

11 September 2025

SNC Asia Pacific Pty Ltd
C/- MHN Design Union
35 Richards Lane
SURRY HILLS NSW 2010

Attn: Kevin Ng & Bryan Wong

Dear Kevin & Bryan,

**REFERENCE: 2 WARUDA STREET, KIRRIBILLI NSW 2061
BUILDING CODE OF AUSTRALIA (BCA) AUDIT REPORT – EXSITING RESIDENTIAL BUILDING**

Concise Certification Pty Ltd have been commissioned by **SNC Asia Pacific Pty Ltd C/- MHN Design Union** to undertake a non-destructive assessment of the existing partially completed Residential Flat building against the requirements of the National Construction Code Series (Volume 1) - Building Code of Australia 2022 (BCA) to identify any visible construction compliance matters and provide general comments on what is required for completion of the works.

It is understood that the proposed residential development is subject to a Development Application with Council for the proposed 'change of use' from a Class 2 (Residential Flat Building) to a Class 1a (Single Residential Dwelling)

The following Concise Certification Pty Ltd Team Members have contributed to this assessment:

- Darko Kardum (Senior Building Regulations Consultant) –Report Author
- Steven Rodriguez (Director / A1 Registered Certifier - Unrestricted) – Report Peer Review

Our assessment of the concept design documentation was based on the following:

- National Construction Code Series – Volume 1 – Building Code of Australia 2022 - (BCA)
- Environmental Planning & Assessment Act 1979
- Environmental Planning & Assessment Regulation 2021
- Environmental Planning and Assessment (Development Certification & Fire Safety) Regulation 2021
- Concise Site Inspection of the existing building undertaken on Tuesday the 26 August 2025
- Stop Work Order Issued by the Building Commission NSW CAS No. 11191016 dated 16 September 2024
- Preliminary Architectural Plans prepared by Attena Group Pty Ltd, as noted in the table below.

Plan Title	Plan No.	Date	Plan Title	Plan No.	Date
Cover	3	21/08/2023	Ground Level	3	21/08/2023
Level 1	3	21/08/2023	Level 2	3	21/08/2023
Level 3	3	21/08/2023	Wall Detail 2	3	21/08/2023
Typical Detail	3	21/08/2023	Typical Detail	3	21/08/2023
Typical Detail	3	21/08/2023	Section 1	3	21/08/2023
Section 2	3	21/08/2023			

STATEMENT OBJECTIVES:

The key objectives of the report are as follows:

- Undertake a high-level assessment of the current development against the deemed to satisfy provisions of the National Construction Code Series – Volume 1 – **Building Code of Australia 2022**.
- Confirm that the accessible parts of the building been inspected by an appropriately qualified Building Surveyor.
- Identify any fire and life safety & Health and amenity compliance issues, using the Deemed-to-Satisfy (DTS) provisions of Part C, D (parts 2 & 3) and E, F (other than Part F7) of the BCA 2022 as the benchmark for compliance.
- Identify any Deemed-to-Satisfy compliance departures that require further resolution/attention for by either way of design change or Performance Based Solutions to comply with the BCA 2022.

LIMITATIONS AND EXCLUSIONS:

The limitations and exclusions of this report are as follows:

- This report is based on a review of the referenced documents together with an inspection of the accessible areas of the building. Concealed spaces such as voids, shafts, and the like were not inspected. Systems were not tested and building fabric was not removed to determine the method of construction.
- It is not the intent of this report to constitute a thorough and intrusive/destructive investigation of all concealed spaces in the building and is therefore not to be mistaken as a verification that all building elements and services are constructed according to the relevant requirements of the BCA at the time of construction.
- This report does not comprise an audit of fire services against the standard of performance that applies as referenced in the relevant AFSS. It is the role of the fire services maintenance contractors to review, maintain and certify that the existing measures comply with the original standards of performance applicable at the time of installation. This report identifies where fire services are required by the BCA and whether the building is served by those fire services.
- The assessment contained in this report is limited to those matters relating to Fire Safety & Health & Amenity Issues as contained in Section C, Part D2 & D3 and Section E and F (other than F7) of the BCA.
- Depending on the age of a building and existing forms of construction, it is not always possible to upgrade an existing building to fully comply with the fire and life safety provisions of the current BCA. Instead, this report identifies compliance issues with the BCA which in the opinion of this office, are considered appropriate in order to achieve a reasonable level of fire & life safety compliance commensurate with community expectations having regard to the Objectives of the BCA.
- No services plans or structural plans have been reviewed in the preparation of this report. This report has been based on a visual inspection of the subject building only and a review of the available architectural plans.
- The Report does not address matters in relation to the following:
 - Local Government Act and Regulations.
 - Occupational Health and Safety (OH&S) Act and Regulations.
 - WorkCover Authority requirements.
 - Water, drainage, gas, telecommunications and electricity supply authority requirements
- No part of this document may be reproduced in any form or by any means without written permission from Concise Certification Pty Ltd.
- The findings of this Report do not relieve the Council nor the Accredited / Principal Certifier of their statutory obligations under the EP&A Act & DC Act and they are to be satisfied that the proposal meets their requirements prior to approval
- Concise Certification Pty Ltd cannot guarantee acceptance of this report by the Local Council, NSW Fire & Rescue or other approval authorities

SITE & BUILDING DESCRIPTION:

The site, the subject of this capability statement, is on a single allotment that is legally identified as Lot B in DP 346417 having a registered address of 2 Waruda Street Kirribilli.

The site is irregular in shape and has an approximate site area of 289.7m². The site has a single street frontage and is located on the North-East side of Waruda street. The site is bound by residential flat buildings to the side and rear boundaries.

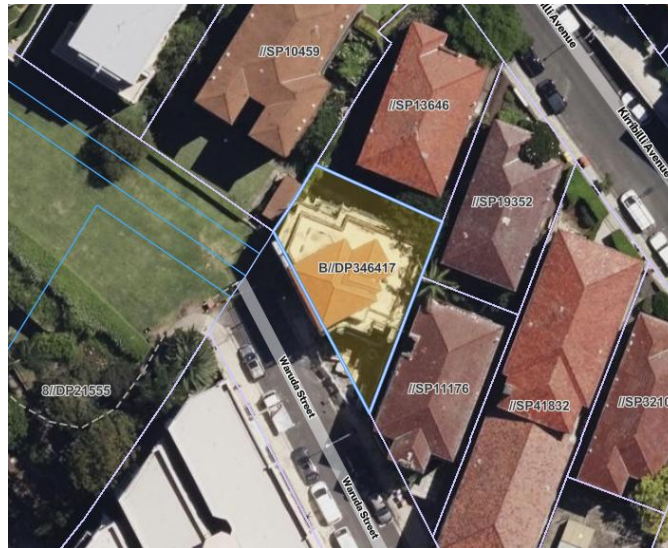


Figure 1 – Satellite Image (Source: NSW Explorer – July 2025).

BUILDING CODE OF AUSTRALIA 2022 COMPLIANCE:

Arising from our preliminary desktop assessment of the proposed development against the Deemed-to-Satisfy provisions and Performance Requirements of National Construction Code Series (Volume 1) – Building Code of Australia 2022, the following key characteristics are noted.

KEY BUILDING CHARACTERISTICS:

The principal building characteristics as defined by the BCA are noted as follows:

BUILDING CHARACTERISTICS	
- BCA CLASSIFICATION:	Class 2 (Residential SOU's), Class 7a (Carpark)
- RISE IN STOREYS:	Four (4)
- STOREYS CONTAINED	Five (5)
- CLIMATE ZONE:	Climate Zone 5
- SPECIAL CONSIDERATIONS:	Basement weatherproofing and drainage, Coastal Construction – (Materials to be compatible for corrosion where the site is within proximity of breaking surf) and Electric Vehicle Charging and Photovoltaic Solar panels, and Automotive Vehicle Parking System proposed

SUMMARY OF KEY COMPLIANCE MATTERS:

The following table comprises a summary of the BCA Fire & Life Safety compliance issues and incomplete works identified during the inspection of the subject building on 26 August 2025.

Relevant BCA Clauses	Description of Compliance Matter Requiring Resolution
BCA Parts B1D2 – B1D4 (Structural Performance)	<u>BCA Part B1 & Spec</u> - specifies the key structural requirements and FRL's for buildings and the following key matters requiring further attention were identified from our site inspection: <u>FRLs & Structural Adequacy Throughout</u> - Structural engineer in to inspect the As Built building and provide confirmation that all structural works completed are in accordance with the BCA regarding Structural adequacy and confirm that all loadbearing elements achieve the required FRL for the classification concerned. <u>Structural Repairs</u> – there are exposed reinforcement, spalling/honeycombed concrete identified throughout (e.g. top floor foyer slab) which requires rectification and certification from a structural engineer that all works have been completed in accordance with all relevant BCA and Australian standards. <u>Ground Floor to Top Floor</u> - The Lintels/Shelf Angles supporting the external masonry walls and masonry upturns are to be reviewed by a qualified structural engineer to confirm adequate support is provided to the masonry walls (i.e. main pedestrian entry) and where the Lintels/Shelf Angles are supporting masonry walls required to achieve an FRL, the Lintels/Shelf Angle

	Supports are also required to achieve an FRL for the classification concerns and distance from the boundaries. 4. <u>Ground Floor / Basement Level</u> - There is a steel column within the carparking lift shaft which appears to be loadbearing and not fire rated as required. In this regard, confirmation is required by the structural engineer confirming whether this column is a loadbearing element. 5. <u>Service Throughout</u> - Services consultants/contractors are to confirm that the seismic restraints provisions under Section 8 'Designs for Parts and Components' of AS1170.4-2007 which details in part advice on services clearances, spacing of bracing, example calculations, force diagrams, safety wire requirements for T-Bar ceilings systems etc have been considered and implemented. Also, segregation of services is to be provided between electrical, Fire, hydraulic and mechanical services as required. 6. <u>Ground Floor Retaining walls</u> - The external retaining walls to the perimeter of the building to support the boundary and adjoining structures has not been installed as yet.
BCA Clause C2D9 (Lightweight Construction)	<u>BCA Clause C2D9</u> Specifies the requirements for lightweight construction when utilised in building and in fire rated construction and the following key matters requiring further attention were identified from our site inspection 7. <u>Ground Floor to top Floor</u> - Hebel wall systems have been installed within the building for non-load bearing fire rated bounding construction and service shafts. In this regard, the common areas service shafts have not been completed as yet and there are Hebel fire rated panels that have been installed without the edge support angles extending the full length of the Hebel Panel as required. Also, CSR Hebel Consultant is required to review and confirm the connection between Hebel Panels and Dincel Walls system are compliant with their specifications to achieve the required FRL's as required.
BCA Clause C2D10 & C2D14 (Non-Combustible Building Elements & Ancillary Elements)	<u>BCA Clause C2D10</u> requires external walls and all elements associated elements to be non-combustible or meet the concessions of this clause. This includes cladding, insulations, plasterboard linings etc. <u>BCA Clause D2D14</u> requires ancillary elements to meet the criteria of this clause and permits combustible materials on the premise that compliance is achieved with specified criteria. and the following key matters requiring further attention were identified from our site inspection: 8. <u>Waterproof Membranes on External Walls</u> - BCA Clauses C2D14 permits external waterproofing materials to be applied to an adjacent floor surface and roof surface including vertical upturns and below ground membranes projecting above natural ground floor to a maximum height of 250mm. It was identified that there may be waterproofing application to the external walls that are above ground e.g. planters) which deviate from the above clause and will require justification via a Performance Based solution 9. <u>External Signs</u> - Although not installed during the site visit, any proposed light boxes or building signs affixed to the external walls will require justification via performance based solutions;
BCA Clause C2D11 & G6D2 (Early Fire Hazard Properties)	<u>BCA Clause C2D11</u> - Provides the requirements for the fire hazard properties for all internal linings, material and assemblies and the following key matters requiring further attention were identified from our site inspection: 10. <u>Poly/Plastic Pedestal Pavers supports and Decking</u> - Although not installed, where plastic/poly pedestal pavers and/or timber decking are proposed to be used on balconies, roof top and common areas, these may not comply with the required Fire Hazard Properties in accordance with Specification 7 of the BCA 2022 and will require justification via a performance based solution.
BCA Clause C3D7 (Spandrel Separation)	<u>BCA Clause C3D7</u> - specified the requirement for fire separation between opening above one another in external walls 11. <u>Spandrel Separation</u> - There is no 450mm projection past the opening of the vertical spandrel between the full height balcony sliding door openings on Ground Floor to level 3 and the masonry upturn are not 600mm above the concrete floor slab therefore, this departure will need addressing via a performance based solution.
BCA Clause C3D13 (Separation of Equipment)	<u>BCA Clause C3D13</u> - specified the requirement for fire separation of equipment and the following key matters requiring further attention were identified from our site inspection 12. <u>Basement Level Car Lift</u> - the car lift motors and/or control panels are to be fire separated fire separated in construction achieving an FRL of 120/120/120 mins
BCA Clause C3D8 + C3D9 + C3D10	<u>BCA Clause C3D8</u> - specifies requirements for Fire Walls <u>BCA Clause C3D9</u> - requires higher FRL's to be adopted throughout, or appropriate fire separation between different Classifications to be provided.

(Fire Separation between Classifications) & BCA Clause C2D2 & Spec. 5 (FRL's)	<u>BCA Clause C3D10</u> - requires appropriate fire separation between different Classifications in consecutive storeys to be provided. <u>BCA Clause C2D2 & Specification 5</u> - Requires that all fire rated shafts are fire rated at the bottom and the top of the shaft. <u>BCA Specification 5</u> - specifies FRL's required to key building elements. In this regard, the following key matters requiring further attention were identified from our site inspection: 13. <u>FRL's Throughout</u> - Structural engineer in to inspect the As Built building and provide confirmation that all structural works completed are in accordance with the BCA regarding Structural adequacy and confirm that all loadbearing elements achieve the required FRL for the classification concerned. 14. <u>Basement Level Garbage Room</u> - The fire door tag on the door frame to the garbage room stated a 240m FRL and therefore the room will need to achieve and FRL of 240/0240/240 in including all service penetration. From our site visit, it was noted that there were a number of service penetrations which were not fire sealed and may not be able to achieve the 240min fire rating required and these will need addressing via a performance based solution. In addition, there were services pipes within bounding walls which require rectification works. 15. <u>Service Shafts</u> - Provisions for Fire Rated shafts have been provided and these shaft required the bases and the top of the shafts to be fire rated accordingly as this has not been completed as yet, 16. <u>Level 2 Common Lobby</u> - There is a gap between the Dintel & Hebel fire rated walls which will need to be rectified and enclosed with fire rated construction and FRL of 90mins, 17. <u>Ground Floor to top Floor</u> - Hebel wall systems have been installed within the building for non-load bearing fire rated bounding construction and service shafts. In this regard, the common areas service shafts have not been completed as yet and there are Hebel fire rated panels that have been installed without the vertical and horizontal edge support angles extending the full length of the Hebel Panel or walls as required. Also, CSR Hebel Consultant is required to review and confirm the connection between Hebel Panels and Dintel Walls systems are compliant with their specifications to achieve the required FRL's as required, 18. <u>Lift Landing Doors</u> - All gaps around the lift landing doors and the Dintel concrete lift shafts are to be appropriately fire rated to ensure that the FRLs of the shaft are maintained and confirmation is also required that any fire rated system or method is tested with the Dintel PVC formwork wall system, 19. <u>Roof FRL</u> - The roof is to achieve and FRL of 90/90/90 as the concession pursuant to Spec S5C15 of the BCA are not applicable to sprinkler protected building utilising the FPAA101H & D sprinkler systems and where building has a different classification other than a class 2 or 3 (In this case there is a Class 7a carpark), 20. <u>Fire doors Basement level</u> - Fire doors to the basement have not been installed and are to be installed where required. All Fire Doors are to be tight fitting self closing doors with no gaps greater than 3mm to the top and sides of the door and no greater than 10mm below. All frames are to be core filled and it is to be ensured that no hollow sections or drumming occurs. The door hardware used is to be compatible with the fire door test reports. All Fire Doors are to be provided with tags on the door leaf and door frame in accordance with AS1905.1-2015, 21. <u>Cavity Fire Stopping</u> - Cavity separation is required between Levels and between SOU's (where fire rated and bounding walls do not extend to the out surface of the external walls) and this could not be determined and where Rockwool is proposed, this will need to form part of a Performance based solution. NB: the method of weatherproofing of external walls must be maintained and not breached by internal walls and floors extending to the outer external walls skin.
BCA Clause C3D11 & C3D12 & C4D11 (Separation of Lifts and Lift Landing doors and separation of Lifts and stair Shafts)	<u>BCA Clause C3D11 & C4D11</u> specifies the requirement to fire separated lift shafts and lift landing doors Type of Construction required and the Specification details the required FRL's required to key building elements and the following key matters requiring further attention were identified from our site inspection; 22. <u>Passenger Lift</u> - The fire rated passenger lift landing doors may be reliant on a British testing standard in lieu of being tested in accordance with AS1530.4-2014 and this needs addressing via a performance based solution,

	23. <u>Stairways and Lifts Separation</u> – Separation is required between the stairway and the lift shaft which is not provide at the stair and lift landings and this will require addressing via a performance based solution.
BCA Clause C4D3 (Protection of Openings)	<u>BCA Clause C4D3</u> - specifies the protection required to openings in external walls that are exposed to fire source feature and the following key matters requiring further attention were identified from our site inspection; 24. <u>Mechanical Vents</u> - there are ventilation opening in the external walls that are within 3m of the allotment boundary which are not addressed in the Fire Engineering Report and therefore will require protection in accordance with Clause C4D5 (e.g. construction achieving an FRL of - /60/-) or addressed via a performance based solution. <u>Stop Work Order CAS Ref: 11191016 Additional Requirements:</u> 25. <u>Openings for Services</u> - Openings through external walls required to have an FRL have not been protected. Penetrations for toilet exhaust discharges are not protected with an internal or external wall wetting sprinkler or construction having an FRL not less than - /60/- as required.
BCA Clause C4D4 (Separation of External Walls and Openings in Difference Fire Compartments)	<u>BCA Clause C4D4</u> – Specifies the separation requirement between external walls and associated openings between difference fire compartments <u>Stop Work Order CAS Ref: 11191016 Additional Requirements:</u> 26. <u>Lift Relief Vent Opening</u> - The lift shaft relief air opening is within 3m of a different fire compartment separated by a fire wall and is not protected with an internal or external wall wetting sprinkler or a construction having an FRL not less than -/60/- as required.
BCA Clause C4D12 (Bounding Construction) & BCA Spec 5 (FRL's)	<u>BCA Clause C4D12</u> - specifies the requirements for fire separation of SOU's from Public Corridors and other areas and the following key matters requiring further attention were identified from our site inspection: 27. <u>SOU Entry doors All levels</u> – The entry doors to all SOU;s have not been installed and are required to be self closing -/60/30 fire doors. All Fire Doors are to be tight fitting with no gaps greater than 3mm to the top and sides of the door and no greater than 10mm below. All frames are to be core filled and it is to be ensured that no hollow sections or drumming occurs. The door hardware used is to be compatible with the fire door test reports. All Fire Doors are to be provided with tags on the door leaf and door frame in accordance with AS1905.1-2015. 28. <u>Ground Floor Common Areas</u> – All rooms not within the SOU (MSB/Comms Room below the stairway are to be fire separated in construction achieving an FRL of no less than 60/60/60, The entry doors provided with self-closing -/60/30 fire doors. All Fire Doors are to be tight fitting with no gaps greater than 3mm to the top and sides of the door and no greater than 10mm below. All frames are to be core filled and it is to be ensured that no hollow sections or drumming occurs. The door hardware used is to be compatible with the fire door test reports. All Fire Doors are to be provided with tags on the door leaf and door frame in accordance with AS1905.1-2015
BCA Clause C4D13 & C4D15 (Openings for Service Installations)	<u>BCA Clause C4D13 & C4D15</u> specifies that services penetrations through fire rated elements need fire sealing the following key matters requiring further attention were identified from our site inspection: 29. <u>Fire Seals General</u> - It was identified during our site inspection that a number of service penetrations were not provided with appropriate fire seals throughout the building. These include but are not limited to the following: - The Fire Hydrant line penetrating the fire rated floor throughout, - Copper water services and sprinkler pipes penetrating floors and walls throughout, - There are conduits and electrical cables penetrating the bounding Hebal walls and service shaft walls which have not been fire sealed, - Conduits above the MSB in the basement and electrical services generally, - All services in the garbage room on the basement level including the mechanical services. - VESDA system penetrating the fire rated lift shaft. 30. <u>Fire Collars</u> – There are several fire collards that are obstructed by walls and these will need to be relocated / boxed out / or sealed with a system that achieved the minimum required FRL of the element that it is located within. There are also several redundant fire collards in the slab which are to be appropriately fire sealed via a proprietary system.

	31. <u>Cast In Services</u>: There are cast in-slab conduit / PVC pipes identified during the inspection (e.g. at the MSB in the basement, in the storage comms cupboard on the Ground Floor, and at the top of the electrical Riser shaft, etc) which extend across fire separated walls and which have not been provided with sufficient fire seals and may not be able to be protected with a proprietary fire seal and as such these will need to be considered under a performance based solution justifying compliance with Performance Requirements of the BCA; 32. <u>Mechanical Ventilation</u>: The supply and exhaust ventilation points serving the carpark areas are located on the ground floor and will require fire dampers where they penetrate fire rated building elements and any departures are to be considered under a performance based solution justifying compliance with Performance Requirement;
BCA Clause D2D3 (Number of Exits)	<u>BCA Clause D2D3</u> specifies that minimum number of exits required for each story and the following key matters requiring further attention were identified from our site inspection: 33. <u>Basement Level</u>- There is a single exit from the basement level where a minimum of 2 exits is required and this departure has been addressed via a Performance Based solution however, egress from the car hoist areas should also be considered.
BCA Clause D2D7 (Heights of Exits, Paths of Travel to Exits and Doorways)	<u>BCA Clause D2D7</u> specifies the minimum unobstructed height of exits and path of travel to an exit and the following key matters requiring further attention were identified from our site inspection: 34. <u>Basement Level & Ground Floor</u> – the ceiling heights below the stairway is less than the minimum required 2.0m and this will need to be addressed via a performance based solution. 35. <u>Basement Level Storage</u> – There are Storage rooms proposed within the basement which may not achieve the minimum height requirements of 2.0m due to the required clearances to sprinkler. However, the storage areas have not been built and departures will need addressing via a performance based solution.
BCA Clause D2D8 (Widths of Exits & Paths of Travel)	<u>BCA Clause D2D8</u> specifies the minimum unobstructed exit widths required and the following key matters requiring further attention were identified from our site inspection 36. <u>Basement Level</u>- The space beneath the exit stairway requires access due to a control panel located in these areas and there are reduced egress widths less than 1.0m to access this space and this will need addressing via a performance based solution; 37. <u>Basement Level Storage</u> – There are Storage room proposed within the basement which may have egress width less than the minimum required 1.0m. However, these have not been built and any departures will need addressing via a performance based solution
BCA Clause D2D9 (Widths of Doorways in Exits & Paths of Travel)	<u>BCA Clause D2D9</u> specifies the minimum unobstructed exit widths required to doorways in exits and paths of travel to exits and the following key matters requiring further attention were identified from our site inspection; 38. <u>Ground Floor Comms Room</u> – The doorways to the comms room below the stairway is to have a single leaf that is no less than 750mm. These doors have not been installed as yet and any Departures will need addressing via a performance based solution. 39. <u>Basement Level Storage</u> – There are Storage rooms proposed within the basement which may not achieve the minimum door widths of 750mm. However, the storage areas have not been built as yet and any departures will need addressing via a performance based solution;
BCA Clause D2D15 (Discharge from Exits)	<u>BCA clause D2D15</u> – requires the discharging from exits to be provided with suitable paths of travel including compliant stairways and ramps between the building and the roadway and the following key matters requiring further attention were identified from our site inspection. 40. <u>Basement Stair Discharge</u> – The discharge of the Basement Exit Stair necessitates traveling over the vehicular driveway to reach the road which has a gradient nominated at 1:12 and therefore, this is considered a ramp which will require a handrail to one side of the ramp.
BCA Clause D3D8 (Installation in Exits)	<u>BCA Clauses D3D8</u> - Specifies the services which are only permitted in exits and paths of travel to exits the following key matters requiring further attention were identified from our site inspection: 41. <u>Basement Level & Common Lobby Areas</u> – There are Electrical Services Board / NBN / Comms enclosure located along the path of travel to an exit which have not been completed and are to be of non-combustible construction with all openings suitable smoke sealed. This includes any ventilation grills in doors or walls which will require smoke dampers.

BCA Clause D3D9 (Enclosure of Space Under Stairs and Ramps)	<u>BCA Clause D3D9</u> – specifies the requirements for fire separation of enclosures beneath non-fire isolated stairs and ramps and the following key matters requiring further attention were identified from our site inspection; 42. <u>Ground Floor Comms / MSB</u> – The enclosure below the stairway is to be fire separated by construction achieving and FRL of 60/6/60 with any doorway provided with a self closing - /60/30 fire door. Separation of this space is also required due to being a room not within a SOU.
BCA Clause D3D14 (Stair Treads & Risers)	<u>BCA Clause D3D16</u> – Specifies the requirements for stair treads and risers and the following key matters requiring further attention were identified from our site inspection; 43. <u>Stair Flights Through</u> – Stair treads and risers have not been completed throughout the building and in their current form, there are inconsistencies with treads and riser heights between consecutive steps and overall flights. Handrails and nonslip contrast nosing have not been installed, and the steps do not incorporate off set treads to ensure consistent handrail heights are maintained between landings on the internal edge of the stairway.
BCA Clause D3D16 (Thresholds)	<u>BCA Clause D3D16</u> – Specifies that no steps or ramps are permitted within the door threshold other than that door that provided direct access to the road or open space and the following key matters requiring further attention were identified from our site inspection; 44. <u>Threshold at Internal Door Throughout</u> – The entry door to all SOU's have a step in the door threshold due to the floor finish of the common areas not being complete.
BCA Clause D3D17 To D3D21 (Barriers to Prevent Falls)	<u>BCA Clause D3D17 to D3D21</u> – specifies the requirements for barriers and balustrades to prevent falls where there is a fall of 1.0m or more to the surface beneath and the following key matters requiring further attention were identified from our site inspection; In this regard, the following areas have been identified as matters which may be requiring further design consideration. 45. <u>Basement level Stairway</u> – there is an opening in the side wall of the stairway which is to be sealed off or provided with a compliant barrier. 46. <u>Levels 01 to Level 03</u> - There are only the brick upturns installed which are less than the minimum required 1.0m. In addition, the proposed open balusters style balustrade will not comply with the non-climbable requirements of the BCA as the brick upturns will be located within 150mm and 760mm from the finished floor level. And this departure cannot be addressed via a performance based solution, 47. <u>Car Stackers</u> – balustrades or other barriers with a height of no less than 1.0m and no gaps greater than 125mm have not been installed to the car-stacker pit and careful consideration will be required to these Basement Car Stackers or other suitable barriers will be required from a safety in design perspective. Note: Fair Trading do not allow unprotected car stackers in residential development.
BCA Clause D3D22 (Handrails)	<u>BCA Clause D3D22</u> – specifies the requirements for handrails along stair and ramps and the following key matters requiring further attention were identified from our site inspection; 48. <u>Stairways and Ramp all Levels</u> – Handrails are to be provided to at least one side of all stairways and ramps/walkways that have a gradient that is greater than 1:20 (internal and external). The top surface of the handrail is to be not less than 865 mm vertically above the stair nosing line or ramp and where required for accessibility, handrails and ramps are to comply with Part D4 of the BCA and AS1428.1-2009 (e.g Handrails to both sides of the stairway are off set treads at landing which has not been provided to the stairways as required).
BCA Clause D3D24 (Doorways), BCA Clause D3D25 (Swinging Doors) & BCA Clause D3D26 (Door Latch Hardware)	<u>BCA Clause D3D24</u> – specifies the requirements for exit doors serving a building and provide restrictions in certain circumstances and the following key matters requiring further attention were identified from our site inspection; <u>BCA Clause D3D25</u> Specifies requirements for exit doors to swing in the direction of egress and provision for swinging doors to not encroach into exits <u>BCA Clause D3D26</u> – specifies the requirements for door latch hardware provisions to exits door and doors in the path of travel to an exit. In this regard, the following key matters requiring further attention were identified from our site inspection 49. There were no doors installed throughout the common areas of the building.
BCA Clause D3D29 (Protection of Openable Windows)	<u>BCA clause D3D29</u> – Specified the requirements for openable windows to be provided with a means of protection where the floor below is located 2m or more and the following key matters requiring further attention were identified from our site inspection;

	50. <u>Windows Sill Heights Level 1 to 3</u> – There are windows with sill heights that are located between 150mm and 760mm from the finished floor which constitutes a foothold in the barriers required below openable windows located 4m or more above the surface beneath and either compliant barriers are to be provided below these windows or this is to be addressed via a performance based solution.
BCA Part D4, AS1428.1 (Accessibility requirements)	<u>BCA Part D4</u> – requires accessibility compliance to be achieved and the following key matters requiring further attention were identified from our site inspection; 51. <u>Ground Floor Level Building Access</u> – Access to the principal pedestrian entrance is to be provided and all other pedestrian entrances are to be within 50m of the principal pedestrian entrance, 52. <u>Basement Level Waste Store Room</u> – There is insufficient circulation space at the doorway into the waste rooms on the Ground floor Level 53. <u>Accessible Accessways</u> – External and internal accessways need to comply with AS1428.1-2009 including change in directions which require splayed corners or wider accessways and turning spaces etc; 54. <u>Stairways</u> – Internal and external circulation and exit stairs are to be provided with handrails to both sides of the stair, with tactile top and bottom of the stair landings and non-slip contrast nosing to all stair treads. 55. <u>Access to Site Controls</u> – Access to gate, lifts, main entrances etc will require access controls, hardware and keypads located in compliant locations; (d) Frameless glass doors - Sliding or Swinging, Pivot doors etc may pose compliance departures if they are not provided with colour contrasting door jams <u>Accessibility Compliance Report:</u> It is understood that an access consultant has been engaged to review the proposal and provide an Accessibility compliance / Performance Solution Report to accompany the Construction certificate application submission to ensure that all aspects of the DDA, AS1428.1-2009 and Part D4 of the BCA have been addressed. Adaptable Housing/ADG provisions will also need to be considered and Pre-post adaptation plans will need to accompany the Construction Certificate application to the satisfaction of the Registered Certifier
BCA Clause E1D2 (Fire Hydrants)	<u>BCA Clause E1D2</u> – requires hydrants coverage to the building in accordance with AS2419.1-2021 and the following key matters requiring further attention were identified from our site inspection: 56. <u>Fire Brigade Booster Assembly</u> -The Hydrant Booster Assembly has not been installed and this is to be within or affix to the façade of the building <u>containing the principal pedestrian entrance</u> or remote from the building but located no greater than 20m from the principal pedestrian entrance and is to be within sight of the main pedestrian entrance to the building. Also, the booster assembly is to be orientated to directly face the road and located within 10m of Hardstand and must not be located where it may compromise or impede any exit or paths of travel to an exit. The Booster Assembly arrangements are to ensure appropriate heights and clearances are achieved in accordance with AS2419.1-2021, 57. <u>Fire Hydrant Landing Valve Location</u> – Hydrants Valves have been provided on each level and within 4m of the exits however, clearances around the hydrant are to be provided in accordance with AS2419.1-2021 (e.g. Spindle to be 100mm from the walls).
BCA Clause E1D3 (Fire Hose Reels)	<u>BCA Clause E1D3</u> specifies the requirements for Fire Hose Reels in Buildings and the following key matters requiring further attention were identified from our site inspection: 58. <u>Fire Hose Reel</u> – A Fire Hose Reel is to be installed within the basement within 4m of the exit and this hose reel must not pass through any fire doors. In this regard, there may be additional hose reels required within rooms in the basement which are required or proposed to be fire separated (e.g. Garbage Room). 59. <u>Automated Vehicle Parking Systems</u> – FRNSW endorse the Fire Safety Requirements Automated vehicle Parking Systems guideline as published by the Australasian Fire and Emergency Service Authorities Council, as the appropriate guidance to practitioners who design and certify building that incorporate an automated vehicle parking system (e.g. a 'car-stacker'). It is recommended that the guidelines are considered to ensure that the fire services in this building meet the relevant criteria accordingly; <u>Stop Work Order CAS Ref: 11191016 Additional Requirements:</u> 60. <u>Fire Hose Reels</u> - there are internal fire hydrants and therefore fire hose reel system are required to be provided to serve the building.

BCA Clauses E1D4, E1D5, E1D6, & Specification 17 & 18 (Sprinklers)	<u>BCA Clauses E1D4, E1D5, E1D6</u>, requires sprinklers to buildings in accordance with spec 17 & 18 of the BCA and the following key matters requiring further attention were identified from our site inspection: 61. <u>Fire Brigade Booster Assembly</u> -The sprinkler / Hydrant Booster Assembly has not been installed, and this is to be within or affix to the façade of the building <u>containing the principal pedestrian entrance</u> or remote from the building but located no greater than 20m from the principal pedestrian entrance and is to be within sight of the main pedestrian entrance to the building. Also, the booster assembly is to be orientated to directly face the road and located within 10m of Hardstand and must not be located where it may compromise or impede any exit or paths of travel to an exit. The Booster Assembly arrangements are to ensure appropriate heights and clearances are achieved in accordance with AS2419.1-2021. 62. <u>Sprinkler Coverage</u> - Sprinkler Coverage to all areas of the building have not been completed namely within the basement level this will include the Car Stacker, above and below the basement stairway etc etc. 63. <u>The main sprinkler control / stop valve</u> – the main stop valve has not been installed as required and is to be in a secured enclosure accessible directly from the roadway. 64. <u>Fire Sprinkler Clearances</u> –Sprinkler heads proposed to the storage areas for clearances purposes may need addressing via a fire engineered Performance Based Solution where a 500mm clearance is not achievable between the sprinkler head and the stored items. <u>Stop Work Order CAS Ref: 11191016 Additional Requirements:</u> 65. <u>FPA 101D Connections</u> - The sprinkler system has its own dedicated riser with branch take-offs at each floor complete with isolation valves. The system is separate to the drinking water supply which has individual apartment meters at Ground level and individual risers to each apartment. This arrangement is not in accordance with an FPA 101D system which shall include an isolation valve to allow the simultaneous isolation of both the drinking water supply system and sprinkler system to that floor level. No other valve shall be installed between this valve and any sprinklers except the backflow prevention device. 66. <u>Sprinkler Coverage to Balconies</u> - No sprinkler coverage or provision for sprinkle coverage has been made for sprinklers to the balconies as required. 67. <u>Sprinklers Heads</u> - Sprinkler heads in lift shafts are required to have a temperature rating of not less than 100°C.
BCA Clause E1D14 (Portable Fire Extinguishers)	<u>BCA Clause E1D14</u> specifies the requirements for Portable Fire Extinguishers required in the building and the following key matters requiring further attention were identified from our site inspection: 68. <u>Basement and Common Areas</u> – Portable Fire extinguishers are to be provided in the basement within 2m & 10m of the MSB and Portable Fire Extinguishers are to be installed in common areas on each residential level within 10m of the SOU entry doors
BCA Clause E1D17 & E2D21 (Provisions for Special Hazards)	<u>BCA Clauses E1D17 & E2D21</u> specifies provision for Special Hazards and the following key matters requiring further attention were identified from our site inspection: 69. <u>Automated Vehicle Parking Systems</u> – FRNSW endorse the Fire Safety Requirements Automated vehicle Parking Systems guideline as published by the Australasian Fire and Emergency Service Authorities Council, as the appropriate guidance to practitioners who design and certify building that incorporate an automated vehicle parking system (e.g. a 'car-stacker'). It is recommended that the guidelines are consideration to ensure their the fire services in this building meet the relevant criteria accordingly 70. <u>Electric Vehicles & Vehicle charging Facilities</u> – The provision of any electric vehicles & charging facilities in the carparks needs to be identified in the FEBQ/FER in addition to the automatic parking system (Car Stacker).
BCA Clauses E2D3, E2D4 & Specification 20 & 21 (Smoke Hazard Management)	<u>BCA Clauses E2D3, E2D4 & Specification 20 & 21</u> specifies smoke hazard management systems applicable to buildings and in this case, the following are required; - AS1670.1-2018 Automatic Fire Detection and Alarm System throughout. - AS3786 -2014 – Smoke Alarm systems within Residential SOU's - AS2118.1-2017 (carpark) & FPA 101D (residential) Sprinkler System. and the following key matters requiring further attention were identified from our site inspection: 71. <u>Smoke Detectors</u> –Smoke detectors are to be installed throughout the building in accordance with AS1670.1-2018 and the FER. 72. <u>Smoke Alarms Systems</u> –Smoke alarms are to be installed within the SOU's and be located in hallways between bedrooms and any other areas or located in front of bedroom doors where

	there is no hallway and must not be located near ceiling fans or supply AC vents. Smoke alarms are to be interconnected within each respective unit and be located 300mm from intersecting walls 73. <u>FDCIE Panel</u> – The FDCIE has not been installed as is required within designated main building entry point and have clearances 500mm either side of the panel. <u>Stop Work Order CAS Ref: 11191016 Additional Requirements:</u> 74. <u>Smoke Detectors</u> - Access to allow replacement and testing of smoke detector at the top of the lift shaft without entering the lift shaft has not been provided as required. 75. <u>Smoke Detector Coverage</u> - A smoke detector has not been provided at the top of the vehicular lift shaft as required.
BCA Clause E4D2 & E4D5 (Emergency Lighting & Exit Signs)	<u>BCA Clause E4D2 & E4D5</u> - specifies the requirements for emergency lighting and exit signs and the following key matters requiring further attention were identified from our site inspection: 76. <u>Common Areas</u> – Although there are illuminated exits signs installed in the basement level, there are a series of illuminated exits signs and emergency lighting that has not been installed to the exits stairs and to the common foyer areas of the residential and basement areas as required.
BCA Clause F1D6 & D1D7 (Damp Proofing)	<u>BCA Clause F1D6</u> – specifies the requirements for moisture barriers to prevent moisture from the ground to enter the building and the following key matters requiring further attention were identified from our site inspection: 77. <u>Damp Proof Course</u> – the damp proof course in the masonry façade does not extend past the masonry walls as required and this will require rectification.
BCA Clause F1D5 (External Waterproofing)	<u>BCA Clause F1D5</u> specifies the requirements for external waterproofing membranes and the following key matters requiring further attention were identified from our site inspection: 78. <u>External Waterproofing/Freeboard heights</u> – Freeboard heights could not be determined at the door and window threshold/step down. Waterstop angles at doorways could not be located and this will need to be provided in accordance with AS4654.1 & 2 -2012 79. <u>External Waterproofing</u> - The waterproofing to the balconies and planters has not been completed and planter boxes, door and windows flashing could not be determined whether compliance is achieved with AS4654.1&2 -2012. The roof top terrace has been tiled and does not appear to have compliant falls to floor wastes (i.e. 1:80 falls) and it does not appear that sufficient overflows have been provided to this area and to the small concrete roof section above. 80. <u>Windows in Showers</u> – There are several external windows that are within shower enclosure which are not permitted and will need to be relocated or addressed via a performance based solution, 81. <u>Puddle (Drainage) Flanges</u> - Puddle Flanges to floor wastes have not been installed to the floor wastes provided to the external balconies and terraces as required. 82. <u>Pedestal Paver Systems</u> – Where Poly Paver / Pedestal Paver systems are proposed to balconies, terraces, podium common areas etc, they will require Performance Based Solutions as the pavers do not provide the required 1:80 falls required to finished floor levels as per BCA and the applicable Australian Standards. In this regard, 1:80 falls or positive falls are typically required at the concrete substrate level as part of the justification from the Waterproof Consultant developing the Performance Based Design Brief/BCA Performance Solution Report.
BCA Clause F2D2 (Waterproofing of Wet Areas)	<u>BCA Clause F2D2</u> specifies the requirements for waterproofing of internal wet areas and the following key matters requiring further attention were identified from our site inspection: 83. <u>Internal Wet Areas</u> – The internal wet areas have been tiled and therefore, the method of waterproofing could not be determined. However, there are several doorways to wet areas throughout the building where the required water stops at the door have either been tiled over or sit below the finished floor level and this will need to be rectified in order to achieve compliance with Specification 26 and AS3740-2021. 84. <u>Wet area Waterproofing</u> – There are also several wet areas where evidence of moisture have breached the confines of the wet area and created unhealthy conditions and damage to other parts of the building (e.g. mould on adjoining walls and floor & and damage to floors adjacent to bathrooms) and this will require rectification.

	85. <u>Falls to Floor Wastes</u> – The falls to floor wastes in the wet areas do not appear to provide a minimum fall of 1:80 and this will need to be rectified to comply with BCA clause F2D4 BCA and AS3740 – 2021.
BCA Clause F3D1, F3D2, F3D3, F3D4 & F3D5 (Wall Cladding / External Wall Weather proofing)	BCA Clause F3D5 specifies the need for the designers to ensure the external walls are designed to prevent water and moisture ingress and the following key matters requiring further attention were identified from our site inspection: 86. <u>External Wall Weatherproofing</u> - there are external cavity sliding doors which are located between the masonry walls and the concrete which may not strictly comply with the flashing details required to masonry walls in accordance with AS3700-2018 and where compliance cannot be achieved, a Performance based solution utilising Verification F3V1 and addressing Performance Requirements F3P1 will need to be provided. 87. <u>Masonry Parapet Walls</u> – Capping it to be provided to the top of the masonry parapets walls in accordance with AS3700 - and AS1562.1 – 2018 to prevent moisture into the building. 88. <u>Ground Floor Lobby Entry</u> – The main pedestrian entrance door to the ground floor lobby has not been installed and appropriate waterstops and drainage is require to prevent the moisture surface water entering the building.
BCA Clause F5D2 (Height of Rooms)	BCA Clause F5D2 - specifies the minimum ceiling height to habitable and non-habitable room and the following key matters requiring further attention were identified from our site inspection. 89. <u>Basement Level - Storage Cages</u> – The minimum sprinkler head clearances required for sprinklers within the storage cages may reduced the head heigh clearance of the room to be less than the minimum 2.1m and this will required addressing via performance based solution. 90. <u>Spaces/Rooms below Stairways</u> – There are areas below stairs flights which have ceiling heights that are less than the minimum 2.1m required and either the areas below 2.1 are to be section off to restrict access or these departures are to be address via a performance based solution. 91. <u>Level 2 SOU Stairway</u> – there is reduced ceiling heights along the internal stairway that is less than 2.0m when measured along the nosing line of the stair treads and this is to be rectified or addressed via a performance based solution.
BCA Clause F6D11 (Ventilation of Carparks)	BCA Clause FD11 - specifies the requirements for ventilation mechanical ventilation systems for carpark and the following key matters requiring further attention were identified from our site inspection: 92. <u>Basement Carpark ventilation</u> - The carpark ventilation is to be completed and is installed in accordance with AS 1668.1 2015 and & AS/NZS 1668.2- 2012. <u>Stop Work Order CAS Ref: 11191016 Additional Requirements:</u> 93. <u>Basement Carpark Mechanical Ventilation</u> - The basement underground carpark is proposed to be mechanically ventilated with a supply air system. The relief-air openings are not more than 6 m away from any outside air intake or natural ventilation openings not associated with the enclosure and all parts of the enclosure are not within 10 m of a supply-air opening. The vehicular lift shaft is not ventilated by a mechanical air-handling system.
BCA Part J (Energy Efficiency)	BCA Section J specifies the energy efficiency provision applicable to the building <u>Stop Work Order CAS Ref: 11191016 Additional Requirements:</u> 94. <u>Duct Insulation</u> - 25mm thick insulation has been specified for ductwork carrying conditioned air, this will not achieve the minimum thermal resistance R1.2 as required & There is no provision for insulation on ductwork carrying conditioned air. Return air plenum does not have insulation as required.

OTHER INCOMPLETE WORKS	
General Throughout all Levels	
1. Internal Doors throughout have not been installed 2. Plasterboard walls throughout all common areas have not been installed and the Plasterboard walls, within the SOU will need replacing due do significant water damage in several locations, 3. Segregation of Services have not been completed and is required, 4. Stair finishes and handrails have not been provided throughout, 5. Emergency lighting an exits signs have not been installed throughout, 6. Balustrades have not been completed to all outdoor terraces and balconies and Car lift areas, 7. Kitchens and cabinetry fit outs have not completed, 8. Weatherproofing of external walls and doors has not been completed,	

OTHER INCOMPLETE WORKS
General Throughout all Levels
9. External Waterproofing has not been completed to external balconies and terraces, 10. Smoke detection and smoke alarms have not been installed throughout the building, 11. Compliance with Part F7 of the BCA regarding Sound transmission will be required
Basement Level
12. Car lift and Car Stacker have not been installed 13. Fire Services to the car lift and the Car Stacker have not been completed 14. Carpark Ventilation has not been completed 15. Fire Hose Reel and extinguishers not yet installed 16. MSB and Storage enclosures not yet installed

CONCLUSION

This report contains an audit of the existing residential flat building located at 2 Waruda Street, Kirribilli against the current fire and life safety provisions of the NCC Building Code of Australia 2022, (BCA).

While there are parts of the building which generally achieves fire and life safety compliance, compliance matters were identified and recommendations provided for compliance to achieve an appropriate level of fire and life safety commensurate has been provided.

It is considered that the building can achieve an appropriate level of fire and life safety should the recommendations in this report be implemented

This report contains an assessment of the existing Construction Certificate and the referenced architectural documentation for the works carried out at 2 Waruda Street, Kirribilli NSW 2061, against the Deemed-to-Satisfy provisions and Performance Requirements of the National Construction Code Series (Volume 1) Building Code of Australia 2022 (A2) to confirm what works are required and what works are yet to be completed in order to comply with the fire and life safety provisions of the BCA.

Furthermore, it is also recognised that the Stop Work Order Reference No. CAS. 11191016 issued by the Office of Building Commission NSW that was issued for the Class 2 (Residential Flat Building) and 7a (Carpark) development is generally limited to compliance issues with the Declared Design documentation and inconsistencies that were required to be addressed and although the above Audit has considered these comments, this report does not confirm compliance or non-compliance with the Stop Work Order.

Should you require further assistance or clarification please do not hesitate to contact the undersigned at darko@concise.com.au or on 0431 194 363 Kind Regards,



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Disclaimer

This report is based on Concise Certification's assessment and interpretation of the referenced design documentation at the time of report preparation. Accordingly, the contents of this report will be subject to amendment and/or expansion as the design develops and new information and/or clarification of existing information becomes available.

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