

FORMIGA1

Schematic Design Report

Project: S221105 - New 165 Bed Residential Aged Care Facility at Opal Narwee Parklands Care Community

Location: 59-67 Karne Street, North Narwee, NSW, 2099

Completed For: Cyre Projects



On Behalf of: Opal Healthcare

Date: 29th November 2022

Revision Number: B

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Revision Schedule			
Revision	Date	Report Information	
A	18/11/2022	Reason for Revision	Initial Schematic Design Report
			Prepared by
		Name	Scott Naylor
		Signature	
B	29/11/2022	Reason for Revision	Change typographical errors, being building description to 165 beds and 3 storeys over carpark
			Prepared by
		Name	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.

1. Introduction

Formiga1 has been engaged by Cyre Projects to provide a Schematic Design (SD) review of the proposed 165 bed Residential Aged Care Facility at Opal Narwee. The building will cater for High Care residents, with a dedicated Memory Care Neighbourhood (MCN) of up to 3x 15 residential places neighbourhoods on the ground floor, with an overall building height of 3 Levels with a secured basement car park.

The proposal to construct this new 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 how 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 Schematic Design Report will form part of the DA submission to Council for their determination.

This report seeks to outline the 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. This scenario will likely require a fire engineered strategy for the building to achieve compliance with the current building assessment provisions.

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 Schematic Design 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 2019(+A1) 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.

BCA 2022 is due for release and enforcement on 01/05/2022. Changes are occurring as part of the new BCA and these provisions should be considered as the design develops as they will likely need to be incorporated into the design if the Construction Certificate is applied for after this date.

Proposed legislative updates under the Design and Building Practitioner Act/Regulation and Residential Apartment Building Act/Regulation are expected to come into force on 03/04/2022. As a brief outline of these certain aspects, please see the below:

Design and Building Practitioner Act and Regulation

Work it Relates to:

Building work to new buildings, alterations or additions to existing buildings or repair, renovation of protecting treatment for; fire safety systems (including passive fire), waterproofing, building structure, building enclosure, building services that are required by the Building Code of Australia and Performance Solutions.

General Requirements:

- All designers for work will need to be accredited.
- Design Declarations for regulated designs are required prior to issuing a Construction Certificate.
- Builders (building practitioners) need to be accredited.
- Variations to the regulated design need to be lodged on the portal prior to this work being carried out.
- Building Declarations are to be provided to the certifier prior to issuing the Occupation Certificate.

Residential Apartment Buildings Act and Regulation

Work it Relates to:

Any building work to Class 2, 3 and 9c buildings that requires a Construction Certificate or Complying Development Certificate.

General Requirements:

- Building work commencement notice is required to be provided on the portal by the developer.
- 6-12 months notice to the Occupation Certificate (Expected Completion Notice) must be given to the NSW Building Commissioner's office via the Planning Portal.
- Building work levy to be paid prior to issuing the Occupation Certificate (likely \$7000 to \$8400).
- Occupation Certificate Audits can be carried out by the Building Commissioner's office where a review of designs and documents (including contracts) for building work occurs as well as a physical onsite inspection(s).
- The Building Commissioner's Office has the authority to issue stop work, prohibition and rectification orders whereby they can restrict an OC being issued by a certifier.

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. Other referrals such as Fire and Rescue NSW referral under EP&A Regulation, Section 25-29 will form part of the Application for a Construction Certificate process.

The FRNSW referral process is as follows:

- Once plans and the FER are sent through, Formiga1 carries out our CC BCA assessment of the proposed works and sends out a Request for Further Information Letter outlining and non-compliances or further information required in order to complete the assessment.
- Once there are no outstanding non-compliances, we can submit the documentation to FRNSW within 3 business days.
- FRNSW will then send out a notification stating that they have received our submission within 2 days of Formiga1 making the submission.
- Within 10 calendar days of receiving the submission, FRNSW must respond advising whether or not they will be assessing the works.
- If they do not choose to assess the works, we can issue the CC (provided all other CC items are closed out).
- If they choose to assess the works, FRNSW have 28 calendar days from receiving the submission to provide comments from their assessment.
- If the 28 day period lapses and no comments are received, we can issue the CC.
- If FRNSW provide comments, they must be incorporated into the design OR be justified by a peer review from a third party fire engineer.

5. Building Compliance

The assessment has been based on Architectural plans by GSA Group, Dated 31/10/2022.

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: Items in **bold text** are of higher importance.

5.1. Principal Building Characteristics

Aspect	Building
Proposed Classification	Basement - 5/7a Back of House Areas/Car Parking Ground Floor - 9c Aged Care (<i>Wellness Centre and Cafe are <10% of the floor area, therefore, it is not considered Class 6.</i>) Level 1 - 9c Aged Care Level 2 - 9c Aged Care
Rise in Storeys	4 Storeys
Effective Height	Assumed to be >12m but <25m
Construction Type	Type A
Compartment Limit	Fire Compartments - 8,000m ² or 48,000m ³ Smoke Compartments - 500m ²
Maximum Compartment Sizes	Fire Compartments - 2,780m ² Smoke Compartments - 733m ²

5.2. Building Code of Australia Assessment

Comments	Consider/ Action/ Note
BCA Section B - Structure	
The building is to be designed to an importance level of 3 as the health care building is capable of containing 50 residents.	Consider
The building has not been identified as being located in a flood hazard area. Therefore additional structural requirements under the ABCB's Construction of Buildings in Flood Hazard Areas 2012.2 Standard will not apply.	Note
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 B1.2 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
BCA Section C - Fire Resistance	
<p>Generally, the FRL's required by Table 3 of Spec C1.1 are 120 minutes for the building. Particular note should be paid to the following elements:</p> <ul style="list-style-type: none"> • External Walls • External Columns • Floors • Stairs • Lift Shaft • Elements supporting fire-rated elements (ie. columns supporting the slab) <p>As external walls and external columns appear to be more than 3m from fire-source features, no FRL will be required.</p>	Consider
Please note that other elements of this building are still required to maintain the 120 minute FRL and the 'support of another part' requirements of BCA Spec C1.1(2.2) will mean that elements using concessions for reduced FRLs are not permitted to support the other building elements requiring a higher FRL.	Consider
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
The roof has a concession under BCA Spec C1.1 to not achieve an FRL provided that its covering is of a non-combustible construction, as the building has sprinklers throughout. To claim this concession, parts of the building that do not require sprinklers would need them to be installed.	Consider
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 or require an FRL of 60/60/60. The overall rise in storeys will need to be determined as either 3 or 4 to make a determination on this requirement.	Consider

<p>Non-combustibility of elements is outlined in BCA C1.9, being:</p> <ul style="list-style-type: none"> a. External 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. <p>NOTE: <i>BCA C1.9 outlines materials that are exempt from the requirements of non-combustibility as well as materials that are considered non-combustible.</i></p>	Consider
<p>Attachments to the external walls (ie. render, sun shades must also be non-combustible unless they form part of the concessions within BCA C1.14.</p>	Consider
<p>Fire hazard properties are required to comply with BCA C1.10 and BCA Spec C1.10. As the building is sprinkler protected throughout, concessions will apply as outlined in BCA Spec C1.10 Table 2 and Table 3.</p>	Consider
<p>Compartment limits for this building are outlined in BCA Table C2.2. The Class 5, 7a, 9c portions have a floor area limit of 8,000m² and 48,000m³. The maximum proposed fire compartment size is 2,780m².</p>	Note
<p>Further to the above requirements, Class 9c parts of the building are required to comply with BCA C2.5 (b) for smoke compartmentation and construction in accordance with BCA Specification C2.5. The Deemed to Satisfy provisions require smoke compartments to have a maximum floor area of 500m². The maximum proposed smoke compartment size is 733m². The design will need to be amended to meet the DTS provisions of the BCA. However, the BCA is a performance based code and compliance can be achieved through means of Performance Solutions.</p>	Action
<p>Smoke walls are to be constructed in accordance with BCA Spec C2.5 as follows:</p> <ul style="list-style-type: none"> a. Be lined on one side with a non-combustible material. If plasterboard is specified it must be 13mm standard grade plasterboard. b. Extend to the underside of the floor above, a 13mm standard grade plasterboard ceiling, fire-protective covering or a non-combustible roof covering. c. Be smoke sealed with a non-combustible material along all junctions. 	Consider
<p>BCA NSW C2.5(b) requires all internal walls bounding SOUs and public corridors must:</p> <ul style="list-style-type: none"> a. Be lined on each side with 13mm standard grade plasterboard or equivalent; b. If insulated, be a tested non-combustible insulation; c. Extend to the underside of the floor above; d. Not incorporate any penetrations above the door head height unless smoke sealed; e. Be smoke sealed with intumescent putty along all construction joints. 	Consider
<p>Kitchens(>30m²), laundries containing gas fire dryers and medical record storage areas (>10m²) are to be fire separated from SOUs by smoke-proof walls in accordance with BCA Spec C2.5 (including smoke doors). Compliance has been shown on the plans.</p>	Note
<p>The building is provided with a sprinkler system throughout and does not require vertical separation in accordance with BCA C2.6. However, if fire sprinkler coverage is not provided to all levels then vertical fire separation must be provided on all floors in accordance with this Clause. However, consideration should be given to sealing cavity/curtain walls around the edges of the slab and the vertical ends of fire and smoke walls, as the slab is required to achieve fire separation between storeys.</p>	Note

<p>The provisions for separation of classifications in the same storey and different storeys in BCA C2.8 and C2.9 do not apply to the separate Class 5, 7a and 9c parts as these classifications require the same FRLs.</p>	Note
<p>Services are required to be separated in accordance with BCA C2.12 and C2.13. BCA C2.12 requires fire pumps to be separated in accordance with AS2419.1. AS2419.1 Clause 6.4.2 outlines that a 120/120/120 firewall is required where the room is not sprinkler protected in accordance with AS2118.1. As this building is only required to be fitted with sprinkler to AS2118.4, the pump is required to be contained within 120/120/120 construction. This item could be discussed with a fire engineer to achieve an alternative means of compliance.</p>	Consider
<p>Protection of openings under BCA C3.2 appear to have been achieved as all external walls are shown to be 3m from property boundaries.</p>	Note
<p>There are no openings in external walls of fire compartments that require protection under BCA C3.3.</p>	Note
<p>Smoke doors are required to comply with C3.4 and Spec C3.4 (eg. swing in the direction of egress or both directions, fitted with a self closing device, etc.). All smoke doors have been shown to be swinging against the direction of egress as the doors serve egress in both directions and are only single swing. The design will need to be amended to meet the DTS provisions of the BCA. However, the BCA is a performance based code and compliance can be achieved through means of Performance Solutions.</p>	Action
<p>Smoke reservoirs (minimum of 400mm in depth) are required above all smoke doors to both sides in accordance with BCA Spec C2.5.</p>	Consider
<p>Penetrations to fire rated barriers (shafts, walls, floors) are required to be in accordance with BCA Clause C3.15.</p>	Consider
<p>BCA Section D - Access and Egress</p>	
<p>This building has the required minimum of 2 exits from GF, L1 and L2 and the required minimum 1 exit from Basement as required by BCA D1.2.</p>	Note
<p>Exits are generally required to be fire-isolated in this building as per BCA D1.3 though there are some exceptions for the Basement stair as it doesn't connect 2 storeys. External stairways in lieu of fire-isolated stairways are permitted under BCA D1.8 and appear to have been proposed.</p>	Note
<p>External stairs in lieu of fire-isolated exits are to be constructed using non-combustible materials throughout in accordance with BCA D1.8.</p>	Consider
<p>External stairs in lieu of fire-isolated stairs need to remain open on the external face to ensure that they cannot become smoke logged. In light of several recent tribunal decisions, it is our belief that the provisions of BCA D2.5 should be applied to an external stair to provide the level of safety for external stairs in lieu of fire-isolated stairs intended by the BCA. BCA D2.5 requires an area of unobstructed openings equalling the floor area of all landings and be a minimum of 75% open above a height of 1m on each storey. All stairs do not appear to achieve this openness. Further information relating to this provision will be needed to determine compliance.</p>	Consider

<p>The stair layouts for the external stairs in lieu of fire-isolated stairs appear to make provision for compliance with regard to separation and construction. The walls separating this stair from the building must achieve a minimum FRL of 60/60/60 with doors achieving an FRL of --/60/30. These stairs must not incorporate any openings <3m from the stairway and any openings >3m but <6m from the stairway must be protected by wall-wetting sprinklers in accordance with BCA C3.4. Plans show compliance. A number of stairs contain openings within 3m of the stair and are not permitted as well as a number of openings between 3-6m where compliance with BCA C3.4 would need to be considered.</p>	Consider
<p>Exit travel is generally 20m to single exit or 20m to a point of choice and 40m to the first exit. Distance between alternative exits is limited to 60m. The following areas do not meet this requirement:</p> <ul style="list-style-type: none"> a. Basement - >20m to a single exit (83m measured). The carpark ramp cannot be utilised as an exit due to containing a gradient steeper than 1:8. b. Ground Floor - Distance between Southern Stair and Northern Stair is >60m (65m measured). c. Ground Floor - Wing C >20m to a point of choice (26m measured). d. Ground Floor - Wing A >20m to a point of choice (32m measured). e. Ground Floor - Wing B >20m to a point of choice (28m measured). f. Level 1 - Wing D >20m to a point of choice (37m measured). g. Level 1 - Wing E >20m to a point of choice (34m measured). h. Level 1 - Wing F >40m to a single exit (54m measured). i. Level 1 - Wing G >20m to a point of choice (24m measured). j. Level 1 - Distance between Eastern Stair and Northern Stair is >60m (85m measured). k. Level 2 - Wing D >20m to a point of choice (37m measured). l. Level 2 - Wing E >20m to a point of choice (34m measured). m. Level 2 - Wing F >40m to a single exit (54m measured). n. Level 2 - Wing G >20m to a point of choice (24m measured). o. Level 2 - Distance between Eastern Stair and Northern Stair is >60m (83m measured). 	Action
<p>The design will need to be amended to meet the DTS provisions of the BCA. However, the BCA is a performance based code and compliance can be achieved through means of Performance Solutions.</p>	
<p>Minimum exit widths are generally 1m throughout for a height of 2m and 1980mm at doorways in accordance with BCA D1.6. These dimensions are to be and free of obstructions (eg. handrails, fire extinguishers). In addition to the minimum 1m clear width, Class 9c corridors are to be a minimum width of 1.5m and 1.8m at SOU doors as well as communal bathrooms. Minimum clear widths for doors are required to be as follow:</p>	Consider
<ul style="list-style-type: none"> a. 870mm in all resident use areas. Appropriate allowances have been shown on the plans. b. 1070mm entry doors to SOUs, however, only approximately 780mm is shown. c. 800mm in non-resident use areas, though all accessible areas require a minimum clear width of 870mm throughout regardless. Appropriate allowances have been shown on the plans. 	Action
<p>Discharge and protection of people egressing appears compliant with BCA D1.10.</p>	Note
<p>If horizontal exits within the building are proposed, consideration would need to be given to clear space required to each side of the horizontal exit, openings in adjoining fire compartments, etc.</p>	Consider
<p>Fire-isolated stairs and ramps are required to be constructed of non-combustible materials and so that local failure will not impair the function of the shaft as per BCA D2.2.</p>	Consider

Installations in the path of travel are required to comply with D2.7.	Consider
No cupboards or similar enclosed spaces have been proposed underneath stairs, therefore, compliance with BCA D2.8 is not required.	Note
Stairs are required to comply with BCA D2.13 for tread construction and BCA D3.4, which references AS1428.1, Clause 11. Please refer to further comments in D3.4.	Consider
Ramps throughout the property must not exceed a gradient of 1:14 and must be slip-resistant in accordance with BCA D2.14.	Consider
Door thresholds throughout the Class 9c areas must not incorporate a step, except where a ramp with a maximum gradient of 1:8 is provided for a maximum height of 25mm as per BCA D2.15	Consider
Balustrades are to be a minimum height of 1m as per BCA D2.16. Additionally, where the floor level is >4m from the falling surface below, no climbable elements are permitted between the heights of 150mm and 760mm.	Consider
D2.17 requires handrails to both sides of every corridor used by residents. Corridor handrails have not been proposed to both sides of all corridors (this also includes areas of the Wellness Centre). No such handrails have been proposed.	Action
Door swing is required to comply with BCA D2.20. Where building entrances are also exits, consideration should be given to compliance with D2.19 – D2.21, including door swing, sliding doors and the like. (ie. The automatic sliding doors in the main entrance shall be manually operable with a force <100N and open automatically upon activation of the detection system).	Consider
The provisions of BCA D2.21 will apply to the common area balconies and courtyard areas meaning that the doors cannot be locked from the inside unless they are fitted with a fail-safe device.	Consider
Where openable windows with falls of >4m occur, a minimum barrier height of 865mm is required, ensuring that no horizontal elements (including window sills and the like) are located between 150mm and 760mm in accordance with BCA D2.24.	Consider
This building is required to be accessible to and within resident use areas of Class 9c areas and throughout all Class 5 and 7a areas. Paths connecting this building with disabled car spaces and main pedestrian entry points along the boundary shall also comply with AS1428.1.	Consider
BCA Table D3.1 requires a minimum of 8 accessible SOUs to be provided. The design will need to be amended to meet the DTS provisions of the BCA. The design team has confirmed that this will be addressed by a Performance Solution.	Action
Accessways are required to be in accordance with D3.3 and AS1428.1 including circulation, provisions, turning and passing spaces. Reasonable allowances have been made.	Consider
Please note that all stairs (and ramps) used for circulation will be required to comply with Clause 11 (and Clause 10 respectively) of AS 1428.1. This means minimum widths are generally 1200mm between walls.	Consider
A hearing augmentation system will be required if an inbuilt amplification system is installed in order to carry out the <u>intended</u> functions of the space. Typically these types of inbuilt amplification systems are not installed in aged care, however, if proposed, hearing augmentation is capable of compliance.	Consider

<p>TGSIs are required in accordance with D3.8. Concessions for Class 9c areas of the building, where raised-domed buttons are provided to the handrails.</p> <p>NOTE: This concession does not apply to the Class 5 and 7a parts of the building.</p>	Consider
<p>Where the main entrance meets the vehicular way, a kerb and kerb ramp, TGSIs or suitable barriers are required to achieve DTS compliance. No such construction has been proposed.</p>	Consider
<p>BCA Section E - Services and Equipment</p>	
<p>Fire Hydrants coverage is required to all areas in accordance with AS 2419.1. Please note that the comments on compartment size and the impacts this may have on the supply of water and that the hydraulic design has compartmentation consistent with other plans. Other aspects of compliance (flows and pressures) are assumed at this time.</p>	Consider
<p>The flow and pressure requirements for the hydrant system at the most disadvantaged hydrant are 20l/s @ 250kPa unassisted, 20l/s @700kPa assisted if no pump is installed. If a pump is installed 10l/s @ 700kPa unassisted is required. Additionally, simultaneous flows will be required for the hydrants, sprinklers and wall-wetting drenchers if they are fed off the same connection to the town main.</p>	Consider
<p>Separation of the hydrant booster to electricity, gas and other hazardous elements as per AS2419.1 will need to be considered.</p>	Consider
<p>The Class 9c and Class 5 areas of the building do not require Fire Hose Reels as outlined under BCA E1.4, however, Fire Hose Reel coverage will be required to the following areas due to their classification:</p> <p>a. Class 7a carpark area.</p>	Consider
<p>Fire extinguishers will be required in accordance with Table E1.6 of the BCA.</p>	Consider
<p>This building is required to be sprinkler protected throughout and be installed in accordance with AS2118.4. The carpark can use a Part 4 system as it caters for less than 40 cars, provided that it is constructed in accordance with the allowances in BCA Spec E1.5 and AS2118.4. Water supply, pipework and valve set requirements will vary between AS2118.1 and AS2118.4. Specifically, Section 4.3.4 of AS2118.4 requires fast response sprinklers throughout the carpark area.</p>	Consider
<p>As the total floor area of the building is >5000m², the sprinkler system is to be separated into separate systems. This has been achieved by two separate control valves.</p>	Consider
<p>The sprinkler control valves must be located in a secure room or enclosure which has direct egress to a road or open space. Compliance is shown.</p>	Consider
<p>A fire control room is not required for this building.</p>	Note
<p>Smoke detection and alarms are required for this building in accordance with E2.2 of the BCA and AS1670.1. This includes a Building Occupant Warning System, Manual Call Points, Fire Brigade monitoring, automatic shutdown of air-handling systems and Mimic Panels/Annunciators in each smoke compartment.</p>	Consider
<p>This building has not been considered a theatre or public hall, nor an “other assembly building” in accordance with E2.2b. As such, there are no additional requirements for smoke hazard management.</p>	Note

At least one lift will need to comply with AS 1735.12 for accessibility. Similarly, at least one lift will need to comply as a stretcher lift.	Consider
Depending upon if the building is deemed to have an effective height of >12m, this may trigger fire service controls.	Consider
Emergency lighting and illuminated exit signage is required for this building. Compliance has been assumed at this time.	Consider
BCA Section F - Health and Amenity	
BCA Performance Requirement FP1.4 for weatherproofing of external walls and roofs will need to be addressed by a Performance Solution as there are no DTS provisions relating to FP1.4.	Action
The concrete slab plant area has been proposed to serve as part of the roof for the building. Under the requirements of BCA F1.5, there is no allowance for the use of concrete as a roofing material.	Action
Wet areas are required to be waterproofed in accordance with AS 3740.	Consider
This building requires a fixed or mobile bath, clinical handwash basin (1 per 16 residents), laundry (shown on plans), slop hopper (one per 60 residents or part thereof on every storey) and disinfection appliance (one per 60 residents or part thereof on every storey) as per BCA F2.1.	Consider
Occupant numbers 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. Some WC's may require lift off hinges.	Consider
Room sizes have been assumed compliant. Ceiling heights are not confirmed at this time. Minimum heights are generally 2.1 and 2.4m under BCA Part F3.	Consider
Natural light is required to all bedrooms at 10% of the floor area under BCA Part F4. Ventilation may be achieved by natural or mechanical means. Compliance is assumed at this time.	Consider
Acoustic separation is required in accordance with F5. Walls separating SOUs from other SOUs or separating SOUs from kitchens, bathrooms, sanitary compartments, laundries, plant room and utility rooms (not within the same SOU) are required to achieve a minimum sound rating level of Rw45.	Consider
BCA Section G - Ancillary Provisions	
Limited minor structures and coldrooms will require compliance with Section G.	Consider
This building is not located within bushfire prone land and will not require compliance with BCA Part G5.	Note
Balcony areas >10m ² are deemed to be occupiable outdoor areas as per BCA Part G6. <u>NOTE: This will trigger requirements for emergency lighting, exit signage, fire hazard properties of floor/wall coverings and occupant warning.</u>	Consider

BCA Section J - Energy Efficiency

The building is required to comply with BCA Part J1 for the building fabric. 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. Where you wish to designate part of the building as not being conditioned space, please consider the implication of the restriction on the life of the building.	Consider
The roof will generally require a minimum R-value of 3.7 and solar absorptance of <0.45 and the walls will require a minimum U-value of 2.0.	Consider
As the building is >2500m ² , it is required to contain facilities for energy monitoring in accordance with BCA J8.3.	Consider
Compliance of the services for Energy Efficiency is expected to be addressed as part of the services designs. Please have the consultants provide details in their plans showing compliance at the time of the Building Approval.	Consider

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 process.