 is not required to achieve a minimum pressure differential of 20 Pa against Level 1, and Level 8 is not required to achieve a minimum pressure differential of 20 Pa against Level 9, when these are the fire-affected floors.

4.5.2.3 Fire Hydrant System

The fire hydrant system and all hydrant landing valve locations installed within the OSDC shall be in accordance with BCA Clauses E1.3 and C2.12, AS 2419.1-2005, Fire Brigade Requirements, and the following:

- a) The hydrant booster assembly within the OSDC shall be fully independent of the Station systems, with no crossover of systems or controls between buildings.

-
- The floor plan shows a building with a total width of 12,000 units. The vertical axis is marked with grid lines G through L, each with a height of 5,370 units. The horizontal axis is marked with grid lines 06 through 08. The plan includes several rooms: LIFT LOBBY, FIRE PUMP ROOM, COLD WATER TANK, HYDRAULIC SERVICES PLANT ROOM, GAS ROOM, MECH PUMP ROOM, ROOF TOP GARDEN, and STAIR 2. A red box highlights the location of the hydrant landing valve on the mid-landing within Stair 2. A callout box points to this location with the text: "Hydrant landing valve located on mid-landing within Stair 2". Other features include a PLANT/MECH ROOM, BOILER CHAS & COLD WATER TANK PLANT, and a MECH & PAN ROOM. A note indicates a "HEIGHT RESTRICTION SETBACK (MAX. RL 127.950)".

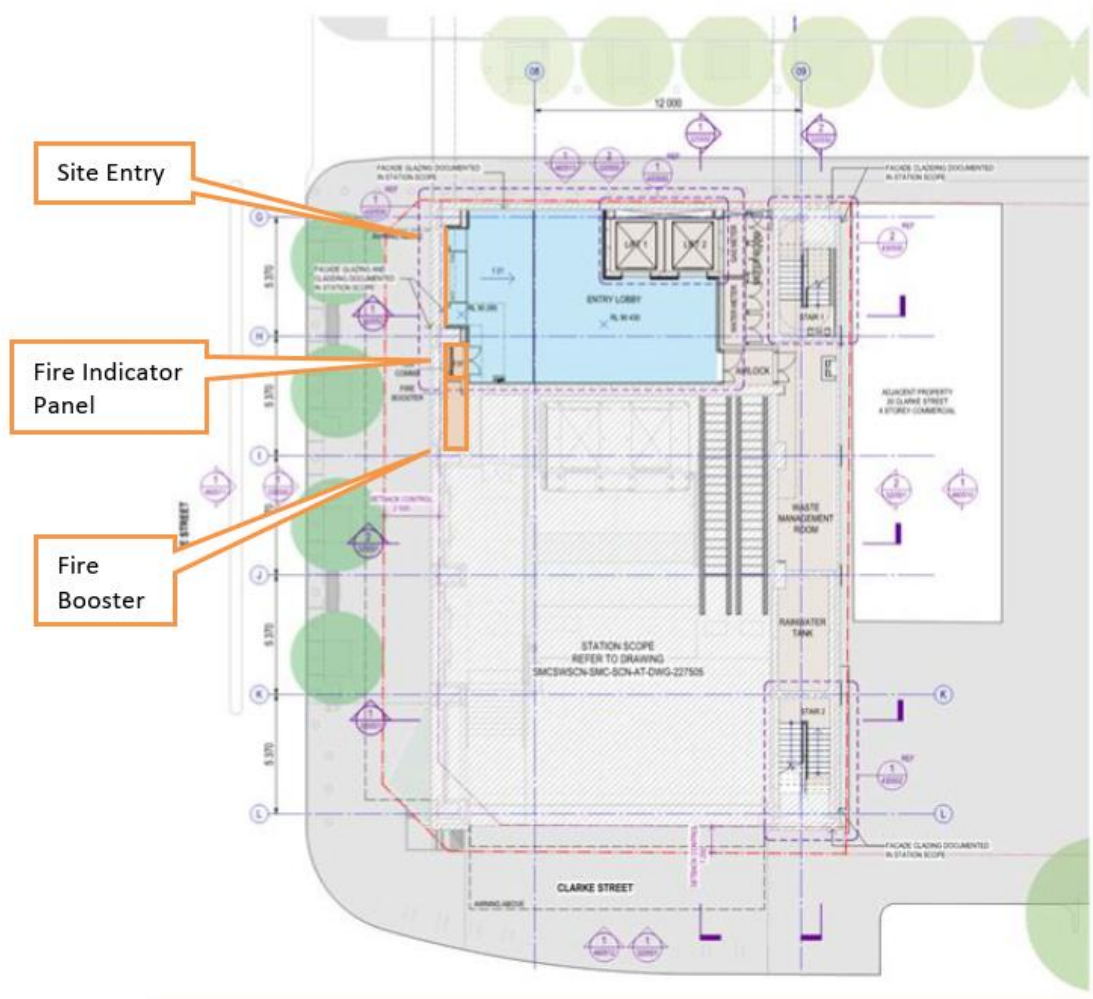


Figure 4.7 – Ground Level Lobby Fire Control Centre Location

4.6 Building Management

4.6.1 Procedures

Emergency management procedures shall be developed to address the issue of occupant protection from illness or injury while evacuating during a fire, as required by WHS legislation and AS 3745. An Emergency Procedures Manual must be developed by an independent third party organisation appropriately experienced in the field to set out action plans, essential phone numbers, procedures and responsibilities in the event of Fire/Smoke, Evacuation, Bomb, Internal and External Emergency.

The Emergency Procedures Manual shall incorporate but not be limited to:

- evacuation and people movement strategy, including a plan to assist mobility impaired occupants
- roles and responsibilities of Chief Warden, Wardens and staff
- list of individuals responsible for each role and latest training
- assembly areas.

Staff shall receive at least 12 monthly emergency procedures training in what action to take in the event of an alarm. Additional training shall be provided to fire wardens to co-ordinate and assist others during the evacuation.

4.6.2 Maintenance

Periodic inspection, testing and maintenance of the active fire safety systems, fire safety doors and fire/smoke penetrations shall be implemented in accordance with AS 1851-2012.

Building management is responsible for ensuring occupants maintain the building in a state that is fit for purpose, including:

- keeping unnecessary combustible loads to a minimum
- regular housekeeping, including the removal of random storage and accumulated debris
- maintaining clear and accessible exit paths at all times
- ensure fire and smoke doors are closed where appropriate at all times.

4.6.3 Tactical Fire Plans

Tactical fire plans shall be provided at the Fire Control and Indicating Equipment comprising floor plans

indicating the location of the following equipment:

- Fire hydrants, hose reels and portable extinguishers
- Fire alarm sprinkler gong
- Control and Indicating Equipment (CIE) and Mimic Panel
- Fire walls (including fire resistance level) and smoke walls
- Fire service isolation valves
- Sprinkler control valve
- Fire brigade booster and suction connections

4.7 Commissioning Requirements

a) A detailed commissioning plan is to be developed by the OSD Site C construction contractor for review prior to system commissioning.

b) All construction and installation contractors are responsible for detailed verification of system operation.

c) The proposed Fire Safety Measures covered within this report are to be inspected and witnessed by an appropriately qualified Fire Engineer to verify implementation of these requirements.

5 Conclusion

This document has been prepared in response to the requirements contained with the SEARs dated 24 February 2021 (application number SSD-13852803).

Appendices

6.1 Appendix A – Glossary

Term	Definition
Concept SSD Application	<p>A concept development application as defined in section 4.22 of the EP&A Act. It is a development application that sets out the concept for the development of a site, and for which detailed proposals for the site or for separate parts of the site are to be the subject of a subsequent development application or applications.</p> <p>The concept for the Crows Nest Station precinct (SSD 9579) was approved by the Minister on 23 December 2020.</p>
Council	North Sydney Council, unless otherwise indicated
CSSI	Critical State Significant Infrastructure
CSSI Approval	<p>The approval under the EP&A Act for the construction of the Sydney Metro City & Southwest Chatswood to Sydenham project, as amended by subsequent modification applications. The CSSI project (application number SSI 15_7400) was approved by the (then) Minister for Planning on 9 January 2017 and has been amended on 6 previous occasions.</p> <p>Any reference to the CSSI Approval is a reference to the most current version of that approval as amended by any subsequent modification application</p>
Crows Nest Station precinct	<p>The Crows Nest Station precinct comprises the land between the Pacific Highway and Clarke Street (eastern side of the Pacific Highway) and Oxley Street and south of Hume Street, Crows Nest. The precinct is divided into three (3) sites:</p> <ul style="list-style-type: none"> • Site A: The block bound by the Pacific Highway, Hume Street, Oxley Street, and Clarke Lane (497-521 Pacific Highway, Crows Nest) • Site B: The block on the southern corner of Hume Street and the Pacific Highway (477-495 Pacific Highway, Crows Nest) • Site C: One lot on the north-western corner of Hume Street and Clarke Street (14 Clarke Street, Crows Nest)
Detailed SSD Application	The SSD Application(s) made after the concept SSD Application that seek consent for the use, design and to physically construct stages of the development.
DPIE	Department of Planning, Industry and Environment
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
EP&A Regulation	EP&A Regulation Environmental Planning and Assessment Regulation 2000 (NSW)
EIS	Environmental Impact Statement
Heritage item	An item of environmental heritage that is listed in Schedule 5 of North Sydney Local Environmental Plan 2013 or on the State Heritage Register under the <i>Heritage Act 1977</i>
ISD	Integrated station development – combined station, OSD and public

Term	Definition
IAP	Interchange Access Plan required under Condition E92 of the CSSI Approval. The IAP complements the SDPP and informs the final design of transport and access facilities and services, including footpaths, cycleways, passenger facilities, parking, traffic and road changes, and the integration of public domain and transport initiatives around and at each station.
Minister	Minister The Minister for Planning and Public Spaces
NSDCP 2013	North Sydney Development Control Plan 2013
NSLEP 2013	North Sydney Local Environmental Plan 2013
OSD	Over station development as defined in the CSSI Approval – includes non-rail related development that may occupy land or airspace above, within or in the immediate vicinity of the Sydney Metro CSSI but excluding spaces and interface works such as structural elements that may be constructed as part of the CSSI Approval to make provision for future developments
PIR	The Submissions and Preferred Infrastructure Report submitted as part of Sydney Metro City & Southwest Chatswood to Sydenham project, application no. SSI 15_7400
Secretary	Secretary of the NSW Department of Planning, Industry and
SEARs	The Secretary's environmental assessment requirements, which
SSD	State significant development as defined by Section 4.36 of the EP&A Act
Station box	The volumetric area of the Crows Nest Station development
SDPP	<p>Station Design and Precinct Plan required under Condition E101 of the CSSI Approval. The SDPP resolves the public domain areas for the Crows Nest Station precinct as part of the CSSI Approval and addresses (among other things):</p> <ul style="list-style-type: none"> • Opportunities for public art • Landscaping and building design opportunities to mitigate the visual impacts of rail infrastructure and operational fixed facilities • Any salvaged historic and artistic elements • Location of existing vegetation and proposed landscaping • Location and design of operational lighting and measures to minimise lighting impacts • Timing for the implementation of access, landscaping and public realm initiatives

Term	Definition
Sydney Metro City & Southwest – Chatswood to Sydenham project	<p>The Chatswood to Sydenham component of Sydney Metro City & Southwest involves the construction and operation of a 16.5 kilometre metro line from Chatswood, under Sydney Harbour and through Sydney’s CBD out to Sydenham This section of the Sydney Metro City & Southwest will deliver new metro stations at:</p> <ul style="list-style-type: none"> • Crows Nest • Victoria Cross • Barangaroo • Martin Place • Pitt Street • Central (new underground platforms) • Waterloo • Sydenham <p>This part of the project will operate between Chatswood and Sydenham Stations</p>
Sydney Metro City & Southwest – Sydenham to Bankstown Upgrade	<p>Upgrading of the T3 Bankstown Line to Sydney Metro standards between Sydenham and Bankstown, including the upgrade of all 10 stations.</p> <p>These works are the subject of a separate Critical State Significant Infrastructure project (reference SSI 17_8256), which was granted consent in December 2018.</p>
Sydney Metro	The applicant for this detailed SSD Application
Sydney Metro CSSI	Sydney Metro City & Southwest – Chatswood to Sydenham project

6.2 Appendix B – BCA Report