FORMIGA1

Design Development Report

Project: S240805 - VIP & Foyer Renovations at Pittwater RSL Club

Location: 80-82 Mona Vale Road, Mona Vale

Completed For: Linked PM

On Behalf of: Pittwater RSL

Date: 5th November 2024

Revision Number: B

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Revision Schedule				
Revision	**Date**	**Report Information**		
A	06/09/2024	**Reason for Revision**	Initial Report	
			Prepared by	**Reviewed by**
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		Signature		
A	06/09/2024	**Reason for Revision**	Update to include amended plans	
			Prepared by	**Reviewed by**
		Name	Luke Jesiotr	Scott Naylor
		Signature		

This report has been prepared and checked by the experienced team at Formiga1. For any queries regarding this report, please contact our office.

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1. Introduction

Formiga1 has been engaged by Linked PM to provide a Design Development (DD) review of the proposed upgrades to the Lower Ground Entry foyer and VIP areas of the Pittwater RSL Club..

The proposal to redevelop portions of the building has a number of technical considerations to address as part of any proposed work. These have been developed by establishing a process for the assessment of the work outlined in the Environmental Planning and Assessment Act 1979. The Act gives a number of requirements and considerations for existing and new works and how the building assessment provisions are usually applied.

2. Purpose

The purpose of this report is to provide a high level design guide on an approach to building compliance assessment and establish scope for some of the aspects. The advice contained within this report provides guidance as to whether BCA compliance can be achieved in accordance with the Environmental Planning and Assessment Regulation 2021, Section 19. We understand that the proposed development will be subject to a Development Application and this Design Development Report will form part of the DA submission to Council for their determination.

Given the restrictions and technical limitations of the existing building, a mix of transitional provisions combined with performance and prescriptive measures will be used to establish the compliance of proposed works. This approach is subject to an approval by the Consent Authority.

This report provides a basis from which performance solutions can be developed for a number of aspects. An exhaustive list of variations to individual prescriptive measures will need to be completed as the design is further developed and performance solutions compiled.

3. Scope, Limitations and Exclusions

The scope of this assessment is limited to the current design documentation and will require further development of the building's design. The aspects noted for compliance are based on generic examples gleaned from similar buildings that comply using a combination of prescriptive and performance measures. It should be expected that individual aspects will vary in any detailed design though wider concepts and characteristics will make a similar contribution, particularly to overall fire safety.

This report is limited to the design documentation supplied and is only intended to outline the services that will be required.

This Design Development Report does not address safety provisions enforced under the Local Government Act, such as, Occupational Health and Safety Act, Water, drainage, gas, telecommunications and electricity supply authority requirements, etc. The application of the Disability (Access to Premises) Standard 2010 has been assessed as part of this report, however, no other provisions of the Disability Discrimination Act 1992 have been reviewed.

4. Approval Methodology

The Environmental Planning and Assessment Regulation 2021 outlines the approval processes for different types of buildings and the method by which they are assessed. These works have been assessed against the Building Code of Australia 2022 that is currently enforced. However, as a requirement of the EP&A Regulation, Section 19, the final design for approval is to be assessed against the BCA enforced at the date of the application for the

Construction Certificate. Therefore, the advice provided in this report may become outdated if a revised BCA is released before the Application for a Construction Certificate is received.

The application of the Disability (Access to Premises) Standard and provision for access for people with disabilities will need to be addressed against the current BCA. As this is based in Commonwealth Legislation, State regulatory transitional provisions do not apply and compliance with the current code is required. Please note that the Deemed to Satisfy Provisions of the BCA are not the only method of compliance and a Performance Solution is expected as part of any work in any building. Generally, compliance with BCA Part D3 will be required throughout.

Development Consent from Council or other Consent Authority will be required prior to the start of any work on site.

5. Building Compliance

The assessment has been based on the following plans:

- Architectural Plans by Bergstrom Architects, Project Number 23-003, Date 24/10/2024;

This assessment has been tabulated and items identified in relation to Action, Consider and Note, meaning the following:

- **Action** - Requires action on your behalf to either address a non-compliance and/or provide further information on how compliance is proposed to be met for the item;
- **Consider** - Full details are not yet documented and the item should be considered as the design is developed to ensure compliance is met;
- **Note** - A general note stating that compliance has been achieved for the item.

NOTE: *Section 5.2 items in bold text are of higher importance.*

5.1. Principal Building Characteristics

Aspect	Building
Existing Classification	Basement - Class 9b assembly building, Lower Ground - Class 9b assembly building, Ground Floor - Class 9b assembly building, External - Class 10b Illuminated pylon sign, Class 10b Light poles to bowling green Class 10b Mini soccer fields & amenities, ***NOTE:*** *Existing CC/CDC/OC documentation provided shows the above classification. It is not clear how undercover carparking areas are approved.*
Proposed Classification	Change of use is not being proposed as part of this scope of work.
Rise in Storeys	3
Effective Height	5.98m
Construction Type	Type A
Compartment Limit	Fire Compartments - 8,000m^2 or 48,000m^3
Maximum Compartment Sizes	Fire Compartments - 5,361m^2
Occupants	Occupant numbers will be determined based on the design intent of this building as this is more suitable than table outlined in D2D18.

5.2. Building Code of Australia Assessment

BCA Part	Comments	Consider/ Action/ Note
	BCA Section B - Structure	
Part B	B1D3 - The building is to be designed to an importance level of 3 as the building is capable of containing more than 300 occupants in the one area.	Consider
	B1D3 - Further information will be required at the Approval Stage on how the treatment of non-structural elements have been designed to the earthquake provisions of AS1170.4 as required under BCA B1D3 is being achieved (ie. walls that are not part of the seismic force resisting system, appendages including parapets, gables, verandahs, chimneys and the like, partitions, ceilings, mechanical and electrical components including smoke control systems, fire suppression systems, boilers, escalators, transformers and the like).	Consider
	B1D6 - The building has **not** been identified as being located in a flood hazard area therefore **no** additional structural and design requirements are enforced.	Note
	The Structural Engineer is to provide a Design Certificate prior to the approval stage certifying that the building has been designed to the above requirements.	Consider
	BCA Section C - Fire Resistance	
Part C2	C2D2 - Building is Type A construction with a general FRL of 120 minutes throughout. Construction is required to be in accordance with clauses S5C11 - S5C20 of Specification 5 including non-combustibility for a number of aspects.	Consider
	S5C11 Generally the required minimum FRLs are as follow: **a.** External Loadbearing Wall <1.5m from a fire source feature - 120/120/120 **- not applicable** **b.** External Loadbearing Wall >1.5m but <3m from a fire source feature - **- not applicable** **c.** External Loadbearing Wall >3m from a fire source feature - **120/60/30** **d.** External Non-loadbearing Wall <1.5m from a fire source feature - **--/120/120** **e.** External Non-loadbearing Wall >1.5m but <3m from a fire source feature - **--/90/90** **f.** External Non-loadbearing Wall >3m from a fire source feature - **No requirement** **g.** External Loadbearing Columns - **120/--/--** **h.** External Non-loadbearing Columns - **No requirement** **i.** Fire Walls - 120/120/120 **- not applicable** **j.** Internal Loadbearing Fire-resisting Shaft Walls - **120/120/120** **k.** Internal Non-loadbearing Fire-resisting Shaft Walls - **--/120/120** **l.** Internal Loadbearing Walls bounding public corridors, public lobbies, sole-occupancy units, etc - **120/--/-- & No requirement (concessioned below)** **m.** Internal Non-loadbearing Walls bounding public corridors, public lobbies, sole-occupancy units, etc - **No requirement** **n.** Other Internal Loadbearing Walls, Beams, Trusses & Columns - **120/--/--** **o.** Floors - **120/120/120** **p.** Roofs - **No requirement (concessioned below)** ***NOTE:*** *Refer to BCA Spec 5 (S5C2) for guidance relating to the exposure of the building to fire source features.*	Consider

	S5C15 - The roof has a concession under BCA Spec 5 to not achieve an FRL provided that its covering is of a non-combustible construction, as the building has a rise in storeys of 3 or less.	Consider
	S5C17 - As the roof does not require an FRL and the building does not have an effective height of >25m, all internal columns and walls (other than fire/shaft walls) in the floor immediately below the roof have no requirement to achieve an FRL.	Consider
	S5C20 - All loadbearing internal walls and fire walls must be constructed from concrete, masonry or fire-protected timber. In addition to this all non-loadbearing internal walls required to be fire-resisting as mentioned above, the wall must be non-combustible.	Consider
	C3D11 - As the building is of a Type A construction, lift shafts are required to be fire separated with an FRL of 120/120/120 in accordance with BCA C3D11 and as with all shafts, must have a fire rated enclosure to the top and bottom of the shaft. Lift doors shall achieve a minimum FRL of --/60/-- in accordance with BCA C4D11.	**Consider**
	C2D10 - Non-combustibility of elements is outlined in BCA C2D10, being: a. External walls and common walls (including facade, framing, insulation, etc.). b. Flooring and floor framing of lift pits. c. Fire-rated non-loadbearing internal walls. d. Non-loadbearing shafts. ***NOTE:*** *BCA C2D10(4) outlines materials that are exempt from the requirements of non-combustibility as well as materials that are considered non-combustible. This does permit the installation of timber noggings/blocking for the bracing of fixtures.*	Consider
	C2D11 - Fire hazard properties are required to comply with BCA C2D11 and BCA Spec 7. These requirements are as follows: **a.** Floor linings and floor coverings - Critical radiant flux of 2.2 kW/m2 and smoke development rate of 750 percent-minutes, **b.** Wall linings and ceiling linings - Smoke growth rate index of not more than 100 OR an average specific extinction area less than 250m2/kg and material group 1& 2 for specific areas and 1, 2 & 3 for other areas for both wall and ceiling linings, **c.** Air handling ductwork - to comply with fire hazard properties set out in AS4254.1 & AS4254.2, **d.** Lift cars - Floor linings and coverings must have critical radiant flux not less than 2.2, wall and ceiling lining must be group 1 material or group 2 material in accordance with AS5637.1, **e.** Sarking type materials - Flammability index of 5, **f.** Other materials including insulation - Spread of flame index of 9 and smoke development index of 8 if Spread of flame index is more than 5.	Consider
	C2D14 - Attachments to the external walls must also be non-combustible unless they form part of the concessions within BCA C2D14. This includes elements such as awnings, signage, etc. unless they meet specific requirements. Provided plans appear to show that compliance will be achieved.	Note
Part C3	C3D3 - Compartment limits for this building are outlined in BCA Table C3D3. The Class 9b portion has a floor area limit of 8,000m^2 and 48,000m^3. The maximum proposed fire compartment size is 5.361m^2. Proposed extension of Ground Floor increases the total area of that level to 2,524m^2.	Note

	C3D4 and C3D5 - This building is not considered a large isolated building and as such there are no additional provisions applying to the building.	Note
	C3D7 - Vertical separation will be required for external walls in accordance with C3D7, even between levels that are otherwise connected (excluding stairwells). Spandrels must be a minimum height of 900mm and extend a minimum of 600mm above the upper surface of the intervening floor and be constructed of non-combustible material achieving a minimum FRL of 60/60/60. Please refer to comments regarding openable windows to avoid construction of the spandrels/window sills in a manner that compromises openable windows. The proposed scope of works appears to be a like for like replacement of the existing building elements in areas where vertical separation would be required. This does not reduce the assumed existing compliance of building elements.	Consider
	C3D8 to C3D10 - Fire separation is not required for this building and is not proposed as part of this scope of work thus requirements for fire separation are not applicable.	Note
	C3D12 - Compliance is achieved as the lifts and stairs are not proposed to be within the same shafts.	Note
	C3D13 - If any new services are proposed then they are required to be separated in accordance with BCA C3D13. Noting that lift control panels are excluded as they are not proposed within a machine room.	Consider
	C3D14 - Any new parts of electricity supply systems are also required to be separated from the remainder of the building in accordance with BCA C3D14. Confirmation as to whether or not the main switch board will sustain emergency equipment operating in the emergency mode is needed to determine if the main switchboard requires this separation. Emergency equipment comprises of; hydrant and/or sprinkler system pumps, smoke control systems, emergency lifts, fire detection and alarm systems, sound/intercom systems for emergency purposes.	Consider
	C3D14 - Additionally, emergency and non-emergency equipment is required to be separated from one another by metal partitions.	Consider
Part C4	C4D3 - No new openings in external walls will require protection.	Note
	C4D4 - This building does not have external walls and associated openings in different fire compartments and will not require any protection.	Note
	C4D7 - Sliding fire doors are not shown as part of the design.	Note
	C4D8 - As there are no horizontal exits proposed, there are no provisions applying to doors in horizontal exits.	Note
	C4D10 - No services and penetrations in fire-isolated exits are proposed as part of this scope of work.	Note
	C4D15 - Penetrations are required to comply with C4D13, C4D15, 3.12, C3.15 and Spec 13 as applicable. Particular attention should be given to **plumbing supply** with combined copper and poly pipe and consideration of any **gas penetrations**. Gas penetrations cannot use Spec 13, even where all metal systems, compliance can only be achieved using a tested system in accordance with AS1530.4 and AS4072.1.	Consider

	C4D16 - Construction joints in walls required to achieve an FRL (ie. external cladding cavities between walls and floors) must be protected in a manner identical with the wall prototype tested in accordance with AS1530.4 to achieve the required FRL as required by C4D16.	Consider
	BCA Section D - Access and Egress	
Part D2	D2D3 - This building has the required minimum of 2 exits from each storey. Compliance is shown to be maintained.	Note
	D2D4 - Requirement for new stairs or ramps to be fire isolated is not being triggered as the proposed do not connect more than 2 consecutive storeys.	Note
	D2D5 and D2D6 - Exit travel is generally 20m to single exit or 20m to a point of choice and 40m to the first exit, as well as 30m to a single exit serving a storey at the level of access to a road or open space. Distance between alternative exits is limited to 60m. ~~The following areas do not meet this requirement:~~ ~~a. Proposed extension to provide new foyer on the Lower Ground Level introduces a non-compliance for the distance between alternative exits being >60m (measured to be 64.59m). Plans show the existing fire corridor located in the terrace area to be fenced and locked and as such cannot be utilised as a path of egress from the building.~~ ~~b. New stairs from the Ground Floor Tuscan Cabana cannot be utilised as egress from the building as any potential pathways are blocked or are permanently locked.~~ The updated design shows that the proposed work exclude Lower Ground Level Function Room. Issues related to both of the non-compliances have been addressed and compliance is now achieved.	~~Action~~ Note
	D2D7 to D2D9 - Minimum exit widths are generally 1m throughout for a height of 2m and 1980mm at doorways. These dimensions are required to be clear and free of obstructions (eg. handrails, fire extinguishers). Discharge from Ground Floor is not being reduced and proposed works to the building will not increase the existing capacity of the facility. Compliance with exit travel provisions is assumed to be achieved at the time of construction.	Consider
	D2D15 - Exit discharge is required to not have the potential to be blocked by vehicles. Appropriate allowances have been shown. All other aspects of exit discharge have been considered to maintain minimum egress widths and appropriate ramps/other inclines or compliant stairway to the street if there is a change in level.	Note
	D2D16 - New horizontal exits are not proposed for this building.	Note
	D2D18 - The number of persons accommodated is best established by the design team and client dependent upon staffing and visitor numbers. Please confirm and promulgate to all design team members. The current minimum egress widths will be maintained in the proposal for new foyer as plans show no change to proposed exit. D2D21 - Plant room does not form part of the proposed scope of works.	Consider
Part D3	D3D2 - Fire-isolated stairs and ramps are not proposed as part of this scope of works.	Note

	D3D8 - Installations in the path of travel are required to comply with D3D8, including the smoke sealing and non-combustible enclosure of distribution boards and central telecommunications boards. This can be achieved via applying the required construction to the individual DB enclosures **or** to the entire cupboard. Electrical plans were not provided for this assessment and as such compliance could not be confirmed.	Consider
	D3D9 - No cupboards or similar enclosed spaces have been proposed underneath stairs, therefore, compliance with BCA D3D9 is not required.	Note
	D3D15 - Ramps throughout the property must not exceed a gradient of 1:14 and must be slip-resistant in accordance with BCA D3D15.	Consider
	D3D14 - Stairs are required to comply with BCA D3D14 for tread construction and BCA D4D4, which references AS1428.1, Clause 11. Please refer to further comments in D4D4.	Consider
	D3D15 - Stairs and landings shall comply with BCA D3D15 including slip resistance.	Consider
	D3D16 - Door thresholds throughout the accessible paths of travel must not incorporate a step, except where a threshold ramp with a maximum gradient of 1:8 is provided to an external door for a maximum height of 35mm for a maximum length of 280mm and located within 20mm of the door that it serves. Provided plans show that compliance will be achieved to all areas forming part of this scope of work.	Note
	This building is required to comply with BCA D3D17 - D3D21 and D3D29 for fall protection. Details are still being developed but reasonable provision appears to be made for: **a.** Balustrades are to be a minimum height of 1m as well as having no climbable elements between the heights of 150mm and 760mm where the floor level is >4m from the falling surface below. **b.** BCA 2022 has introduced a new requirement for where barriers are fixed to the vertical face forming an edge of a landing, balcony, deck, stairway, etc. (ie. cantilever balustrades), the opening formed between the barrier and the face must not exceed 40mm. **c.** Please note the new requirements of BCA 2022 to comply with the updated AS1288-2021 for glass balustrades, particularly in relation to changes around interlinking handrails.	Consider
	D3D22 - ~~Handrails to the proposed ramp are required to one side of the ramp and must comply with Clause 12 of AS1428.1 as required by BCA D3D22 (1)(f) (eg. height 865-1000mm, handrail dimensions, etc.).~~	~~Action~~
	No ramps are being proposed as part of the reduced scope of woks for this project. The proposed stairs are to achieve compliance with AS1428.1 where the stairs serve as general movement for occupants. Provided plans do not show sufficient details for assessment but compliance can be achieved as sufficient clearances between walls have been provided.	Consider
	D3D24 & D3D25 - Please note the limitations of D3D24 on buildings for sliding doors. Door swing is required to comply with BCA D3D25. Where building entrances are also exits, consideration should be given to compliance with D3D24 – D3D26, including door swing, sliding doors and the like. (ie. The automatic sliding doors in the main entrance shall be manually openable with a force not more than 100N and open automatically upon activation of the detection system).	Consider

	D3D26 - Operation of latches are to comply with BCA D3D26 for both doors in path of travel and exit doors (excluding doors to spaces that are inaccessible to persons when the door is locked (eg. cleaners room)). Alternatively, doors may be fitted with an automatic fail-safe device which unlocks the door on activation of any sprinkler or smoke detection system.	Consider
	D3D26 - Consideration should be given to the operation of latch provisions of BCA D3D26 for sliding doors to provide a single hand downward action on a single device.	Consider
	BCA NSW D3D26(6) imposes further restrictions due to the Class 9b as the building is assumed classified an Entertainment Venue in that doors used by the public are required to be provided with panic bars	**Consider**
Part D4	D4D2 - This building is required to be accessible to and within resident use areas. Paths connecting this building with other buildings, disabled car spaces and main pedestrian entry points along the boundary shall also comply with AS1428.1.	Consider
	D4D3 - Access to the building must be provided through no less than 50% of all pedestrian entrances. Current provision of access is maintained.	Note
	D4D4 - Accessways are required to be in accordance with D4D4 and AS1428.1 including circulation, provisions, turning and passing spaces. Reasonable provision is apparent on the current plans.	Note
	D4D4 - Please note that stairs will be required to comply with Clause 11 and Clause 10 respectively of AS1428.1. This means minimum widths are generally 1200mm between walls.	Consider
	D4D6 - Provision of carparks for people with disabilities is required in accordance with D4D6. Provided plans show provision of accessible parkings but these currently are not shown to be compliant with AS2890.6. Compliance for this item is achievable once detailed plans are developed.	**Action**
	D4D7 - Braille signage is required in accordance with BCA D4D7 and BCA Spec D4D7 including directional and exit signage. Please refer to the BCA for further details.	Consider
	D4D8 - Hearing augmentation is only required where inbuilt amplification exists and is most likely in meeting rooms. Please have the electrical engineer refer to BCA D4D8 for further details.	Consider
	D4D9 - TGSIs are required in accordance with D4D9.	**Consider**
	BCA Section E - Services and Equipment	
Part E1	***E1D2 - FIRE HYDRANTS*** Fire hydrant coverage is required to all areas in accordance with BCA E1D2 and AS2419.1. Proposed scope of work will not change the building's function but will increase the size of the Lower Ground Floor fire compartment. The existing fire hydrant system is assumed to be compliant with the requirements at the time of commission. Assessment of fire hydrant coverage could not be performed at this stage as no plans identifying location of hydrants were provided. To assess if compliance is achieved plans must be provided.	Consider

	It is not clear where fire bridge hydrant booster assembly is located. Site inspection could not identify where the booster is located. Due to FIP being located adjacent to the small porte cochere located on Foley Street it is assumed that this is the principal pedestrian entrance. Booster assembly should be located within or affixed to the facade of the building within 20m from the principal pedestrian entrance.	**Action**
	No hydrant block plan was identified during the site inspection. As such no details of the existing hydrant systems could be identified.	**Action**
	NOTE: *In our investigations of documentation on site, it has been identified that the Annual Fire Safety Statement located at the FIP was dated to be 2019 where yearly assessment is required. Therefore, this measure may not be tested and maintained accordingly. It is recommended that this be raised with the club for them to address separately.*	Note
	E1D3 - FIRE HOSE REELS **The Annual Fire Safety Statement and site inspection indicates the presence of a fire hose reel system. Scope of work proposes increased fire compartment size on the Lower Ground Level, if relocation of existing fire fighting equipment is proposed then compliance with current standard as referenced in the BCA is required. It is assumed that compliance was achieved to the requirements at the time of commissioning.**	**Action**
	Proposed new FHR located in the New Foyer appears to be located >4m from the exit doors which is non-compliant with BCA E1D3(5)(b). Plans are to be updated to show compliance.	
	E1D4 - SPRINKLERS **The club building is required to be sprinkler protected throughout in accordance with AS2118.1. Existing AFSS only identifies the sprinkler system as AS2118-1998 and it appears to be not signed in on the latest statement. Therefore, this measure may not be tested and maintained accordingly. It is recommended that this be raised with the club for them to address separately.**	**Action**
	It is assumed that the current system was compliant at the time of commissioning. No hydraulic or wet fire plans were provided for this assessment and as such the scope of work for the sprinkler system could not be established.	Consider
	If modifications to the sprinkler systems are to be proposed then new parts of the system must be compliant with current requirements as referenced in the BCA. This includes existing parts of the system from the street connection through to the new sprinkler heads. This typically would require an upgrade to the existing system as it is assumed that the existing sprinklers were installed to an earlier code, not the 2017 standard. An objection option is available through s.74 of the EP&A DCFS Regulation 2021, where an Accredited Practitioner (Fire Safety) specifies the grounds of the objection. This exemption can only apply to the operational performance of the system and new components will need to comply with the current standard.	**Action**

	E1D14 - FIRE EXTINGUISHERS Fire extinguishers are required in accordance with Table E1D14 and AS2444 as applicable. Further details of fire extinguishers will be needed at the approval stage. BCA E1D14 requires the following: **a.** Cover Class AE or E fire risks for any switchboards that sustain emergency equipment operating in emergency mode. **b.** Cover Class F fire risks in the Kitchens - if kitchen fit out is included in this scope of work. **c.** Cover Class A fire risks in accordance with AS2444. ***E1D15 - FIRE CONTROL CENTRES*** A Fire Control Centre is **not** required in the building as it is <25m in height and is <18,000m2 in floor area.	Consider Note
Part E2	E2D9 - Annual Fire Safety Statement notes provision of smoke detection system compliant with AS1670.1. NSW E2D16 - Air-handling systems that are not individual room units <1000L/s or miscellaneous exhaust systems in accordance with Section 5 and 6 of AS1668.1 must automatically shutdown upon activation of the smoke detection system or sprinkler system as these air-handling systems do not form part of the zone smoke control systems. **Mechanical plans were not provided for this assessment, if amendments are proposed to the air-handling system then compliance must be achieved. Compliance to the existing parts of the building is assumed at this time.** Spec 20 - A smoke detection and alarm system is required for this building in accordance with BCA Specification 20, Clause S20C4 and AS1670.1. Requirements of completed design for approval include: **a.** Smoke detection throughout; **b.** Thermal detection can be used in lieu of smoke detection in areas where spurious alarms could occur. However, where sprinklers are installed in these areas, thermal detection is not required; **c.** FDCIE (FIP) including emergency lighting, etc; **d.** Monitoring by the Fire and Rescue NSW; **The above requirements are triggered if any modifications are proposed to the existing smoke detection system.** ***Note*:** This building is considered “other assembly building” in accordance with Clause NSW E2D16 - NSW E2D20. As the fire compartment is <5,000m2 with a rise in storeys of 2, automatic smoke detection and alarm system is to be provided as per Specification 20 or sprinkler system in compliance with Specification 17 is to be provided. Annual Fire Safety Statement identifies that both smoke detection and sprinkler systems are provided.	Note Consider Consider Note
Part E3	E3D1 - Lift installations shall be in accordance with E3 and AS1735. Emergency lifts are **not** required for this building as it has an effective height of <25m. E3D3 - As the lifts do not serve a storey above an effective height of 12m, no stretcher facilities are required for the lifts. E3D7 - Lift features, type and size shall comply with E3D7. E3D9 - Fire service controls are not required for the lifts in this building as the building has an effective height of <12m.	Consider Note Consider Note

Part E4	E4D2 - Emergency lighting and illuminated exit signage is required throughout. Layout will be reliant upon the egress paths and viewing distances of the signage (typically 24m). Completed design for approval shall be consistent with the travel paths outlined in D2. D4D7 - Please note the requirements for braille exit signage outlined in the DTS provisions of D4D7. E4D9 - Annual Fire Safety Statement notes provision of Emergency Warning & Intercommunication System.	Consider Consider Note
BCA Section F - Health and Amenity		
Part F1	F1D3 - Stormwater drainage must comply with AS3500.3. F1D4 - Exposed joints in the drainage surface must not be located beneath or run through a planter box, water feature or similar object of the building. The joints are to be provided with protection in accordance with Section 2.9 of AS4654.2. F1D5 - Waterproofing membranes for external above ground use must comply with AS4654 Parts 1 & 2.	Consider Consider Consider
Part F2	F2D2 - Waterproofing to wet areas shall be provided in accordance with BCA F2D2 and AS3740. F2D4 - Where a floor waste is installed, the floor must be provided with a continuous sloping surface to the floor waste between 1:50 & 1:80 in accordance with BCA F2D4. It is not possible for an installation of a BCA Floor Waste within an accessible sanitary compartment to comply with the DtS provisions of AS1428.1 and BCA F2D4. A Performance Solution for construction tolerances and differences between the Codes will be required for all accessible facilities containing a BCA Floor Waste.	Consider Consider
Part F3	**BCA Performance Requirement F3P1 for weatherproofing of external walls will need to be addressed by a Performance Solution as there are no DTS provisions relating to F3P1 for the FC cladding, concrete cladding etc. under BCA F3D5.** F3D2 - Roofing materials as listed in BCA F3D2 or another material provided with an external waterproofing membrane as per AS4654 Parts 1 & 2 are deemed acceptable. General concrete slab construction without this membrane is not deemed compliant. F3D3 - Sarking-type materials used for weatherproofing of roofs and walls must comply with AS4200 Parts 1 & 2. F3D4 - All glazing assemblies in external walls shall comply with AS2047 and are limited to those specific assemblies noted in BCA F3D4. F3D5 - Masonry, autoclaved aerated concrete or metal wall cladding used as the external cladding must comply with AS3700, AS5146.3 or 1562.1 in order to be deemed to satisfy with no Performance Solution.	**Action** Consider Consider Consider Consider
Part F4	F4D3 - Occupant numbers (including genders) are required to be established prior to facility calculations. The numbers provided will be assessed further, but are assumed to be compliant at this time.	Consider

	~~F4D4 - Lower Ground Level existing plans of the auditorium/meeting room show provision of 4x pans and 2x sinks to female toilets, 2x pans and 2x sinks to male toilets as well as what can be assumed to be accessible toilets. Proposed plans only show provision of 1x pan and 1x sink for both male and female. According to the BCA Table F4D4I this number of facilities will allow for a maximum total of 50 patrons to this area (25 male + 25 female). Further information will be required as to the intended use of this part of the building as well as breakdown of the total occupancy numbers to allow for further facility assessment.~~ ~~F4D6 - Lower Ground Level auditorium/meeting room is shown to have a number of sanitary compartments removed. One of these is assumed to be accessible due to its size. It is currently unclear if an accessible sanitary compartment will be provided to this bank of toilets as is required.~~ ~~F4D6 - No modifications are proposed to the existing sanitary facilities on the Ground Level but it is noted that plans do not show sufficient provision of accessible sanitary facilities as is required for a Class 9 building. If any future modifications are proposed to the WC then compliance will have to be provided for provision of accessible sanitary compartments at no less than 50% of the toilet banks throughout.~~ Updated plans do not include any works to the existing sanitary compartments and as such these are excluded from this BCA assessment.	~~Action~~ ~~Action~~ ~~Consider~~ Note
Part F5	F5D2 - Room heights have been assumed compliant. Ceiling heights are not confirmed at this time. Minimum heights are generally: **a.** 2.0m for stairways and ramps; **b.** 2.1m for car parking areas, store rooms and sanitary compartments; **c.** 2.4m for assembly buildings and corridors accommodating <100 persons, as well as, commercial kitchens; **d.** 2.7m for assembly buildings and corridors accommodating >100 persons.	Consider
Part F6	F6D6 - Requirement for provision of artificial lighting is applicable to all spaces required to be accessible, this includes the main entrance area and any structures providing shelter. The artificial lightning system is to comply with AS/NZS 1680.0. No electrical plans were provided thus compliance could not be confirmed at this stage.	Consider
Part F7	Part F7 is only applicable to Class 2, 3 or 9c buildings.	Note
BCA Section G - Ancillary Provisions		
Part G1	No minor structures as described in BCA G1 are proposed as part of the scope of work for this project.	Note
Part G2	No fireplaces, chimneys, flues, chutes, hoppers and the like are proposed as part of the scope of work for this project.	Note
Part G3	No atrium is being proposed as part of the scope of work for this project.	Note
Part G4	Building is not located in an alpine area.	Note
Part G5	This building is not located within bushfire prone land and will not require compliance with BCA Part G5.	Note
Part G6	Occupiable outdoor areas as per BCA Part G6 do not form part of the proposed scope of work.	Note

BCA Section I - Special Use Buildings		
Part I1	NSW BCA Part I is applicable to all Class 9b type buildings. DtS provisions of Part I1 are applicable to any class 9b building with a stage and backstage area >200m^2. Stage is measured to be within the total floor area requirement and is assumed to not include any rigging loft therefore Part I1 is not applicable.	Note
NSW Part I4	NSW I4D2 - The whole of the entertainment venue or the part containing stage and backstage must be separated from other parts of the building by 60/60/60 FRL construction. It is assumed that the existing elements of the external wall already achieve the required fire-rating for separation.	Note
BCA Section J - Energy Efficiency		
Parts J2- J9	**Confirmation is needed as to whether an external consultant will be carrying out the Section J assessment of the proposed works.**	**Action**
	Generally, new parts to existing buildings are required to comply with Part J4 for the building fabric and glazing. The extent of the conditioned space and the walls, floors and roof that bound it will need to be established so that these can be specified for compliance.	Consider
	If a DTS approach to building fabric Section J requirements is proposed, the following items will need to be addressed: a. Roof and/or ceiling will require a minimum downward R-Value of R3.7. b. The upper surface of the roof having a solar absorptance not more than 0.45. c. Roof lights cannot take up more than 5% of the floor area of the room that it serves. Additionally, transparent or translucent elements on the roof will require a SHGC in accordance with BCA J4D5 and a U-Value not more than U3.9. d. Wall-glazing construction must achieve a minimum U-Value of U2.0. e. Wall construction must achieve a minimum R-Value of R1.4 where it is more than 80% of the wall-glazing construction and R1.0 where it less than 80% of the wall-glazing construction. f. Solar admittance of wall-glazing construction must not be greater than values listed in BCA Table J4D6b. g. Floor construction will require a minimum R-Value of R2.0 downwards.	Consider
	Where mechanical ventilation within the building does not provide sufficient pressurisation to prevent infiltration of outside air, the provisions of BCA Part J5 will need to be complied with as follows: a. Chimneys and flues provided with a damper or flap that can be closed to seal the opening. b. Seals to restrict air infiltration must be fitted to each edge of all doors separating conditioned spaces from non-conditioned spaces in accordance with BCA J5D5. c. All entrance doorways to the building must be fitted with a self-closing device. d. Exhaust fans separating conditioned spaces from non-conditioned spaces must be fitted with a sealing device, such as a self-closing damper or the like when serving a conditioned space as per BCA J5D6. e. Openings in ceilings, external walls and roofs (ie. window frame, door frame, roof light, etc.) must be constructed to minimise air leakage in accordance with BCA J5D7.	Consider

	Air-conditioning and mechanical ventilation is required under BCA Part J7 to comply with the following: a. Air-conditioning will need to be capable of being deactivated when the space it's serving is not occupied. b. Time switches for switching electric power on and off at variable pre-programmed times and days where the system is more than 2kWr. c. Ductwork achieving an R-Value in accordance with BCA Table J6D6.	Consider
	J9D3 - As the building is >2500m2, it is required to contain facilities for energy monitoring.	Consider
	J9D4 - An electrical distribution board for the provision of charging an electrical vehicle must be provided to the carpark associated with the building. It was noted during the site inspection that electric vehicle charging points are already provided to this building.	Note
	J9D5 - The main electrical switchboard is to contain no less than two empty three-phase circuit breaker slots and four DIN rail spaces to hold a solar photovoltaic system and a battery system. Photovoltaic system is already provided to the building.	Note

6. Conclusion

This report provides an assessment of the referenced architectural documentation against the Environmental Planning and Assessment Act, referenced Australian Standards, as well as, the Performance Requirements and the Deemed to Satisfy provisions of the National Construction Code Series, Building Code of Australia (Volume 1) for the proposed development.

Key compliance issues have been identified through this assessment. These issues are to be resolved prior to the approval stage by means of; Performance Solutions, altered design documentation or clarification of information on building plans.

Notwithstanding the above, it is considered that compliance with the provisions of the BCA is readily achievable, provided the above matters are appropriately addressed by the project team. Additionally, it is considered that the matters raised can be adequately addressed in the preparation of the Building Approval documentation without resulting in any foreseeable inconsistencies with the Development Approval.