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27-29 Tryon Road, Lindfield NSW 2070 (SSD-78669234)

FIRE ENGINEERING CONCEPT REPORT

Bridgestone Projects | 2 December 2025 | Revision D | S24194-FECR-001-D

MINERVA

DOCUMENT CONTROL

Project	Lot 11 and 12 in DP1188210, 27-29 Tryon Road, Lindfield NSW 2070.
Project Reference	S24194-FECR-001-D
Client	Bridgestone Projects

Revision	Date	Overview	Prepared	Reviewed	Approved
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**FUNCTION.
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EXECUTIVE SUMMARY

Summary

This Fire Engineering Concept Report (FECR) has been undertaken to support the State Significant Development Application for a 9-storey residential flat building with in-fill affordable housing to be located at Lot 11 and 12 in DP1188210, 27-29 Tryon Road, Lindfield.

Subject to approval from the Principal Certifying Authority and relevant applicable stakeholders during the design process, the proposed Performance Solutions nominated Table 2 related to the subject development can be demonstrated to meet the relevant Performance Requirements of the BCA.

This Fire Engineering Concept Report accompanies an Environmental Impact Statement (EIS) pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act), in support of a State Significant Development Application (SSDA) for the construction of the proposed residential flat building, reference SSD-78669234.

Project Description

The proposed development involves the demolition of existing structures and the construction of a 9-storey residential flat building with in-fill affordable housing and associated works. The proposal includes:

- Demolition of existing structures and site preparation/earthworks.
- Construction of a 9-storey residential building.
- Construction of four basement levels providing 101 car parking spaces, with vehicular access via Tryon Lane.
- A total of 65 apartments comprising a mix of 2- and 3-bedroom units, including 14 affordable units.
- Communal open spaces on the ground floor and roof terrace.
- Landscaping works, including tree replacement.

The development seeks to utilise the Infill Affordable Housing provisions of the Housing SEPP through the inclusion of affordable housing.

Summary of Performance Solutions

provides a summary of the BCA DtS non-compliances and the Performance Solutions that are implemented as part of this project are provided within Table 1.

Table 1 – Scope of BCA DtS Non-Compliances

Ref.	BCA DtS Clause	Description of Non-Compliance
A.	Specification 5 – Fire resisting construction	The Class 7b storage areas on the basement levels will not require additional fire separation, and the carpark FRL of 120/120/120 for loadbearing walls and – /120/120 for non-loadbearing walls will apply across the entire floorplate.
B.	C2D10 – Non-combustible building elements	Climbable planters are proposed to be incorporated into the external walls of the building.
C.	C4D15 – Openings for service installations Specification 5 – Fire resisting construction	The waste chute is required to be fire-sealed at the bottom; however, this may not be achievable and will need to be addressed through a Performance Solution.
D.	D2D3 - Number of exits	The fire pump room/water tank room is provided with only a single exit for occupants.

Ref.	BCA DtS Clause	Description of Non-Compliance
E.	D2D5 – Exit travel distances	Residential levels: Occupants have travel distances of up to 12 m to a single exit, in lieu of the permitted 6 m. Basement levels: Occupants have travel distances of up to 30 m to a point of choice, in lieu of the permitted 20 m. Level 08 communal rooftop garden: Occupants have travel distances of up to 30 m to a single exit, in lieu of the permitted 20 m.
F.	D2D12 - Travel via fire-isolated exits	Fire-isolated exits discharge onto the Ground Floor (podium level), where the occupant egress path passes within 6 m of unprotected openings before reaching a road or open space.
G.	D3D26 - Operation of latch	The basement car parking areas are fitted with sectional garage doors for security purposes; however, these doors cannot be manually opened with a force of no more than 110 N in the event of a malfunction or power failure.
H.	D3D13 – Roof as open space	Occupants discharge onto the podium level (Ground Floor), which functions as the roof of the carpark, where floor waste penetrations and SOU openings are located within 3 m of their egress path before reaching a road.
I.	E1D2 – Fire hydrants	Certain areas of the building are not expected to receive full fire hydrant coverage, including Class 2 SOUs that span multiple levels. The hydrant/sprinkler booster assembly is not located within sight of the main entry, as required by AS 2419.1–2021, due to the site having multiple entry points.
J.	E1D4 – Sprinklers	A 300 mm clearance must be maintained above the storage cages in the basement levels and below the sprinkler deflectors. Specially designed sprinkler deflector plates will be installed on the sprinkler heads to ensure compliant sprinkler coverage across the floorplate despite the reduced clearance.
K.	E1D17 - Provision for special hazards	The inclusion of electric vehicles and EV charging points is proposed; however, this is considered non-compliant with BCA Clause E1D17 – Special hazards.
L.	E2D4 – Smoke hazard management (stair pressurisation)	Because the basement car park levels form a single fire compartment, AS 1668.1–2015 requires the stair pressurisation system to be sized to operate across all levels simultaneously. This would result in a significantly oversized system and substantial increases in riser dimensions. A Performance Solution is therefore proposed to rationalise the operation of the stair pressurisation system.
M.	Specification 20 – Smoke detection and alarm systems	The main FDCIE is located within the lobby area of Building A rather than at the principal pedestrian entry (off Tryon Road), which constitutes a DtS non-compliance under AS 1670.1–2018.

Conclusion

It is the finding of this report that subject to approval from the Principal Certifying Authority and relevant applicable stakeholders during the design process, the proposed Performance Solutions nominated in Table 1 related to the subject development can be demonstrated to meet the relevant Performance Requirements of the BCA pending further fire engineering analysis.

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1. INTRODUCTION

1.1 Report Purpose

This report has been produced to support the State Significant Development Application for a 9-storey residential flat building with in-fill affordable housing to be located at Lot 11 and 12 in DP1188210, 27-29 Tryon Road, Lindfield NSW 2070.

This Fire Engineering Concept Report accompanies an Environmental Impact Statement (EIS) pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act), in support of a State Significant Development Application (SSDA) for the construction of the proposed residential flat building, reference SSD-78669234.

The purpose of this report is to outline the following:

- The scope of works and relevant project stakeholders
- The principal characteristics of the project and building occupants
- An overview of the building features that will not comply with the BCA Deemed-to-Satisfy (DtS) Provisions.
- A summary of the Performance Solutions that may be adopted to support the design
- Any applicable assumptions, dependencies or limitations.

1.2 Project Scope

Minerva Group (NSW) Pty Ltd has been appointed by Bridgestone Projects Ltd to review to review the following deviations from the BCA Deemed-to-Satisfy (DtS) Provisions:

Table 2 – Scope of BCA DtS Non-Compliances

Ref.	BCA DtS Clause	Description of Non-Compliance
A.	Specification 5 – Fire resisting construction	The Class 7b storage areas on the basement levels will not require additional fire separation, and the carpark FRL of 120/120/120 for loadbearing walls and – /120/120 for non-loadbearing walls will apply across the entire floorplate.
B.	C2D10 – Non-combustible building elements	Climbable planters are proposed to be incorporated into the external walls of the building.
C.	C4D15 – Openings for service installations Specification 5 – Fire resisting construction	The waste chute is required to be fire-sealed at the bottom; however, this may not be achievable and will need to be addressed through a Performance Solution.
D.	D2D3 - Number of exits	The fire pump room/water tank room is provided with only a single exit for occupants.
E.	D2D5 – Exit travel distances	Residential levels: Occupants have travel distances of up to 12 m to a single exit, in lieu of the permitted 6 m. Basement levels: Occupants have travel distances of up to 30 m to a point of choice, in lieu of the permitted 20 m. Level 08 communal rooftop garden: Occupants have travel distances of up to 30 m to a single exit, in lieu of the permitted 20 m.
F.	D2D12- Travel via fire-isolated exits	Fire-isolated exits discharge onto the Ground Floor (podium level), where the occupant egress path passes within 6 m of unprotected openings before reaching a road or open space.

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I.	E1D2 – Fire hydrants	Certain areas of the building are not expected to receive full fire hydrant coverage, including Class 2 SOUs that span multiple levels. The hydrant/sprinkler booster assembly is not located within sight of the main entry, as required by AS 2419.1-2021, due to the site having multiple entry points.
J.	E1D4 – Sprinklers	A 300 mm clearance must be maintained above the storage cages in the basement levels and below the sprinkler deflectors. Specially designed sprinkler deflector plates will be installed on the sprinkler heads to ensure compliant sprinkler coverage across the floorplate despite the reduced clearance.
K.	E1D17 - Provision for special hazards	The inclusion of electric vehicles and EV charging points is proposed; however, this is considered non-compliant with BCA Clause E1D17 – Special hazards.
L.	E2D4 – Smoke hazard management (stair pressurisation)	Because the basement car park levels form a single fire compartment, AS 1668.1-2015 requires the stair pressurisation system to be sized to operate across all levels simultaneously. This would result in a significantly oversized system and substantial increases in riser dimensions. A Performance Solution is therefore proposed to rationalise the operation of the stair pressurisation system.
M.	Specification 20 – Smoke detection and alarm systems	The main FDCIE is located within the lobby area of Building A rather than at the principal pedestrian entry (off Tryon Road), which constitutes a DtS non-compliance under AS 1670.1-2018.

1.3 Relevant Project Stakeholders

The relevant project stakeholders are outlined in the table below.

Table 3 – Relevant Project Stakeholders

Role	Organisation	Name
Client	Bridgestone Projects Pty Ltd	John Li
		Daniel Hovagimian
Architect	PTW	Lilian Gu
		Xi Yang
Building Surveyor	Concise	Steven Rodriguez
PCA	Certatude	Vijay Perumal
		Kurtis Lamaro
Town Planner	Gyde Consulting	Sue Francis
		Rebecca Crockett
Structural Engineer	Xavier Knight	Rabee Kafina

Role	Organisation	Name
Services Engineer	Surex consulting	Esmat Shojaee
		Saman Abdi
		Mehdi Zeinali
		Chathu Senanayake
		David Rabbani
Fire Safety Engineer	Minerva Group (NSW) Pty Ltd	Eliot Reeves
		Wilfred Lau

2. PROJECT CHARACTERISTICS

2.1 Building Location

The building is located at Lot 11 and 12 in DP1188210, 27-29 Tryon Road, Lindfield NSW 2070. The site has two street frontages and shall be bounded by Tryon Road to the north and Tryon Lane to south. A site view of the proposed site is shown in Figure 1



Figure 1 – Building Location (Courtesy of SIX Maps)

2.2 Building Description

The proposed development is the demolition of existing structures and the construction of a 9-storey residential flat building with in-fill affordable housing and associated works. The proposal will include:

Construction of a 9-storey residential flat building including:

- Demolition of existing structures and site preparation / earthworks.
- Construction of 4 basement levels including 101 car parking spaces with vehicular access via Tryon Lane.
- Construction of a 9-storey residential flat building including 65 units comprising a mix of 2- and 3-bedroom apartments; and 14 affordable units.
- Communal open spaces on the ground floor and roof terrace; and
- Landscape works including tree replacement.

The proposal seeks to utilise the Infill Affordable Housing provisions of the Housing SEPP by providing affordable housing. A general layout of the building, including general egress provisions, is shown in the following figures.

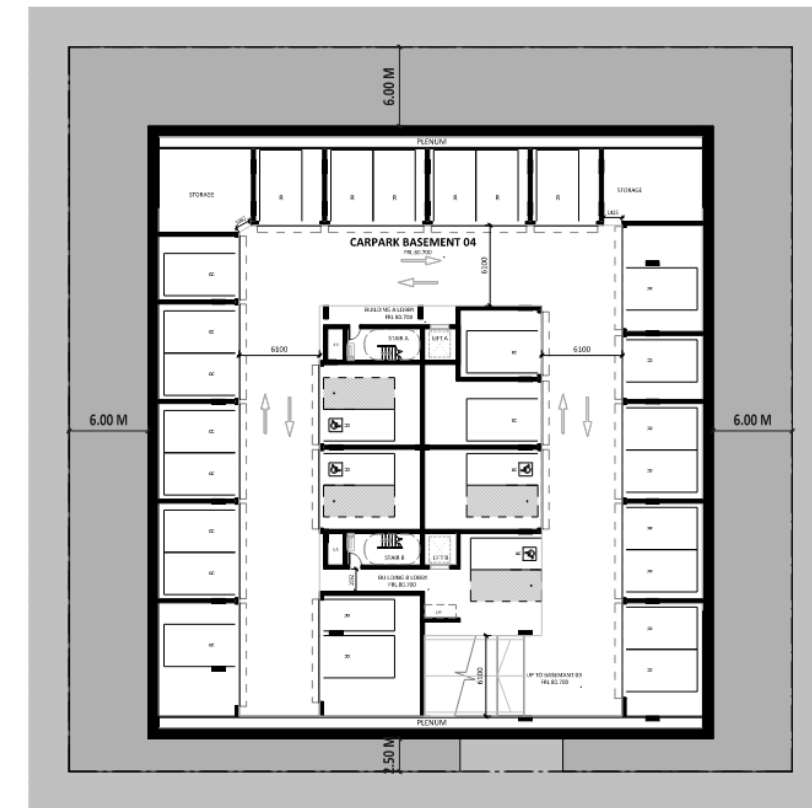


Figure 2 – General arrangement Basement 04

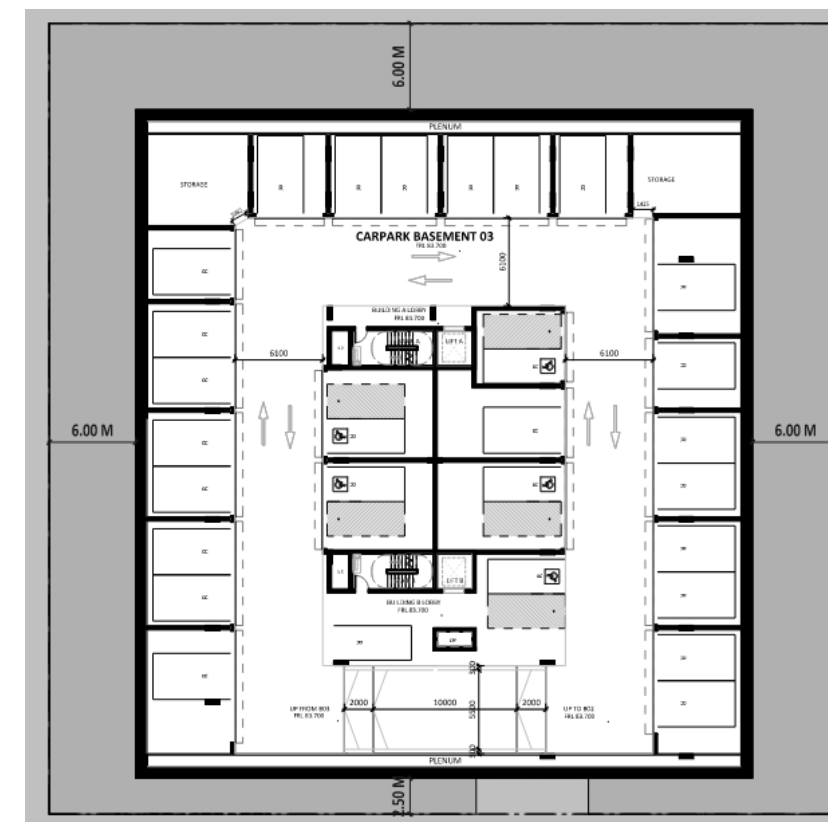


Figure 3 - General arrangement Basement 03

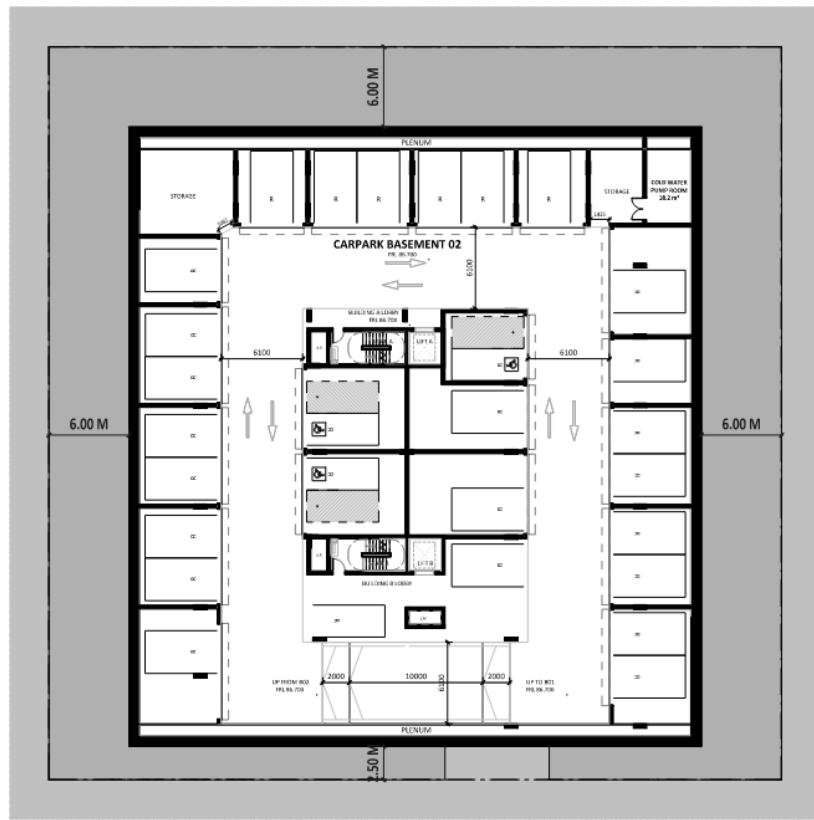


Figure 4 - General arrangement Basement 02

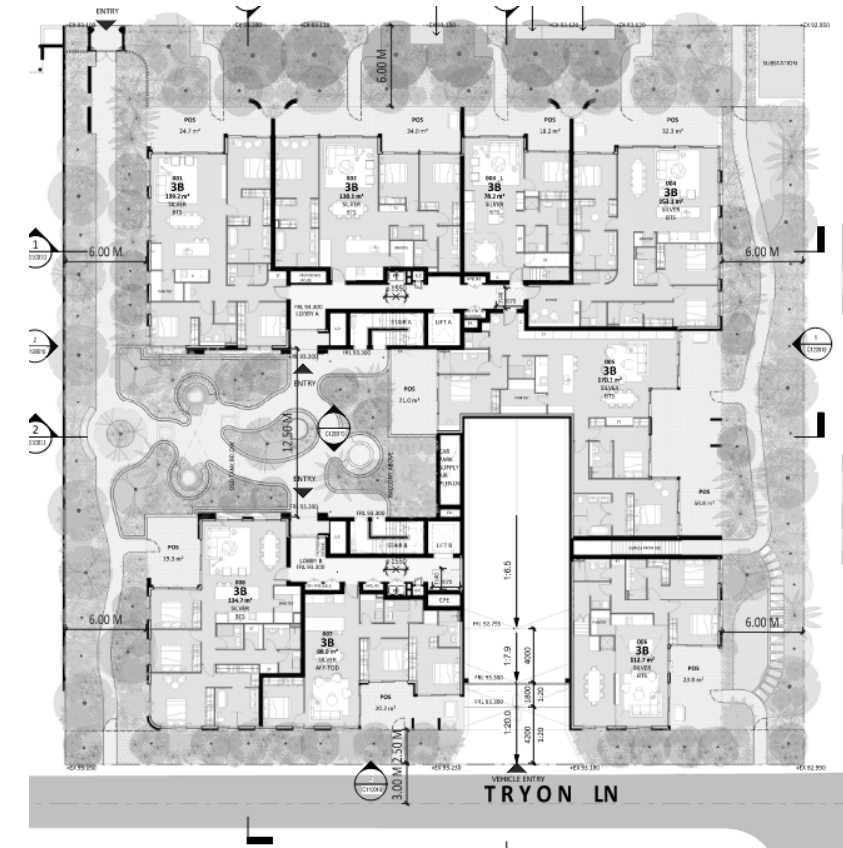


Figure 6 - General arrangement Ground Floor

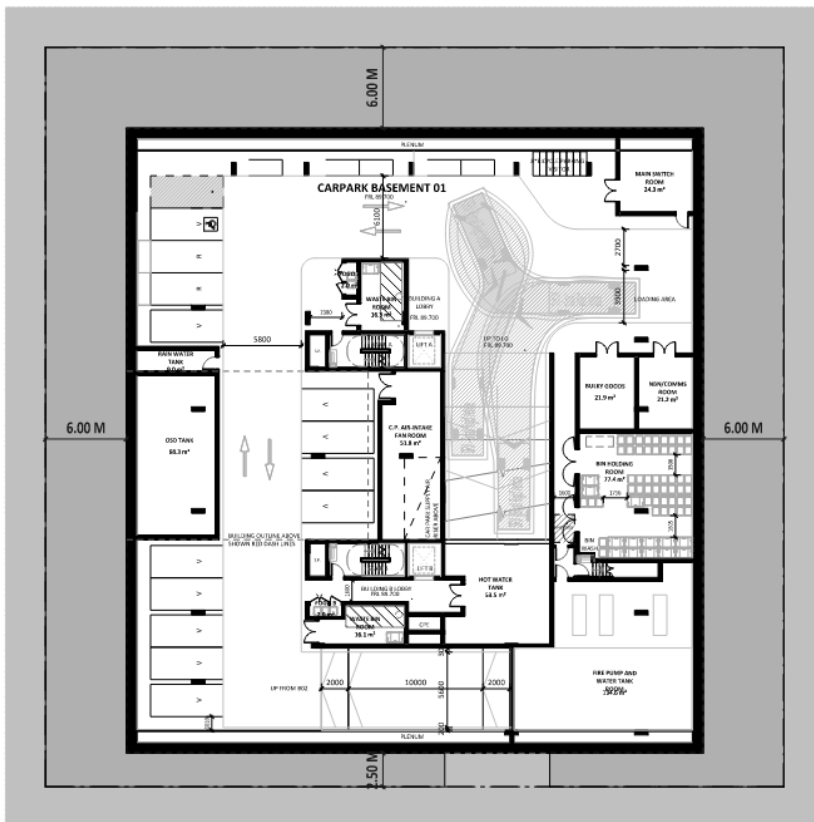


Figure 5 - General arrangement Basement 01

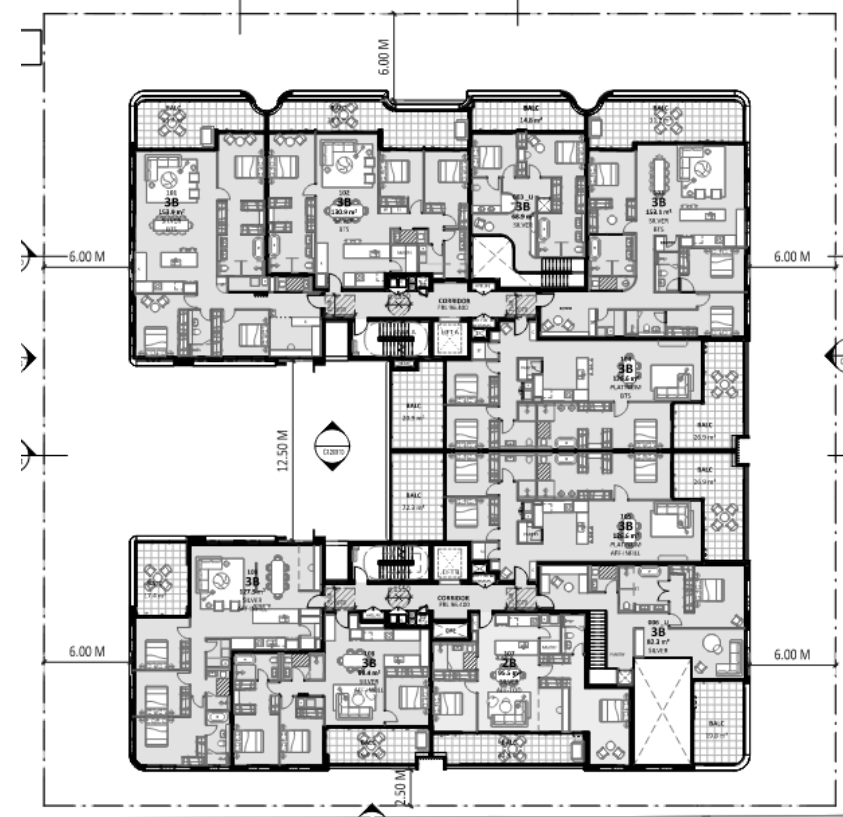


Figure 7 - General arrangement Level 01

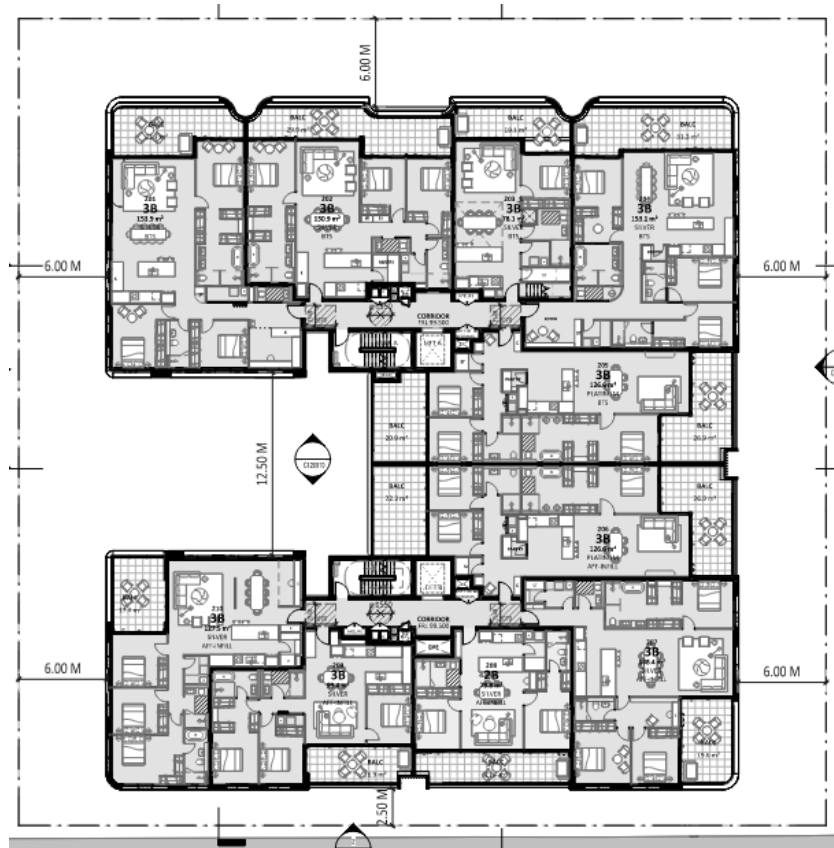


Figure 8- General arrangement Level 02

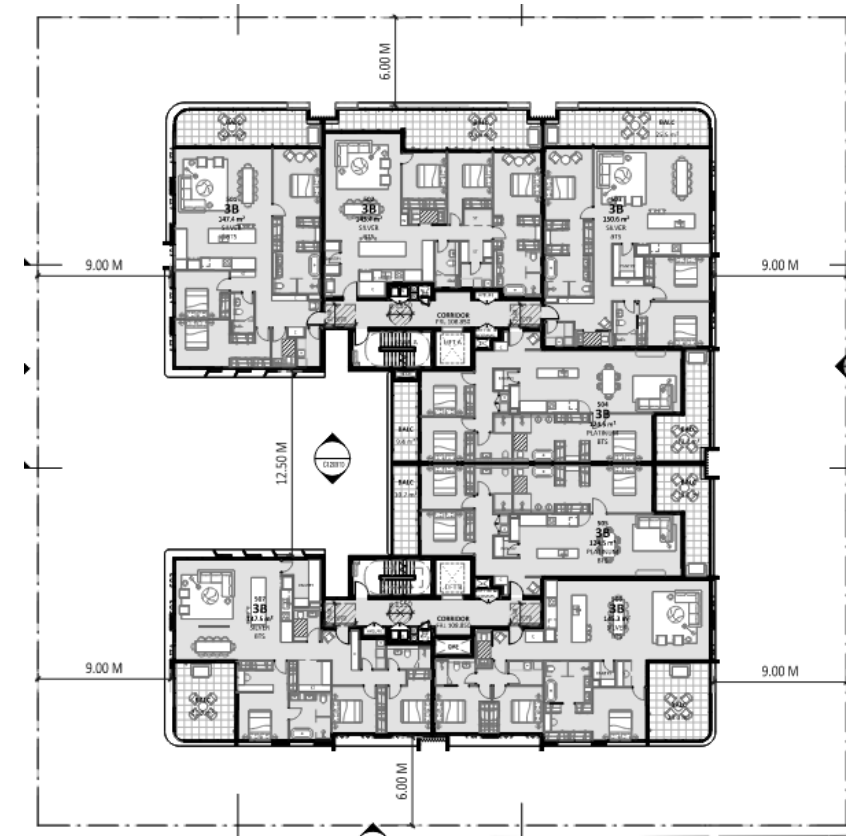


Figure 10 - General arrangement Level 04

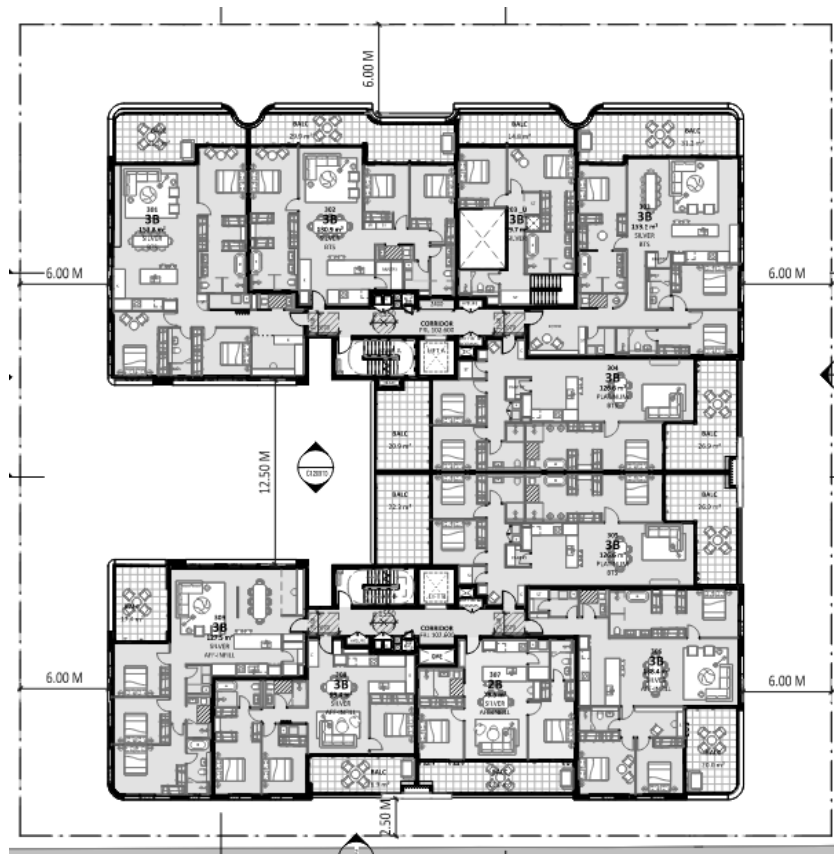


Figure 9 - General arrangement Level 03

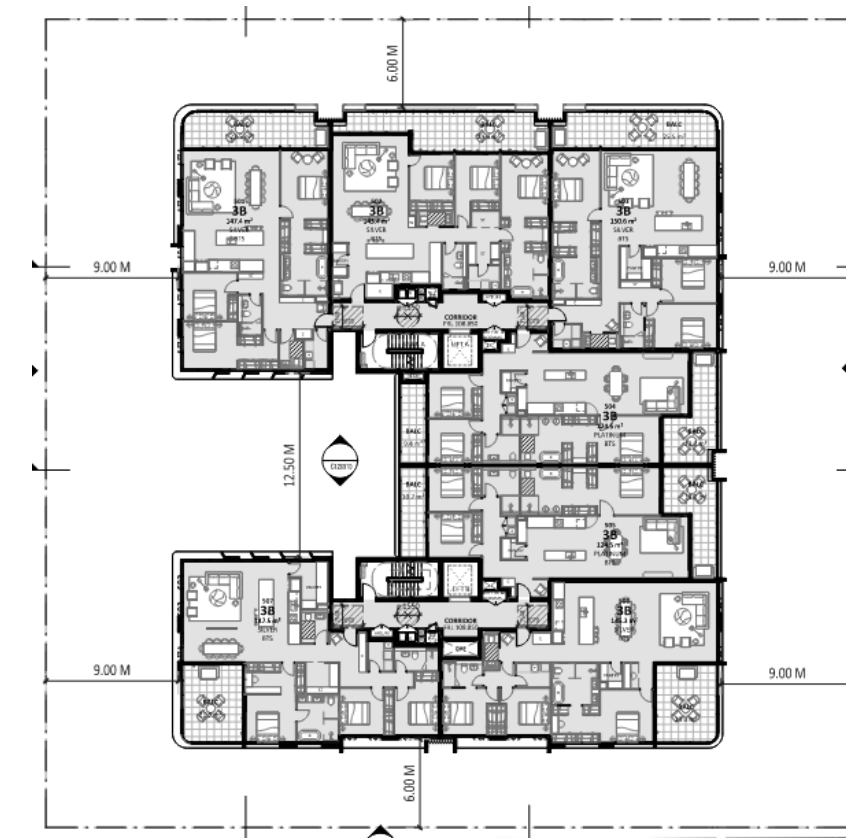


Figure 11 - General arrangement Level 05



Figure 12 - General arrangement Level 06

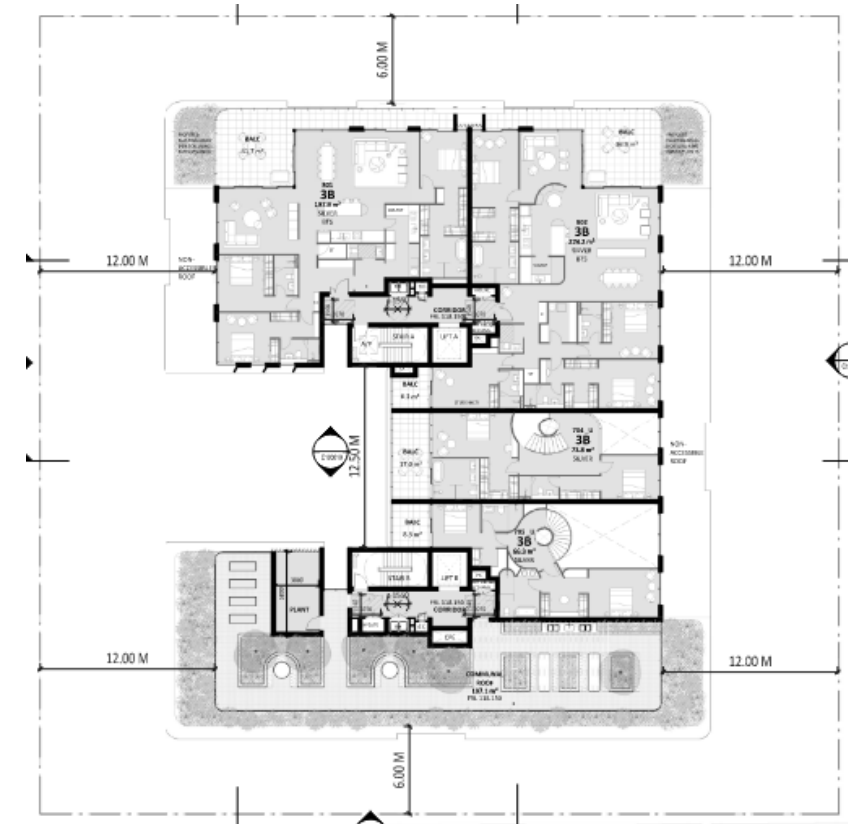


Figure 14 - General arrangement Level 08

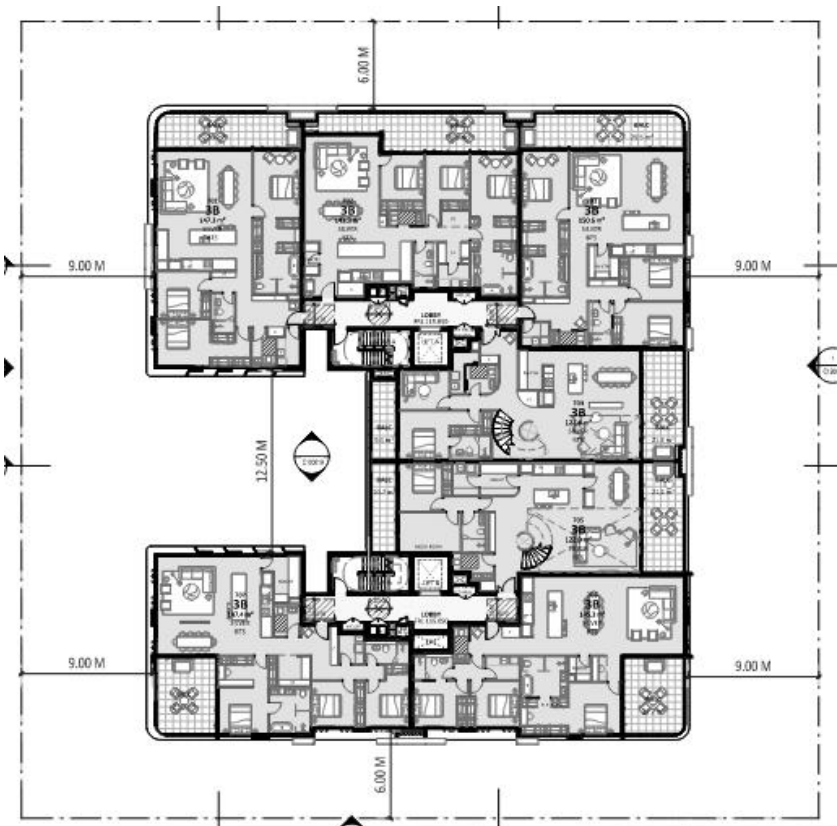


Figure 13 - General arrangement Level 07

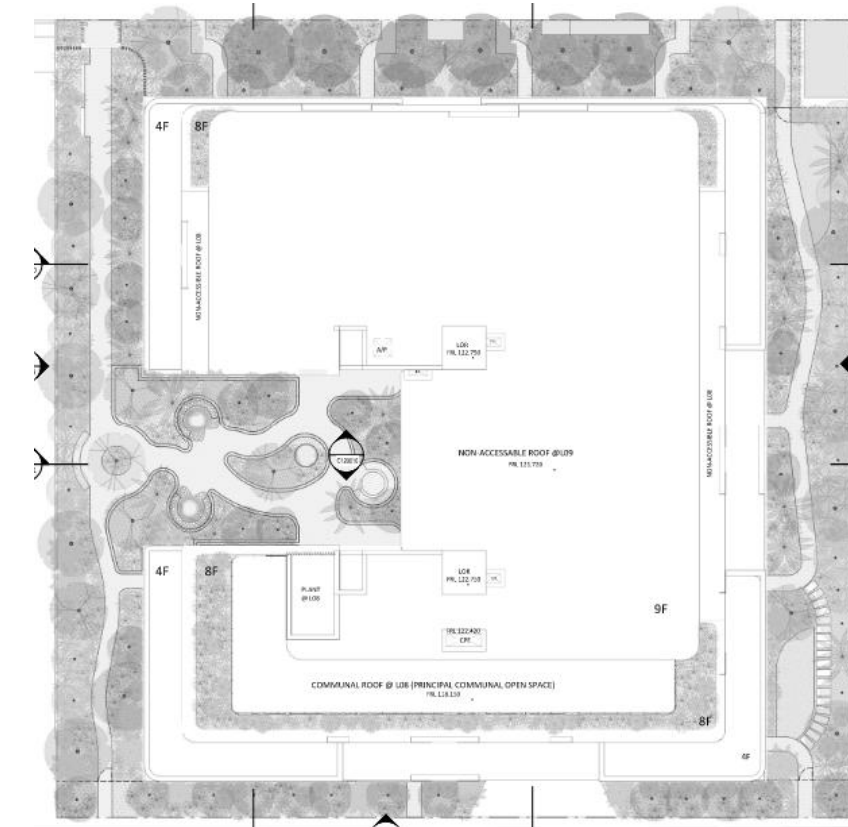


Figure 15 - General arrangement Roof Plan

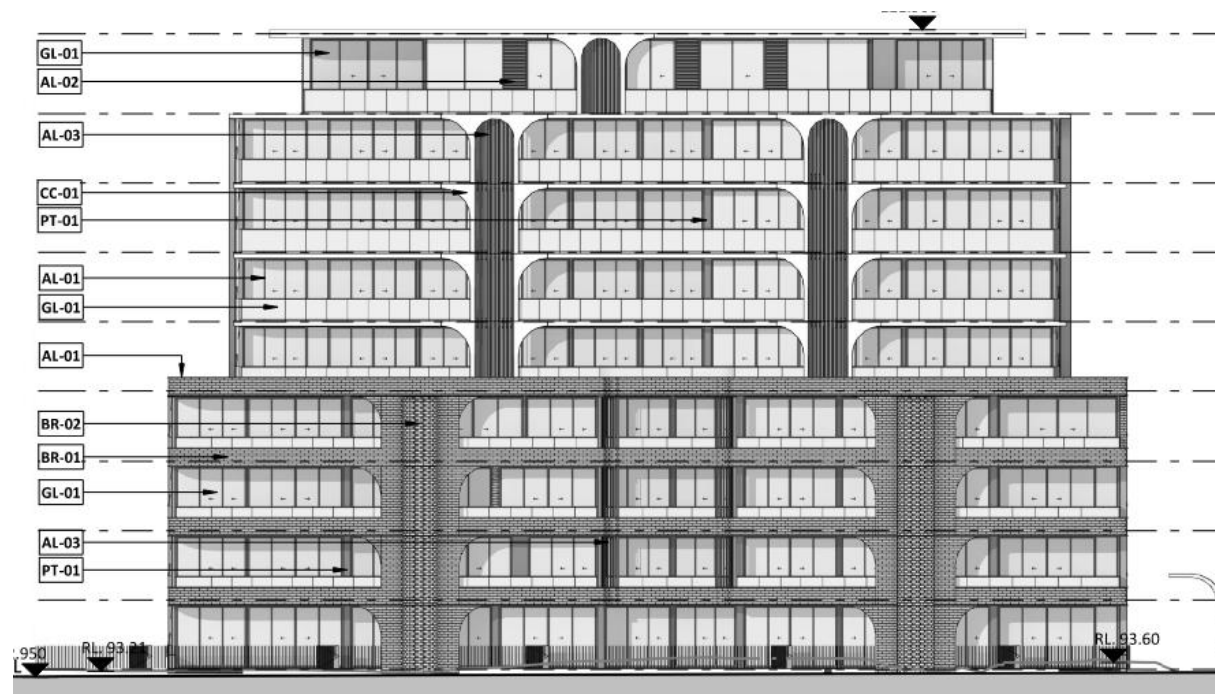


Figure 16 – Elevation North – Tryon Road



Figure 17 – Elevation North – Tryon Lane



Figure 18 – Elevation East



Figure 19 – Elevation West

2.2.1 BCA DtS Reference Criteria

The BCA DtS reference criteria which is applicable to this project is summarised in the table below.

Table 4 – BCA DtS Reference Criteria

BCA Clause	Item	Description or Requirements
A6G1	Classification	Class 2 – SOU Class 7a – Carpark Class 7b – Storage
C2D2	Construction Type	Type A
C2D3	Rise in Storeys	9
-	Number of Storeys	13 - including 4 basement levels
-	Effective Height	24.85 m

2.3 Building Occupants

2.3.1 Occupant Distribution

It is expected that occupants will be distributed as per BCA Table D2D18 – Area per person according to use' Table 5 below provides the floor space factors per person

Table 5 – Building/Tenancy Fit-out Occupancy Rates

Occupancy	Area per person
Residential SOUs	The population within the residential SOUs can be approximated by counting the number of bedrooms and assuming a conservative average of 2 persons per bedroom. This is deemed to be in accordance with FRNSW recommendation of a minimum of 2 persons + 1 person per additional bedroom and 2 persons for larger bedrooms.
Carpark	30 m ² per person
Storage	30 m ² per person
Plantrooms	30 m ² per person

2.3.2 Occupant Characteristics

The expected condition of the occupant groups within the building are described in the table below:

Table 6 – Typical Occupant characteristics of the building.

Occupant type	Description
Residents	The majority of occupants within the building are expected to be residents. Occupants throughout the residential areas of the building will vary from alert and able bodied, to occupants who are asleep, affected by medication and or alcohol and people with disabilities. They are expected to be familiar with the building layout (or the parts that they use) and the locations of exits.
Visitors	Visitors are expected to be alert and awake with a variation of ages and mobility levels. They may not be necessarily familiar with the building and its exits; however, they are expected to be accompanied by residents who is familiar with the building for most of their visit.
Building maintenance personnel	Building maintenance personnel are expected to be able-bodied alert, awake, and familiar with the building (or the parts they use) and the location of exits. They are also

Occupant type	Description
	expected to complete a detailed fire safety training as part of the building management system and trained in emergency evacuation.

2.4 Fire Hazards and Preventative and Protective Measures

The table below examines the fire hazard and mitigation measures that are in place.

Table 7 – Fire Hazards and Protective and Preventative Measures

Area	Fire Hazards	Mitigation Measures	
Residential SOUs (Class 2)	Ignition Sources <ul style="list-style-type: none"> Smoking Electrical equipment Heat and cooling equipment Kitchen equipment Arson 	Fuel Load <ul style="list-style-type: none"> Furniture Storage cabinets Electrical appliances Bed linen and furnishings Linings and coverings Waste disposal bins 	Preventative Measures <ul style="list-style-type: none"> Limited fuel load within common corridors Staff training and security Housekeeping Electrical safety devices Maintenance of equipment Protective Measures <ul style="list-style-type: none"> Fire compartmentation Smoke compartmentation Portable fire extinguishers Fire hydrants Automatic fire sprinkler system Automatic smoke detection Occupant Warning System Fire hydrant system Exit signage and emergency lighting Stair pressurisation system Fire hose reels
Carpark (Class 7b)	Ignition Sources <ul style="list-style-type: none"> Cars Mechanical equipment Lighting 	Fuel Load <ul style="list-style-type: none"> Cars Storage Bins 	
Plantroom	Ignition Sources <ul style="list-style-type: none"> Electrical equipment Heating and cooling equipment 	Fuel Load <ul style="list-style-type: none"> Plant equipment 	
Public Corridor	Ignition Sources <ul style="list-style-type: none"> Electrical equipment Arson 	Fuel Load <ul style="list-style-type: none"> Limited furniture Waste disposal bins 	

2.5 Location of Nearest Fire Stations

The nearest fire stations to the subject site are shown in Table 8 and illustrated in Figure 20 below.

Table 8 – Nearest fire stations

Fire Station	Distance to applicable Fire Station
Willoughby Fire Station	4.9 km
Gordon Fire Station	5.8 km

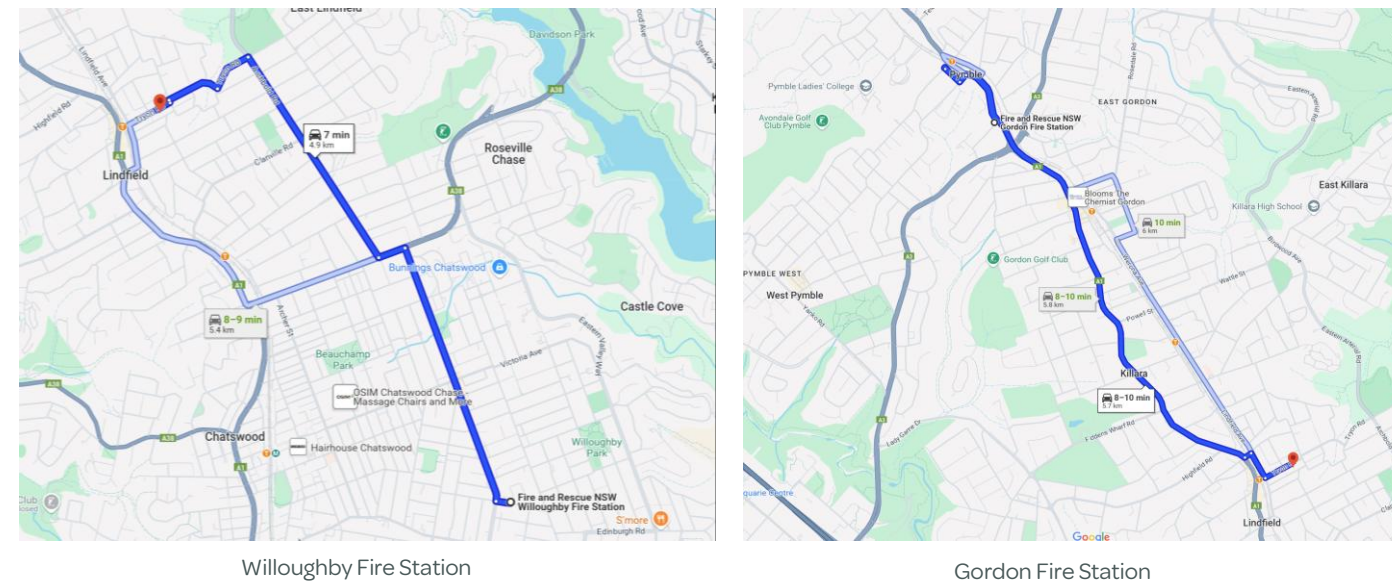


Figure 20 – Location of Nearest Fire Stations

2.6 Fire Brigade Access and Equipment

The location of key fire brigade access and equipment applicable to this site are illustrated in the following diagram.

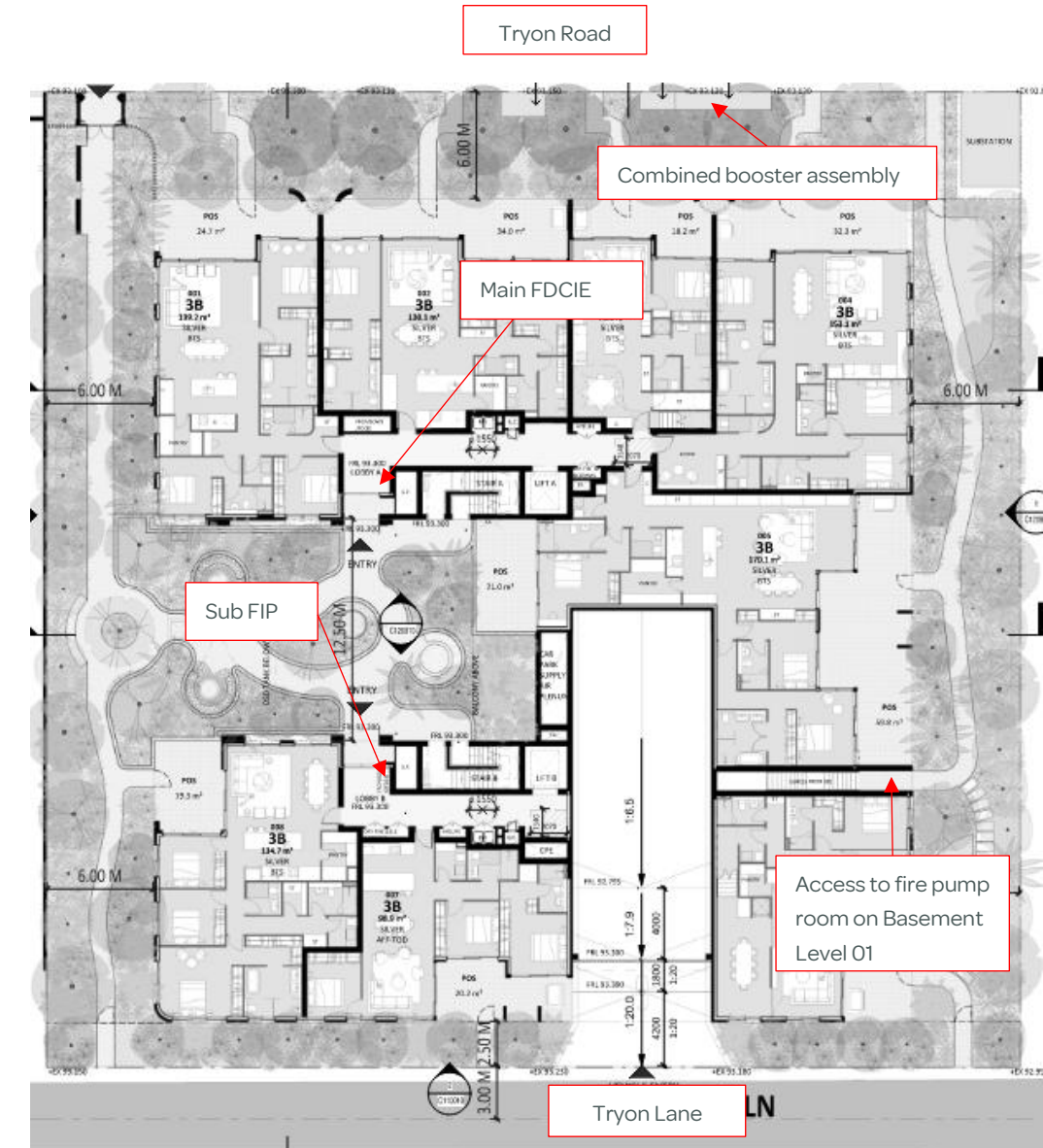


Figure 21 – Main fire brigade provisions (Ground Floor)

3. PERFORMANCE SOLUTIONS

3.1 General

This section presents a summary of the proposed Performance Solutions and Fire Safety Design that must be implemented to demonstrate that the building can meet the Performance Requirements of the BCA.

3.2 Application of the DtS Provisions

Any building feature that is not referred to or affected by this report will comply with the 'Deemed-to-Satisfy' provisions of the BCA, relevant Australian Standards, National, State, and local legislation as applicable other than existing items not required to be upgraded.

3.3 Proposed Performance Solutions

The following table summarises proposed Performance Solutions, the fire engineering analysis and the design requirements which will need to be incorporated into the building design in order to demonstrate compliance with the BCA. Subject to approval from the Principal Certifying Authority and relevant applicable stakeholders during the design process, the proposed Performance Solutions nominated Table 1 related to the subject development can be demonstrated to meet the relevant Performance Requirements of the BCA. Compliance with the Performance Requirements of the BCA will need to be conducted through a formal fire engineering assessment by a Registered Certifier – Fire Safety in the subsequent Fire Engineering Brief and Fire Engineering Report as part of the formal fire strategy approvals process. Appendix A provides the drawings that illustrate the fire safety strategy within the building, referencing to the Performance Solutions.

Table 9 – Fire Engineering Requirements

Item	BCA DtS Provisions	Description of the DtS Non-compliance	Fire Engineering Analysis	Design requirements
A.	Specification 5 – Fire resisting construction	The Class 7b storage areas on the Basement Levels shall not require additional fire separation and that the carpark FRL of 120/120/120 for loadbearing walls and --/120/120 for non-loadbearing walls shall be applied across the entirety of the floorplate.	Equivalent fire severity calculations shall be undertaken to demonstrate that fire separation is adequate to mitigate the risk of fire spread from the compartment of origin, while also ensuring that the loadbearing structure is not compromised during the worst-case fire event. Compartmentation characteristics including ventilation conditions, room geometry, the expected fire load and available fire safety systems will be examined in deriving the equivalent time for standard exposure.	- N/A
B.	C2D10 – Non-combustible building elements	Climbable planters are proposed to be incorporated in the external walls of the building.	The fire engineering analysis shall demonstrate that that climbable plants does not increase the risk of fire spread.	- Climbable planters shall be limited to two storeys in height i.e. only permitted to climb two storeys. - Additional fire safety measures shall be implemented.
C.	C4D15 – Openings for service installations Specification 5 – Fire resisting construction	Waste Chute to be fire sealed at bottom which may not be possible and will need addressing via Performance Solution.	The fire engineering analysis shall demonstrate that fire-separation to the waste rooms will provide equivalent fire separation in lieu of providing fire separation at the bottom of the waste chute shaft.	- Passive fire-rated walls will be provided around the waste rooms within the basement levels.
D.	D2D3 - Number of exits	Occupants in the fire pump room/water tank room is only provided with one exit.	The fire engineering analysis shall demonstrate that the single exit for occupants in the fire pump room/water tank does not impact on occupant evacuation due to the low population numbers and being on accessible to maintenance personnel and the fire brigade.	- N/A
E.	D2D5– Exit travel distances	Occupants on the residential levels have up to 12 m to a single exit in lieu of 6 m.	The fire engineering analysis shall demonstrate that the extended travel distances does not impact on occupant evacuation.	- Smoke seals shall be provided to doors which open into the residential corridors where extended travel distances occur.
		Occupants in the basement levels have up to 30 m to a point of choice in lieu of 20 m.	Within the car park, a fire engineering analysis shall be undertaken where a Required Safe Egress Time analysis comparison will demonstrate that occupants will be able to evacuate in the Performance Solution scenario when compared with a DtS compliant arrangement.	- Smoke detection with the circulation spaces shall be on reduced spacing to offset the extended travel distances.
		Occupants within the Level 08 communal rooftop garden has up to 30 m to a single exit in lieu of 20 m.	The fire engineering analysis shall demonstrate that the extended travel distances on the communal rooftop garden does not impact on occupant evacuation. The communal rooftop garden area is open to the atmosphere where occupant conditions are expected to be tenable.	- Additional fire safety measures shall be implemented within the communal rooftop garden e.g. additional BOW speakers, portable fire extinguishers.

Item	BCA DtS Provisions	Description of the DtS Non-compliance	Fire Engineering Analysis	Design requirements
F.	D2D12- Travel via fire-isolated exits	Fire-isolated exits discharges onto Ground Floor (podium level) where occupant discharge route passes within 6 m of unprotected openings before reaching a road or open space.	For the discharge route within 6 m of unprotected openings, the fire engineering analysis shall demonstrate that occupants are provided with two alternative pathways that travel in different directions. Occupants would be able to avoid any potential fire hazards by taking the alternative path that is not compromised by fire. As each pathway travels past different fire compartments, it is unlikely that both pathways would be compromised by the same fire.	- N/A
G.	D3D26- Operation of latch	The basement car parking areas are fitted with sectional garage doors for security purposes; however, these doors cannot be manually opened with a force of no more than 110 N in the event of a malfunction or power failure.	The fire engineering analysis shall demonstrate that the risks associated with the operation of the garage doors and the nominated fire safety measures does not impact on occupants evacuation.	- Additional fire safety measures shall be implemented such as the sectional garage doors be wired to the site's essential services power with a battery backup and with push button such that garage doors remains operational.
H.	D3D13 – Roof as open space	Occupant's discharge onto the podium level (Ground Floor) which is considered to be roof of the carpark where floor waste penetrations and SOU openings are within 3 m of their egress path to reach a road	The fire engineering analysis shall demonstrate that the exits paths are available to ensure safe and tenable evacuation route away from fire hazards during an evacuation. The fire engineering analysis shall assess a fire on Basement Level, Ground Floor and Level 01 to ensure that adequate fire protection is provided to the floor waste penetrations.	All floor penetrations in the Ground Floor podium level slab within 3 m of the egress route are to be fitted with FRL –/120/120 fire-rated collars that are tested in accordance with AS 1530.4 – 2014.
I.	E1D2 – Fire hydrants E1D4 – Sprinklers	Certain areas of the building are not expected to receive full fire hydrant coverage, including Class 2 SOUs that span multiple levels.	The fire engineering analysis shall demonstrate that the use of two lengths does not compromise or adversely disadvantage firefighting capabilities. Additional signage shall be provided to make fire fighters aware of the additional hose length requirements prior to them travelling through the floor where this non-compliance is present.	- Permanent hydrant block plans and signage shall be provided within key areas (e.g., above the fire hydrant riser and landing valve, hydrant booster assembly and fire control room) detailing the location of the hydrants on the floorplate and indicating that two hose lengths are required for hydrant coverage in the subject areas. - The two lengths of hose will be also referred to FRNSW for their review and comments.
		The hydrant/sprinkler booster assembly is not located within sight of the main entry, as required by AS 2419.1-2021, due to the site having multiple entry points.	A fire engineering analysis shall be undertaken to demonstrate that the location of the hydrant/sprinkler booster assembly not within site of the main entry of the building will not compromise fire brigade intervention.	- Signage and a visual alarm warning device shall be provided to indicate the location of the hydrant/sprinkler booster assembly. - The location of the booster assembly will be also referred to FRNSW for their review and comments.
J.	E1D4 – Sprinklers	A 300 mm clearance must be maintained above the storage cages in the basement levels and below the sprinkler deflectors. Specially designed sprinkler deflector plates will be installed on the sprinkler heads to ensure compliant sprinkler coverage across the floorplate despite the reduced clearance.	The fire engineering analysis shall demonstrate that the rationalised clearance below the sprinkler deflector does not impact on the operation of the sprinkler system and compliant sprinkler coverage is achieved throughout the floorplate.	- N/A
K.	E1D17 - Provision for special hazards	It is proposed to have electric vehicles and EV charging points which is considered to be non-compliant with BCA Clause E1D17 - Special hazards.	A fire engineering analysis shall be undertaken to assess the provision of electric vehicles and EV charging points and the potential impacts on occupant evacuation and fire brigade intervention.	- At present, we recommend that the design team allow for a basement smoke exhaust system to be an essential service - dedicated sprinkler coverage where dedicated EV chargers are provided, pending liaison with Fire & rescue NSW. - It is also recommended to locate the dedicated EV chargers in upper basement levels and away from exits and other vehicles.
L.	E2D4 – Smoke hazard management (stair pressurisation)	Since the basement car park levels will form a single fire compartment, AS1668.1-2015 requires that the stair pressurisation system be sized to serve all level simultaneously - this will result in a very large system serving the basement and significant increases in riser sizes. A Performance Solution is proposed to rationalisation the operation of the stair pressurisation system.	A fire engineering analysis shall be undertaken to demonstrate that smoke spread into the fire-isolated exits is mitigated and the rationalised system does not endanger occupants utilising the fire-isolated stairs. The stair pressurisation system shall be modelled using CFD to show that, even though the system is not expected to strictly meet the testing requirements of AS1668.1-2015 (e.g., sustaining at least 1 m/s air velocity whilst all fire stair doors from the affected compartment, the immediately above/adjacent and the main discharge doors are open) smoke would not enter into the fire stairs.	- Both fire stairs serving the basement levels shall sustain a minimum of 1 m/s air velocity when opening the fire affected floor, the storey immediately above and the final discharge door. - Door opening forces are to be measured to evidence that the force compliant with the DtS provisions (e.g., opening force shall not exceed 110 N). - A CFD fire modelling shall demonstrate that smoke would not enter into the fire stairs with the proposed pressurisation arrangement.

Item	BCA DtS Provisions	Description of the DtS Non-compliance	Fire Engineering Analysis	Design requirements
M.	Specification 20 – Smoke detection and alarm systems	The main FDCIE is located within the lobby area of Building A, as opposed to the principal pedestrian entry (i.e. off Tryon Road) which has been deemed as a DtS non-compliance in accordance with AS 1670.1-2018.	A fire engineering analysis shall be undertaken to demonstrate that the location of the Main FDCIE located within the lobby area of Building A does not impact on fire brigade intervention.	<ul style="list-style-type: none"> - Additional Sub FIPs shall be provided in the lobby area. The Sub FIPs shall be capable of isolating, resetting and determining the fire location within the building and have an automatic link to the Main FDCIE.

4. FIRE SAFETY STRATEGY

In addition to the fire safety measures proposed as part of the Performance Solution described in Section 3, this section describe the general fire safety measures that shall be implemented into the building.

4.1 Fire Resistance and Compartmentation

The minimum type of fire-resisting building elements shall be in accordance with BCA Clause C2D2 and Specification 5 for Type A construction except as varied as follows:

- The Class 7b storage areas on the Basement Levels shall not require additional fire separation and that the carpark FRL of 120/120/120 for loadbearing walls and --/120/120 for non-loadbearing walls shall be applied across the entirety of the floorplate.
- Waste Chute to be fire sealed at bottom which may not be possible and will need addressing via Performance Solution. Passive fire-rated separation shall be provided around the waste rooms within the basement levels.

4.2 Finishes and Linings

All wall, floor and ceiling, and ceiling assemblies must be tested and rated for their fire hazard properties in accordance with the prescriptive requirements DtS Provision of the BCA Section C except as varied as follows:

- Climbable planters are proposed to be incorporated in the external walls of the building; the climbable planters shall be limited to two storeys in height i.e. only permitted to climb two storeys.

4.3 Egress Provisions

The egress provisions within the building shall generally be in accordance with the DtS Provisions of the BCA Section D, except as varied as follows:

- The following extended travel distances shall be permitted within the building:

Basement levels – Carpark

- Up to 30 m to a point of choice in lieu of 20 m

Residential levels

- Up to 12 m to a single exit in lieu of 6 m

Communal Rooftop Garden

- Up to 30 m to a single exit in lieu of 20 m

As part of the performance solution, the following fire safety measures are proposed:

- Within the carpark: Smoke detection with a reduced spacing to offset the extended travel distances.
- Within the residential corridors: Additional smoke seals shall be provided to the doors opening into the corridors.
- Within the rooftop garden: Additional fire safety measures shall be implemented within the communal rooftop garden e.g. additional bow speakers, portable fire extinguishers.
- Fire-isolated exits discharges onto Ground Floor (podium level) where occupant discharge route passes within 6 m of unprotected openings before reaching a road or open space.
- Occupants in the fire pump room/water tank room is only provided with one exit.

- The parking areas within the basement carparking levels have been provided with sectional garage doors for security reasons which are not manually openable under a force of not more than 110 N if there is a malfunction or failure of the power source.
 - Additional fire safety measures shall be implemented such as the sectional garage doors be wired to the site's essential services power with a battery backup and with push button such that garage doors remains operational.
- Occupant's discharge onto the podium level (Ground Floor) which is considered to be roof of the carpark where floor waste penetrations and SOU openings are within 3 m of their egress path to reach a road. As part of the performance solution, the following fire safety measures are proposed:
 - All floor penetrations in the Ground Floor podium level slab within 3 m of the egress route are to be fitted with FRL --/120/120 fire-rated collars that are tested in accordance with AS 1530.4:2015.

4.4 Sprinkler System

A sprinkler shall be provided in accordance with AS 2118.1-2017, exempt for the following:

- Above the storage cages within the Basement Levels, a 300 mm clearance shall be maintained below the level of the sprinkler deflectors. Specific designed sprinkler deflector plates shall be installed on the sprinkler head which will result in compliant sprinkler coverage to the floorplate even with 300 mm reduction sprinkler clearance.
- The sprinkler system with fast response heads shall be provided in the basement levels.

4.5 Fire Detection and Alarm System

A smoke detection and alarm system complying with AS 1670.1 – 2018 shall be provided throughout the building, except for the following:

- Smoke detection with the circulation spaces shall be on reduced spacing to offset the extended travel distances.
- The main FDCIE is located within the lobby area of Building A, as opposed to the principal pedestrian entry (i.e. off Tryon Road) which has been deemed as a DtS non-compliance in accordance with AS 1670.1-2018. As part of the performance solution, additional Sub FIPs shall be provided in the lobby area. The Sub FIPs shall be capable of isolating, resetting and determining the fire location within the building and have an automatic link to the Main FDCIE.

4.6 Smoke Hazard Management

The buildings shall be provided with a smoke management system in accordance with BCA provisions in Part E2, except when varied as follow:

- The stair pressurisation in the fire stairs serving the basement levels is not expected to strictly comply with the testing requirements of AS 1668.1-2015 regarding the door air velocity. As part of the performance solution, the following fire safety measures are proposed:
 - Both fire stairs serving the basement levels shall sustain a minimum of 1 m/s air velocity when open one of the fire stair doors plus the final discharge door.
 - Door opening forces are to be measured to evidence that the force compliant with the DtS provisions (e.g., opening force shall not exceed 110 N).

4.7 Exit Signage and Emergency Lighting

Emergency lighting and exit signage is to be provided in accordance with the DtS provisions from Part E4 of the BCA and AS 2293.1-2018 throughout the building.

4.8 Fire Hose Reels

Fire hose reels shall be provided in accordance with DtS provision E1D3 of the BCA and AS 2441-2001.

4.9 Fire Extinguishers

Portable fire extinguishers shall be provided in accordance with DtS provision E1D14 of the BCA and AS 2444-2001.

4.10 Fire Hydrant System

The building will generally be provided with the fire hydrant system in accordance with AS 2419.1-201 as per Part E1D2 of the BCA, exempt for the following:

- The Class 2 SOUs spanning multiple levels from Level 7 and Level 8 are not expected to be provided with full fire hydrant coverage. As part of the performance solution, the following fire safety measures are proposed:
 - Permanent hydrant block plans and signage shall be provided within key areas (e.g., above the fire hydrant riser and landing valve, hydrant booster assembly and fire control room) detailing the location of the hydrants on the floorplate and indicating that two hose lengths are required for hydrant coverage in the subject areas.
 - The two lengths of hose will be also referred to FRNSW for their review and comments.
- The location of the hydrant/sprinkler booster assembly is permitted not to be located within sight of the main building entry as required by AS 2419.1-2021.
 - Signage and a visual alarm warning device shall be provided to indicate the location of the hydrant/sprinkler booster assembly.
 - The location of the booster assembly will be also referred to FRNSW for their review and comments.
 - Call out address will be to Tryon Road.

4.11 Special Hazard Requirements

The following special hazards have been identified within the building along with the proposed fire safety measures to mitigate them:

- It is proposed to have electric vehicles and EV charging points which is considered to be non-compliant with BCA Clause E1D17 - Special hazards. To mitigate this special hazard, the following fire safety measures are proposed:
 - We recommend that the design team allow for a basement smoke exhaust system to be an essential service.
 - A dedicated sprinkler coverage where dedicated EV chargers are provided, pending liaison with Fire & rescue NSW.
 - It is also recommended to locate the dedicated EV chargers in upper basement levels and away from exits and other vehicles.
 - The EV charging system, inclusive of the wiring used to charge, must be accredited for use in Australia (e.g. RCM Tick compliance). Additionally, the EV Charging system must include electrical protection in accordance with AS 3000-2018 Appendix P. Charging equipment and installation of same must comply with electrical safety regulations and best practices as outlined in AS 3000-2018 Appendix P.
 - The electrical supply to the EV Charging Stations must be configured to automatically shut down the power supply to all Charging Stations upon General Fire Alarm (GFA) in the Class 7a (carpark) areas.
 - Block Plans and diagrams of the EV Charging Stations must be provided within the FDCIE detailing the following information:
 - o The location of the EV Charging Stations and corresponding Charging Bays.
 - o The location of distribution boards supplying power to the EV Charging Stations.

- o The location of automatic and/or manual power supply shut down provisions in the building.
- Emergency shutdown controls (master isolation switch) must be provided at the Fire Detection and Control Indicating Equipment (FDCIE, otherwise previously referred to as FIP) to enable Fire & Rescue NSW to shut down all EV Charging Stations manually.
- EV charging stations are not permitted in the car stacker.
- EV Charging Stations and affiliated equipment is recommended to be located on a raised island (at least 100 mm high) and must be protected against impact by bollards, metal barriers, wheel stops, or similar.
- Internal fire hydrants must not be located within 10 m of EV Charging Stations (except when located within fire-isolated stairways)
- Regular maintenance must be undertaken for the EV Charging Stations in accordance with relevant legislation and manufacturer requirements (whichever is most onerous). This requirement must be confirmed with the EV Charging Station installer to ascertain the required frequency.
- Emergency Services Information Pack (ESIP) should be provided for the site and to local fire brigade in alignment with the ABCB Advisory Notice for Electric Vehicles in Buildings, dated June 2023.
- The ABCB advisory note on electric vehicles should be followed. Below are some of the potential ABCB advisory recommendations to consider:
 - o Break glass fire alarm - Provide additional break glass unit (BGU).
 - o Placarding at site entrance - Sites with 5 or more Mode 3 or 4 chargers to install ground level or other appropriate level placards to indicate which entrance is most closely located to EV charging hub.
 - o Smart charging - Where possible, prioritise the use of 'Smart charging' to enable remote monitoring and access to disconnect power supply to a connected EV. This gives emergency responders another potential method of shutdown from unit to EV. Encourage operators to monitor for faults and provide early intervention when detected.
 - o Directional signage - Directional signage to be provided to the charging units and to the emergency exits.

Note 1: The suitable additional provisions outlined above relate to fire safety engineering only (e.g. does not include other disciplines such as mechanical, electrical, structural design/loading etc. which are outside the expertise of fire safety engineers).

4.12 Fire Safety Management

The building is required to be managed under a fire safety policy which includes:

- Good housekeeping and fire prevention procedures such as maintaining clear evacuation routes.
- Regular maintenance of all fire safety systems to relevant Australian Standards for each system.

5. CONCLUSION

It is the finding of this report that subject to approval from the Principal Certifying Authority and relevant applicable stakeholders during the design process, the proposed Performance Solutions nominated on Table 2 related to the subject development can be demonstrated to meet the relevant Performance Requirements of the BCA pending further fire engineering analysis.

This report only addressed the identified variations from the NCC DtS Provisions listed in Table 1. All other aspects of the design, with regards to fire life safety, are assumed to be compliant with the NCC DtS Provisions.

This document shall not be used for Construction Documentation and compliance with the Performance Requirements of the BCA will need to be conducted through a formal fire engineering assessment by a Registered Certifier – Fire Safety in the subsequent Fire Engineering Brief and Fire Engineering Report as part of the formal fire strategy approvals process.

6. LIABILITY AND LIMITATIONS

6.1 Liability

This Fire Engineering Concept Report is applicable to Lot 11 and 12 in DP1188210, 27-29 Tryon Road, Lindfield. It should be recognised that this report does not provide a guarantee that a fire will not occur with potential to cause casualties or damage.

Minerva Group (NSW) Pty Ltd cannot be held liable for any loss or damage resulting from any defect of the building or its services or equipment or for any non-compliance of the building or its services or equipment with any legislative or operational requirement, whether or not such defect or non-compliance is referred to or reported upon in this report, unless such defect or non-compliance should have been apparent to a competent engineer undertaking the assessment of the type undertaken for the purpose of preparation of this report.

The fire safety assessment and recommendations have been based on the building architectural layouts and the information detailed Section 7 – Reference Information. Any change in this information to suit future building works or re-organisation will require further analysis to confirm compliance with the regulations and our reports.

6.2 Limitations

This report does not provide guidance in respect of areas, which are used for bulk storage, processing of flammable liquids, explosive materials, multiple fire ignitions or sabotage of existing fire safety systems.

Minerva Group (NSW) Pty Ltd has compiled this report based on the information listed in Section 7 – Reference Information. Note that this report is based upon information provided by the client – some of which may not have been verified.

Potential incendiary risks are limited in the scope of engineering design. Conventional building design can only provide limited protection against malicious attack; for example, large scale incendiary and multiple ignition sources can potentially overwhelm some fire safety systems.

Strategies such as security, housekeeping and other management procedures may be more effective than additional fire protection measures in addressing arson events.

7. REFERENCE INFORMATION

7.1 Regulatory Framework

The following New South Wales Legislation is applicable to this project:

- NSW Environmental Planning & Assessment Act 1979 (EP&A Act) and subsequent amendments
- NSW Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021 (EP&A Reg.)

7.2 References

The following reference material is applicable to this report:

- [1] Volume One of the Building Code of Australia (BCA) 2022 Amendment 2, Australian Building Codes Board, 2020
- [2] Guide to the BCA 2019 Amendment 1, Australian Building Codes Board, 2020
- [3] Australian Fire Engineering Guidelines, 2021
- [4] International Fire Engineering Guidelines, 2005

7.3 Design Information

The engineering analysis documented in this report is based upon the following information:

- [1] Architectural drawings outlined in Table 10 below.

Table 10 – Architectural Drawings

Drawing Number	Drawing Title	Revision	Author	Issue Date (DD/MM/YYYY)
PTW-DA-A000000	COVER	E	PTW	28/11/2025
PTW-DA-A000010	DRAWING LIST	E	PTW	28/11/2025
PTW-DA-A100010	DEVELOPMENT DATA SHEET	F	PTW	28/11/2025
PTW-DA-A200020	BASIX NOTES	D	PTW	28/11/2025
PTW-DA-A200030	SITE ANALYSIS	C	PTW	28/11/2025
PTW-DA-A200040	DEMOLITION PLAN	C	PTW	28/11/2025
PTW-DA-A200050	SITE PLAN	E	PTW	28/11/2025
PTW-DA-B1B0710	BASEMENT 04 PLAN	E	PTW	28/11/2025
PTW-DA-B1B0810	BASEMENT 03 PLAN	E	PTW	28/11/2025
PTW-DA-B1B0910	BASEMENT 02 PLAN	E	PTW	28/11/2025
PTW-DA-B1B1010	BASEMENT 01 PLAN	E	PTW	28/11/2025
PTW-DA-B1GRD10	GROUND FLOOR PLAN	E	PTW	28/11/2025
PTW-DA-B1L0110	LEVEL 01 PLAN	D	PTW	28/11/2025
PTW-DA-B1L0210	LEVEL 02 PLAN	E	PTW	28/11/2025
PTW-DA-B1L0310	LEVEL 03 PLAN	D	PTW	28/11/2025
PTW-DA-B1L0410	LEVEL 04-06 PLAN	D	PTW	28/11/2025
PTW-DA-B1L0710	LEVEL 07 PLAN	E	PTW	28/11/2025
PTW-DA-B1L0810	LEVEL 08 PLAN	E	PTW	28/11/2025
PTW-DA-B1ROF10	ROOF PLAN	E	PTW	28/11/2025
PTW-DA-C110010	NORTH & SOUTH ELEVATIONS	E	PTW	28/11/2025
PTW-DA-C120010	EAST, WEST & COURTYARD ELEVATIONS	E	PTW	28/11/2025
PTW-DA-C130010	PERSPECTIVES	D	PTW	28/11/2025
PTW-DA-C130011	PERSPECTIVES	D	PTW	28/11/2025
PTW-DA-C130012	PERSPECTIVES	D	PTW	28/11/2025
PTW-DA-C140010	MATERIAL BOARD	D	PTW	28/11/2025
PTW-DA-D110010	SECTION 1,2	E	PTW	28/11/2025
PTW-DA-D110011	SECTION 3,4	E	PTW	28/11/2025

Drawing Number	Drawing Title	Revision	Author	Issue Date (DD/MM/YYYY)
PTW-DA-Q12C010	BUILDING HEIGHT	E	PTW	28/11/2025
PTW-DA-Q12D010	GFA DIAGRAMS	E	PTW	28/11/2025
PTW-DA-Q13D110	COMMUNAL OPEN SPACE	E	PTW	28/11/2025
PTW-DA-Q13E110	DEEP SOIL ZONES	E	PTW	28/11/2025

APPENDIX A – PROPOSED FIRE SAFETY STRATEGY

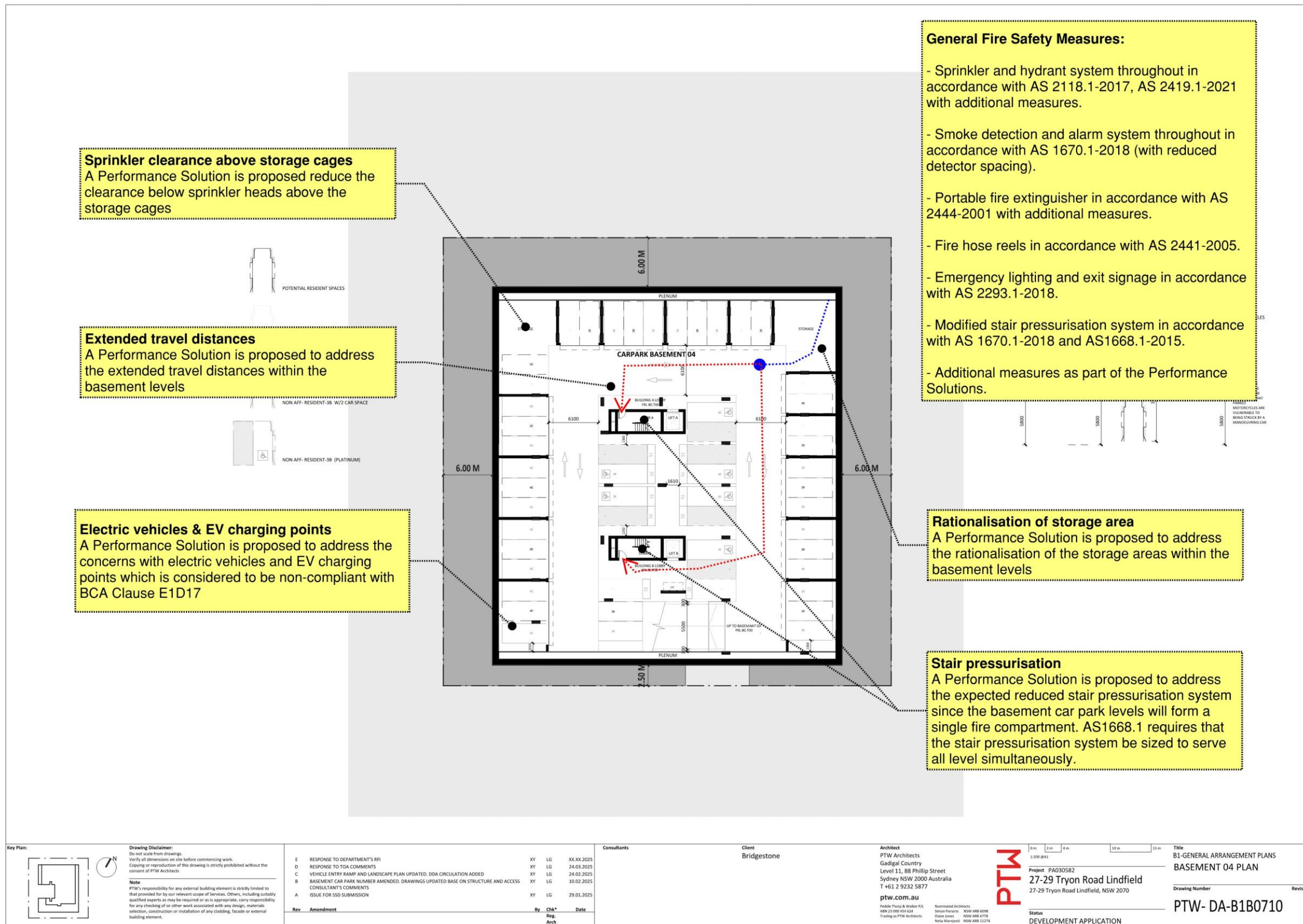
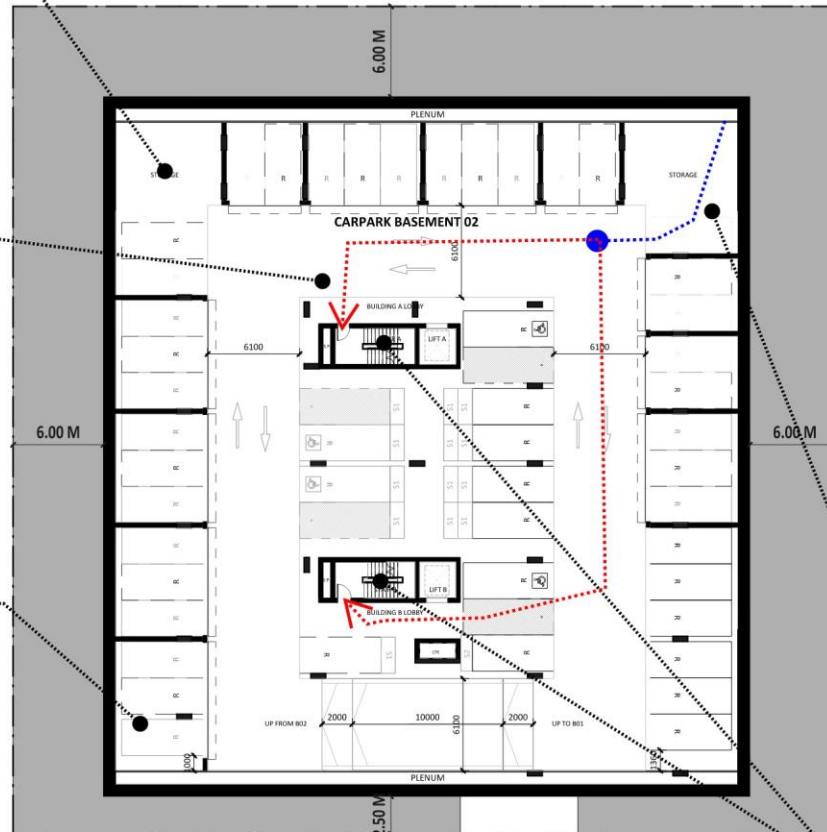


Figure 23 - Proposed Fire Safety Strategy on Basement Level B04

Sprinkler clearance above storage cages
 A Performance Solution is proposed reduce the clearance below sprinkler heads above the storage cages

Extended travel distances
 A Performance Solution is proposed to address the extended travel distances within the basement levels

Electric vehicles & EV charging points
 A Performance Solution is proposed to address the concerns with electric vehicles and EV charging points which is considered to be non-compliant with BCA Clause E1D17



General Fire Safety Measures:

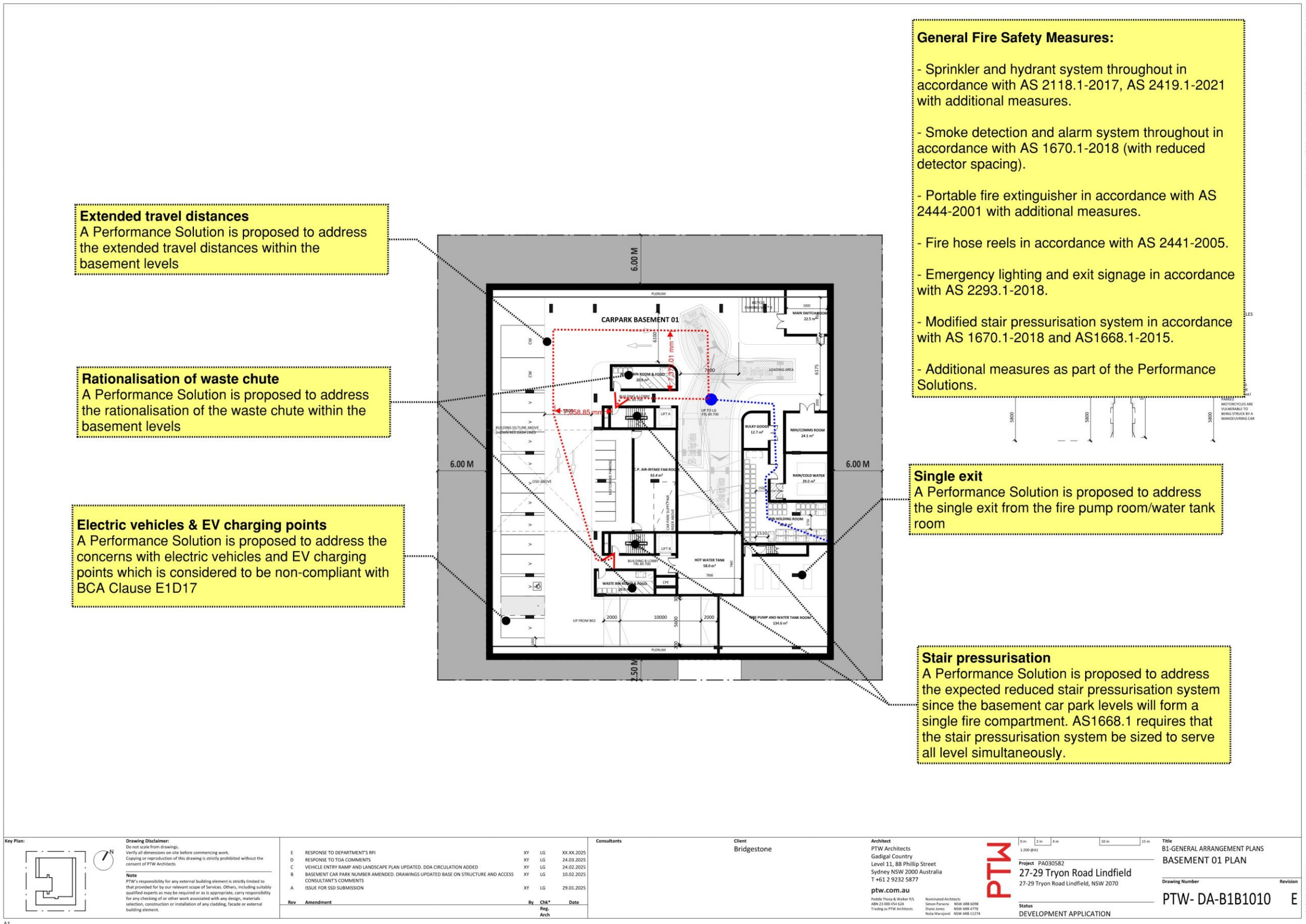
- Sprinkler and hydrant system throughout in accordance with AS 2118.1-2017, AS 2419.1-2021 with additional measures.
- Smoke detection and alarm system throughout in accordance with AS 1670.1-2018 (with reduced detector spacing).
- Portable fire extinguisher in accordance with AS 2444-2001 with additional measures.
- Fire hose reels in accordance with AS 2441-2005.
- Emergency lighting and exit signage in accordance with AS 2293.1-2018.
- Modified stair pressurisation system in accordance with AS 1670.1-2018 and AS1668.1-2015.
- Additional measures as part of the Performance Solutions.

Rationalisation of storage area
 A Performance Solution is proposed to address the rationalisation of the storage areas within the basement levels

Stair pressurisation
 A Performance Solution is proposed to address the expected reduced stair pressurisation system since the basement car park levels will form a single fire compartment. AS1668.1 requires that the stair pressurisation system be sized to serve all level simultaneously.

<p>Key Plan:</p>	<p>Drawing Disclaimer: Do not scale from drawings. Verify all dimensions on site before commencing work. Copying or reproduction of this drawing is strictly prohibited without the consent of PTW Architects</p> <p>Note: PTW's responsibility for any external building element is strictly limited to that provided for by our relevant scope of services. Others, including suitably qualified experts as may be required or as is appropriate, carry responsibility for any checking of or other work associated with any design, materials selection, construction or installation of any cladding, facade or external building element.</p>	<p>E RESPONSE TO DEPARTMENT'S RFI XY LG 23.XX.2025</p> <p>D RESPONSE TO TOA COMMENTS XY LG 24.03.2025</p> <p>C VEHICLE ENTRY RAMP AND LANDSCAPE PLAN UPDATED. DOA CIRCULATION ADDED XY LG 24.02.2025</p> <p>B BASEMENT CAR PARK NUMBER AMENDED. DRAWINGS UPDATED BASE ON STRUCTURE AND ACCESS XY LG 10.02.2025</p> <p>A CONSULTANTS' COMMENTS XY LG 29.01.2025</p> <p>A ISSUE FOR SSD SUBMISSION</p>	<p>Consultants</p> <p>Client: Bridgestone</p>	<p>Architect PTW Architects Gadigal Country Level 11, 88 Phillip Street Sydney NSW 2000 Australia T +61 2 9232 5877</p> <p>ptw.com.au</p> <p>Principal: Pauline Turpin & Wouter Pijl ARB 21 2006 624 624 Trading as PTW Architects</p> <p>Registered Architects: Simon Parsons NSW ARB 6098 Daniel Jones NSW ARB 4778 Roda Manservet NSW ARB 11274</p>	<p>Scale: 0m 2m 4m 10m 15m 1:200 @A1</p> <p>Project: PA030582 27-29 Tryon Road Lindfield 27-29 Tryon Road Lindfield, NSW 2070</p> <p>Title: B1-GENERAL ARRANGEMENT PLANS BASEMENT 02 PLAN</p> <p>Drawing Number: PTW- DA-B1B0910 Revision: E</p> <p>Status: DEVELOPMENT APPLICATION</p>
		<p>Rev Amendment By Chk* Date Reg Arch</p>	<p>28/02/2025 13:46:30 PM</p>		

Figure 25 - Proposed Fire Safety Strategy on Basement Level B02



Extended travel distances
A Performance Solution is proposed to address the extended travel distances within the basement levels

Rationalisation of waste chute
A Performance Solution is proposed to address the rationalisation of the waste chute within the basement levels

Electric vehicles & EV charging points
A Performance Solution is proposed to address the concerns with electric vehicles and EV charging points which is considered to be non-compliant with BCA Clause E1D17

General Fire Safety Measures:

- Sprinkler and hydrant system throughout in accordance with AS 2118.1-2017, AS 2419.1-2021 with additional measures.
- Smoke detection and alarm system throughout in accordance with AS 1670.1-2018 (with reduced detector spacing).
- Portable fire extinguisher in accordance with AS 2444-2001 with additional measures.
- Fire hose reels in accordance with AS 2441-2005.
- Emergency lighting and exit signage in accordance with AS 2293.1-2018.
- Modified stair pressurisation system in accordance with AS 1670.1-2018 and AS1668.1-2015.
- Additional measures as part of the Performance Solutions.

Single exit
A Performance Solution is proposed to address the single exit from the fire pump room/water tank room

Stair pressurisation
A Performance Solution is proposed to address the expected reduced stair pressurisation system since the basement car park levels will form a single fire compartment. AS1668.1 requires that the stair pressurisation system be sized to serve all level simultaneously.

Key Plan: [Diagram showing the location of the basement level within the overall site plan]

Drawing Disclaimer:
Do not scale from drawings. Verify all dimensions on site before commencing work. Copying or reproduction of this drawing is strictly prohibited without the consent of PTW Architects.

Note:
PTW's responsibility for any external building element is strictly limited to that provided for by our relevant scope of services. Others, including suitably qualified experts as may be required or as is appropriate, carry responsibility for any checking of or other work associated with any design, materials selection, construction or installation of any cladding, facade or external building element.

Rev	Amendment	By	Chk*	Reg.	Date
				Arch	
E	RESPONSE TO DEPARTMENT'S RFI	XY	LG		XX.XX.2025
D	RESPONSE TO TDA COMMENTS	XY	LG		24.03.2025
C	VEHICLE ENTRY RAMP AND LANDSCAPE PLAN UPDATED. DDA CIRCULATION ADDED	XY	LG		24.02.2025
B	BASEMENT CAR PARK NUMBER AMENDED. DRAWINGS UPDATED BASE ON STRUCTURE AND ACCESS	XY	LG		10.02.2025
A	CONSULTANT'S COMMENTS				
	ISSUE FOR SSD SUBMISSION	XY	LG		29.01.2025

Consultants:

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Project: PA030582
27-29 Tryon Road Lindfield
27-29 Tryon Road Lindfield, NSW 2070

Status: DEVELOPMENT APPLICATION

Title: B1-GENERAL ARRANGEMENT PLANS
BASEMENT 01 PLAN

Drawing Number: PTW- DA-B1B1010
Revision: E

Figure 26 - Proposed Fire Safety Strategy on Basement Level B01

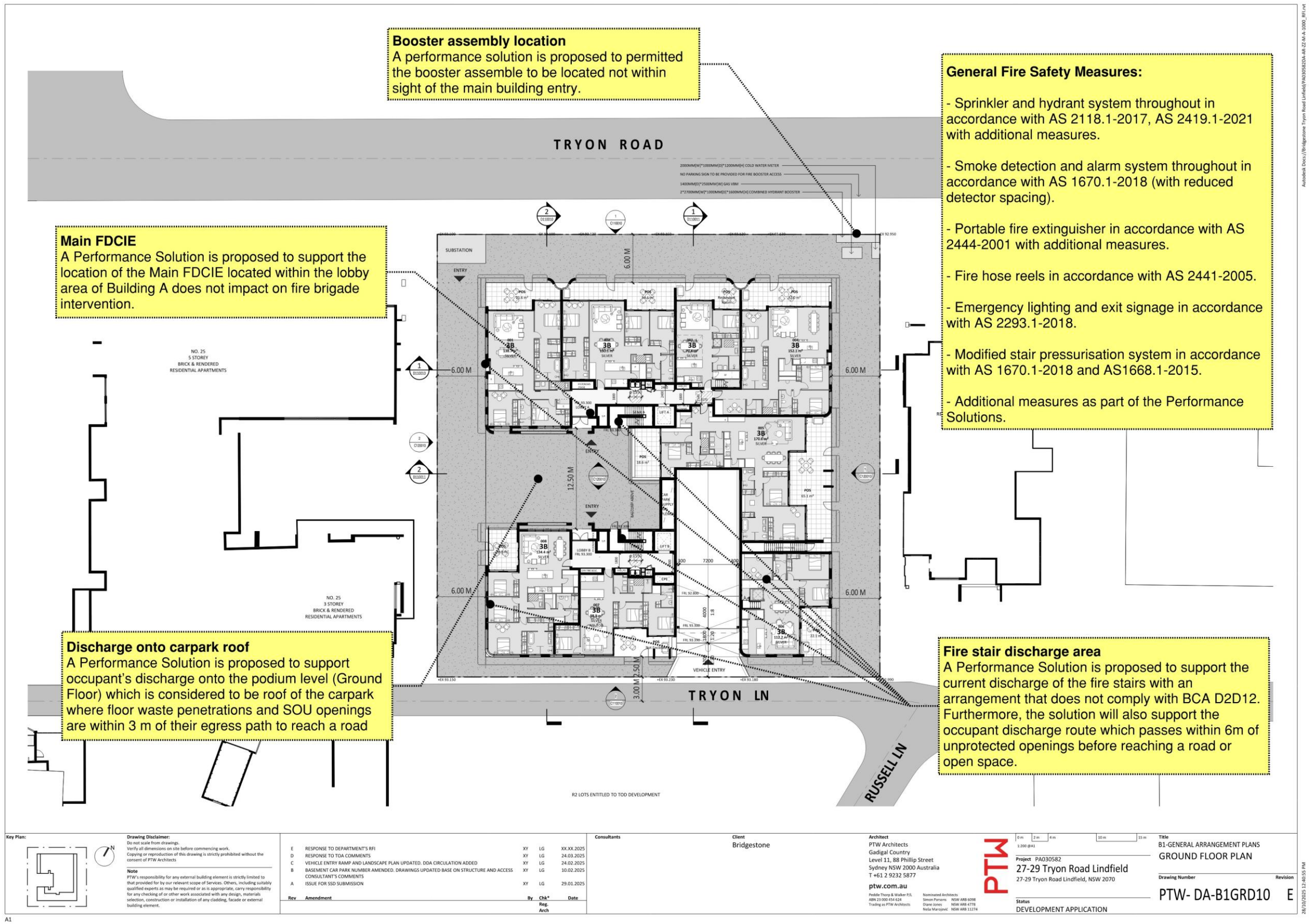
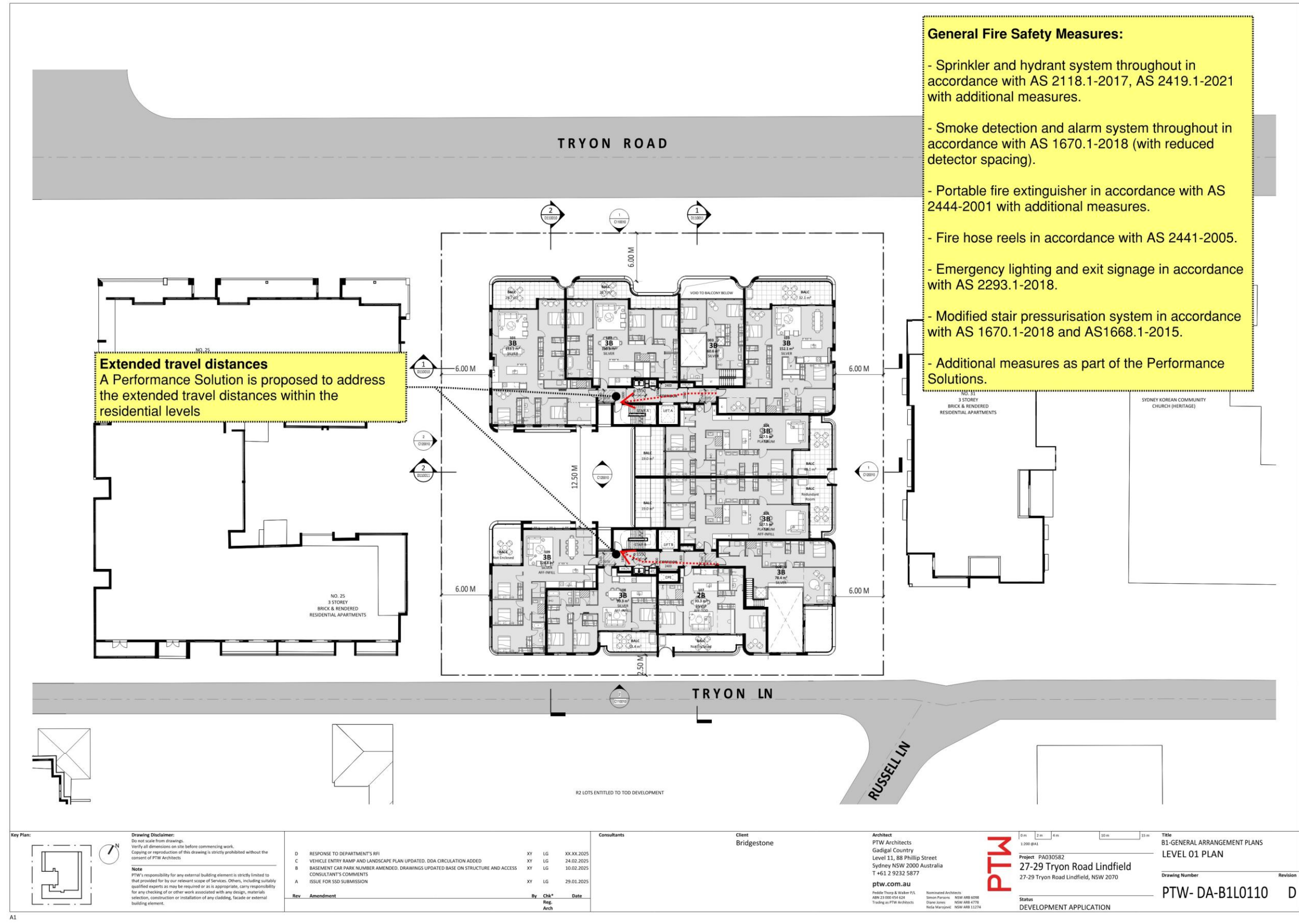


Figure 27 - Proposed Fire Safety Strategy on Ground Floor



- General Fire Safety Measures:**
- Sprinkler and hydrant system throughout in accordance with AS 2118.1-2017, AS 2419.1-2021 with additional measures.
 - Smoke detection and alarm system throughout in accordance with AS 1670.1-2018 (with reduced detector spacing).
 - Portable fire extinguisher in accordance with AS 2444-2001 with additional measures.
 - Fire hose reels in accordance with AS 2441-2005.
 - Emergency lighting and exit signage in accordance with AS 2293.1-2018.
 - Modified stair pressurisation system in accordance with AS 1670.1-2018 and AS1668.1-2015.
 - Additional measures as part of the Performance Solutions.

Extended travel distances
A Performance Solution is proposed to address the extended travel distances within the residential levels

Key Plan: [Diagram showing site location]

Drawing Disclaimer:
Do not scale from drawings. Verify all dimensions on site before commencing work. Copying or reproduction of this drawing is strictly prohibited without the consent of PTW Architects.

Note:
PTW's responsibility for any external building element is strictly limited to that provided for by our relevant scope of Services. Others, including suitably qualified experts as may be required or as is appropriate, carry responsibility for any checking of or other work associated with any design, materials selection, construction or installation of any cladding, facade or external building element.

Rev	Amendment	By	Chk*	Date
D	RESPONSE TO DEPARTMENT'S RFI	XY	LG	09.XI.2025
C	VEHICLE ENTRY RAMP AND LANDSCAPE PLAN UPDATED. DOA CIRCULATION ADDED	XY	LG	24.02.2025
B	BASEMENT CAR PARK NUMBER AMENDED. DRAWINGS UPDATED BASE ON STRUCTURE AND ACCESS	XY	LG	10.02.2025
CONSULTANT'S COMMENTS				
A	ISSUE FOR SSD SUBMISSION	XY	LG	29.01.2025

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Title: B1-GENERAL ARRANGEMENT PLANS
LEVEL 01 PLAN

Drawing Number: PTW- DA-B1L0110
Revision: D

Status: DEVELOPMENT APPLICATION

Figure 28 - Proposed Fire Safety Strategy on Level 01

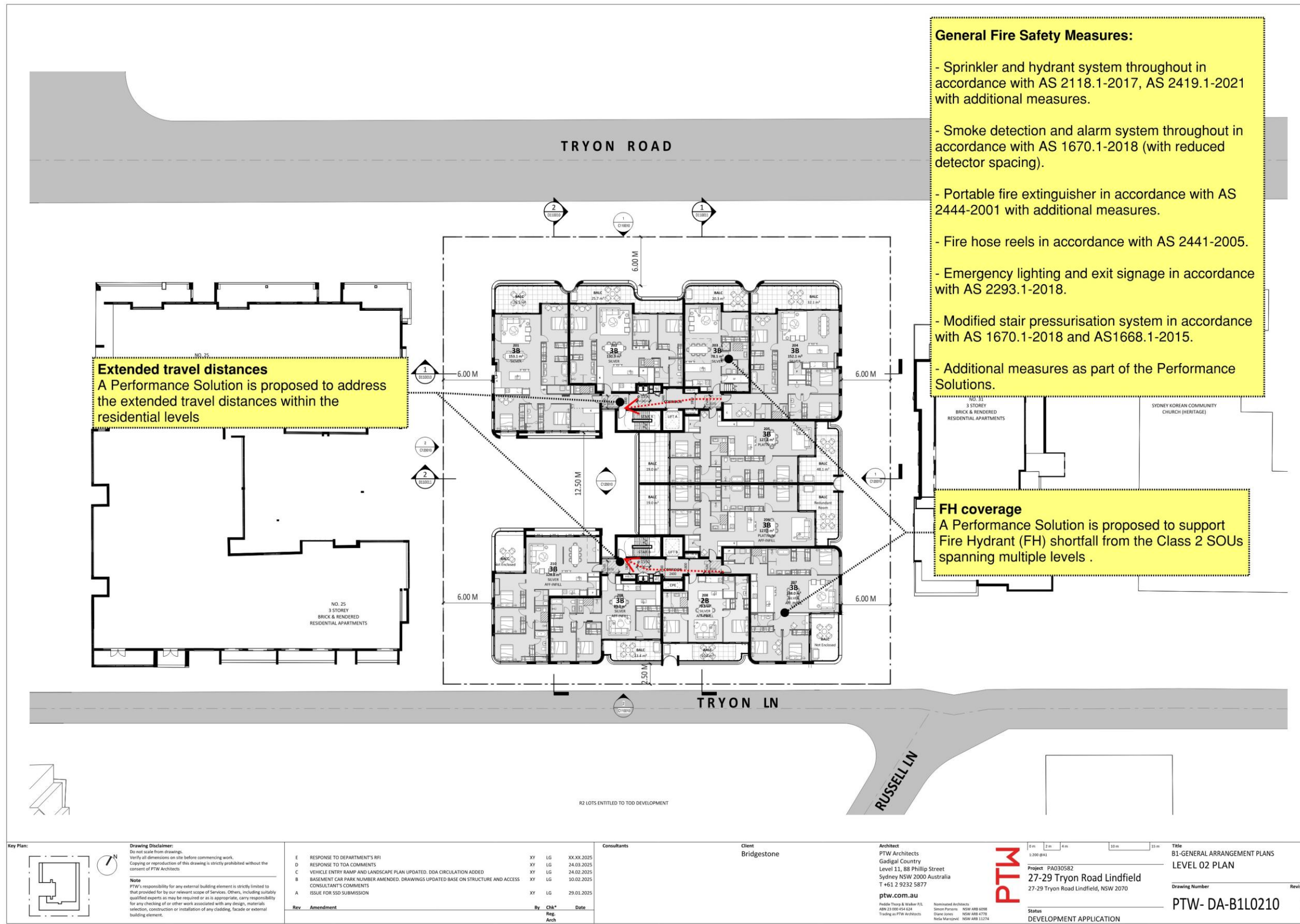


Figure 29 - Proposed Fire Safety Strategy on Level 02

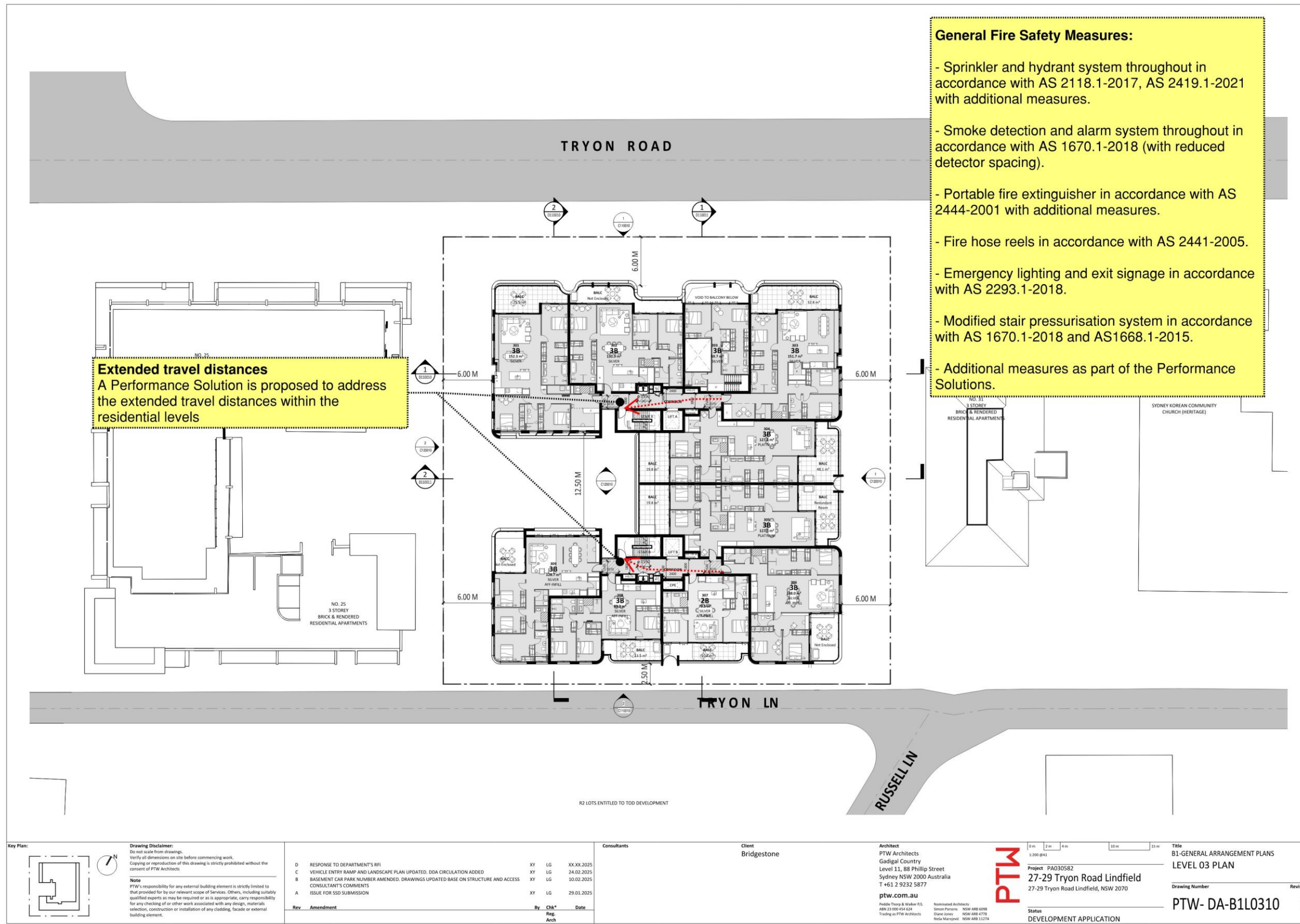


Figure 30 - Proposed Fire Safety Strategy on Level 03

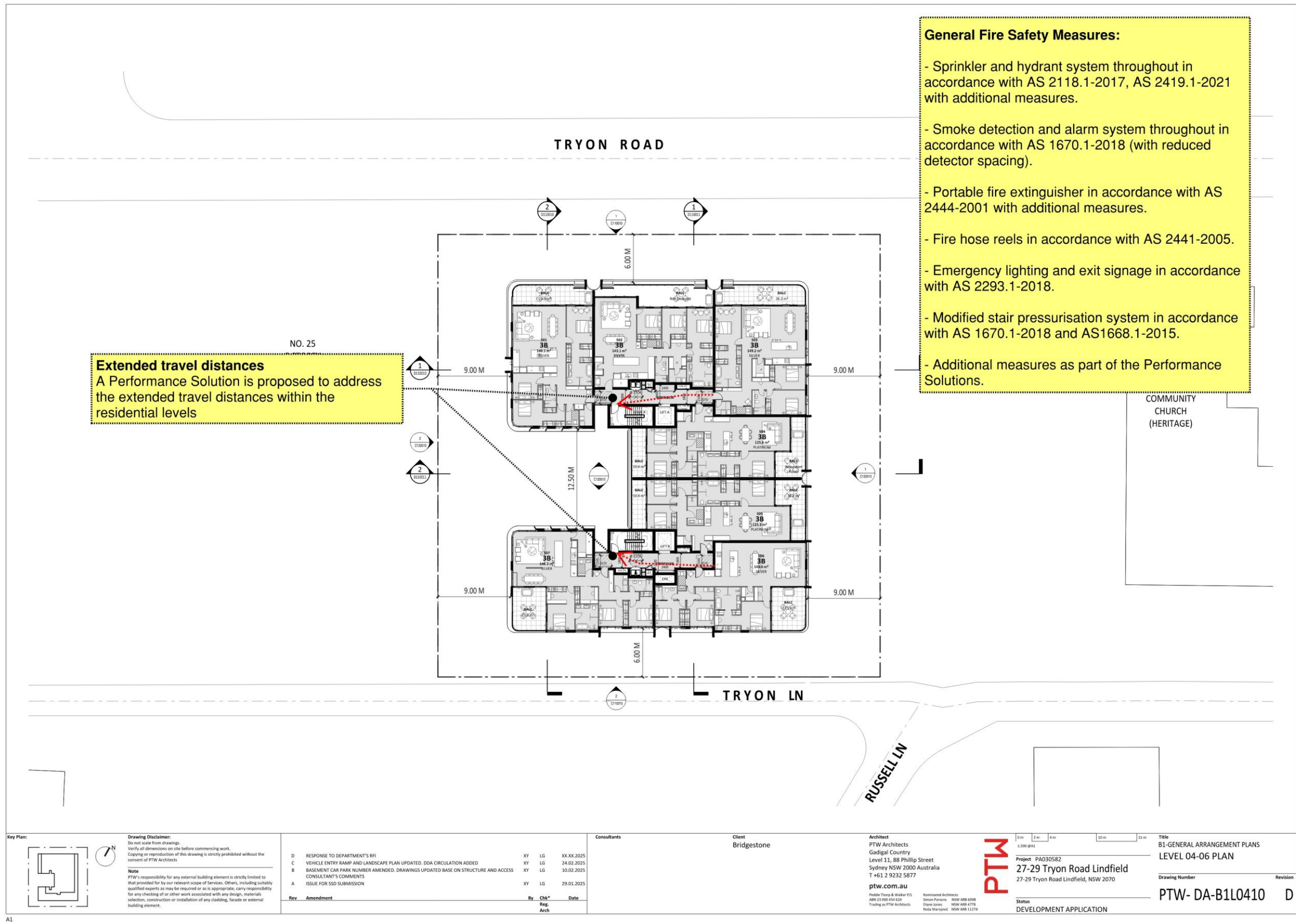


Figure 31 - Proposed Fire Safety Strategy on Level 04-06

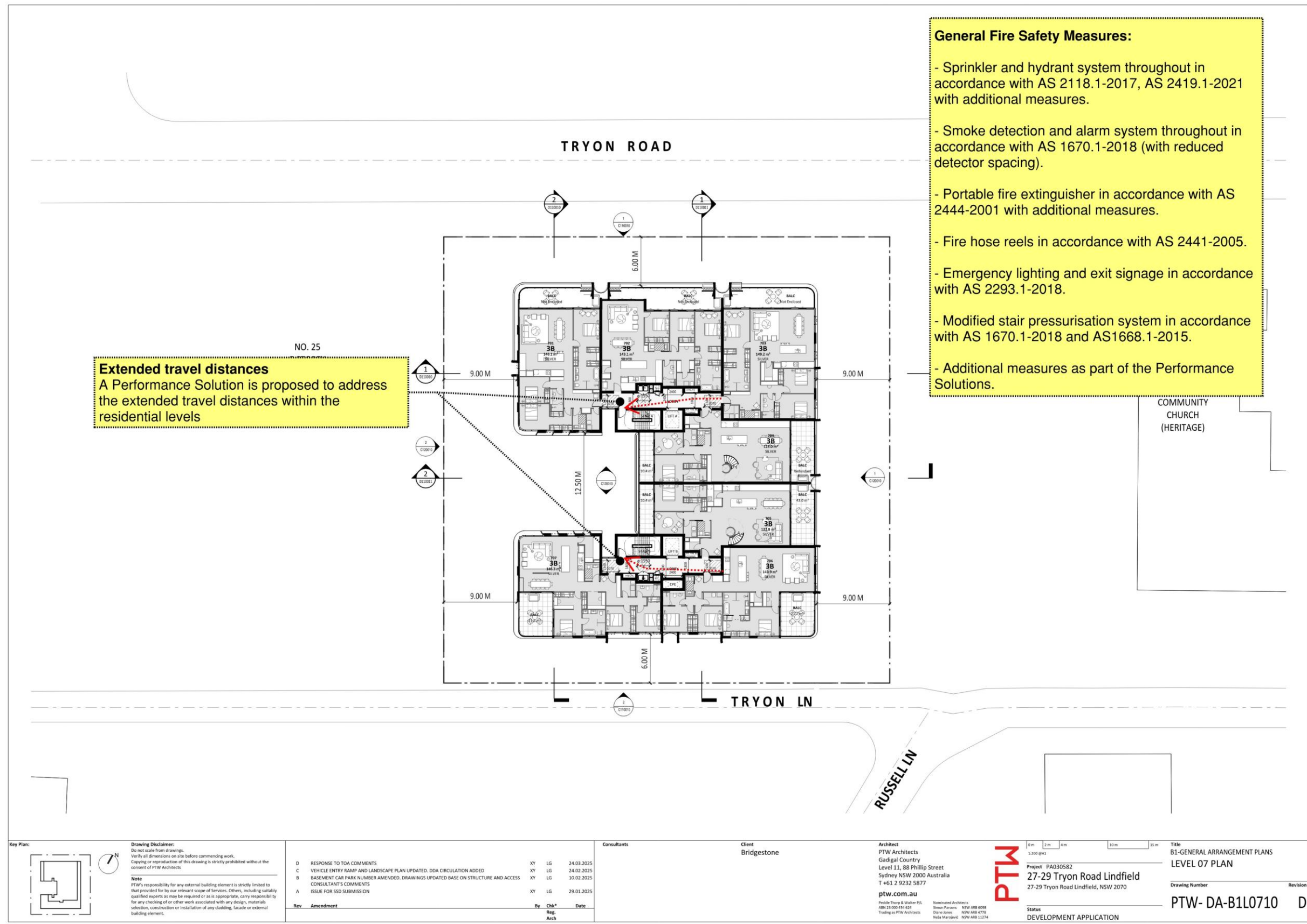


Figure 32 - Proposed Fire Safety Strategy on Level 07

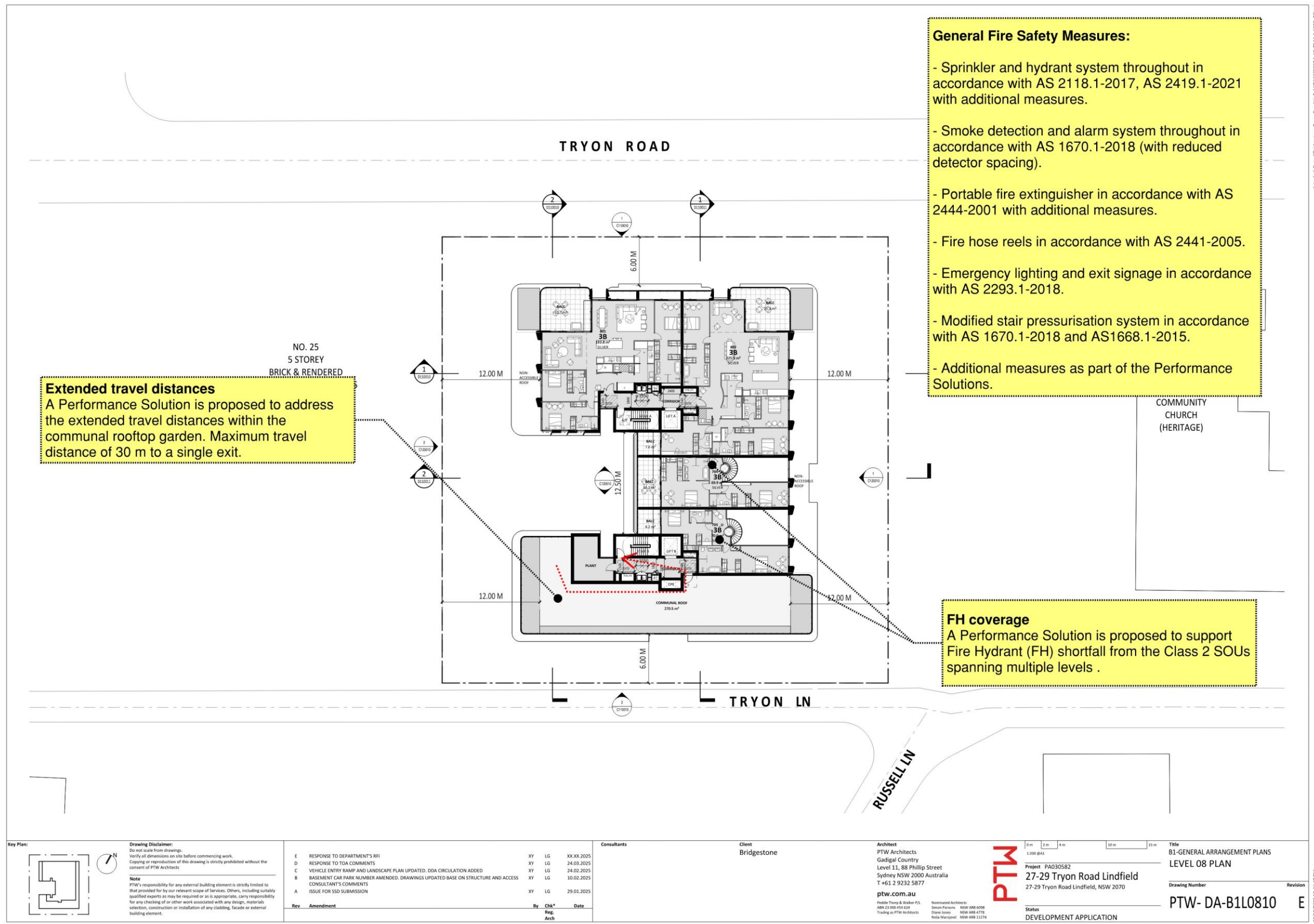


Figure 33 - Proposed Fire Safety Strategy on Level 08