

Our Ref: 2112XX-20457-Prelim BCA Review

BCA REVIEW			
Project Title:	BCA AUDIT		
Project Address:	46 TENNYSON STREET, ELWOOD		
Reference No.	20457	Date:	17/01/2022

BUILDING PROJECT PROFILE	
Site Name:	Elwood Childcare Centre
Property Address:	46 Tennyson Street, Elwood
Description of Works:	Site inspection
BCA Version:	2019 Amendment 1
Classification:	Ground floor Childcare – Class 9b First Floor Office – Class 5
Use:	Childcare
No. of Storeys:	2
Rise in Storeys:	2
Type of Construction:	Type B
Effective Height:	4m
No. of Occupants: (BCA D1.13)	36 children 10 staff
Floor Area:	Ground floor – 259.41m ² First Floor – 72m ² Total – 331.41m ²

BCA ITEMS			
BCA Clause		Compliance Comments	Compliance Status
C1.1	Fire ratings	<p>Fire ratings are required to be achieved with the following BCA requirements Specification C1.1 clause 4 & BCA table 4</p> <ul style="list-style-type: none"> • Loadbearing external walls and loadbearing columns therein 2hr FRL • Non-loadbearing external walls (where exposed to side boundaries): <ul style="list-style-type: none"> ○ Within 1.5m of boundary -/120/120 ○ Within 3.0m of boundary -/90/60 • External columns 120/-/- • Floor required to achieve 30/30/30 FRL, or be constructed by a floor/ceiling system with a resistance of incipient spread of fire of at least 60minutes, or fire protective covering on the underside of the floor • Internal loadbearing walls & columns 120/-/- • Fire isolated stairs, lift shafts & services shafts 120/120/120 • Roof not required to be fire rated • All external walls and elements therein are to be of non-combustible construction • Loadbearing internal walls and loadbearing fire walls constructed from timber required to be fire protected timber, and the building must be sprinkler protected, otherwise walls required to be of masonry or concrete, and insulation installed is non-combustible with cavity barriers. 	<p>External walls do not meet the FRL requirements as there are timber claddings installed on the walls.</p> <p>Floor is not fire rated and is constructed from timber beams</p> <p>To confirm and verify fire ratings a structural engineer should be appointed.</p> <p>BCA compliance not achieved.</p>
C1.8	Lightweight construction	If lightweight construction is used for fire protection of steel columns required to achieve compliance with BCA Specification C1.8	No lightweight fire rated construction has been used.
C1.10 & Spec. C1.10	Fire hazard properties	<p>Fire hazard properties for floor linings and floor coverings, wall linings and ceiling coverings, air-handling ductwork required to be tested.</p> <p>Floor material installed are carpet tiles, vinyl</p> <p>Wall lining materials installed are hard plaster/ plasterboard, on first floor they are timber cladding boards.</p> <p>Without manufacturer data, BCA compliance cannot be determined</p>	Compliance with BCA provisions cannot be determined in the absence of destructive testing and manufacturers specifications.

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C1.9	Non-combustible material	External wall not permitted to contain combustible material within a Type B construction.	External walls contain combustible material. BCA compliance not achieved.
C2.2 & E2.2	General floor area and volume limitations (Fire compartmentation)	As the total floor area is under 5,500m ² , the building is considered to be a single fire compartment.	Compliance achieved.
C2.13	Electricity Supply	If electricity switchboard is required to operate emergency equipment, required to be within a 2hr FRL construction.	No emergency equipment contained that is required to operate in fire.
C3.2	Protection of openings in external walls	Windows & Doors on the north boundary are within 3m of side boundary. Doors required to be protected by a wall wetting sprinklers, or self-closing fire door - /60/30 Windows are required to be protected by a wall wetting sprinkler, or -/60/- fire windows either auto closing or permanently fixed, or auto closing fire shutters.	Windows are within 3m of the boundary and are not protected. BCA compliance not achieved.
C3.12	Openings in floor and ceilings for services	All penetrations passing through the fire rated floors to be fire protected.	BCA compliance not achieved.
C3.16	Construction Joints	Construction joints within the external fire wall or between building elements required to be fire resistant sealed with a sealer which is tested in accordance with AS1530.4	Masonry walls did not contain any construction joints
D1.2	No. of Exits required	For a class 9b ground floor required to have a minimum of 2 exits available, and for a class 5 on first floor 1 exit is required.	Compliance achieved.
D1.3	When fire isolated stairways and ramps are required	Stair does not connect more than 2 consecutive stories. No requirements for a fire isolated stair.	Compliance achieved
D1.4	Exit travel distances	Maximum travel distance on ground floor is 14m, and no point on the floor travel distance exceeds 12m where point of choice to 2 exits is available. Maximum travel distance on first floor is 10m	Compliance achieved
D1.5	Distance between alternative exits	Distance between exits is 23m	Compliance achieved

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D1.6	Dimensions of exits and paths of travel to exits	<p>All paths of travel to an exit must have 1m clear width except through doorways where the width can be reduced to 750mm</p> <p>Stair serving first floor requires to have a clear width of 1m measured between handrails.</p>	<p>Path of travel through doorways does not comply as some doors have a clear opening less than 750mm.</p> <p>Also, the stair width at the narrowest point is 740mm wide.</p> <p>BCA compliance not achieved.</p>
D1.9	Travel via non-fire isolated exits	The overall travel distance from first floor via the stair is not permitted to exceed 80m	<p>Compliance achieved</p> <p>The stair has a childproof gate installed on the first riser which does not comply</p>
D2.3	Non-fire isolated stairways and ramps	Internal stair to be constructed of 6mm steel or concrete or timber 44mm hardwood if the building is sprinkler protected and fire protected applied to the underside of the stair.	<p>Stairs are timber construction with a carpet floor covering.</p> <p>BCA compliance not achieved.</p>
D2.7	Installations in exits and paths of travel	If an electrical switchboard is installed in the path of travel to an exit door required to be within a smoke proof cupboard.	Compliance achieved.
D2.8	Enclosure of space under stairs and ramps	Enclosure below the stair is to be 1-hour fire rated including self-closing doorway.	<p>Storage cupboard is constructed below the stair with no fire ratings.</p> <p>BCA compliance not achieved.</p>
D2.13	Riser and Goings	<p>Riser heights – between 115mm – 190mm</p> <p>Tread dimensions – between 250mm – 355mm</p> <p>Openings between stair treads are not permitted.</p> <p>Maximum risers within the stairway must not be more than 18 risers in a flight.</p> <p>Stair treads must have slip resistance contrasting nosing strip. Slip resistance strip must comply with BCA Table D2.14 and tested in accordance with AS4586</p>	<p>Riser treads measurement comply with BCA provisions.</p> <p>Number of maximum risers in a single flight complies with BCA (11 risers in a flight)</p> <p>Without manufacturer's data and test report we cannot determine if compliance is achieved</p>

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D2.15	Thresholds	Please confirm if there is a step or ramp to the front entrance and doors between children's room and outdoor play area. Further review of accessibility requirements and door clearances at entrance to be undertaken.	Door threshold heights comply with BCA provisions.
D2.16	Barriers to prevent falls	Barrier on Level 1 to be 1000mm high from the finished floor level and there are no footholds or climbable elements between 150-765mm AFFL. Gaps in balustrade to be not more than 125mm. Provide additional details on drawings. Apertures in perforated screens to be not more than 9mm.	Balustrade heights does not achieve 1000mm as actual height is 900mm. BCA compliance not achieved.
D2.17	Handrails	Internal stair requires to have handrails installed on each side of the stairway.	Handrail heights are less than 865mm (heights vary between 800-820 on second flight) and top rail is not continuous. BCA compliance not achieved.
D2.20	Swinging doors	All exit doors required to swing in the direction of egress. Front gate required to swing in the direction	All doors swing in the direction of egress. Compliance achieved
D2.21	Operation of latch	BCA requires to allow latch to front gate and child security gates to be more than 1.1m high, as these gates serve a childcare use Security doors/gates required to be installed at a height between 1.5m – 1.65m All other doors require not to be higher than 1.1m except for kitchen door.	Security gates comply with BCA provisions, However various doors have latch as snibs not a lever action and located at a height lower than 900mm. BCA compliance not achieved.
Part D3	Parts of building to be accessible	The building is required to comply with BCA Part D3 provisions.	Access consultant has been appointed to carry out a BCA audit on Part D3.
E1.3	Fire hydrant system	Not required as the building is less than 500m ² .	Not required
E1.4	Fire hose reel	Not required as the building is less than 500m ² .	Not required
E1.5	Sprinklers	Sprinklers are not a deemed-to-satisfy requirement. For a 2-storey childcare centre.	Not required

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E1.6	Portable fire extinguishers	Building is required to be protected with water type, dry chemical and/or CO ₂ fire extinguisher.	Compliance achieved
Spec. E2.2	Smoke hazard management	Building is not required to be served with a smoke detection system nor a building occupant warning system.	Not applicable
E3.1	Lift installations	Lift is required to serve first floor	Access consultant to review BCA compliance not achieved.
E4	Exit signs and emergency lights		There should be an exit sign installed above the corridor door adjacent to the stair
FP1.4	Weatherproofing of walls	There is no BCA deemed to satisfy clause for compliance to be achieved.	To demonstrate compliance an assessment is required to be carried out either via BCA verification Method Clause FV1,1 or demonstrated through a performance solution report so that weatherproofing can be achieved
F1.1	Stormwater		Civill engineer to determine if stormwater complies with AS3500.3
F1,5	Roof Coverings		Roof is covered with terracotta tiles. Also, the veranda has a polycarbonate covering at the rear which cannot determine compliance with fire indices.
F1.6	Sarking	Within the cavity walls sarking require to be non-combustible material. Without manufacturer data BCA compliance cannot be determined	Compliance with BCA provisions cannot be determined in the absence of destructive testing and manufacturers specifications.
F1.11	Provisions for floor waste	No urinals have been installed therefore no requirements for floor waste are required.	No floor waste required under BCA provisions.

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F1.13	Glazing Assemblies	All glazing assemblies required to comply with AS1288 & AS2047	Glazing did not have any Australian standard markers on the window therefore could not determine compliance with BCA provisions in the absence of destructive testing and manufacturers specifications.
F1.7	Waterproofing of wet areas	Walls and floors within wet areas required to be waterproofed	All wet areas have water resistance material such as tiles and vinyl. Could not determine compliance with BCA provisions in the absence of destructive testing and manufacturers specifications.
F2.2	Calculation of number of occupants & facilities	Require to provided separate male and female facilities. Faculties are not permitted to be shared between children and staff.	Toilet facilities provided is only a unisex toilet. However, this toilet does not comply with AS1428.1 provisions.

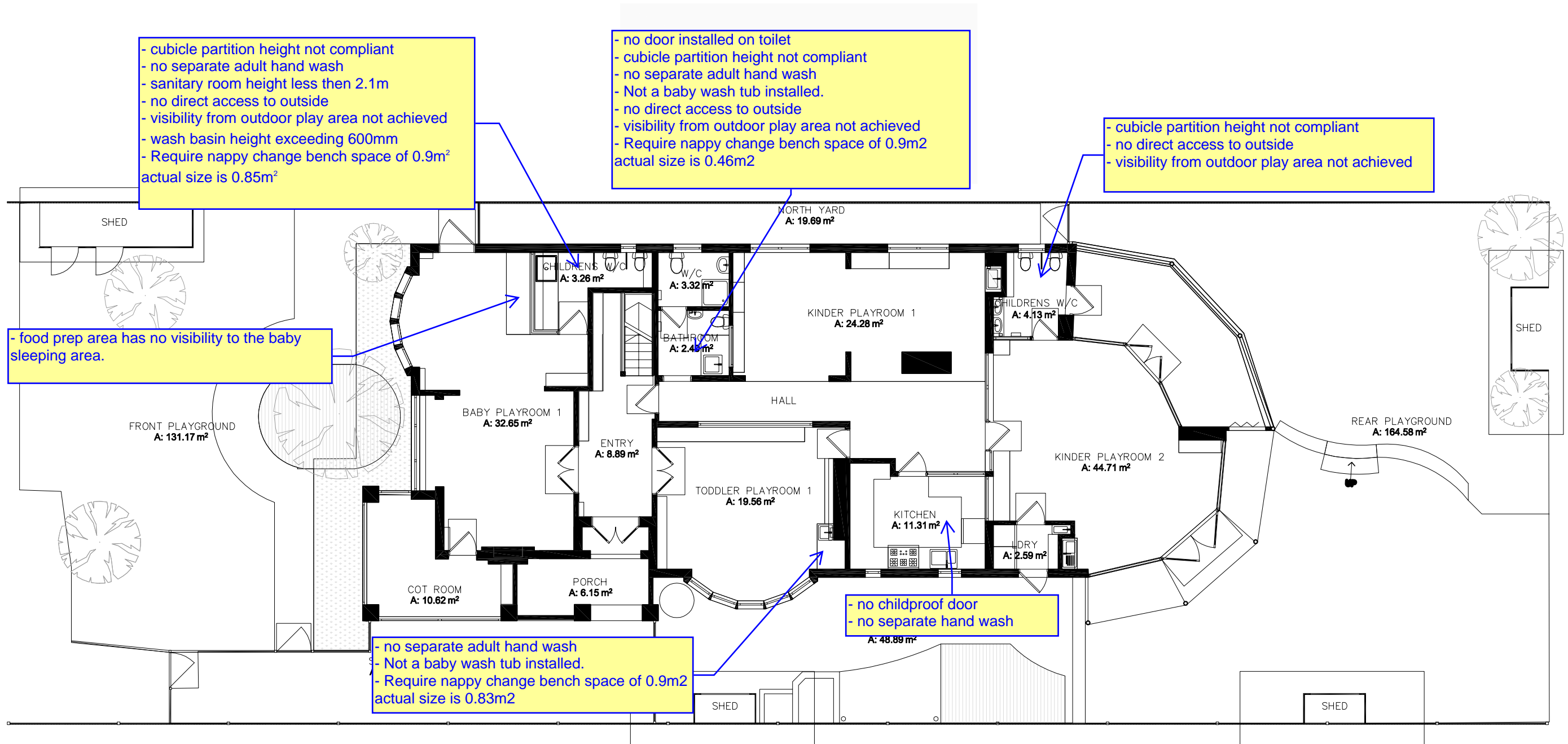
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F2.3	Facilities in Childcare centre	<p>Kitchen</p> <ul style="list-style-type: none"> ➤ Sink ➤ Hand washing facility ➤ Refrigeration ➤ Cooking facilities ➤ Door or gate with childproof latch. <p>Bathroom</p> <ul style="list-style-type: none"> ➤ 1 bath, shower, or shower/bath <p>Toilets</p> <ul style="list-style-type: none"> ➤ Junior pan ➤ Washbasins rim height not exceeding 600mm high ➤ Accessible from both outdoor and indoor play areas. ➤ Toilets able to be observed by staff from outdoor and indoor play areas. <p><u>In addition to 3yr childcare centre</u></p> <p>Kitchen</p> <ul style="list-style-type: none"> ➤ Ability to able to supervise the children (2yrs) from prep area or kitchen <p>Laundry</p> <ul style="list-style-type: none"> ➤ Washtub ➤ Washing machine <p>Bathroom</p> <ul style="list-style-type: none"> ➤ Bench type baby bath ➤ Nappy change bench within 1m of the baby bath bench. <p>Nappy change bench</p> <ul style="list-style-type: none"> ➤ Separate Adult hand washing facility within 1m of the nappy change bench ➤ Not less then 0.9m² nappy change bench ➤ Bench height between 850mm-900mm ➤ Step ladder and storage for steps 800mm high, 500mm wide, 800mm deep ➤ Staff to have visibility (window) from the nappy changing bench towards children play area 	<p>BCA Compliance has not been achieved.</p> <p>Refer to attached mark up</p>
F2,4	Accessible sanitary facilities	<p>Childcare centre is required to have an accessible sanitary facility.</p> <p>Also, the centre is required to have separate male and female facilities.</p> <p>Also required to be provided with a separate male and female ambulant toilet</p>	<p>Access consultant to include review of sanitary facilities.</p>

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F2,5	Construction of sanitary compartments	Children's facilities require to have each sanitary compartment screened by a partition (except for a doorway) at least 900mm high and not installed higher than 1200mm. Where the distance between door and sanitary closet pan is less than 1200mm require lift off hangers.	BCA compliance has not been achieved. The partition screen is less than 900mm
F3.1	Room heights	Kitchen, corridor, storage sanitary compartments must have a height not less than 2100mm Office and playrooms must have a room height not less than 2400mm.	In 2 office rooms ceiling height is less than 2.4m at the door entrance. BCA compliance has not been achieved.
F3.101	Children services – size rooms	Children's room must have clear floor area space of 3.25m ² for each child using that room.	Number of children has not been provided.
F4.1	Provisions of natural light	Playrooms and the like must have natural light provided.	Natural light is provided within all rooms.
F4.2	Methods of extent of natural light	50% of windowsills must not be more than 500mm from the floor within each children's room. Further reviews required. Current overhangs to all Playrooms mean that direct light is not available.	Only the rear room has 50% windowsills below 500mm. all other rooms do not comply with BCA provisions
F4.5	Ventilation of rooms	Bathrooms Laundry Toilets Office Children's area	All bathroom areas, laundry have been provided with mechanical exhaust. Exhaust rate could not determine compliance with BCA provisions in the absence of destructive testing and manufacturers specifications.
F4,6	Natural Ventilation	Natural ventilation of rooms is to achieve a 5% window opening of the total floor area of each room.	Natural ventilation complies except for Kinder room 1, where the opening for natural ventilation is less than 1.2m ²

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F4.8 & F4.9	Restrictions on location of sanitary compartments & Airlocks	Must not open directly into a workplace room occupied more than 1 person	Compliance achieved.
F4.12	Kitchen local exhaust		Kitchen local exhaust has been provided
G1.3	Outdoor play spaces	Outdoor play area to have enclosed sides complying with AS1926.1.	Compliance achieved. All gate latch height is above 1.5m.
H104.2	Doorways to a children's room	Where the number exceeds 21 children within a playroom at least 2 doorways widely separated as possible providing direct access to outdoor play area, or passage leading to the outside or fire isolated exit.	Rear room kinder playroom 2 does not have compliant 2 doorways
Part J1	Building Fabric	Energy consultant to determine if compliance is achieved.	Without the manufactures data it is unknown if the insulation within the wall achieves the minimum insulation R-rating. Could not determine compliance with BCA provisions in the absence of destructive testing and manufacturers specifications. .
Part J3	Building sealing	Flues, roof lights, windows, doors, exhaust fans, junctions to walls, floors and ceilings required to be sealed.	There are some pipes that have not been sealed.
Part J5	Air-conditioning & ventilation systems		Mechanical engineer to determine compliance with Part J5 provisions.
Part J6	Artificial lighting & power	Lighting calculation will determine if compliance has been achieved. Without manufacturer data on lighting BCA lumens compliance cannot be determined	Electrical engineer to determine compliance with Part J6 provisions.

Regards,

DANIEL JURIC
Building Surveyor



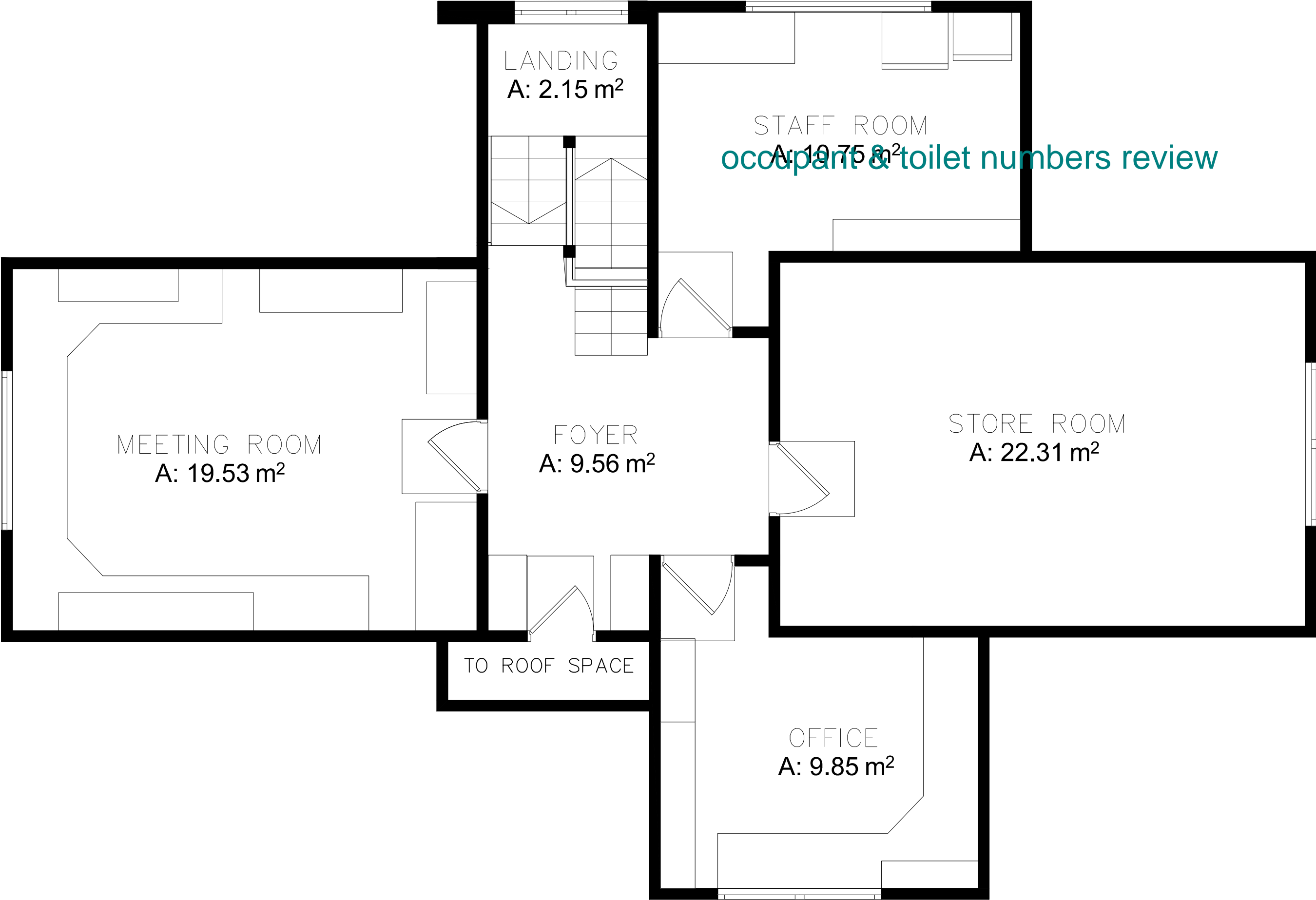
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CITY OF PORT PHILLIP
 ELWOOD CHILDCARE CTR
 46 Tennyson Street, Elwood
 (CHS-222)

DWG NO.	SHEET NO.	DATE	SCALE	REVISION
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Notes



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Elwood Childcare Centre
46 Tennyson Street, Elwood

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1 OF 1	1 OF 1	XX/XX	1:X	