BUSHFIRE DESIGN BRIEF

FOR ALTERATIONS AND ADDITIONS TO AN EXISTING CHURCH AUDITORIUM BUILDING.

Lot 1/-/DP812667
20 Centennial Circuit, Byron Bay

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PREPARED FOR: Eastgate Christian Community Inc.

INSPECTION DATE: April 30, 2024.
REPORT DATE: May 27, 2024.
REPORT ID: Eastgate_240430.

SUMMARY

The proposal contained herein has been prepared to support an application for alterations and additions to an existing church auditorium building (class 9b building) on Lot 1/-/DP812667, 20 Centennial Circuit, Byron Bay.

LandUse has compiled this Bushfire Design Brief to address bushfire planning requirements under s4.14 of the EP&A Act for the proposed alterations and additions to the Eastgate Church community auditorium building (Class 9b) located at 20 Centennial Circuit, Byron Bay.

Under Section *8.3.11- Public assembly buildings*, of Planning for Bushfire Protection:2019 (PBP2019) the proposed development at 20 Centennial Circuit, Byron Bay, has a united floor area of >500m^2 and is considered to have a comparable risk profile to a Special Fire Protection Purpose (SFPP) development due to the evacuation challenges presented by large numbers of occupants.

This Bushfire Design Brief has been prepared as part of the Bushfire Assessment Report process, to include the input of stakeholders in the development of the proposed performance solutions. This Bushfire Design Brief is to be submitted to council and the RFS, pre-lodgement of the Development Application. The outcomes of this bushfire design brief process will be documented in a bushfire assessment report, which will be submitted with the Development Application.

Development Summary:

- The initial bushfire risk assessment conducted April 30, 2024 for the proposed new alterations and additions will extend the existing main church auditorium building approximately 5.9m to the northwest and unite the existing auditorium building with the existing detached Children's Area Building via an internal doorway. Other external additions include an approximately 10m x 13.5m unenclosed flyover roof for the existing entry courtyard and a 1500mm wide veranda awning covering the external walkway between the proposed entry courtyard roof and the existing Children's Area building.

- The combined existing building and additions have a bushfire attack level greater than 40kW/m^2 i.e. Flame Zone.

- The proposed development is situated on land zoned E4: General Industrial. The proposed allotment is mapped as being within the buffer to category 3 bushfire prone vegetation. The development is situated within the buffer to Category 1 vegetation.

- Bushfire protection measures that are not able to meet the acceptable solutions are addressed in Section 4 of this report.

- An updated bushfire emergency and evacuation Plan is detailed in Appendix 4.

- This bushfire design process aims to collaboratively engage the relevant stakeholders through a performance based design process, to contribute and assess proposed trial designs for analysis in order to achieve compliance with the relevant Performance criteria through the proposed Performance Solutions. A level of redundancy has been incorporated into the trial designs.

Trial designs for consideration and development:
• Enlargement of APZ to achieve 10 kW/m^2 radiant heat exposure on existing classroom and refuge building through boundary adjustment or s88B instrument;
• Where APZ cannot practically be enlarged beyond existing boundary construction of the united auditorium/children's area building to comply with Type c construction or BAL-FZ construction, whichsoever has the higher requirement;
• New and existing masonry to provide suitable insulation for passive tenable internal environment
• BAL-FZ shutters through-out for windows and doors
• BAL-FZ shutters through-out with screens for windows and doors
• BAL-40 windows and doors throughout with attenuation screens for windows and doors • No windows or doors on northern elevation
• Proposed Steel roof as per Appendix H AS3959:2018
• Roof - Steel clad using the Appendix H Steel roof method as per BAL-FZ for AS 3959:2018 and Fire Crunch boards min FRL 60/60/60
• Enclose roofs with intumescent sealer and non-combustible linings, soffits and fascia
• Externally use of non-combustible; provision of Balustrades etc non-combustible; provision of radiant heat shielding for main entry/egress for the building; awnings non-combustible materials
• Higher resistance to bushfire induced Wind actions adopt C1. • Full vertical fire wall compartmentation of the auditorium (refuge) from the Children's Area with measures (both passive and active) to ensure a tenable internal environment and sustain utility as a refuge over a 4 hour period as per S43C9 NCCVol.1 e.g. 3hr fire doors to partition the Children's Area from the main auditorium, access to drinking water and toilets internal to the structure, ventilation/air handling system and internal recirculation to exclude smoke, increased insulation in external envelope, etc.
• Improve access arrangements to and/or within site and; no parking in front of hydrants; alter traffic conditions by removing parking along one side of the street or make Centennial Circuit one way.
• Instate static water supply and audit/upgrade of pump for hose reels. Ensure adequate back-up systems to provide redundancy.
• Evacuation and leave early procedures and triggers reviewed and updated • Development of a Pre-incident Plan in conjunction with the local NSW Rural Fire Brigade and Northern Rivers District office.

Version Control

Version	Status	Comment	Date
Eastgate_240430	1st Draft Issue	Initial proposed development: Alterations additions to the main auditorium and open covered area and walk ways.	27/05/2024

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LIST OF ACCRONYMS

AS	Australian Standard
APZ	Asset Protection Zone
BAL	Bushfire Attack Level
BCA	Building Code of Australia
IPA	Inner Protection area (Part of the APZ)
NCC	National Construction Code
NSW	New South Wales
OPA	Outer Protection area (Part of the APZ)
PBP	Planning for Bushfire Protection

1 Introduction

This Bushfire Assessment and Report has been conducted at the behest of Eastgate Christian Community to support an application for alterations and additions to an existing church auditorium building (class 9b building) on Lot 1/-/DP812667, 20 Centennial Circuit, Byron Bay, to satisfy bushfire planning requirements in accordance with the requirements under Div4.3 S4.14 of the EP&A Act (EP&A, 2010) for development on bushfire prone land.

A site inspection and assessment of the subject allotment and surrounding area has been conducted in accordance with the assessment methodology outlined in Appendix 1 PBP2019.

Architectural plans for the development by MEB Drafting Design dated 29.11.2023 are shown in Appendix 5.

Under Section *8.3.11- Public assembly buildings*, of Planning for Bushfire Protection:2019 (PBP2019) the proposed development at 20 Centennial Circuit, Byron Bay, has a united floor area of >500m^2 and is considered to have a comparable risk profile to a Special Fire Protection Purpose (SFPP) development due to the evacuation challenges presented by large numbers of occupants.

To mitigate the heightened risk profile of this development this assessment has applied:

- the general objectives of s1 PBP2019;
- the specific objectives and Bushfire Protection Measures (BPMs) of section 6 - Special Fire Protection Purpose developments of PBP 2019, as amended PBP2022; and,
- G5O1(a), (b) and (c), *NSW*G5P1 and *NSW*G5P2 of Volume 1, National Construction Code 2022 as for a Class 9b building that is a Special Fire Protection Purpose located in a designated bushfire prone area.

Development of existing SFPP facilities constructed without the benefit of current bush fire requirements need to consider providing a designated safe refuge building to accommodate all occupants in accordance with s6.4 PBP2019. A safety refuge is required to provide a radiant heat threshold of no greater than 10kW/m² and a minimum BAL-19 construction. The nominated safety refuge in this case is subject to a Bushfire Attack Level (BAL) of Flame Zone (FZ) and shall provide appropriate construction which affords buildings and their occupants protection from exposure to a bush fire.

Existing services such as water supplies and access may also require upgrading.

1.1 Aims and objectives

The aim of this Bushfire Assessment Report is to address planning controls for this development, to provide for the protection of human life and to minimise the impacts from the threat of bushfire, while having due regard to development potential, on-site amenity and protection of the environment.

General objectives outlined in 1.1 of PBP2019 are to:

- afford buildings and their occupants protection from exposure to a bush fire;
- provide for a defendable space to be located around buildings;
- provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings;
- preventing the spread of fire between buildings;
- ensure that safe operational access and egress for emergency service personnel and occupants is available;
- provide for ongoing management and maintenance of Bushfire Protection Measures; and,
- ensure that utility services are adequate to meet the needs of firefighters.

The specific objectives that apply to existing SFPP development outlined in 6.4 PBP2019 are as follows:

- provide an appropriate defendable space;
- site the building in a location which ensures appropriate separation from the hazard to minimise potential for material ignition;
- provide a better bush fire protection outcome for existing buildings;
- new buildings should be located as far from the hazard as possible and should not be extended towards or situated closer to the hazard than the existing buildings (unless they can comply with section 6.8 of planning for bushfire protection);
- ensure there is no increase in bush fire management and maintenance responsibility on adjoining land owners without their written confirmation;
- ensure building design and construction enhances the chances of occupant and building survival; and,
- provide for safe emergency evacuation procedures including capacity of existing infrastructure (such as roads).

The general and specific objectives are achieved through the Bushfire Protection Measures (BPM's) and are the relevant performance criteria as outlined in s1.4 PBP:2019 and referring to Planning for Bushfire Protection Addendum:2022 (PBP2022) which consolidates various changes and aligns Planning for Bush Fire Protection 2019 (PBP 2019) with NCC 2022.

BPM's are the relevant planning specifications and requirements that need to be satisfied to improve life safety, property protection and community resilience to bush fire attack, and include: Asset Protection Zones; Access; Construction, siting and design; Landscaping; Services; and Emergency and evacuation in accordance with tables 6.8a, 6.8b, 6.8c, and 6.8d in PBP2019 as amended by PBP2022.

2 Development and site description

2.1 Development Description

The development consists of alterations and additions to an existing church auditorium building on Lot 1/-/DP812667, 20 Centennial Circuit, Byron Bay, within the Byron Shire Council LGA. The subject allotment is zoned E4: General Industrial and DM : Deferred Matter (NSWPP, 2024).

The proposed new alterations and additions will extend the existing main church auditorium building approximately 5.9m to the northwest and unite the existing auditorium building with the existing detached Children's Area Building via an internal doorway. Other external additions include an approximately 10m x 13.5m unenclosed flyover roof for the existing entry courtyard and a 1500mm wide veranda awning covering the external walkway between the proposed entry courtyard roof and the existing Children's Area building.

The principles and criteria associated with special fire protection purpose developments in bush fire prone areas apply to this development in accordance with Section 8 and 6 of PBP2019 and addendum PBP2022.

2.2 Site Description

The allotment is situated on the northern side of Centennial Circuit on the north western edge of the Byron Arts and Industrial Estate Precinct, Byron Bay and is mapped as being within the buffer to Category 3 bushfire prone vegetation (NSWPP, 2024). Site inspection has identified that the allotment is immediately adjacent to Coastal Swamp Sclerophyll Forest with connectivity to Tyagarah Nature Reserve to the north.

The dominant bushfire hazard comes from this Forest formation vegetation on the northern aspects of the development and the derived Rainforest formation vegetation in the drainage line along the western boundary of the allotment.

The undeveloped allotment 1/-/DP794202 to the west has regrowth vegetation of grass and derived Rainforest vegetation expanding from the drainage line which separates Lot1/-/DP794202 and the subject allotment. All other aspects are developed land and accord with A1.10 Low threat vegetation – exclusions PBP2019.

The instatement of a precinct APZ is not readily viable as the hazard vegetation on the adjoining allotment to the north is Coastal Swamp Sclerophyll Forest which is a threatened ecological community under the Biodiversity Conservation Act 2016 (NSW) and Environment Protection and Biodiversity Conservation Act 1999 (Cwth). The Coastal Swamp Sclerophyll Forest also intergrades with areas mapped as Freshwater Wetlands on Coastal Floodplains (NSW EEC).

2.3 Environmental considerations

Desktop study found:

- The allotment has land mapped as Class 3 Acid Sulfate Soils.
- An AHIMS search for Lot 1/-/DP812667, with a Buffer of 50m was conducted and no Aboriginal sites are recorded in or near the above location, nor any Aboriginal places have been declared in or near the above location.
- There are no known threatened species and threatened ecological community under the Biodiversity Conservation *Act* 2016 (NSW) known to exist on the allotment.

It is outside the scope of this report to conduct detailed assessment of threatened species, populations, endangered ecological communities and critical habitat, or sites of cultural and or heritage significance, or to provide specialist geotechnical advice. Any work associated with the development is to be done with relevant approvals.

3 BUSHFIRE ASSESSMENT

3.1 BUSHFIRE ATTACK LEVEL

Bushfire Attack Level (BAL) shown in Table 1 has been determined using the simplified procedure in accordance with Appendix 1 PBP2019 and Section 2 of Australian Standard AS3959:2018

3.1.1 Relevant Fire Danger Index (FDI):

The subject site has an assumed 1:50yr FFDI of 80 in accordance with A1.6 PBP 2019 and Table 2.1 of AS3959:2018.

3.1.2 Classification of bushfire prone vegetation:

Bushfire prone vegetation has been classified in accordance with of A1.2 and A1.3 of PBP2019 and Table 2.3 of AS3959:2018.

3.1.3 Distance from classified bushfire prone vegetation

Distance from classified bushfire prone vegetation has been determined in accordance with A1.1PBP2019 and 2.2.5 of AS3959:2018.

3.1.4 Effective slope:

Effective slope has been determined in accordance with A1.4 & A1.5 of PBP and 2.2.5 of AS3959:2018.

3.1.5 Bushfire Attack Level (BAL) Combined auditorium/children's area Building

The combined building including the proposed new additions is expected to be exposed to a radiant heat flux of >40kW/m^2. Table 1 details the proposed APZ as the maximum APZ able to be achieved within the allotment and the predicted BAL's for the development. Where used, the specific predicted radiant heat values are derived using AS3959:2018 method 2 and applying the upper value of each effective slope range and a flame temperature of 1200k.

Table 1. BAL assessment for the combined auditorium/children's area building.

Direction (transect)	Veg. Class. (current distance)	Effective Slope	Proposed APZ	Minimum APZ (≤10kW/m^2 @ 1200K)*	Bushfire Attack Level (BAL)
N (0°)	Forest (5m)	Flat	3m	67m	BAL-FZ
NE (45°)	Forest (5m)	Flat	3m	67m	BAL-FZ
E (90°)	NA - Low Threat (>100m)	NA	NA	NA	BAL-Low
SE (140°)	NA - Low Threat (>100m)	NA	NA	NA	BAL-Low
S (185°)	NA - Low Threat (>100m)	NA	NA	NA	BAL-Low
SW (205°)	NA - Low Threat (>100m)	Flat	2m	38m	BAL-FZ
W (270°)	Rainforest (2m)	Flat	2m	38m	BAL-FZ
NW (320°)	Forest (6m)	Flat/upslope	2m	67m	BAL-FZ

* in accordance with Table A1.12.1 Minimum distances for APZs – SFPP developments (<10kW/m^2, 1200K) (PBP, 2019).

† in accordance with A1.10 Low threat vegetation – exclusions: existing areas of managed gardens and lawns within curtilage of buildings; and, non-vegetated areas, including roads, footpaths and buildings (PBP, 2019).

4 PERFROMANCE SOLUTIONS

The performance criteria and requirements that are not achieved by the acceptable or Deemed to Satisfy (DTS) solutions need to satisfy the relevant performance criteria and requirements through a performance based solution or through the combination of the acceptable solutions and a performance based solution.

The performance based solutions have been drafted in this section of the report, however, these suggested performance solutions are considered a draft document until such time as this process, in consultation with relevant stakeholders, is completed in accordance with the Performance Solution Process (ABCB, 2021).

Issues that have been addressed in relation to the development of performance solutions include:

- APZ non-compliance;
- Construction non-compliance;
- Access non-compliance;
- Water non-compliance; and,
- Improved emergency management and evacuation procedures

4.1 Relevant Stakeholders

The relevant stakeholders to be consulted as part of the Bushfire Design Brief in the development of the following performance solutions, are listed below:

Table 2. Showing the stakeholders to be consulted and the status of that consultation.

Stakeholders	**Comment**
Eastgate Christian Community Inc	Proponent, consultation ongoing
Bushfire planning and design	Author, consultation ongoing
Architect - MEB DRAFTING	Consultation ongoing
NSW RFS	Consult pre-DA advice via BFDB
Byron Shire Council	To be consulted – DA application

4.2 Deem to Satisfy Compliance Issues

The objectives that are unable to be met through the DTS pathway are identified and discussed here. Contained in Table 3 below are the non-compliant acceptable solutions, along with the relevant performance criteria outlined in PBP:2019, 2022 and the NCC:2022.

The non-compliance issues for the site arise from the proposed approved class 9b usage, and siting of buildings on the allotment due to:

- the close proximity of the existing buildings and the proposed alterations additions to the property boundary and vegetation hazard;
- the allotment and surrounds are subject to potential fire runs >100m from the northwest and north in forest vegetation;
- the existing and proposed development is subject to BAL-FZ;
- The minimum APZ distances between the hazard and the existing and proposed buildings are unable to be achieved on the northern aspects; and,
- the spatial constraints in implementation of BPM's, particularly regarding separation from the hazard in relation to providing an adequate APZ and the acceptability of a consequential reliance on construction standards to enable the proposed building to satisfy the aims and objectives of PBP.

Key points of note are:

1) The separation between the proposed development and the hazard is insufficient to achieve a radiant heat flux <10kW/m^2 anywhere on the site;
2) The general evacuation challenges presented by large numbers of occupants is further exacerbated by the traffic congestion that routinely occurs on the road network at and around this site, necessitating an appropriate upgrading of construction standards to facilitate internal tenability in a shelter in place scenario;
3) The proposed development unites the existing hall and the detached Children's Area via an internal doorway subsequently enabling higher construction standards for a special fire protection purpose to be applied to the whole united building.
4) The NSW RFS has an expectation that a better bush fire outcome is achieved where new development is proposed in association with existing facilities.

Table 3. Performance criteria not able to be achieved by acceptable solutions

Code	APZ – Performance Criteria	Acceptable Solutions not achieved
APZ 1	Radiant heat levels of greater than 10kW/m² (calculated at 1200K) will not be experienced on any part of the building;	An APZ is provided in accordance with Table A1.12.1 in Appendix 1 of PBP.
APZ 2	The APZ is provided in perpetuity.	APZ are wholly within the boundaries of the development site; and,
APZ 3	APZs are managed and maintained to prevent the spread of fire to the building.	Other structures located within the APZ need to be located further than 6m from the refuge building.
CODE	**CONSTRUCTION - Performance Criteria** (Table 7.4a – PBP 2019)	**Acceptable Solutions not achieved**
Construction 1	The proposed building can withstand bush fire attack in the form of embers, radiant heat and flame contact	A construction level of BAL-19 under AS 3959 or NASH Standard and section 7.5 of PBP is applied.
CODE	**CONSTRUCTION - Performance Requirement** (G5P1 NCC, Vol 1, 2022)	**Acceptable Solutions not achieved** (G5D4 and Specification 43 (NSW) NCC, Vol 1, 2022)
Construction 1	**NSW G5P1 Bushfire resistance** [2019: NSW GP5.1] A building that is constructed in a designated bushfire prone area must be designed and constructed to— (a) reduce the risk of ignition from a design bushfire with an annual exceedance probability not more than 1:100 years, or 1:200 years for a Class 9 building; and, (b) take account of the assessed duration and intensity of the fire actions of the design bushfire; and, (c) prevent internal ignition of the building and its contents; and, (d) maintain the structural integrity of the building for the duration of the design bushfire.	**G5D1 Deemed-to-Satisfy Provisions** [2019: G5.0] (1) Where a Deemed-to-Satisfy Solution is proposed, Performance Requirements G5P1 and subject to G5D2, G5P2, are satisfied by complying with G5D3 and G5D4. (2) Where a Performance Solution is proposed, the relevant Performance Requirements must be determined in accordance with A2G2(3) and A2G4(3) as applicable. **NSW G5D2 Application of Part** [2019: NSW G5.1] The Deemed-to-Satisfy Provisions of this Part apply in a designated bushfire prone area to— (a) a Class 2 or 3 building; or (b) a Class 4 part of a building; or

		(c) a Class 9 building that is a special fire protection purpose located in an area subject to a Bushfire Attack Level (BAL) not exceeding BAL—12.5, determined in accordance with Planning for Bush Fire Protection; or (d) a Class 10a building or deck immediately adjacent or connected to a building or part of a type in (a), (b) or (c). **NSW G5D4 Protection – Class 9 buildings used as a special fire protection purpose** In a designated bushfire prone area, a Class 9 building that is a special fire protection purpose or a Class 10a building or deck immediately adjacent or connected to a such a building or part, must comply with— (a) for a Class 9 building that is special fire protection purpose, Specification 43 except as amended by Planning for Bush Fire Protection; or (b) for a Class 10a building or deck immediately adjacent or connected to a Class 9 building that is a special fire protection purpose— (i) AS 3959 except as amended by Planning for Bush Fire Protection; and (ii) S43C13; or (c) the requirements of (a) or (b) above as modified by the development consent with a bushfire safety authority issued under section 100B of the Rural Fires Act 1997 for the purposes of integrated development.
Construction 2	**NSW G5P2 Additional bushfire requirements - Class 9 buildings that are a special fire protection purpose** A building that is constructed in a designated bushfire prone area and occupied by people who may be unable to readily evacuate the building prior to a bushfire must, to the degree necessary— (a) reduce the risk of an untenable indoor environment for occupants during a bushfire event, appropriate to the— (i) location of the building relative to fire hazards, including— (A) classified vegetation; and (B) adjacent buildings, structures and movable objects; and (C) carparking areas and allotment boundaries; and (D) other combustible materials; and (ii) number of occupants to be accommodated within the building; and (iii) intensity of bushfire attack on the building; and (iv) duration of occupancy; and (v) intensity of potential consequential fires; and	**NSW G5D4 Protection – Class 9 buildings used as a special fire protection purpose** [New for 2022] In a designated bushfire prone area, a Class 9 building that is a special fire protection purpose or a Class 10a building or deck immediately adjacent or connected to a such a building or part, must comply with— (a) for a Class 9 building that is special fire protection purpose, Specification 43 except as amended by Planning for Bush Fire Protection; or (b) for a Class 10a building or deck immediately adjacent or connected to a Class 9 building that is a special fire protection purpose— (i) AS 3959 except as amended by Planning for Bush Fire Protection; and (ii) S43C13; or (c) the requirements of (a) or (b) above as modified by the development consent with a bushfire safety authority issued under section 100B of the Rural Fires Act 1997 for the purposes of integrated development.

	(vi) occupant tenability within the building before, during and after the bushfire event; and (vii) combined effects of structural, fire exposure and other effects to which the building may reasonably be subjected; and (viii) provision of fire fighting equipment and water supply to facilitate protection of the building; and (b) be provided with vehicular access to the site to enable firefighting and emergency personnel to defend or evacuate the building; and (c) have access to a sufficient supply of water for firefighting purposes on the site; and (d) provide safe access within the site to the building (including carparking areas), as well as safe egress after the bushfire event.	
CODE	**CONSTRUCTION - Performance Criteria**	**Acceptable Solutions not achieved** (– PBP 2019)
Construction 3	Proposed fences and gates are designed to minimise the spread of bush fire.	Fencing and gates are constructed in accordance with section 7.6 of PBP.
Construction 4	**Internal Tenability** Proposed Class 10a buildings are designed to minimise the spread of bush fire.	Class 10a buildings are constructed in accordance with section 6.3.2 of PBP and
Emergency management and Evacuation 1	appropriate and adequate management arrangements are established for consultation and implementation of the Bush Fire Emergency Management and Evacuation Plan.	an Emergency Planning Committee is established to consult with families and staff in developing and implementing an Emergency Procedures Manual;
Emergency management and Evacuation 2	a Bush Fire Emergency Management and Evacuation Plan is prepared.	the Bush Fire Emergency Management and Evacuation Plan should include planning for the early relocation of occupants.

4.2.1 APZ Non-Compliance

Based on the existing APZ, the existing church auditorium has a bushfire attack level of Flame Zone on the northern and western exposures and cannot meet the acceptable solutions of PBP to satisfy the performance criteria for the APZ by providing sufficient separation from the hazard vegetation to achieve a radiant heat flux $\leq$10kW/m^2.

Acceptable solutions for APZ 1 – APZ 2 performance criteria shown in Table 3 cannot be achieved on the southern and southwestern aspects due to site restrictions including:

- The hazard vegetation is on the neighbouring allotments;
- The hazard vegetation to the north has very high biodiversity values with land identified as Threatened Ecological Community and Threatened species or communities with potential for serious and irreversible impacts s. 6.5 of the Biodiversity Conservation Act 2016, Coastal Management Act – Wetlands and Land identified by Environment Agency Head as being of sufficient biodiversity value;

- The lack of available area within or external to the allotment to increase the size of the APZ to achieve a radiant heat flux $\leq$10kW/m^2;

4.2.2 Construction non-compliance

For class 9b buildings that are a SFPP the NSW planning system limits radiant heat exposure under the NCC DTS pathway to be within the BAL-12 category, with required minimum APZ distances providing the minimum separation to meet 10kW/m^2 received at the building, and requires such buildings to be constructed to BAL-19 under sections 3 and 6 of AS3959:2018 and the NCC:2022 vol 1 as amended by Planning for bushfire Protection:2019; and, 2022. Section 7.5 of Planning for Bushfire Protection is also to be applied.

Where the appropriate APZ is not able to be achieved, it is proposed that a commensurate increase in construction standards will provide the majority of the protection measures for the structure. The construction performance criteria of PBP:2019 have been assigned the same code as the construction performance requirements of the NCC, as they effectively identify the same issue: construction exposed to >10kW/m^2 requires a performance solution.

As AS3959:2018 will be utilised as the primary comparative standard to meet the performance requirements, s9.1 AS3959:2018 requires that the construction systems of elevations that are located <10m from the hazard i.e. north and west, conform to AS1530.8.2. The construction systems of elevations >10m from the hazard are to conform to AS1530.4 with a minimum FRL of -/30/30 or 30/30/30 tested from outside.

4.2.3 Access Non-compliance

The access performance criteria are unable to be met through the acceptable solutions outlined in PBP. Access non-compliance arises from:

a) the narrow streets of the Byron Arts and Industrial Estate are often choked with parked cars of both sides of the road making the remaining road width inadequate and unsafe for passing traffic. Passage for larger vehicles in two-way traffic is difficult, very slow and not possible in some circumstances. Congestion in an evacuation scenario is likely to limit both access to and egress from the site;
b) access to the hydrant located on the road verge at the front of the building is blocked by parked cars. A Fire appliance wishing to access the hydrant would potentially be forced to either block the functionally single lane roadway or the entry to the development car park;
c) The access to the furthest façade of the building is >90m from hydrant on the street frontage;
d) there is no scope to provide continuous forward movement of emergency vehicles around the buildings or to access the hazard vegetation;

4.2.4 Emergency management and evacuation non-compliance

The emergency management and evacuation performance criteria are able to be met through the acceptable solutions outlined in PBP. However, it is included here as it has co-dependencies with other non-compliant BPMs and is the highest order control i.e. close the site during high-risk bushfire weather. Particular attention to the triggers and procedures shown in Appendix 3 to enact the early closure of the site and early evacuation provides the best bushfire protection outcome for the protection of large numbers of vulnerable persons using the site. Provision of construction standards to withstand the impact of a bushfire at this site is the redundancy to the failure of early evacuation requiring a shelter in place event.

4.3 Preventative/Protection Measures

Intensification of the use or increase in occupancy must consider the risk to occupants and firefighters. Where practically achievable, full compliance should be provided before variations to the required BPMs are considered.

Existing SFPP facilities constructed without the benefit of current bush fire requirements need to consider providing a designated safe refuge building to accommodate all occupants. The safe refuge cannot provide a radiant heat threshold of no greater than 10kW/m² with a minimum BAL-19 construction.

This performance solution seeks to provide substantive improvements to life safety outcomes for the site in a bushfire event through the implementation of the practically achievable bushfire protection measures, compared to the status quo if the development were not to proceed.

The proposed preventative and protective measures (Table 4) to provide compliance with the performance criteria and performance requirements under PBP2019 as amended and the NCC2022 are broadly outlined as being achieved through: upgrade the construction of the existing auditorium and Children's Area building to BAL-FZ in conjunction with the new additions and alterations to conform with the NCC for a performance solution; provide a full vertical fire wall compartmentation between the auditorium and children's area buildings; upgrade the existing auditorium to provide a tenable environment for a shelter in place as last resort event; upgrade the existing access to the reticulated water supply; provide a static water supply; upgrade the existing Bushfire Emergency Management and Evacuation Plan.

The proposed preventative and protective measures are shown in Table 4, they place strong reliance on the upgrading construction as the most desirable outcome because it provides a high level of passive Bushfire Protection and they also achieve and consolidate multiple performance outcomes into the future by:

1) Providing clear triggers and procedures for closing the site and for early evacuation of the site by upgrading the Bushfire Emergency Management and Evacuation Plan;
2) Providing the best level of safety and protection from bushfire for the vulnerable occupants of the site where early evacuation is not possible;
3) Providing a substantive level of protection refuge where early evacuation is not possible or an inability to evacuate requires a shelter in place response during a bushfire emergency;
4) Reducing the risk and impacts of building to building ignition at the urban interface, particularly on the auditorium building;
5) Providing better capacity of the response to bushfire emergencies by ensuring unimpeded access to existing services and water supply.

Table 4. Preventative/Protection Measures.

Code	Preventative/Protection Measures
APZ 1	Expand the APZ to achieve the required maximum radiant heat exposure of 10kW/m^2 through acquisition or through a section 88B instrument. Approach Byron Council regarding the implementation of an APZ along the urban interface
APZ 2	Where buildings are less than 6m apart, upgrading of construction of buildings under S43C3 - *Separation between buildings* of the NCC volume One to reduce building to building ignition of the auditorium building.
Landscaping	Manage the whole APZ as an IPA in accordance with the standards for asset protection zones, Planning for Bushfire Protection.

Code	Preventative/Protection Measures
Construction	The expansion of the APZ beyond the current boundary is not possible to meet the required maximum radiant heat flux of 10kW/m^2 for the combined public assembly requiring an appropriate increase in construction standards to meet BAL-FZ AS 3959:2018.
Construction 1 (New additions to auditorium)	New additions to meet requirements for BAL-FZ construction as per AS 3959:2018 or Type C construction NCC2022 which so ever has the higher requirement e.g. FRL. Full vertical fire wall compartmentation of the auditorium (refuge) from the Children's Area with measures (both passive and active) to ensure a tenable internal environment and sustain utility as a refuge over a 4 hour period as per S43C9 NCCVol.1 e.g. 3hr fire doors to partition the Children's Area from the main auditorium, access to drinking water and toilets internal to the structure, ventilation/air handling system and internal recirculation to exclude smoke, increased insulation in external envelope, etc. Development with architect required. Whirly Birds sealable and insulate internal during bushfire or remove.
	Walls – Continuation of the existing masonry block wall in the new additions. Non-combustible materials, insulation and thermal resistance; minimum FRL 60/60/60 Type C single Storey loadbearing >3m from fire source feature various systems and textures available e.g. based on blockwork external and/or internal lightweight construction sheet materials. Finishes should not promote flaming.
	Windows and doors – BAL-FZ Shutters with or without BAL-40 windows and doors, use of louvers not permitted to exclude smoke and hot gases. BAL-40 compliant windows with boxed out Screens metal framed and 316 stainless 0.9mm mesh to provide heat diffusion and protection from Flying Object Debris. Fire door between auditorium and Children's Area to meet or exceed the FRL of the fire wall for integrity and insulation
	Roof – AS 3959:2018 Appendix H steel roof system with; non-combustible sarking and rated backing boards e.g. sheet system such as *FireCrunch* or Promatect®-100; Min FRL60/60/60; enclose gables, soffits and fascias; gutter guards; down pipes and to be metal.
	Verandas, decks, steps and landings – All non-combustible materials. Or, provide full enclosure with BAL-FZ rated shutters or Screens with 316 stainless 0.9mm mesh to provide heat diffusion and protection from Flying Object Debris.
Construction 2 (existing auditorium)	**Walls** – Existing is masonry block. Replace any combustible materials with non-combustible materials; raise internal insulation and thermal resistance; min FRL 60/60/60 Type C single Storey loadbearing >3m from fire source feature, various systems and textures available. Finishes should not promote flaming.
	Windows and doors – BAL-FZ Shutters with or without BAL-40 rated windows and doors, use of louvers not permitted to exclude smoke and hot gases. Screens where fitted to be 316 stainless 0.9mm mesh to provide heat diffusion and protection from Flying Object Debris.

Code	Preventative/Protection Measures
	Roof – Upgrade to AS 3959:2018 Appendix H steel roof system with; non-combustible sarking and rated backing boards e.g. sheet system such as *FireCrunch* or Promatect®-100; min FRL 60/60/60; enclose gables, soffits and fascias; gutter guards; down pipes and to be metal.
	Verandas, decks, steps and landings – All non-combustible materials. Or, provide full enclosure with BAL-FZ rated shutters or other system e.g. Screens where fitted to be 316 stainless 0.9mm mesh to provide sufficient heat diffusion and protection from Flying Object Debris.
Construction 3	Any existing or proposed fences, screens, lattice, gates and the like are constructed wholly of non-combustible materials
Construction 4	**Provision of tenable conditions**- Provide a tenable internal environment for a minimum 60 minutes. Internal air temperature (unassisted) of $\leq 35^{oc}$ are preferable with a maximum of 45^{oc}. Materials used for construction that are likely to give off gas when exposed to temperatures exceeding 100^{oC} should not unduly influence the interior air toxicity and tenable environment. Ventilation such as a mechanical air-handling system to ensure a tenable environment may be required, passive ventilation can be provided by openings such as doors or other devices that, when open, have an aggregate open area of not less than 5% of the floor area of the refuge area (auditorium). Ensure internal Air volume is sufficient for a min of one hour. Redundancies against power loss.
Access 1	Upgrading the access to the hydrant by enacting and enforcing no parking zones in front of hydrants and removing parking from one side of the street or instating one way only streets in Industrial precinct.
Access 2	Instate additional property access so that firefighting vehicles can access the buildings and hazard vegetation and exit the property safely.
Static Water Supply	Static Water Supply and any firefighting equipment adequately protected from embers heat and flame. Dedicated SWS tank(s) for firefighting to accommodate water supply requirements for 10,000L per building and where the APZ cannot achieve $10kW/m^2$ at the refuge, an additional 20,000L for the refuge building; tank and pipework to be metal and pipework and protected.
Static Water Supply Utilities	Where proposed or required the fire hoses and any proposed Bushfire sprinkler system for mitigation of ember attack for the roof, walls and other components; and, heat attenuation for critical components such as gas battles and glazing elements, must be adequate to provide 4hrs runtime at the maximum flowrate: Pump infrastructure is to auto start from inside the refuge building and be protected from embers, radiant heat and flame;

Code	Preventative/Protection Measures
Static Water Supply Utilities	Provide underground electricity supply to the buildings; Gas bottles separated from buildings; Gas bottle enclosure shielded from radiant heat; piping supports have an FRL>30/30/30; Heat attenuation via bushfire sprinkler system; and, piping all metal.
Maintenance	Occupant characteristics are expected to be as for a special fire protection purpose public assembly building for the life of the building. Regular scheduled maintenance and testing of systems is critical.
Bushfire Emergency Management and Evacuation	Emergency response may be unreliable in a bushfire situation, under a performance solution there is an assumption that there is no active protection of the property. All SFPP facilities in bushfire prone areas are required to have, and enact, a bushfire emergency management and evacuation plan.
Bushfire Emergency management and evacuation Plan	Upgrading of the plan to include triggers for action: set and monitor a set of watch-zones as a trigger for action (e.g. notification of a fire <15km, <10km, , <5km) in Hazards near me App; set and monitor a bushfire weather trigger for closing the site on days with FBI of ≥45 or an FDR of extreme (FBI ≥50); procedure for securing availability and "on standby" status of emergency evacuation transport on days with a FDR of High (FBI 24-49); alternative arrangements or closure triggers; procedure for differentiating evacuation to external assembly point or refuge building. Development of a Pre-incident Plan (PIP) with local NSWRFS and Fire+Rescue brigades and the NSWRFS Far North Coast District Office.

4.4 Trial Designs for Analysis

The construction trial designs for consideration are outlined in Table 5 below.

Table 5. Trial designs for consideration and development.

Construction Element	Trial Design options
General	Enclosing the vents and openings as per AS 3959:2018 BAL FZ is considered a universal requirement
	Resist Wind actions (G5P1) during a bushfire by applying a higher standard of tiedown and joint fixings by adoption of the cyclonic design wind classification with C1 as the minimum standard to provide a minimum 115km/h design windspeed.
Floors	Junctions between walls and slab on ground floors sealed against ember gaps, any slab insulation exposed to bushfire attack or provides a thermal expansion buffer role must be non-combustible.
Walls	Existing and new masonry wall system to provide a min FRL of 60/60/60. Use non-combustible sarking such as TBA Firefly™ or FireSark® vapour permeable membranes. All penetrations to be non-combustible and gaps such as vents, weep holes, joints and the like are to be screened with 316 stainless 0.9mm mesh. Jointing compounds and mastics shall be a suitably rated intumescent sealer.
	Full vertical fire wall compartmentation between the Children's Area building and the auditorium building as the refuge building.

Construction Element	Trial Design options
Windows	BAL-FZ rated shutters through-out for windows and doors with 316 stainless 0.9mm mesh screens.
	BAL-FZ shutters through-out with BAL-40 windows and doors.
	BAL-FZ windows and doors and 316 stainless 0.9mm mesh screens throughout. Screens to cover both the openable and fixed portions of the whole window or door assembly to resist Flying Object Debris.
	BAL-FZ compliant windows and doors and 316 stainless 0.9mm mesh screens throughout, boxed out to provide suitable attenuation to glass and internal environment. Screens to cover both the openable and fixed portions of the whole window to resist Flying Object Debris.
Doors	As for Windows above
Roof	Colorbond or galvanized corrugated sheet @ >5°pitch or Trimdek or similar sheet @ <5°pitch with Colorbond or galvanized fascia & gutter as components of the Steel roof system as per Appendix H AS3959.
	Colorbond corrugated sheet @ >5°pitch or Trimdek or similar sheet @ <5°pitch with Colorbond fascia & gutter as components of the Steel roof system as per Appendix H AS3959 with FRL 60/60/60 backing board such as FireCrunch 10mm board each side of frame plus a R 2.5 Fire batt, or, Promatect®-100 20mm board and non-combustible sarking such as TBA Firefly™ or FireSark® vapour permeable membranes. Additional radiant heat shielding to maintain tenable internal temperature.
Verandahs, decks, steps and landings	non-combustible i.e. steel, concrete or masonry.
	Non-combustible materials; stairs and provision of Balustrades etc non-combustible; provision of radiant heat shielding for entry/egress for the building; any awnings etc constructed of non-combustible materials
Other buildings <6m	Upgrade Construction to BAL FZ where necessary.

4.5 Methods of Analysis

The NCC A2G2 lists the following Assessment Methods which are able to be applied singularly, or in any combination, to demonstrate meeting the NCC performance requirements. The approaches and methods of analysis outlined below will be applied in combination.

Evidence of suitability (E) - Includes: test reports; certificates of conformity or accreditation; or, any other documentary evidence that supports suitability. Test results as per AS1530.8.1 and AS1530.8.2 provide evidence of suitability to construction systems and components to resist radiant heat and flaming.

Comparison with the DTS Provisions (C) - A DTS comparison needs to demonstrate that the performance solution has an equal to or greater level of performance compared to the DTS provision to meet the performance requirement. Comparison with relevant sections of AS3959 can demonstrate how a component or system is equal to or better than the prescribed method.

Verification Methods (V) - Verification Methods are tests or calculation methods that prescribe one way to comply with the Building Code. Verification Methods can include: calculation methods: using recognised analytical methods and mathematical models. Verification methods outlined in the NCC provide prescribed methodologies to demonstrate meeting the performance requirements. Non-NCC verification methods are only to be used where deemed acceptable by the approval authority. G5V1 - *Buildings in bushfire prone areas* does not apply to a Class 9 building.
Expert Judgement (J) - Undertaken by a person with sufficient relative qualifications and experience. Usually applied in conjunction with substantial supporting evidence where the performance requirements are difficult to quantify or where there are no assessment criteria

For a building that is subject to G5P2, and therefore outside the scope of G5V1, the building would need to comply with either—
(a) Performance Requirement G5P2 by means of a Performance Solution; or,
(b) the Deemed-to-Satisfy Provisions of G5D4 if the building is located in an area subject to a Bushfire Attack Level (BAL) not exceeding BAL – 12.5. Where the building is subject to a BAL exceeding BAL—12.5, the building would need to comply with Performance Requirement G5P2 by means of a Performance Solution. There are no Deemed-to-Satisfy Provisions for these buildings.

4.6 Acceptance Criteria

The acceptance criteria Table 6 have been selected to provide consistency and to link the general planning objectives, the Performance Requirements, and the analysis methods.
As the BPM's are applied in combination, the acceptance criteria parameters, may similarly be used singularly or in conjunction with each other.
As an equivalence approach is used widely here, the same criteria as the reference standard DTS Provisions are to be applied for consistency in evaluation.

Table 6. Showing the acceptance criteria parameters for the analysis grouped according to general objectives.

General objectives	Acceptance Criteria Parameters
Afford buildings and their occupants protection from exposure to a bush fire	Embers Radiant Heat Flame contact smoke APZ Landscaping fuel load and arrangement Construction
Provide for a defendable space to be located around buildings	APZ Access Landscaping fuel load and arrangement Radiant heat Flame contact
Provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings	APZ Landscaping fuel load and arrangement Radiant heat Flame contact

Preventing the spread of fire between buildings	Separation distances FRL Radiant heat from structure fire Flame impingement
Ensure that safe operational access and egress for emergency service personnel and occupants	Facilitate fire services intervention Access/Condition/equipment Road widths, grade surface, turning radii Radiant heat exposure of access pathways
Provide for ongoing management and maintenance of Bushfire Protection Measures	Bushfire emergency management and evacuation Plan Inspection and Maintenance schedule Systems testing
Ensure that utility services are adequate to meet the needs of firefighters	Water Supply Electricity lines location Gas lines Gas bottles location and shielding
Specific Objectives	**Acceptance Criteria Parameters**
Provide an appropriate defendable space;	APZ Access Landscaping fuel load and arrangement Radiant heat Flame contact
Site the building in a location which ensures appropriate separation from the hazard to minimise potential for material ignition;	APZ Access Landscaping fuel load and arrangement Radiant heat Flame contact
Provide a better bush fire protection outcome for existing buildings;	Construction can withstand modes of bushfire attack Maintains tenable internal environment
New buildings should be located as far from the hazard as possible and should not be extended towards or situated closer to the hazard than the existing buildings (unless they can comply with section 6.8 of planning for bushfire protection)	APZ Access Landscaping fuel load and arrangement Radiant heat Flame contact
Ensure there is no increase in bush fire management and maintenance responsibility on adjoining land owners without their written confirmation;	APZ Access to hazard Landscaping fuel load and arrangement Radiant heat Flame contact
Ensure building design and construction enhances the chances of occupant and building survival; and,	Construction can withstand modes of bushfire attack Maintains tenable internal environment
Provide for safe emergency evacuation procedures including capacity of existing infrastructure (such as roads).	Bushfire evacuation planning triggers and actions for closure, early evacuation, emergency evacuation and shelter in place scenarios.

4.7 Bush Fire Scenarios and Parameters for Bush Fire Design Fires

The parameters of the bushfire design fire are used to determine the impact on the public assembly building from a bushfire. The separation distance in this instance means that there is no benefit to utilising a refined locally specific input values for the design fire model as the practical implications of the combination of the Forest fuel loading with <10m separation are such that, despite any possible reduction in the total radiant heat, the flame lengths produced far outreach the separation distance between the structure and the hazard.

The DTS Design fire used is as per Planning for Bushfire Protection:2019 utilising Method 2 AS 3959:2018. Planning for Bushfire protection uses the upper values of the nominal regional fire weather for this location of FFDI 80, Forest vegetation type fuel loads, effective slope of Flat 0º slope and separation distances of up to 100m. SFPP developments calculate radiant heat using a flame temperature of 1200K. The output values are in kW/m^2 categorised to BAL levels.

4.8 Standards of construction, commissioning and maintenance

To ensure confidence and reliability in designs that rely on materials and systems to satisfy performance it is important that the designer be satisfied in the exercising of due diligence regarding conformity to appropriate: standards and tests; accredited QA or certification schemes; installation requirements; commissioning tests; and, maintenance and replacement schedules. This may also include the need for site inspections during construction.

Compliance certificates for bushfire shutters, for example, are only issued upon completion of installation to certify that both the product and the installation, comply as a complete system.

The NCC G5 also requires consideration of the probability of non-complying construction of critical aspects of the approved design; and the probability of critical aspects of an approved design being fully functional during the life of the building.

The adopted designs must document how these matters have been addressed for compliant construction and maintenance of critical features. A level of redundancy over and above the minimum requirements has been adopted.

5 CONCLUSION

This active design process aims to collaboratively engaged the relevant stakeholders to assess the deem to satisfy non-compliance issues in relation to the development and has identified trial designs for analysis that are likely to satisfy the performance criteria of PBP and the performance requirements of the NCC, and, whether they are suitable for application into the subject building. At the end of the design consultation process the outcome will be incorporated into the final Bushfire Design Report that documents the bushfire design brief process and how the chosen performance solutions satisfy the performance criteria and performance requirements of PBP and the NCC.

6 REFERENCES

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APPENDIX 1-1. APZ AND LANDSCAPING - PERFORMANCE CRITERIA AND ACCEPTABLE SOLUTIONS

APZ Performance Criteria (Table 6.8a – PBP 2019	**Acceptable solutions**	**Note** C = Compliance required. NC = Not compliant NA = Not applicable
Radiant heat levels of greater than 10kw/m² (calculated at 1200K) will not be experienced on any part of the building.	The building is provided with an APZ in accordance with Table A1.12.1 in Appendix 1.	NC.
APZs are managed and maintained to prevent the spread of a fire to the building.	APZs are managed in accordance with the requirements of Appendix 4 of PBP and is wholly within the boundaries of the development site.	C.
Landscaping is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind-driven embers to cause ignitions.	landscaping is in accordance with Appendix 4; and fencing is constructed in accordance with section 7.6.	C.
APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is minimised.	APZ are located on lands with a slope less than 18 degrees.	C.
The APZ is provided in perpetuity.	APZs are wholly within the boundaries of the development site and other structures located within the APZ need to be located further than 6m from the refuge building.	C.

APPENDIX 1-2. CONSTRUCTION - PERFORMANCE CRITERIA AND ACCEPTABLE SOLUTIONS

CONSTRUCTION Performance Criteria (Table 6.8a – PBP 2019)	**Acceptable solutions**	**Note** C = Compliance required. NC = Not compliant NA = Not applicable
The proposed building can withstand bush fire attack in the form of embers, radiant heat and flame contact	a construction level of BAL-19 or greater under AS 3959 or NASH Standard and section 7.5 of PBP is applied.	NC.
Landscaping is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind-driven embers to cause ignitions.	landscaping is in accordance with Appendix 4; and, fencing is constructed in accordance with section 7.6 of PBP.	C.

Proposed Class 10a buildings are designed to minimise the spread of bush fire.	Class 10a buildings are constructed in accordance with section 8.3.2 or PBP.	C.

APPENDIX 1-3. ACCESS - PERFORMANCE CRITERIA AND ACCEPTABLE SOLUTIONS

ACCESS Performance Criteria (Table 6.8b – PBP 2019)	**Acceptable Solutions**	**Note** C = Compliance required. NC = Not compliant NA = Not applicable
Firefighting vehicles are provided with safe, all-weather access to structures and hazard vegetation.	SFPP access roads are two-wheel drive, all-weather roads;	C.
	Access is provided to all structures	C.
	Traffic management devices are constructed to not prohibit access by emergency services vehicles;	C.
	Access roads must provide suitable turning areas in accordance with Appendix 3	NC.
	one way only public access roads are no less than 3.5 metres wide and have designated parking bays with hydrants located outside of these areas to ensure accessibility to reticulated water for fire suppression.	NC.
	Vehicular access must be capable of providing continuous access for emergency vehicles to enable travel in a forward direction from a public road around the entire building; and	NC.
	Must have a minimum unobstructed width of 6m with no part of its furthest boundary more than 18m from the building and in no part of the 6m width be built upon or used for any purpose other than vehicular or pedestrian movement; and	NC.
	Must provide reasonable pedestrian access from the vehicular access to the building; and	C.
	Must have a load bearing capacity and unobstructed height to permit the operation and passage of fire fighting vehicles; and	C.
	Must be wholly within the allotment except that a public road complying with above may serve as the vehicular access or part thereof.	C.
The capacity of access roads is adequate for firefighting vehicles.	The capacity of road surfaces and any bridges/causeways is sufficient to carry fully loaded firefighting vehicles (up to 23 tonnes), bridges and causeways are to clearly indicate load rating.	C.
There is appropriate access to water supply.	There is suitable access for a Category 1 fire appliance to within 4m of the static water supply where no reticulated supply is available.	C.
perimeter access roads are designed to allow safe access and egress for firefighting vehicles while occupants are evacuating as well as providing a safe operational environment for emergency service personnel during firefighting and emergency management on the interface.	there are two-way sealed roads;	NA
	minimum 8m carriageway width kerb to kerb;	NA
	parking is provided outside of the carriageway width;	NA
	hydrants are to be located clear of parking areas;	NA
	there are through roads, and these are linked to the internal road system at an interval of no greater than 500m;	NA
	curves of roads have a minimum inner radius of 6m;	C.

	the maximum grade road is 15 degrees and average grade of not more than 10 degrees	NA
Non-perimeter access roads are designed to allow safe access and egress for firefighting vehicles while occupants are evacuating.	minimum 5.5m carriageway width kerb to kerb;	C.
	parking is provided outside of the carriageway width;	C.
	hydrants are located clear of parking areas;	C.
	there are through roads, and these are linked to the internal road system at an interval of no greater than 500m;	C.
	curves of roads have a minimum inner radius of 6m;	C.
	the maximum grade road is 15 degrees and average grade of not more than 10 degrees	C.
	the road crossfall does not exceed 3 degrees; and	C.
	a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided.	C.

APPENDIX 1-4. WATER SUPPLY PERFORMANCE CRITERIA AND ACCEPTABLE SOLUTIONS

WATER SUPPLIES **Performance Criteria** **(Table 6,8c – PBP 2019)**	**Acceptable Solutions**	**Note** C = Compliance required. NC = Not compliant NA = Not applicable
An adequate water supply is provided for firefighting purposes.	Reticulated water is to be provided to the development, where available; and	C.
	Water for firefighting purposes must be made available and consist of – • A fire hydrant system installed in accordance with AS 2419.1: 2021 Fire hydrant installations – System design, installation and commissioning.; or • Where no reticulated water is available, a static water supply consisting of tanks, swimming pools, dams or the like, or a combination of these, together with suitable pumps, hoses and fittings, determined in consultation with NSW RFS that – ➢ is capable of providing the required flow rate for a period of not less than 4 hours; or ➢ has a volume of 10,000 litres for each occupied building.	C.
	a 10,000 litres minimum static water supply for firefighting purposes is provided for each occupied building where no reticulated water is available.	C.

Water supplies are located at regular intervals; and, The water supply is accessible and reliable for firefighting operations.	Fire hydrant spacing, design and sizing comply with the relevant clauses of AS 2419.1: 2021 Fire hydrant installations – System design, installation and commissioning.;	NA
	Hydrants are not located within any road carriageway; and	NA
	Reticulated water supply to SFPPs uses a ring main system for areas with perimeter roads.	NA
Flows and pressure are appropriate	Fire hydrant flows and pressures comply with the relevant clauses of AS 2419.1: 2021 Fire hydrant installations – System design, installation and commissioning.	C.
The integrity of the water supply is maintained.	All above-ground water service pipes external to the building are metal, including and up to any taps.	C.
Water supplies are adequate in areas where reticulated water is not available.	a connection for firefighting purposes is located within the IPA or non hazard side and away from the structure; a 65mm Storz outlet with a ball valve is fitted to the outlet;	C.
	Ball valve and pipes are adequate for water flow and are metal;	C.
	Supply pipes from tank to ball valve have the same bore size to ensure flow volume	C.
	Underground tanks have an access hole of 200mm to allow tankers to refill direct from the tank	C.
	A hardened ground surface for truck access is supplied within 4m of the access hole	C.
	Above-ground tanks are manufactured from concrete or metal	C.
	Raised tanks have their stands constructed from non-combustible material or bush fire-resisting timber (see Appendix F AS 3959)	C.
	Unobstructed access is provided at all times	C.
	Tanks on the hazard side of a building are provided with adequate shielding for the protection of firefighters	C.
	Underground tanks are clearly marked.	C.
	All exposed water pipes external to the building are metal, including any fittings	C.
	where pumps are provided, they are a minimum 5hp or 3kW petrol or diesel-powered pump, and are shielded against bush fire attack; Any hose and reel for firefighting connected to the pump shall be 19mm internal diameter	C.
	fire hose reels are constructed in accordance with AS/NZS 1221:1997 Fire hose reels, and installed in accordance with the relevant clauses of AS 2441:2005 Installation of fire hose reels.	C.

APPENDIX 1-5. ELECTRICITY AND GAS SERVICES - PERFORMANCE CRITERIA AND ACCEPTABLE SOLUTIONS

ELECTRICITY SERVICES Performance Criteria (Table 6.8c – PBP 2019)	**Acceptable Solutions**	**Note** C = Compliance required. NC = Not compliant NA = Not applicable
Location of electricity services limits the possibility of ignition of surrounding bush land or the fabric of buildings.	Where practicable, electrical transmission lines are under .	C.
	Where overhead, electrical transmission lines are proposed as follows:	C.
	Lines are installed with short pole spacing (30m), unless crossing gullies, gorges or riparian areas; and	C.
	No part of a tree is closer to a power line than the distance set out in accordance with the specifications in ISSC3 Guideline for Managing Vegetation Near Power Lines.	C.

GAS SERVICES Performance Criteria (Table 6.8a – PBP 2019)	**Acceptable Solutions**	**Note** C = Compliance required. NC = Not compliant NA = Not applicable
Location and design of gas services will not lead to ignition of surrounding bushland or the fabric of buildings.	Reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 and the requirements of relevant authorities, and metal piping is used.	C.
	All fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side.	C.
	Connections to and from gas cylinders are metal.	C.
	if gas cylinders need to be kept close to the building, safety valves are directed away from the building and at least 2m away from any combustible material, so they do not act as a catalyst to combustion;	C.
	Polymer-sheathed flexible gas supply lines are not used; and	C.
	Above-ground gas service pipes are metal, including and up to any outlets.	C.

APPENDIX 1-6. EMERGENCY MANAGEMENT PLANNING- PERFORMANCE CRITERIA AND ACCEPTABLE SOLUTIONS

EMERGENCY MANAGEMENT PLANNING **Performance Criteria** **(Table 6.8d – PBP 2019)**	**Acceptable Solutions**	**Note** C = Compliance required. NC = Not compliant NA = Not applicable
A Bush Fire Emergency Management and Evacuation Plan is prepared.	Bush Fire Emergency Management and Evacuation Plan is prepared consistent with the: • The NSW RFS document: A Guide to Developing a Bush Fire • Emergency Management and Evacuation Plan; • NSW RFS Schools Program Guide; and, • Australian Standard AS 3745:2010 Planning for emergencies in facilities	C.
	The Bush Fire Emergency Management and Evacuation Plan should include planning for the early relocation of occupants. Note: A copy of the Bush Fire Emergency Management and Evacuation Plan should be provided to the Local Emergency Management Committee for its information prior to occupation of the development.	C.
Appropriate and adequate management arrangements are established for consultation and implementation of the Bush Fire Emergency Management and Evacuation Plan.	An Emergency Planning Committee is established to consult with residents (and their families in the case of aged care accommodation and schools) and staff in developing and implementing an Emergency Procedures Manual; and	C.
	Detailed plans of all emergency assembly areas including on site and off-site arrangements as stated in AS3745:2010 are clearly displayed, and an annually emergency evacuation is conducted.	C.

APPENDIX 2. SITE OVERVIEW AND BAL ASSESSMENT

APPENDIX 3. - SPECIFICATION 43 REQUIREMENTS

SPECIFICATION 43 - BUSHFIRE PROTECTION FOR CERTAIN CLASS 9 BUILDINGS (NSW) NCC:2022 VOLUME ONE		
Clause	**Application**	**Requirements**
S43C1	Scope	(1) This Specification sets out bushfire protection measures for buildings described in G5D4. (2) Compliance with this Specification does not guarantee the safety of building occupants or the maintenance of tenable conditions within a building during a bushfire event.
S43C2	Separation from classified vegetation	S43C2 does not apply in NSW as Asset Protection Zones must be determined in accordance with Planning for Bush Fire Protection.
S43C3	Separation between buildings	(1) The building must be located not less than 12 m from any other building. (2) The separation distance required by (1) need not be complied with if the building is constructed— (a) with external walls that have an FRL of not less than 60/60/60 when tested from the outside, including any openings protected in accordance with AS 3959 for BAL—19 or greater; or (b) for external walls and roof, using a material or system that satisfies the test criteria of AS 1530.8.1 for a radiant heat flux of 10 kW/m² or greater.
S43C4	Separation from allotment boundaries and carparking areas	(1) The building must be located not less than 10 m from any allotment boundary or open carparking area/spots. (2) The separation distance required by (1) need not be complied with if the building is constructed— (a) with external walls that have an FRL of not less than 60/60/60 when tested from the outside, including any openings protected in accordance with AS 3959 for BAL—19 or greater; or (b) for external walls and roof, using a material or system that satisfies the test criteria of AS 1530.8.1 for a radiant heat flux of 10 kW/m² or greater.
S43C5	Separation from hazards	The external walls and roof of the building must be protected from potential hazards on the site such as liquefied petroleum gas bottles, fuel storage, storage of combustible materials, waste bins, vehicles, machinery, and the like, by—

		(a) a separation distance of not less than 10 m; or (b) where within the 10 m separation distance described in (a), constructed with external walls that have an FRL of not less than 60/60/60 when tested from the outside, including any openings protected in accordance with AS 3959 for BAL—19 or greater; or (c) for external walls and roof, using a material or system that satisfies the test criteria of AS 1530.8.1 for a radiant heat flux of 10 kW/m² or greater.
S43C6	Non-combustible path around building	A non-combustible pathway directly adjacent to the building and not less than 1.5 m wide must be provided around the perimeter of the building.
S43C7	Access pathways	(1) Access pathways that lead to a road or open space must— (a) be readily identifiable; and (b) have an even surface; and (c) have a minimum clear width of not less than 1 m. (2) If the access pathway is an accessway that is required to comply with Part D4, the requirements of Part D4 override (1) to the extent of any inconsistency.
S43C8	Exposed external areas	An external area designed to hold people unable to be safely accommodated within the building, that may be exposed to radiant heat flux from a fire front during a bushfire event, must not be exposed to an incident radiant heat flux from the fire front exceeding 1 kW/m^2 above background solar radiant heat flux.
S43C9	Internal tenability	To maintain internal tenability throughout the duration of occupancy during a bushfire event, the building must comply with the following: (a) An air handling system must be provided that is capable of— (i) being adjusted for full recycling of internal air for a period of not less than 4 hours to avoid the introduction of smoke into the building; and (ii) maintaining an internal air temperature of not more than 25°C. (b) The building envelope must be designed such that if an air handling system required by (a) fails, then— (i) internal air temperatures can be maintained below 39°C; and (ii) internal surface temperatures can be maintained below 60°C. (c) If the building is divided into separate compartments then, for the purposes of (a), each compartment must have a separate air handling system.

		(d) Each air handling system required by (a) must be designed to account for the activation of smoke detectors from low concentrations of smoke from external sources, so as to ensure that air-conditioning and other essential systems remain operational.
S43C10	Building envelope	The building envelope must be constructed in accordance with AS 3959 – BAL 19 or greater, except that where the use of combustible materials is permitted by AS 3959, they are not to be used unless permitted by C2D10(4), (5) or (6).
S43C11	Supply of water for fire-fighting purposes	Water for fire-fighting purposes must be available and consist of— (a) A fire hydrant system complying with E1D2; or (b) A static water supply consisting of tanks, swimming pools, dams or the like, or a combination of these, together with suitable pumps, hoses and fittings, determined in consultation with the relevant fire brigade that— (i) is capable of providing the required flow rate for a period of not less than 4 hours; or (ii) has a volume of 10 000 litres for each occupied building.
S43C12	Emergency power supply	(1) Emergency power must be provided to support, for not less than 4 hours before and 2 hours after the passing of the fire front during a bushfire event, the ongoing operation of— (a) air handling systems to maintain internal tenability; and (b) any pumps for fire-fighting; and (c) any emergency lighting and exit signs; and (d) any other emergency equipment listed in C3D14(6) and required to be provided. (2) Manual control for emergency back-up power supply must be provided to facilitate manual intervention where the power supply fails or runs out. *C3D14 (6) For the purposes of (5), emergency equipment includes but is not limited to the following:* *(a) Fire hydrant booster pumps.* *(b) Pumps for automatic sprinkler systems, water spray, chemical fluid suppression systems or the like.*

		(c) Pumps for fire hose reels where such pumps and fire hose reels form the sole means of fire protection in the building. *(d) Air handling systems designed to exhaust and control the spread of fire and smoke.* *(e) Emergency lifts.* *(f) Control and indicating equipment.* *(g) Emergency warning and intercom systems.*
S43C13	Signage	Signage must be provided to warn building occupants against storing combustible materials under or adjacent to the building.
S43C14	Vehicular access	Vehicular access to the building must be provided in accordance C3D5(2), as if the building were a large isolated building for the purposes of C3D4. *C3D5 (2) Vehicular access required by this Part—* *(a) must be capable of providing continuous access for emergency vehicles to enable travel in a forward direction from a public road around the entire building; and* *(b) must have a minimum unobstructed width of 6 m with no part of its furthest boundary more than 18 m from the building and in no part of the 6 m width be built upon or used for any purpose other than vehicular or pedestrian movement; and* *(c) must provide reasonable pedestrian access from the vehicular access to the building; and* *(d) must have a load bearing capacity and unobstructed height to permit the operation and passage of fire brigade vehicles; and* *(e) must be wholly within the allotment except that a public road complying with (a), (b), (c) and (d) may serve as the vehicular access or part thereof.*

APPENDIX 4 – BUSHFIRE EMERGENCY MANAGEMENT AND EVACUATION PLAN

EVACUATION TRIGGERS AND PROCEDURES

Trigger	Action
Before the fire season	• Review and update the emergency management and evacuation plan as required; • Check Hazards Near Me app watch zones are active for the site; • Check and ensure all bushfire protection measures, signage and equipment are fit for purpose and in good working order; • Engage the local NSW RFS/Fire+Rescue brigade to undertake pre-incident planning and evacuation drills for the site.
Bushfire Danger Period is declared	• Daily, check the Fire Danger Ratings for the Far North Coast which can be found on the NSWRFS web site: https://www.rfs.nsw.gov.au/fire-information/fdr-and-tobans ; or, at the Bureau of Meteorology web site: http://www.bom.gov.au/nsw/forecasts/fire-danger-ratings.shtml • Staff and volunteers are to be provided with a written bushfire briefing and sitemap outlining the location of the assembly point, extinguishers, static water supply, that the on-site refuge is an option of last resort, the evacuation route and procedures, locations of off-site refuge and the fire warden's mobile phone number. Lock down procedure and checklist for shelter in place event.

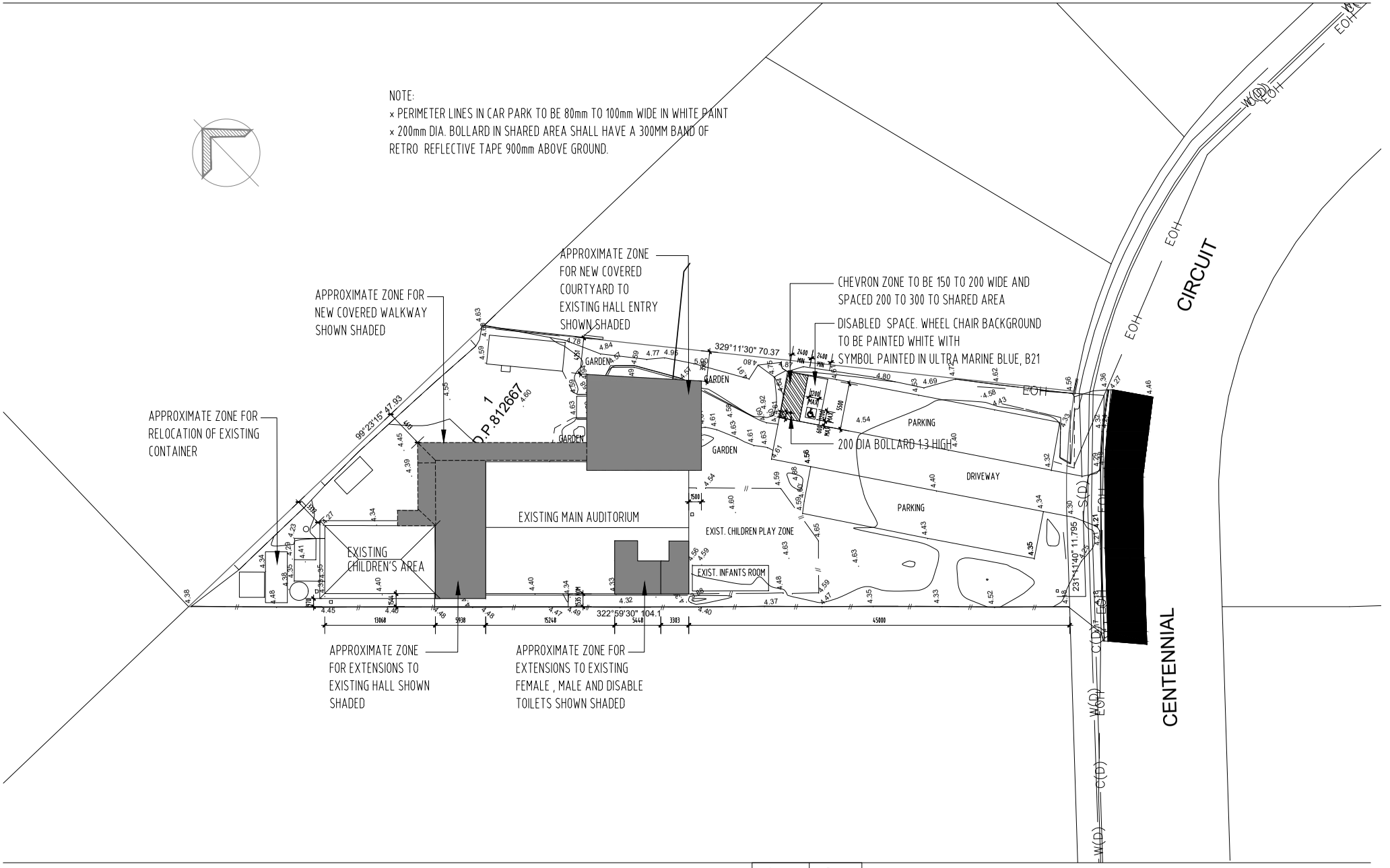
a) HIGH FIRE DANGER RATING	Be prepared for the need to evacuate: • Site Fire warden is aware of evacuation procedures. • Monitor local ABC radio, Hazards Near Me App., • Ensure that static water supply points are functional. • Ensure access roads and emergency escape roads are unobstructed and are capable of handling the expected traffic. • Ensure that vehicles are parked in such a way as to facilitate the prompt and safe egress of vehicles from the subject site (ie. vehicles not being parked or positioned directly over access ways, turning bays and water points • Ensure that all on-site firefighting equipment is available and in working order, e.g. Extinguishers are full and functional. • All occupants to be warned of the high bushfire risk and be asked to be careful with potential sources of ignition (e.g. fires and cigarette butts). • Ensure that signage informing occupants of the evacuation procedures in the event of a bushfire are provided on site. The location of the designated assembly point and refuge areas should be included. The main sign should be located at the entrance to the auditorium and the assembly point, with additional durable signage be provided in all toilet and kitchen facilities.
b) Uncontrolled Fire within 15km watch zone	b. Be advised there is a fire in your vicinity: • Stay informed of the fire's progress and determine the level of threat to the camping ground and access by contacting the FNC Fire Control Centre to advise that the site is operating and give number of occupants.

	• Monitor local radio station Hazards Near Me App. and public service announcements regarding the fire situation. • Alert staff and visitors to the presence of a fire and the possibility of evacuation.
c) Uncontrolled Fire within 10km watch zone	c. There is a bushfire nearby, watch for changes in the situation and be prepared to evacuate: • Stay informed of the fire's progress and determine the level of threat to the site and Centennial Circuit access by contacting the FNC Fire Control Centre to advise the site is operating and give number of occupants. • Monitor local radio station Hazards Near Me App. and public service announcements regarding the fire situation. • Alert Staff and visitors to the presence of a fire and advise them to prepare themselves in preparation for possible evacuation.
d) Uncontrolled Fire within 5km watch zone	d. It is time to leave early and enact the evacuation plan. • Notify NSW RFS Control centre or 000 of intent to evacuate and seek information and to dispatch police and/or fire appliance to escort if needed; activate emergency and evac plans; • Alert staff and visitors to the presence of a fire and advise them to immediately prepare for imminent evacuation.
e) Watch and Act notification received	e. It is time to leave early and enact the evacuation plan. • Notify NSW RFS Control centre or 000 of intent to evacuate early and seek information and to dispatch appliance to escort if needed; activate emergency and evac plans; notify visitors and staff.

f) Emergency warning received	f. Emergency Evacuations should only be undertaken in consultation with emergency services and coordinated under the direction of emergency services personnel • Call 000 or 112 and notify NSW RFS of location and number of vehicles and occupants.
g) Unable to evacuate	g. Call 000 and notify NSW RFS Control centre to dispatch appliances for property protection; activate emergency shelter in place plans; notify visitors and staff.
h) Failure of communications and or high levels of uncertainty with bushfire threat in vicinity	g. Call 000 or 112 and notify NSW RFS Control centre to dispatch appliances for escort; activate emergency shelter in place plans; notify visitors and staff.
i) d. Other event during bushfire or evacuation causes unable to evacuate	h. Call 000 or 112 and notify NSW RFS Control centre to dispatch appliances; activate emergency shelter in place plans; notify visitors and staff.
j) EXTREME OR CATASTROPHIC FIRE DANGER RATING	The site is to cease operations and visitors are to vacate the property.

The Amended evacuation plan goes here.

APPENDIX 5 - ARCHITECTURAL PLANS



PROJECT ADDRESS:

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20 CENTENNIAL CIRCUIT
BYRON BAY

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SITE PLAN

Project number: EASG-001
Client: ANDREW WILES
Scale: 1:200 ON A3

Sheet: 01 of 13

REV. 1

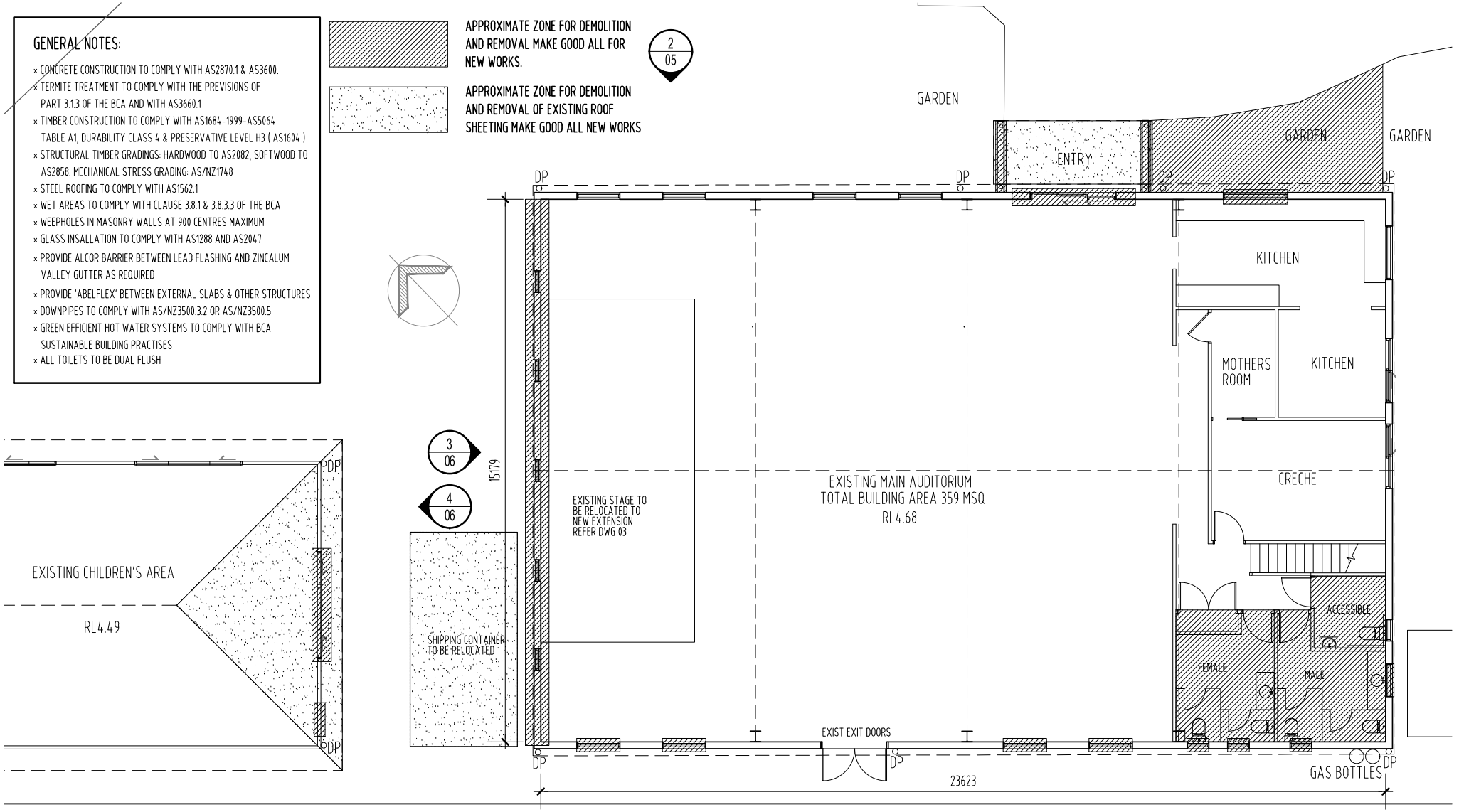
GENERAL NOTES:

- CONCRETE CONSTRUCTION TO COMPLY WITH AS2870.1 & AS3600.
- TERMITE TREATMENT TO COMPLY WITH THE PREVISIONS OF PART 3.1.3 OF THE BCA AND WITH AS3660.1
- TIMBER CONSTRUCTION TO COMPLY WITH AS1684-1999-AS5064 TABLE A1, DURABILITY CLASS 4 & PRESERVATIVE LEVEL H3 (AS1604)
- STRUCTURAL TIMBER GRADINGS: HARDWOOD TO AS2082, SOFTWOOD TO AS2858. MECHANICAL STRESS GRADING: AS/NZ1748
- STEEL ROOFING TO COMPLY WITH AS1562.1
- WET AREAS TO COMPLY WITH CLAUSE 3.8.1 & 3.8.3.3 OF THE BCA
- WEEPHOLES IN MASONRY WALLS AT 900 CENTRES MAXIMUM
- GLASS INSALLATION TO COMPLY WITH AS1288 AND AS2047
- PROVIDE ALCOR BARRIER BETWEEN LEAD FLASHING AND ZINCALUM VALLEY GUTTER AS REQUIRED
- PROVIDE 'ABELFLEX' BETWEEN EXTERNAL SLABS & OTHER STRUCTURES
- DOWNPIPES TO COMPLY WITH AS/NZ3500.3.2 OR AS/NZ3500.5
- GREEN EFFICIENT HOT WATER SYSTEMS TO COMPLY WITH BCA SUSTAINABLE BUILDING PRACTISES
- ALL TOILETS TO BE DUAL FLUSH

APPROXIMATE ZONE FOR DEMOLITION AND REMOVAL MAKE GOOD ALL FOR NEW WORKS.

APPROXIMATE ZONE FOR DEMOLITION AND REMOVAL OF EXISTING ROOF SHEETING MAKE GOOD ALL NEW WORKS

2/05



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EXISTING FLOOR AND DEMOLITION PLAN

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Client:	ANDREW WILES
Scale:	1:100 ON A3

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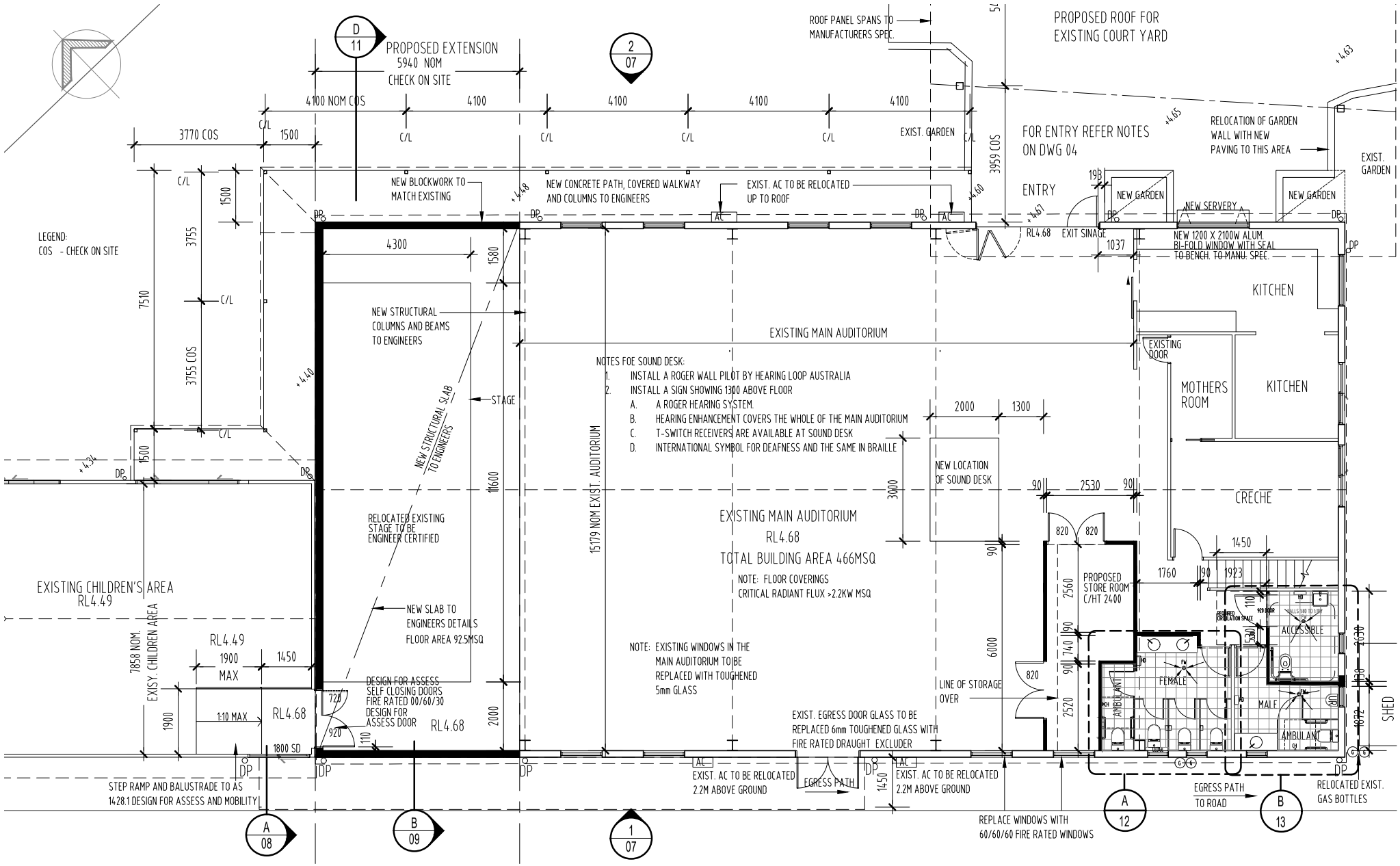

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PROPOSED FLOOR PLAN

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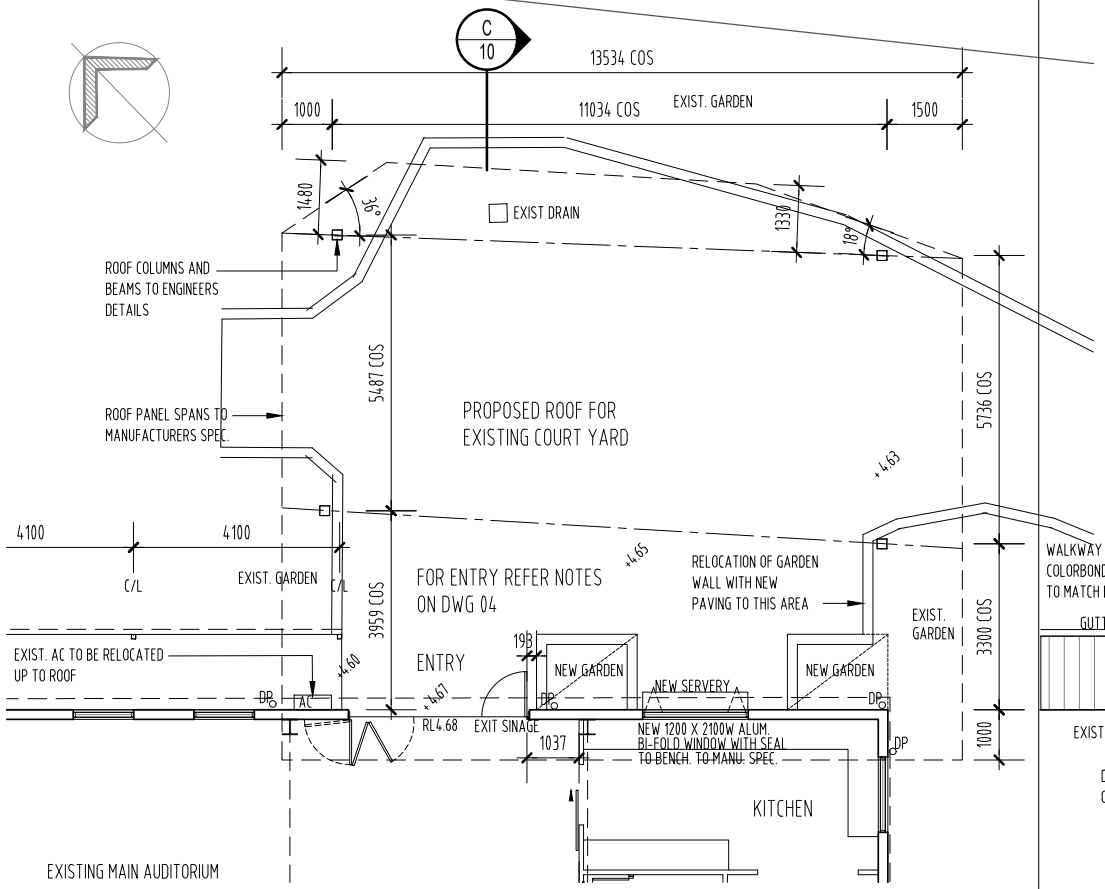
Client:	ANDREW WILES
Scale:	1:100 ON A3

Sheet:
03 of 13

REV. 1

NOTES ENTRY.

1. GRADE FROM CAR PARK TO ENTRY DOOR MUST BE LESS THEN 1:40 WHEELCHAIR COMPLIANT
2. LIP AT FRONT ENTRY MUST BE NO MORE THEN 3MM, THRESHOLD RAMP AS REQUIRED AS1428.1 FIGURE 21
3. NEW 2400 X 3600W ALUM. BI-FOLD DOORS SUITE WITH 850 CLEAR SWING DOOR 6mm TOUGHENED GLASS TO MANU. SPECIFICATIONS. EGRESS DOOR WITH FIRE RATED DRAUGHT EXCLUDER
4. SWING DOOR HANDLES TO BE 1000mm ABOVE GROUND, HANDLES TO BE COGGED 20MIN ON THE INSIDE AND PULL BAR TO BE 1000mm ABOVE GROUND AND 100mm SPACING TO THE DOOR HANDLE
5. BI-FOLD PANELS TO BE FROSTED 900 TO 1050 ABOVE GROUND, WITH 75mm HIGH AND HAVE EASTGATE CHRISTIAN COMMUNITY SEPARATED ACROSS THE PANELS. REFER ELEVATION 07



2 FLOOR PLAN
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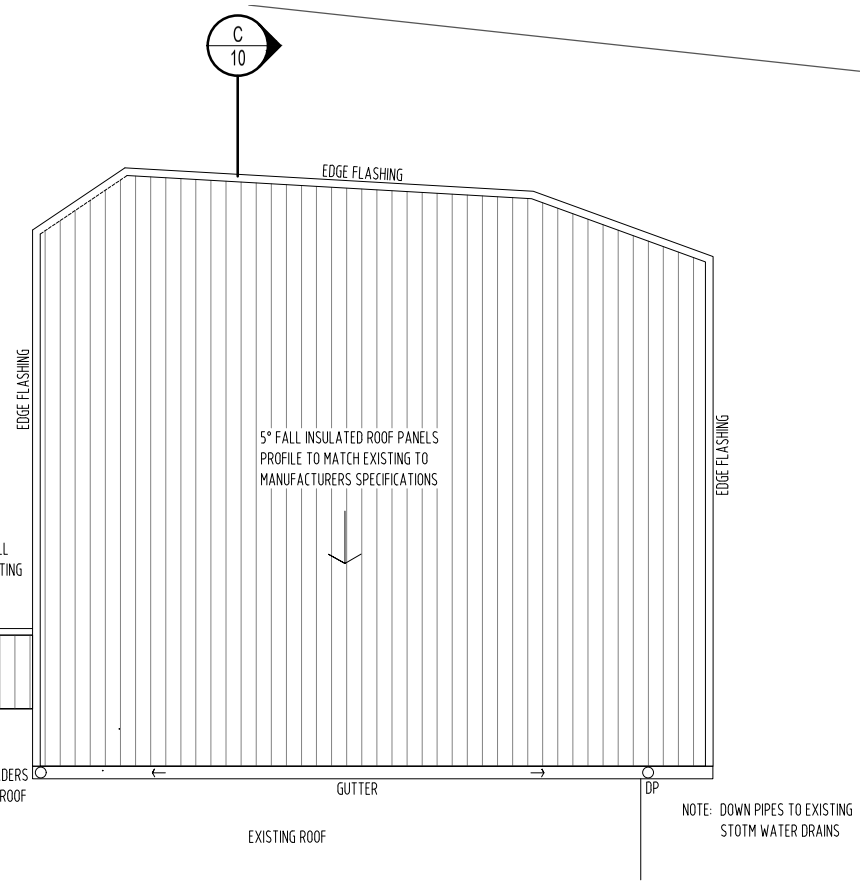

2 ROOF PLAN
1 : 100

NOTE:
PLACEMENT OF ROOF COLUMNS IS APPROXIMATE ONLY AND SUBJECT TO SITE WORKS AND SELECTIVE CLEARING OF TREES

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PROPOSED ENTRY ROOF PLAN

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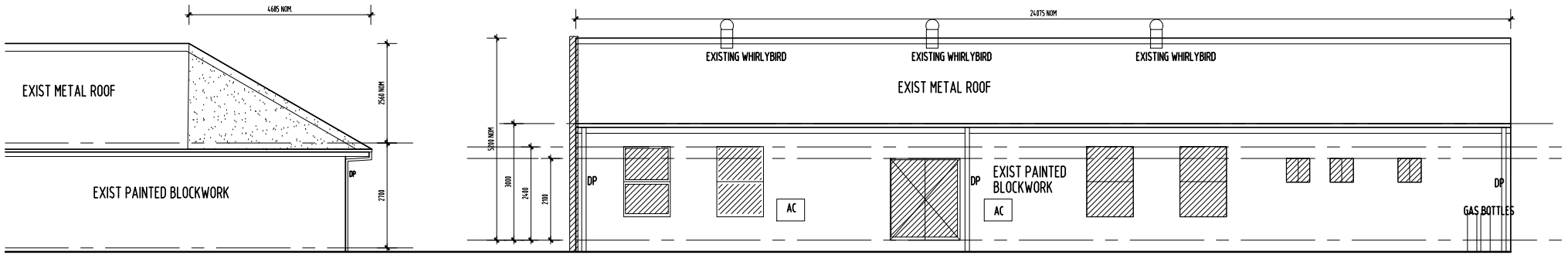
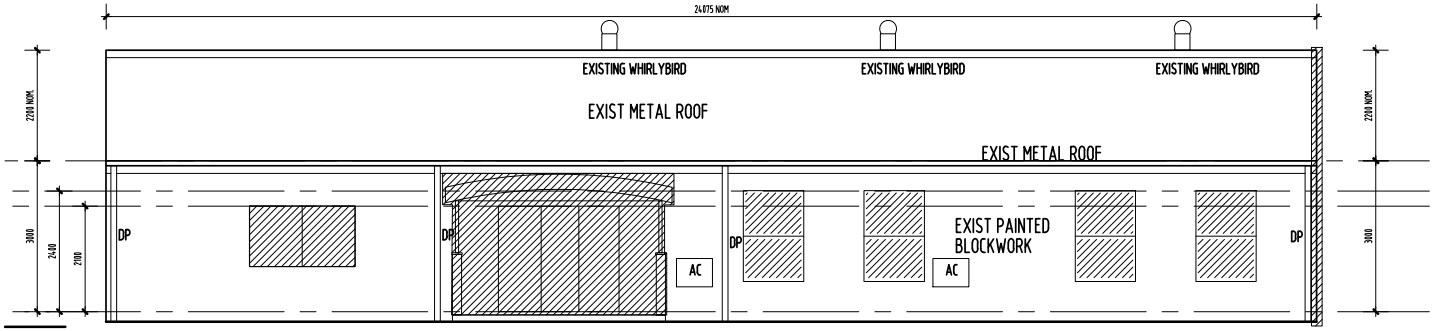
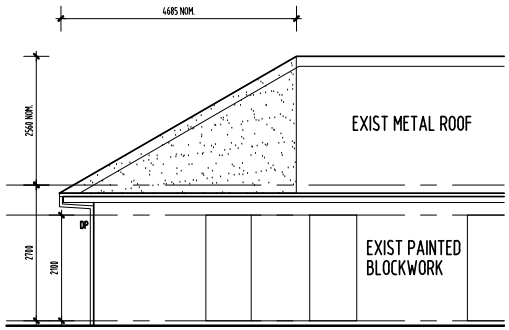


1/02 ELEVATION - NORTH
1 : 100

APPROXIMATE ZONE FOR DEMOLITION AND REMOVAL MAKE GOOD ALL FOR NEW WORKS.

APPROXIMATE ZONE FOR DEMOLITION AND REMOVAL OF EXISTING ROOF SHEETING MAKE GOOD ALL NEW WORKS





2/02 ELEVATION - EAST
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EXISTING ELEVATIONS / DEMOLITION

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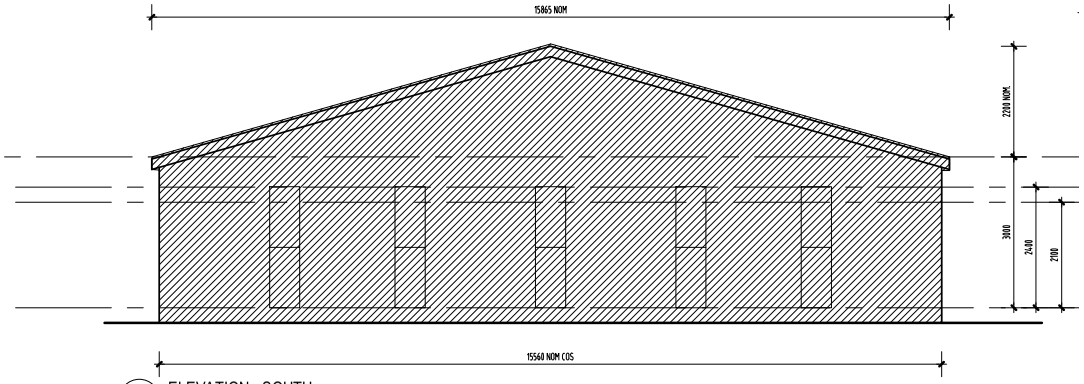

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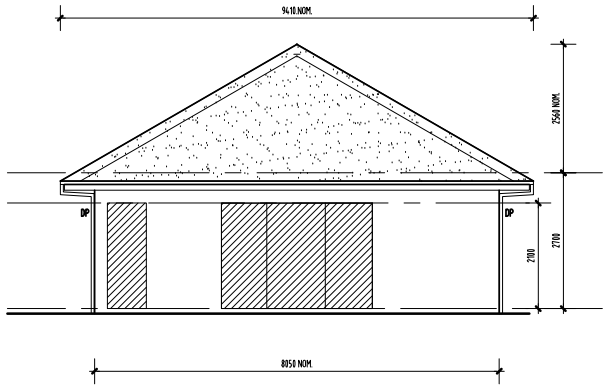

4/02 ELEVATION - NORTH
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APPROXIMATE ZONE FOR DEMOLITION AND REMOVAL MAKE GOOD ALL FOR NEW WORKS.

APPROXIMATE ZONE FOR DEMOLITION AND REMOVAL OF EXISTING ROOF SHEETING MAKE GOOD ALL NEW WORKS

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EXISTING ELEVATIONS / DEMOLITION

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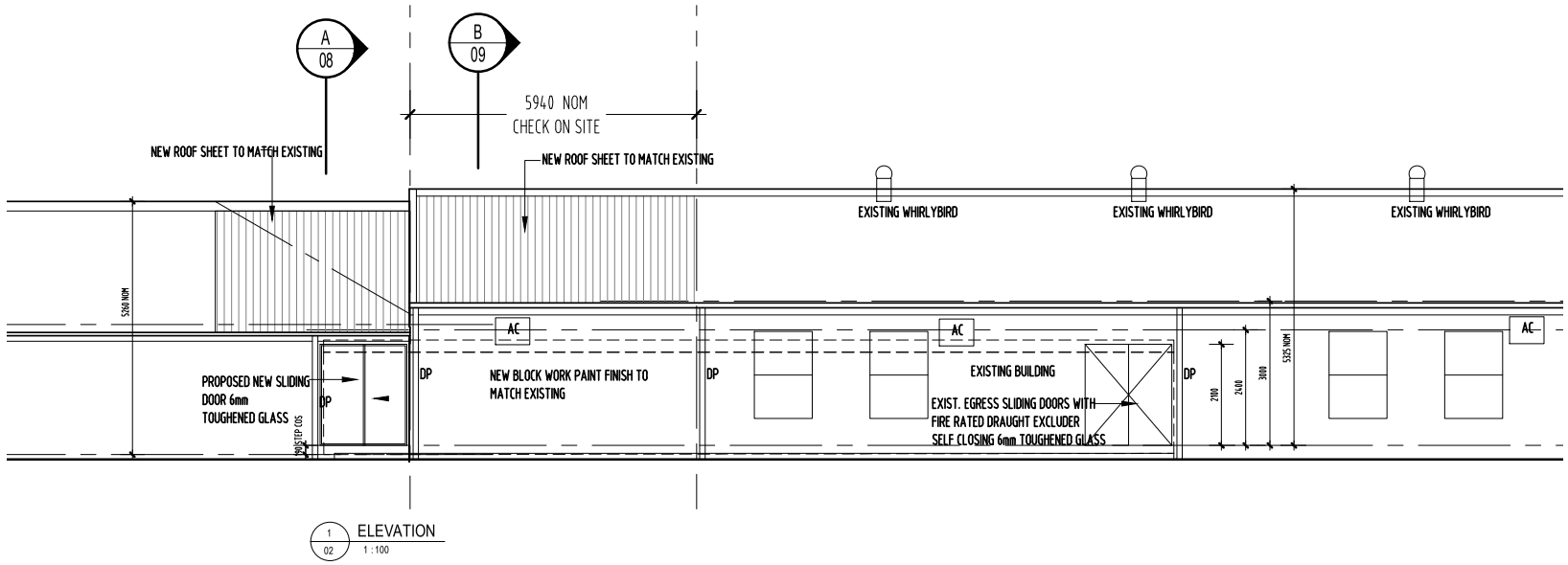

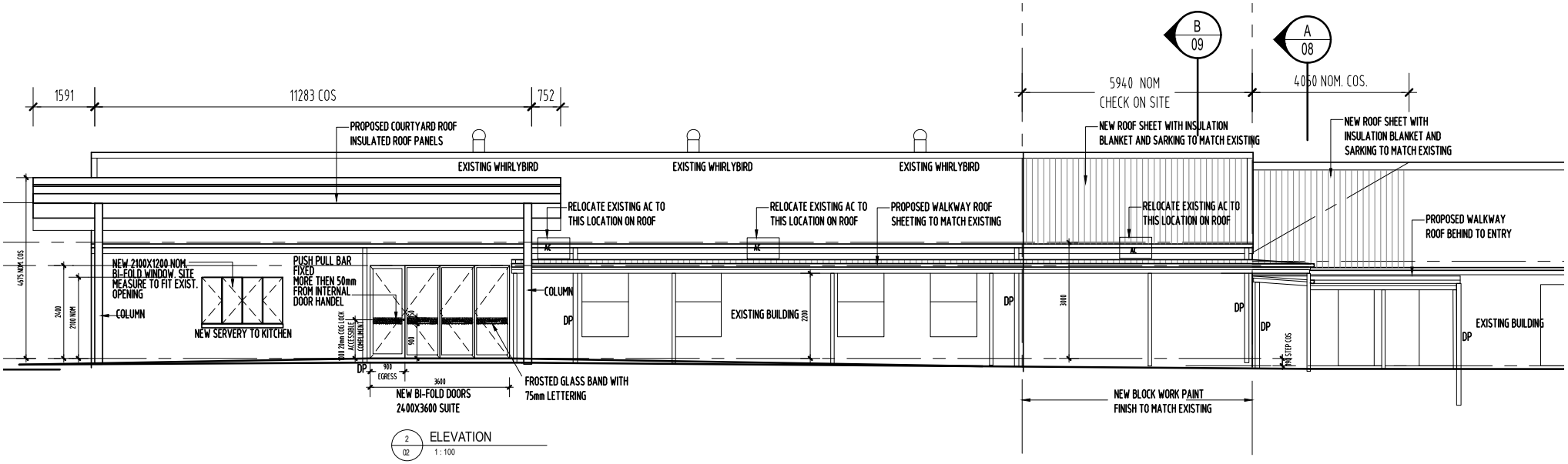

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ELEVATIONS

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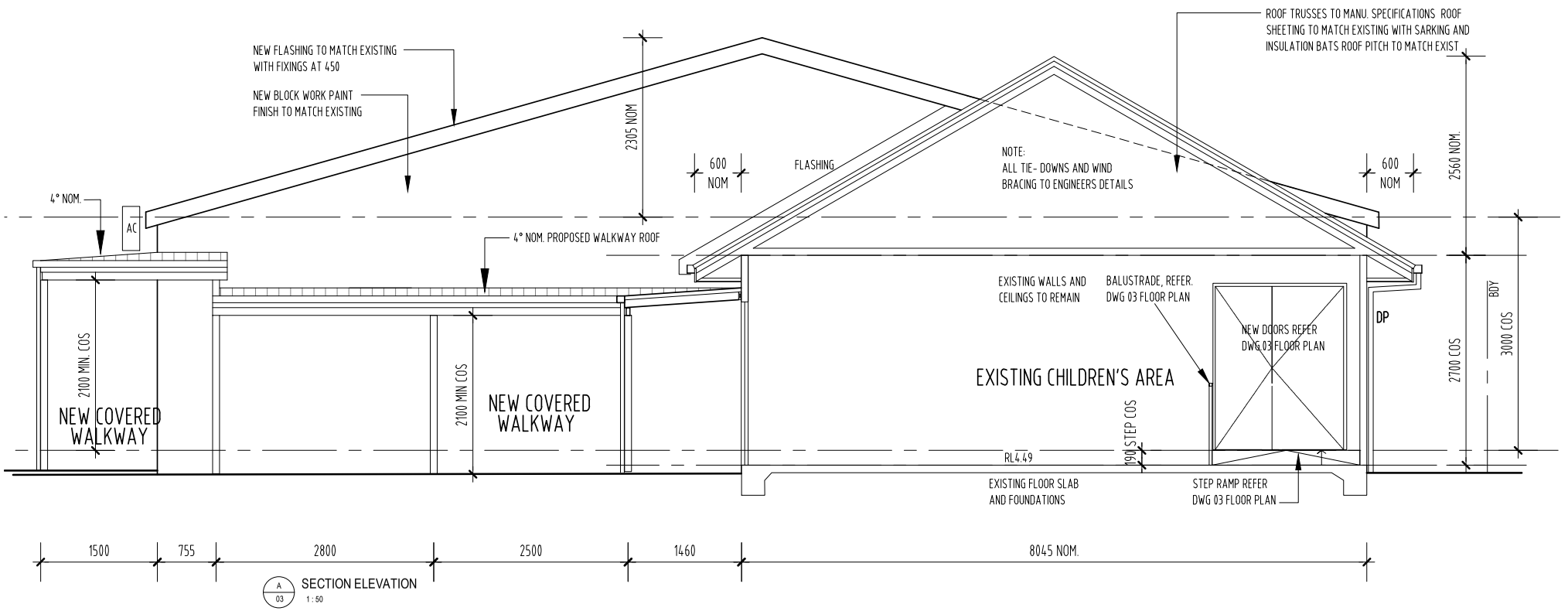

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SECTION ELEVATION A

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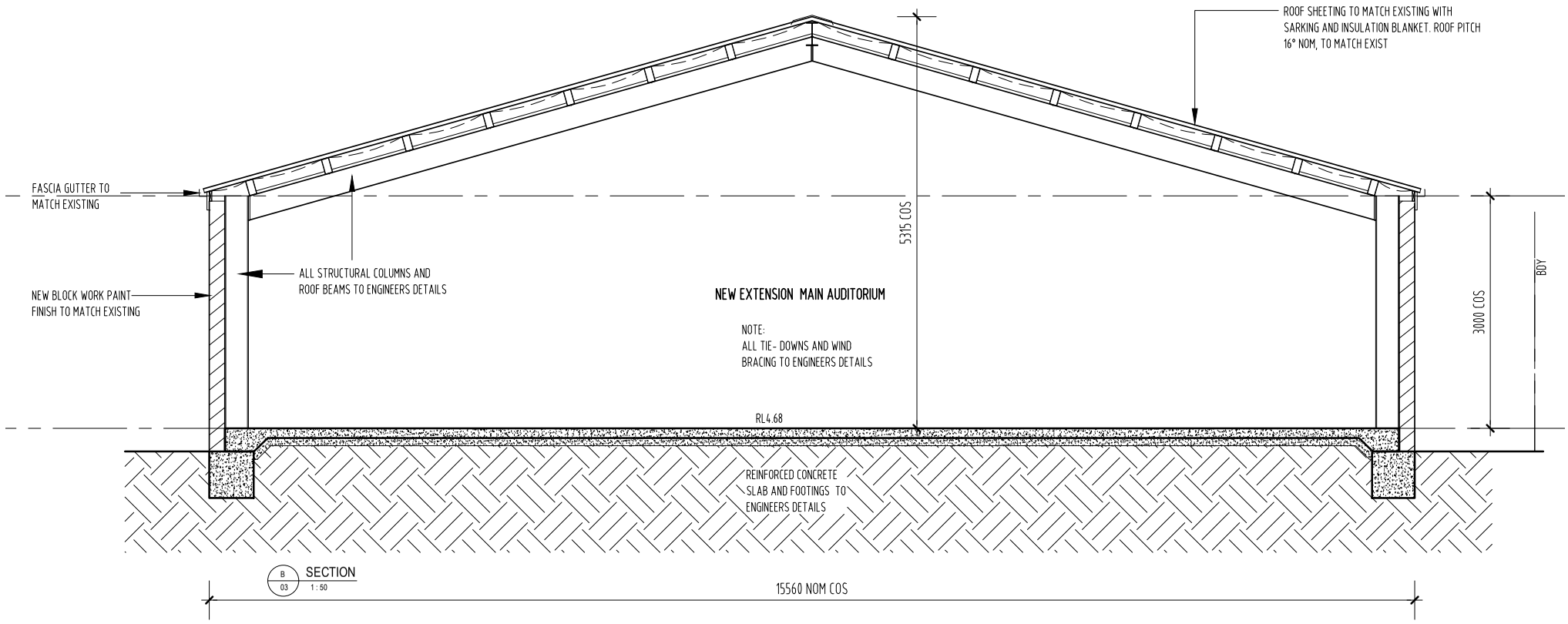

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SECTION B

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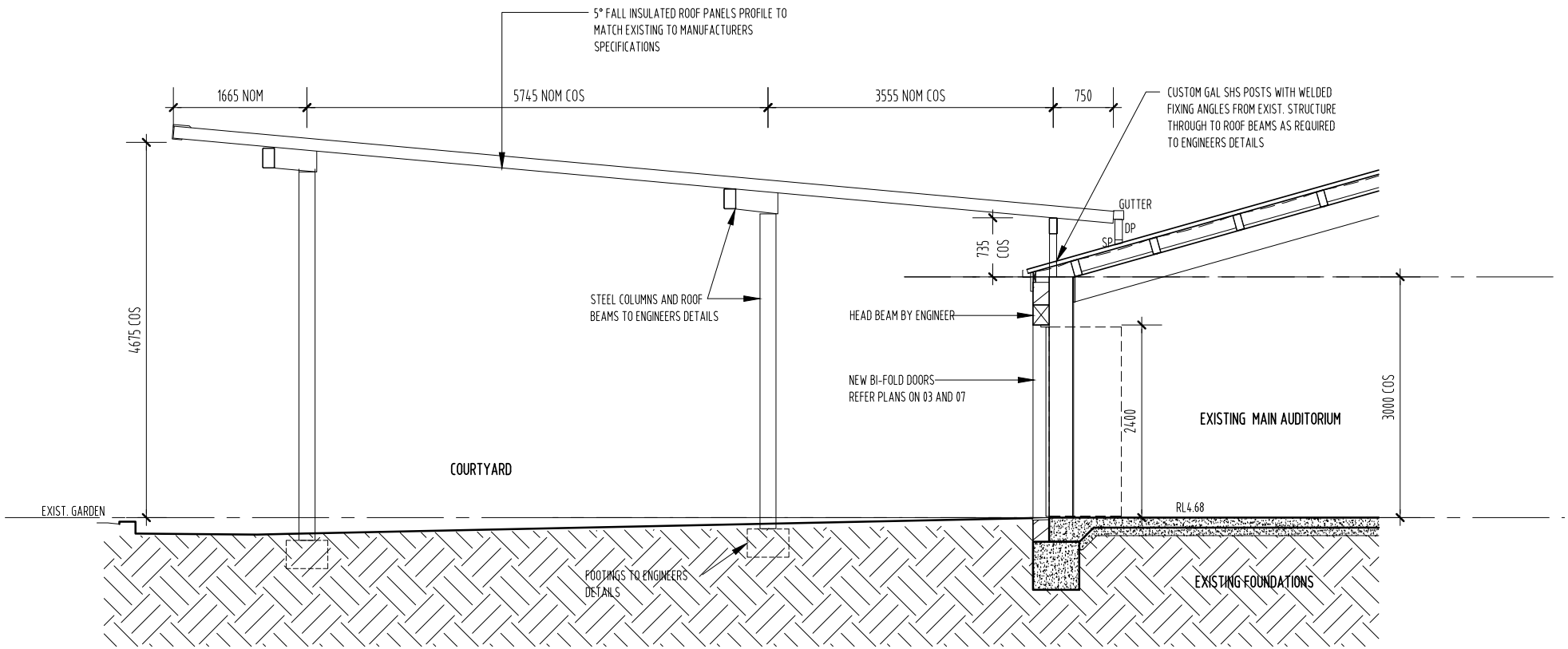

C/04 SECTION 1 : 50

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SECTION C

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Scale:	1:100 ON A3	

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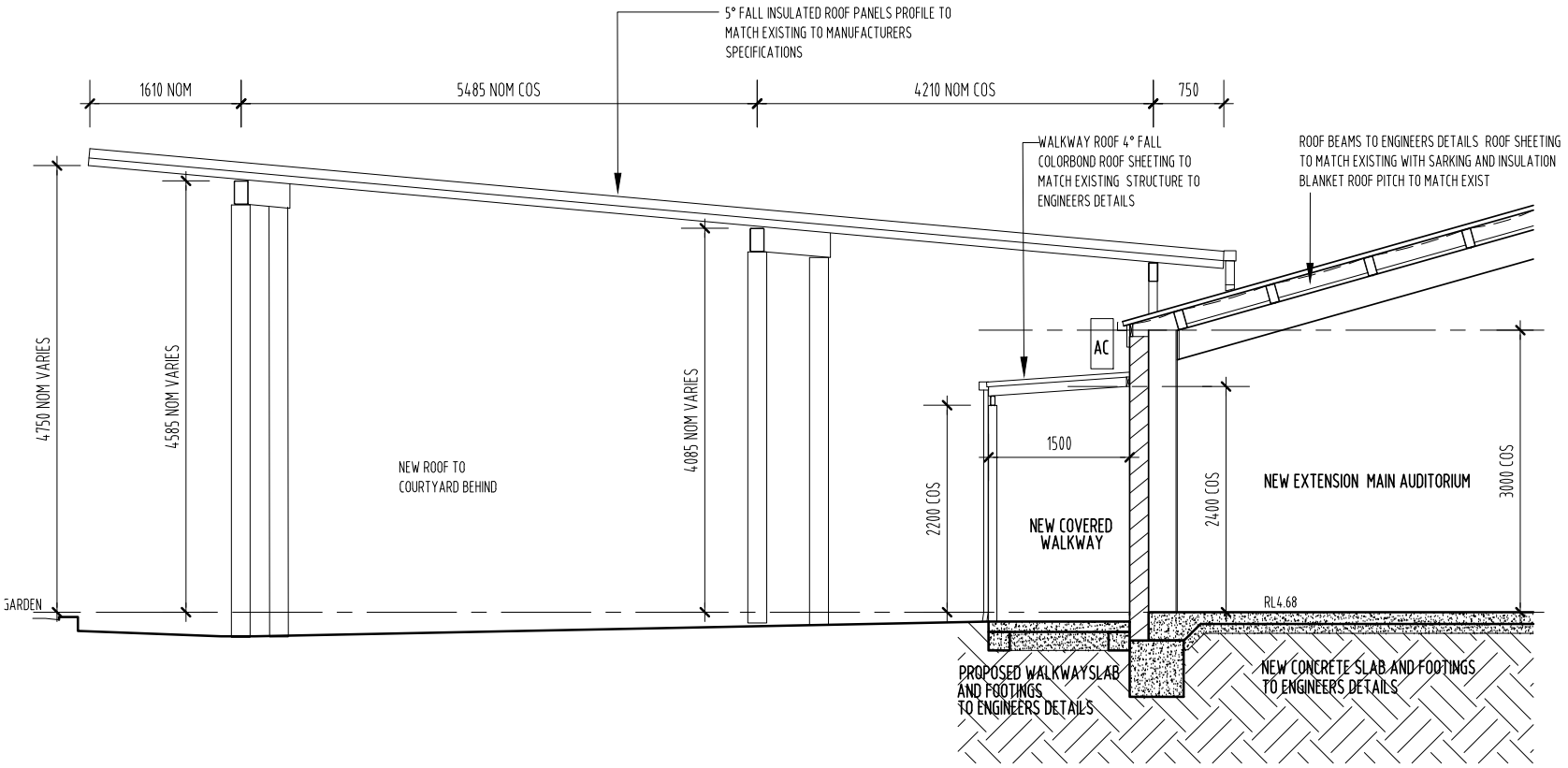

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SECTION D

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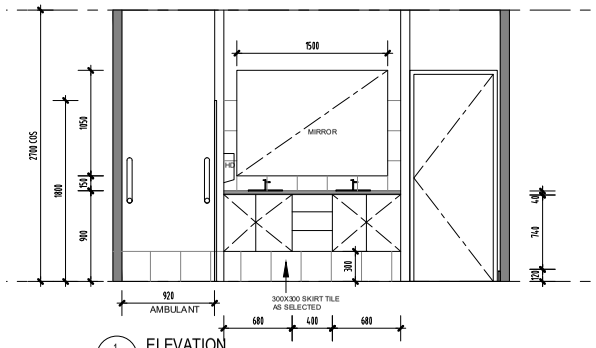

1 - ELEVATION
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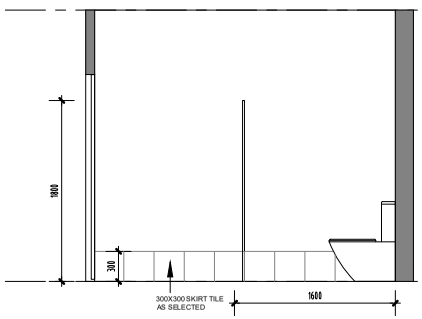
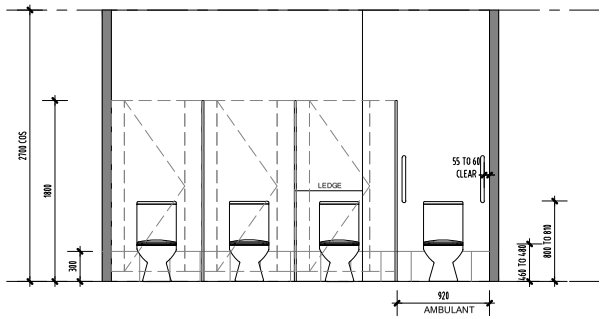


2 - ELEVATION
1 : 50



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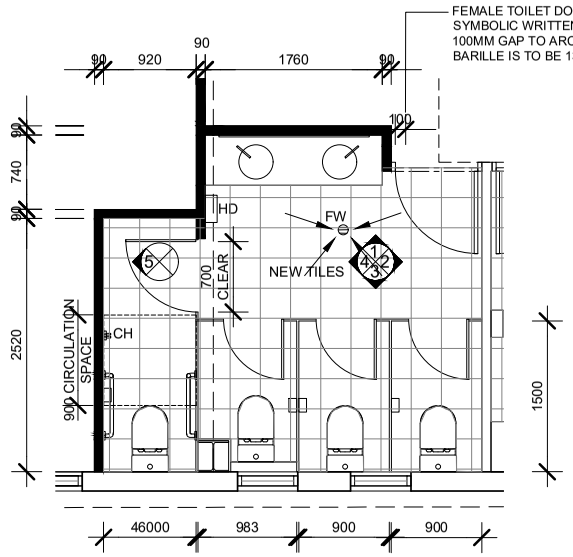

A 03 - FEMALE BATHROOM PLAN
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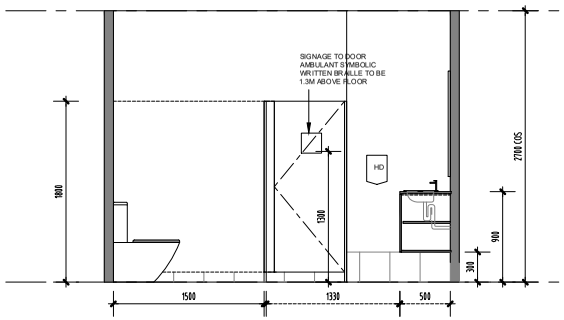

4 - ELEVATION
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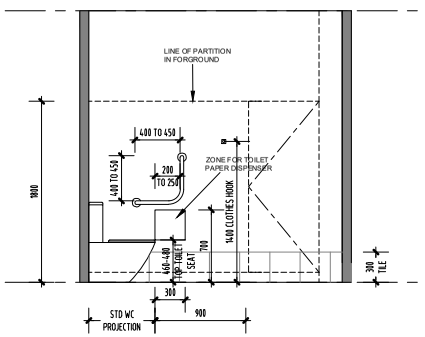
AMBULANT TOILET TO AS 1428.1 DESIGN FOR ASSESS AND MOBILITY



5 - ELEVATION
1 : 50

JOINERY & FIXTURES

- ALL DIMENSIONS ARE FROM FLOOR LEVEL NOT INCLUDING FLOOR FINISHES. E.G TILES, BEDDING ADJUST TO SUIT FFL ON SITE
- ALL TAPWARE SHOWN INDICATIVE ONLY.
- PROVIDE LIFT-OFF HINGES TO ALL WC'S
- FLOOR WASTES TO BE SMART WASTE WITH TILE INSERT. COLOUR TO MATCH TAPS

UNLESS NOTED OTHERWISE:
- BUILDER TO PLACE NOGGINGS BEHIND FIXTURES AS REQUIRED
- IF ANY HEIGHTS/INFORMATION SHOWN CONTRADICTS BEST PRACTICE OR AUSTRALIAN STANDARD, PLUMBER TO CONTACT BUILDER OR DESIGNER

TILES AND SURFACES

- TILE SETOUT SHOWN INDICATIVE ONLY UNLESS SPECIFICALLY NOTED OTHERWISE
- TILER TO SETOUT TILES TO BEST PRACTICES TO ENSURE EQUAL SPACING IS ACHIEVED.
- PRE LAY TILE MEASURE OR DRY LAY TO BE UNDERTAKEN BY TILER PRIOR TO GLUE/GROUT APPLICATIONS
- GROUT COLOUR TO MATCH TILES
- SILICONE COLOUR TO MATCH TILES
- CORNER/ANGLE TRIMS TO BE COLOUR CODED WITH TAPS AND FIXTURES U.N.O
- CONSULT WITH BUILDER OR DESIGNER FOR CONFIRMATION
- **IF UNSURE, ASK!! DO NOT MAKE ASSUMPTIONS ON FIXTURES, COLOURS OR FINISHES UNDER ANY CIRCUMSTANCES.**

PROJECT ADDRESS:

EASTGATE CHURCH
20 CENTENNIAL CIRCUIT
BYRON BAY

ISSUE FOR BA
NOT CONSTRUCTION

MEB DRAFTING
DESIGN & DOCUMENTATION
M 0411 147 450

Issue	Date
F	27.11.2023
1	29.11.2023

DO NOT SCALE OFF DRAWINGS. WRITTEN DIMENSIONS ONLY WHICH ARE TO BE VERIFIED ON SITE

BATHROOM DETAILS

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Client:	ANDREW WILES	12 of 13
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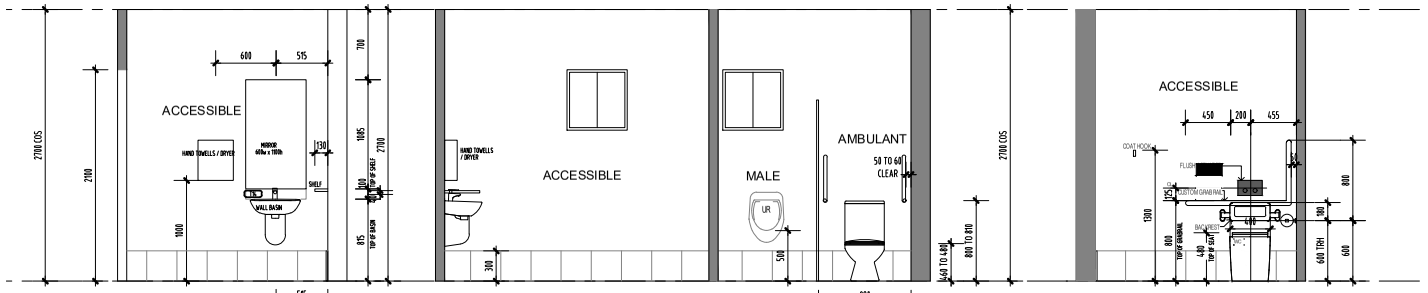
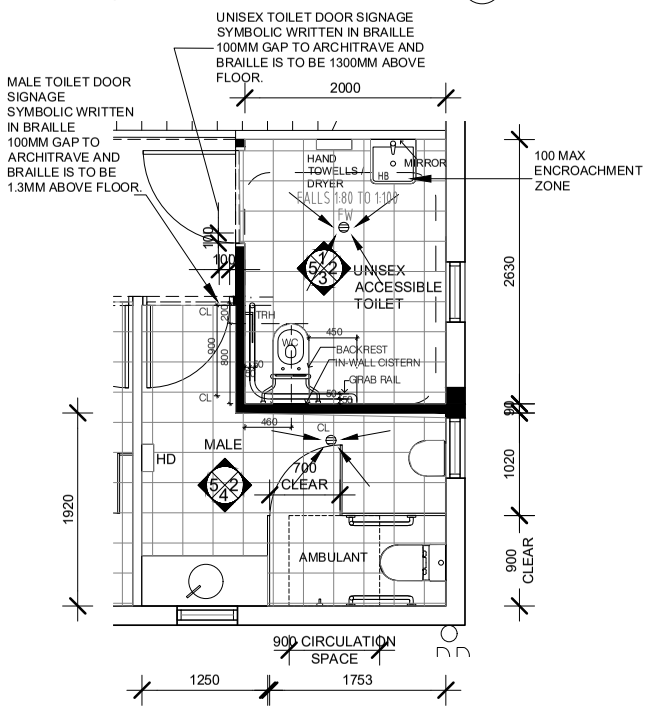
REV. 1



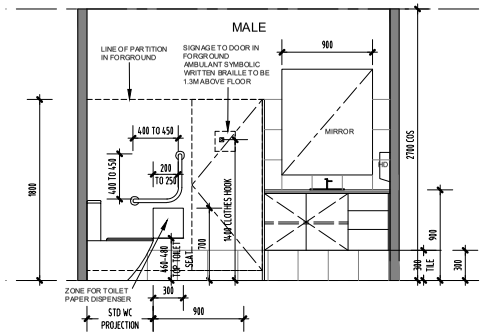
1 - ELEVATION 1 : 50

2 - ELEVATION 1 : 50

3 - ELEVATION 1 : 50



B 03 - BATHROOM PLAN - MALE & UNISEX 1 : 50



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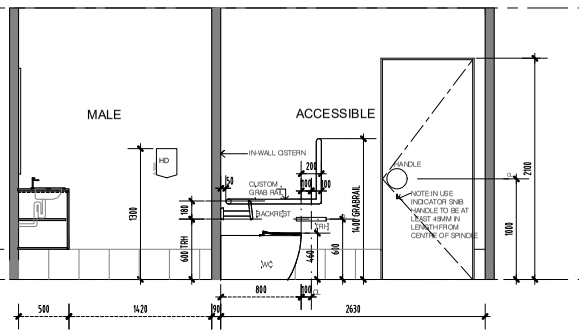

5 - ELEVATION 1 : 50

JOINERY & FIXTURES

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REV. 1