BUSHFIRE THREAT ASSESSMENT

FOR
A PROPOSED
1 INTO 8 LOT PRECINCT TITLE SUBDIVISION AND 8 LOT STRATA SUBDIVISION

AT

NO. 10 & 12 / 91 GARDINER STREET,

RUTHERFORD NSW 2320

Prepared by:

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Site Details:	No. 10 &12 / 91 Gardiner Street, Rutherford NSW 2320
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Disclaimer

Notwithstanding the precautions adopted within this report, it should always be remembered that bushfires burn under a wide range of conditions. An element of risk, no matter how small always remains, and although the standard is designed to improve the performance of such buildings, there can be no guarantee, because of the variable nature of bushfires, that any one building will withstand bushfire attack on every occasion.

Executive Summary

A Bushfire Threat Assessment Report (BTA) has been prepared by Firebird ecoSultants Pty Ltd at the request of Drayton Group Pty Ltd for a proposed 1 into 8 lot Precinct Title subdivision and 8 lot strata subdivision at No. 10 & 12 / 91 Gardiner Street, Rutherford NSW 2320. The proposal also involves 14 light industrial units within 6 individual buildings. The report forms part of the supporting documentation for a DA to be submitted to Maitland City Council (MCC) because the site is mapped as Bushfire Prone Land (BPL) under the Environmental Planning & Assessment Act 1979 (s10.3 – Bush fire prone land).

This type of development is classified as Industrial development for the purposes of Planning for Bushfire Protection 2019. Industrial development is not captured under Section 4.14 of the Environmental Planning and Assessment Act 1979 (EP&A Act) however as the proposed development is mapped on bushfire prone land and will be within the BAL-FZ affected area, it will be referred to NSW RFS on an advisory basis.

This Report demonstrates how the development conforms with the document titled 'Planning for Bushfire Protection' (PBP). The aim of PBP is to provide for the protection of human life and minimise the impacts on property from the threat of bush fire, while having due regard to development potential, site characteristics and protection of the environment (p.10).

This assessment aims to consider and assess the bushfire hazard and associated potential threats relevant to the proposal. Recommendations are provided with regard to fuel management, access, provision of emergency services, building protection and construction standards to facilitate an acceptable level of bushfire protection.

In summary, the following is recommended to enable the proposal to meet the relevant legislative requirements:

1. Asset Protection Zone (APZ) - The APZ provides space and reduced fuel loads to ensure radiant heat levels at the buildings are below critical limits and to prevent direct flame contact.

- To achieve the Bushfire Attack Levels (BAL) as stated in Chapter 5 of this report, the following land is to be managed as an APZ:
  - It is recommended that the areas of the site outside the development footprint be managed as an Inner Protection Area.
- These distances are to be managed as described under 'Planning for Bushfire Protection (Appendix 4 – Asset Protect Zone Requirements)' and the document titled 'Standards for Asset Protection Zones'.

2. Perimeter Roads - Access standards provide for emergency evacuation and firefighting operations

- The public road network is existing and provides unobstructed access <70m to proposed buildings A, B, G and H however buildings C, D, E and F will have direct access to a proposed property access road that complies with the following requirements from Table 5.3b of PBP 2019:

    - Minimum 4m carriageway width;
    - A minimum vertical clearance of 4m to any overhanging obstructions, including tree branches;
    - Provide a suitable turning area in accordance with Appendix 3;
    - Curves of roads have a minimum inner radius of 6m and are minimal in number to allow for rapid access and egress;
    - The minimum distance between inner and outer curves is 6m;
    - The crossfall is not more than 10 degrees;
    - Maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads

3. Construction Standards – Construction standards seek to increase the protection of the habitable buildings from bushfire. The shorter the APZ (distance between the external wall of the habitable building and the unmanaged vegetation), then the higher the construction standard, which is referred to as the BAL

- The proposed industrial units labelled Building E, F and G in the site plans (see Appendix A) have been assessed as **BAL-FZ** from the Northern and Western elevations and **BAL-40** from the Eastern and Southern elevations due to shielding.

- The proposed unit labelled D has been assessed as **BAL-40** from the Northern elevation and **BAL-29** from the Eastern, Western and Southern elevations due to shielding.

- The proposed unit labelled H has been assessed as **BAL-29** from the Northern and Western elevations and **BAL-19** from the Eastern and Southern elevations due to shielding.

- The proposed unit labelled C has been assessed as **BAL-19** from the Northern and Western elevations and **BAL-12.5** from the Southern and Eastern elevations due to shielding.

- The proposed units labelled A & B have been assessed as **BAL-12.5** from all elevations.

4. Landscaping – The type, location and ongoing maintenance of landscaping is considered a necessary BPM

- The identified APZs are to be managed in accordance with accordance with PBP (Appendix 4);
- A clear area of low-cut lawn or pavement is maintained adjacent to the buildings; and

- Fencing details in accordance with PBP (7.6 – Fences and gates)

As the development is for industrial purposes, Chapter 8 should also be addressed for the purposes of bushfire assessment. The document titled 'Planning for Bushfire Protection (Section 8.3.1)' (p.76) states:

'The NCC does not provide for any bush fire specific performance requirements for these particular classes of buildings. As such AS3959 and the NASH Standard are not considered as a set of Deemed to Satisfy provisions, however compliance with AS3959 and the NASH Standard must be considered when meeting the aims and objectives of PBP. Whilst bush fire is not captured in the NCC for Class 5-8 buildings, the following objectives will be applied in relation to access, water supply and services, and emergency and evacuation planning:

In direct response to the objectives for Class 5-8 buildings, a response is provided below in Table 2:

Table 2 – Objectives and Responses

No	Objective	Response
1	To provide safe access to/from the public road system for firefighters providing property protection during a bush fire and for occupancy egress for evacuation.	Safe access to and from Gardiner Street directly and through a proposed property access road that complies with Table 5.3b of PBP 2019.
2	To provide suitable emergency and evacuation (and relocation) arrangements for occupants of the development.	A Bushfire Emergency Management and Evacuation Plan can be prepared for the development, which would be best developed with the future occupants, so that they understand the risk and subsequent evacuation procedures.
3	To provide adequate services of water for the protection of buildings during and after the passage of bush fire, and to located gas and electricity so as not to contribute to the risk of fire to a building.	The site is to be connected to reticulated water and hydrants are suitably located. In any case, a rainwater tank has been provided for each building with the capacity to supply water for firefighting purposes.
4	To provide for the storage of hazardous materials away from the hazard where possible.	Storage of hazardous materials should be on the Southern and Eastern sides away from the Northern and Western bushfire hazards

This report provides the above required information to assist Council and the RFS in determining compliance in accordance with the PBP 2019 and AS 3959-2018.

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FPA BPAD-A Certified Practitioner (Certification Number BPD-26512)
Ecologist / Bushfire Planner

Terms & Abbreviations

Abbreviation	Meaning
APZ	Asset Protection Zone
AS2419 -2017	Australian Standard – Fire Hydrant Installations
AS3959-2018	Australian Standard – Construction of Buildings in Bush Fire Prone Areas
BCA	Building Code of Australia
BPA	Bush Fire Prone Area (Also Bushfire Prone Land)
BFPL Map	Bush Fire Prone Land Map
BPMs	Bush Fire Protection Measures
BFSA	Bush Fire Safety Authority
CC	Construction Certificate
EPA Act	*NSW Environmental Planning and Assessment Act 1979*
FFDI	Forest Fire Danger Index
FMP	Fuel Management Plan
ha	hectare
IPA	Inner Protection Area
LGA	Local Government Area
MCC	Maitland City Council
OPA	Outer Protection Area
PBP	Planning for Bushfire Protection 2019
PoM	Plan of Management
RF Act	Rural Fires Act 1997
RF Regulation	Rural Fires Regulation

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1 INTRODUCTION

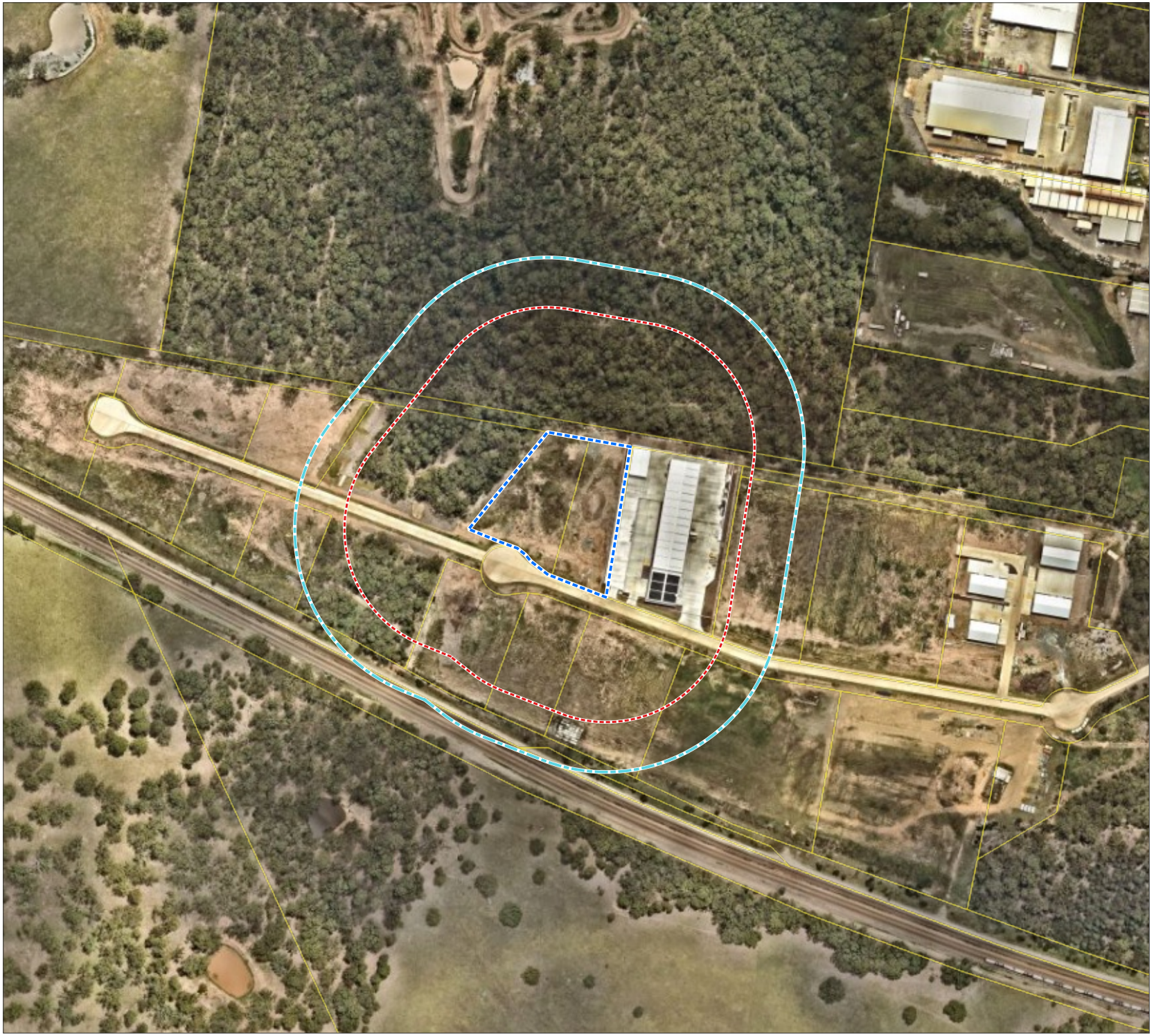
A Bushfire Threat Assessment Report (BTA) has been prepared by Firebird ecoSultants Pty Ltd at the request of Drayton Group Pty Ltd for a proposed 1 into 8 lot Precinct Title subdivision and 8 lot strata subdivision at 10 & 12 / 91 Gardiner Street, Rutherford NSW 2320, hereafter referred to as the "site" (refer to Figure 1-1 for site locality). Refer to Appendix A for Proposed Site Plans.

This BTA is suitable for submission with a Development Application (DA) and provides information on measures that will enable the development to comply with 'Planning for Bushfire Protection' (NSW RFS, 2019), hereafter referred to as PBP (RFS, 2019).

This assessment aims to consider and assess the bushfire hazard and associated potential threats relevant to such a proposal, and to outline the minimum mitigative measures which would be required in accordance with the provisions of the Environmental Planning and Assessment Amendment (Planning for Bushfire Protection) Regulation 2007 and the Rural Fires Amendment Regulation 2007 (RF Amendment Regulation 2007).

1.1 Site Particulars

Locality:	No. 10 & 12 / 91 Gardiner Street, Rutherford NSW 2320
LGA:	Maitland City Council
Current Land Use:	Vacant lots
Forest Danger Index:	100 FFDI



Legend

Subject Land

Assessment Area

100m

140m

Cadastre

Scale 1:3,100

0 100 200 m

firebird

Client: Drayton Group Pty Ltd

Project: 91 Gardiner Street, Rutherford NSW 2320

Figure 1-1: Site Location

1.2 Description of the Proposal

This DA relates to the proposal for a 1 into 8 lot Precinct Title subdivision and 8 lot strata subdivision. The proposal also involves 14 light industrial units within 6 buildings. Refer to Appendix A for proposed plans.

1.3 Legislative Requirements

The Site has been mapped as Bush Fire Prone Land Map (BFPLM) by MCC.

This report forms part of the supporting documentation for a Development Application (DA) to be submitted to MCC.

This BTA has been prepared using current legislative requirements and associated guidelines for assessment of bushfire protection, these being:

- PBP (RFS, 2019); and
- AS3959-2018 Construction of Buildings in Bushfire Prone Area.

1.4 Objectives of Assessment

This report has been prepared to address the requirements of Clause 44 of the Rural Fires Regulation. This BTA also addresses the six key Bush Fire Protection Measures (BFRMs) in a development assessment context being:

- The provision of clear separation of buildings and bush fire hazards, in the form of fuel-reduced APZ (and their components being Inner Protection Areas (IPA's) and Outer Protection Areas (OPA's);
- Sitting and design of the proposal;
- Construction standards;
- Appropriate access standards for residents, fire-fighters, emergency workers and those involved in evacuation;
- Adequate water supply and pressure, and utility services; and
- Suitable landscaping, to limit fire spreading to a building.

Legend

Subject Land

Assessment Area

100m

140m

Cadastre

Bushfire Prone Land

Vegetation Category 1

Vegetation Category 2

Vegetation Category 3

Vegetation Buffer

Scale 1:3,100

0 100 200 m

firebird

Client: Drayton Group Pty Ltd

Project: 91 Gardiner Street, Rutherford NSW 2320

Figure 1-2: Bushfire Prone Land

2 METHODOLOGY

2.1 Vegetation Assessment

Vegetation surveys and vegetation mapping carried out on the site has been undertaken as follows:

- Aerial Photograph Interpretation to map vegetation cover and extent
- Confirmation of the vegetation assemblage typology present.

2.2 Slope Assessment

Slope assessment has been undertaken as follows:

- Aerial Photograph Interpretation in conjunction with analysis of electronic contour maps with a contour interval of 2m.

3 SITE ASSESSMENT

The following assessment has been undertaken in accordance with the requirements of PBP (RFS, 2019).

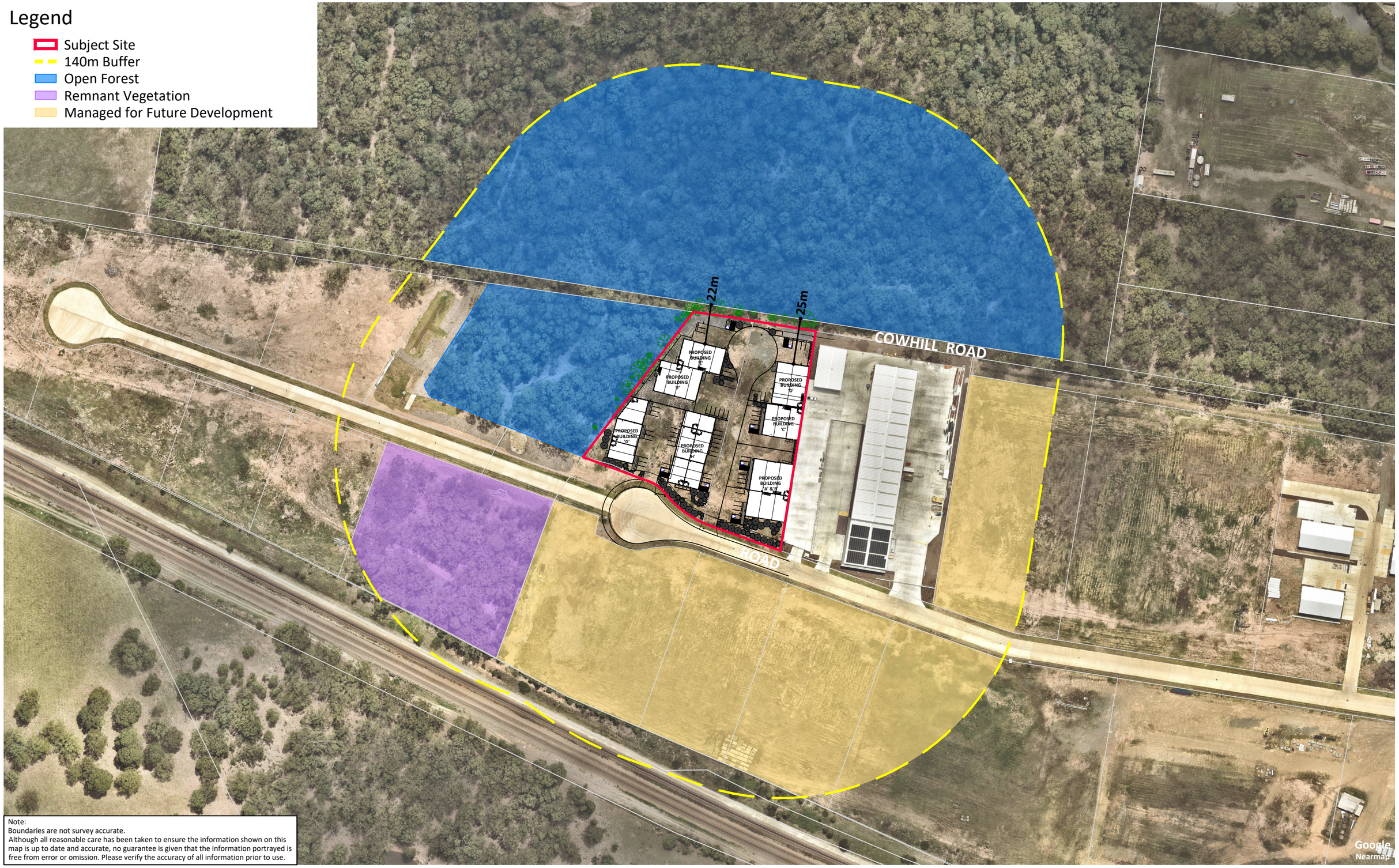
3.1 Vegetation & Slope Assessment

In accordance with PBP (RFS 2019), an assessment of the vegetation over a distance of 140m in all directions from the site was undertaken. Vegetation that may be considered a bushfire hazard was identified in all directions from the site. This assessment is depicted in Table 3-1.

In accordance with PBP (RFS 2019), an assessment of the slope beneath the vegetation considered a bushfire hazard was undertaken and the results are presented in Table 3-1 below.

Table 3-1: Vegetation Classification of the subject site

Direction	Vegetation Type	Distance from Site Boundary	Slope Vegetation occurs on
North	Forest vegetation	>22m	Downslope (0-5°)
East	Managed Land – Future development	>100m	N/A
South	Managed Land – Future development	>100m	N/A
Southwest	Remnant vegetation	>47m	Upslope
West	Forest Vegetation	Adjacent	Downslope (0-5°)



Note:
Boundaries are not survey accurate.
Although all reasonable care has been taken to ensure the information shown on this map is up to date and accurate, no guarantee is given that the information portrayed is free from error or omission. Please verify the accuracy of all information prior to use.

FIGURE 3-1: VEGETATION MAP

Ref No 3406 B

CLIENT	Client
SITE DETAILS	No.91 Gardiner Street Rutherford
DATE	11 February 2025

NORTH

0 25 50 100

SCALE 2000 @ A3

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4 BUSHFIRE PROTECTION ASSESSMENT

4.1 Asset Protection Zones (APZ)

The PBP (RFS, 2019) guidelines have been used to determine the widths of the APZs required for habitable buildings within the site using the vegetation and slope data identified in Section 3-1 of this report.

The site lies within Maitland Local Government Area and therefore is assessed under an FDI rating of 100. Using the results from the Site Assessment (section 3.1 of this report) the deemed to satisfy APZ requirements for the proposed buildings within the site were determined using Table A1.12.2 in PBP (RFS, 2019). Refer to Table 4-1 for the required APZs for the proposed light industrial units.

Table 4-1: Recommended APZs for Proposed Light Industrial Units

Direction from Development	Vegetation classified within 140m	Effective Slope (within 100m)	APZ to be provided
North	Forest vegetation	Downslope (0-5°)	The areas of the site outside development should be managed as an IPA
East	Managed land	N/A	>100m managed land
South	Managed land	N/A	>100m managed land
Southwest	Remnant vegetation	Upslope	The areas of the site outside development should be managed as an IPA
West	Forest vegetation	Downslope (0-5°)	The areas of the site outside development should be managed as an IPA

NOTE: proposed industrial unit labelled Building G in the site plans (refer to Appendix A) has part of the Northwestern elevation approx. 2m from the boundary of the subject site and within close proximity to bushfire hazard interface. An appropriate APZ cannot be achieved however a defendable space has been provided to the Western side of the building and the building will be constructed to BAL-FZ on that elevation.

5 DWELLING DESIGN & CONSTRUCTION

Building design and the materials used for construction of future dwellings should be chosen based on the information contained within AS3959-2018, and accordingly the designer / architect should be made aware of this recommendation. It may be necessary to have dwelling plans checked by the architect involved to ensure that the proposed dwellings meet the relevant Bushfire Attack Level (BAL) as detailed in AS3959-2018.

The determinations of the appropriate BAL are based upon parameters such as weather modelling, fire-line intensity, flame length calculations, as well as vegetation and fuel load analysis. The determination of the construction level is derived by assessing the:

- Relevant FFDI = 100
- Flame temperature
- Slope
- Vegetation classification; and
- Building location.

The following BAL, based on heat flux exposure thresholds, are used in the standard:

(a) **BAL – LOW** The risk is considered to be **VERY LOW**

There is insufficient risk to warrant any specific construction requirements but there are still some risks.

(b) **BAL – 12.5** The risk is considered to be **LOW**

There is a risk of ember attack.

The construction elements are expected to be exposed to a heat flux not greater than 12.5 k/m^2.

(c) **BAL – 19** The risk is considered to be **MODERATE**

There is a risk of ember attack and burning debris ignited by wind borne embers and a likelihood of exposure to radiant heat.

The construction elements are expected to be exposed to a heat flux not greater than 19 kW/m^2.

(d) **BAL-29** The risk is considered to be **HIGH**

There is an increased risk of ember attack and burning debris ignited by windborne embers and a likelihood of exposure to an increased level of radiant heat.

The construction elements are expected to be exposed to a heat flux no greater than 29 kW/m^2.

(e) **BAL-40** The risk is considered to be **VERY HIGH**

There is much increased risk of ember attack and burning debris ignited by windborne embers, a likelihood of exposure to a high level of radiant heat and some likelihood of direct exposure to flames from the fire front.

The construction elements are expected to be exposed to a heat flux no greater than 40 kW/m^2.

(f) **BAL-FZ** The risk is considered to be **EXTREME**

There is an extremely high risk of ember attack and burning debris ignited by windborne embers, a likelihood of exposure to an extreme level of radiant heat and direct exposure to flames from the fire front.

The construction elements are expected to be exposed to a heat flux greater than 40 kW/m^2.

5.1 Determination of Bushfire Attack Levels

Using a FFDI of 100, the information relating to vegetation and slope was applied to Table A1.12.5 of PBP 2019 to determine the appropriate BAL ratings. The results from this bush fire risk assessment are detailed below in Table 5-1–Bush Fire Attack Assessment.

Table 5-1: Determination of Required BALs for Proposed Buildings A & B

Vegetation Type & Direction	Separation Distance from vegetation	Bushfire Attack Level (BAL)	Construction Section
Forest to the North	>75m	BAL-12.5	Sect 3 & 5 of AS3959
Managed Land to the East	>100m	BAL-12.5	Sect 3 & 5 of AS3959
Managed Land to the South	>100m	BAL-12.5	Sect 3 & 5 of AS3959
Remnant to the Southwest	>100m	BAL-12.5	Sect 3 & 5 of AS3959

Vegetation Type & Direction	Separation Distance from vegetation	Bushfire Attack Level (BAL)	Construction Section
Forest to the West	>81m	BAL-12.5	Sect 3 & 5 of AS3959

Given the information in Table 5-1 above, the proposed Buildings A & B within the proposed building envelope will be able to comply with AS3959-2018 and have been assessed as BAL-12.5 from all elevations.

Table 5-2: Determination of Required BALs for Proposed Building C

Vegetation Type & Direction	Separation Distance from vegetation	Bushfire Attack Level (BAL)	Construction Section
Forest to the North	>43m	BAL-19	Sect 3 & 6 of AS3959
Managed Land to the East	>100m	BAL-12.5	Sect 3 & 6 of AS3959
Managed Land to the South	>100m	BAL-12.5	Sect 3 & 6 of AS3959
Remnant to the Southwest	>100m	BAL-19	Sect 3 & 6 of AS3959
Forest to the West	>70m	BAL-19	Sect 3 & 6 of AS3959

Given the information in Table 5-2 above, the proposed Building C within the proposed building envelope will be able to comply with AS3959-2018 and has been assessed as BAL-19 from the Northern and Western elevations and BAL-12.5 from the Southern and Eastern elevations due to shielding.

Table 5-3: Determination of Required BALs for Proposed Building D

Vegetation Type & Direction	Separation Distance from vegetation	Bushfire Attack Level (BAL)	Construction Section
Forest to the North	>25m	BAL-40	Sect 3 & 9 of AS3959
Managed Land to the East	>100m	BAL-29	Sect 3 & 9 of AS3959
Managed Land to the South	>100m	BAL-29	Sect 3 & 9 of AS3959
Remnant to the Southwest	>100m	BAL-29	Sect 3 & 9 of AS3959

Vegetation Type & Direction	Separation Distance from vegetation	Bushfire Attack Level (BAL)	Construction Section
Forest to the West	>57m	BAL-29	Sect 3 & 9 of AS3959

Given the information in Table 5-3 above, the proposed Building D within the proposed building envelope will be able to comply with AS3959-2018 and has been assessed as BAL-40 from the Northern elevation and BAL-29 from the Western, Eastern and Southern elevations due to shielding.

Table 5-4: Determination of Required BALs for Proposed Building E & F

Vegetation Type & Direction	Separation Distance from vegetation	Bushfire Attack Level (BAL)	Construction Section
Forest to the North	>22m	BAL-FZ	Sect 3 & 9 of AS3959
Managed Land to the East	>100m	BAL-40	Sect 3 & 9 of AS3959
Managed Land to the South	>100m	BAL-40	Sect 3 & 9 of AS3959
Remnant to the Southwest	>85m	BAL-40	Sect 3 & 9 of AS3959
Forest to the West	>1m	BAL-FZ	Sect 3 & 9 of AS3959

Given the information in Table 5-4 above, the proposed Buildings E & F within the proposed building envelope will be able to comply with AS3959-2018 and have been assessed as BAL-FZ from the Northern and Western elevations and BAL-40 from the Southern and Eastern elevations due to shielding.

Table 5-5: Determination of Required BALs for Proposed Building G

Vegetation Type & Direction	Separation Distance from vegetation	Bushfire Attack Level (BAL)	Construction Section
Forest to the North	>60m	BAL-FZ	Sect 3 & 9 of AS3959
Managed Land to the East	>100m	BAL-FZ	Sect 3 & 9 of AS3959
Managed Land to the South	>100m	BAL-FZ	Sect 3 & 9 of AS3959

Vegetation Type & Direction	Separation Distance from vegetation	Bushfire Attack Level (BAL)	Construction Section
Remnant to the Southwest	>46m	BAL-FZ	Sect 3 & 9 of AS3959
Forest to the West	>2m	BAL-FZ	Sect 3 & 9 of AS3959

Given the information in Table 5-5 above, the proposed Building G within the proposed building envelope will be able to comply with AS3959-2018 and have been assessed as BAL-FZ from the Northern and Western elevations and BAL-40 from the Southern and Eastern elevations due to shielding.

Table 5-6: Determination of Required BALs for Proposed Building H

Vegetation Type & Direction	Separation Distance from vegetation	Bushfire Attack Level (BAL)	Construction Section
Forest to the North	>59m	BAL-29	Sect 3 & 7 of AS3959
Managed Land to the East	>100m	BAL-19	Sect 3 & 7 of AS3959
Managed Land to the South	>100m	BAL-19	Sect 3 & 7 of AS3959
Remnant to the Southwest	>74m	BAL-29	Sect 3 & 7 of AS3959
Forest to the West	>32m	BAL-29	Sect 3 & 7 of AS3959

Given the information in Table 5-6 above, the proposed Building H within the proposed building envelope will be able to comply with AS3959-2018 and have been assessed as BAL-29 from the Northern and Western elevations and BAL-19 from the Southern and Eastern elevations due to shielding.

Legend

- Subject Site
- 100m Buffer
- BAL FZ
- BAL 40
- BAL 29
- BAL 19
- BAL 12.5

Disclaimer
The BALS as depicted on this map have been determined by vegetation within 100m of the site at the time of the assessment on February 2025. It should be noted that conditions may change over time, that may result in different BALs for the site.
Although every care has been taken in the preparation of this map the author accepts no responsibility for any misprints, errors, omissions, inaccuracies in these maps or damages resulting from the use of this information.

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FIGURE 5-1: BUSHFIRE ATTACK LEVELS

Ref No 3406 B

CLIENT	Client
SITE DETAILS	No.91 Gardiner Street Rutherford
DATE	11 February 2025

NORTH

0 25 50 75

SCALE 1500 @ A3

Firebird ecoSultants Pty Ltd
ABN - 16 105 985 993
Level 1, 146 Hunter Street, Newcastle NSW 2300
P O Box 354 Newcastle NSW 2300

6 COMPLIANCE

The proposal is for light industrial units and involves a 1 into 8 lot Precinct Title subdivision and 8 lot strata subdivision therefore development standards apply. Table 6-1 details compliance with Development Standards for Residential and Rural Residential Subdivisions.

Table 6-1: Proposed Subdivision Compliance with Development Standards

Acceptable Solutions	Performance Criteria	Compliance
Asset Protection Zones		
〉 APZs are provided in accordance with Tables A1.12.2 and A1.12.3 based on the FFDI.	potential building footprints must not be exposed to radiant heat levels exceeding 29 kW/m² on each proposed lot.	**Complies with Performance Criteria –** An APZ has been provided in accordance with Table A1.12.5 of PBP 2019 for Buildings A, B, C, H however an appropriate APZ cannot be provided for Buildings D, E, F and G. A defendable space has been provided.
〉 APZs are managed in accordance with the requirements of Appendix 4.	APZs are managed and maintained to prevent the spread of a fire towards the building.	**Complies with Acceptable Solution –** APZs on site are to be managed in accordance with Appendix 4 of PBP 2019.
〉 APZs are wholly within the boundaries of the development site	the APZs is provided in perpetuity	**Complies with Acceptable Solution –** The IPA occurs within the boundaries of the site. The areas outside the development footprint should be managed as an IPA.
〉 APZs are located on lands with a slope less than 18 degrees.	APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is minimised.	**Complies with Acceptable Solution –** APZs on site do not occur over land with slope <18°.

Landscaping		
〉 landscaping is in accordance with Appendix 4; and fencing is constructed in accordance with section 7.6.	landscaping is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind-driven embers to cause ignitions.	**Complies with Acceptable Solution –** All landscaping within the site will meet the requirements of the acceptable solution.
Access (General Requirements)		
〉 property access roads are two-wheel drive, all-weather roads; 〉 perimeter roads are provided for residential subdivisions of three or more allotments; 〉 subdivisions of three or more allotments have more than one access in and out of the development; 〉 traffic management devices are constructed to not prohibit access by emergency services vehicles; 〉 maximum grades for sealed roads do not exceed 15 degrees and an average grade of not more than 10 degrees or other gradient specified by road design standards, whichever is the lesser gradient; 〉 all roads are through roads; 〉 dead end roads are not recommended, but if unavoidable, are not more than 200 metres in length, incorporate a minimum	firefighting vehicles are provided with safe, all-weather access to structures.	**Complies with Acceptable Solution –** The proposal is for light industrial units and the public road network is existing. Unobstructed access <70m is provided to buildings A, B, G and H however a proposed property access road will provide direct access to the public road for buildings C, D, E and F. This property access road complies with the following requirements: 〉 Minimum 4m carriageway width; 〉 A minimum vertical clearance of 4m to any overhanging obstructions, including tree branches; 〉 Provide a suitable turning area in accordance with Appendix 3; 〉 Curves of roads have a minimum inner radius of 6m and are minimal in number to allow for rapid access and egress; 〉 The minimum distance between inner and outer curves is 6m; 〉 The crossfall is not more than 10 degrees; 〉 Maximum grades for sealed roads do not exceed 15 degrees and not more than 10

12 metres outer radius turning circle, and are clearly sign posted as a dead end; 〉 where kerb and guttering is provided on perimeter roads, roll top kerbing should be used to the hazard side of the road; 〉 where access/egress can only be achieved through forest, woodland and heath vegetation, secondary access shall be provided to an alternate point on the existing public road system; and 〉 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.		degrees for unsealed roads
〉 the capacity of perimeter and non-perimeter road surfaces and any bridges/causeways is sufficient to carry fully loaded firefighting vehicles (up to 23 tonnes); bridges/causeways are to clearly indicate load rating.	the capacity of access roads is adequate for firefighting vehicles.	**Complies with acceptable solution –** The public road network is existing and complies with the requirements of the acceptable solution. Perimeter and non-perimeter roads are not proposed.
〉 hydrants are located outside of parking reserves and road carriageways to ensure accessibility to reticulated water for fire suppression; 〉 hydrants are provided in accordance with the relevant clauses of AS 2419.1:2017 -	there is appropriate access to water supply.	**Complies with acceptable solution** – hydrants will be appropriately located to meet the requirements of the acceptable solution. In any case, each building is supplied with a rainwater tank with the capacity to supply water for firefighting purposes.

Fire hydrant installations System design, installation and commissioning; and 〉 there is suitable access for a Category 1 fire appliance to within 4m of the static water supply where no reticulated supply is available.		
Perimeter Roads		
〉 are two-way sealed roads; 〉 minimum 8m carriageway width kerb to kerb; 〉 parking is provided outside of the carriageway width; 〉 hydrants are located clear of parking areas; 〉 are through roads, and these are linked to the internal road system at an interval of no greater than 500m; 〉 curves of roads have a minimum inner radius of 6m; 〉 the maximum grade road is 15 degrees and average grade of not more than 10 degrees; 〉 the road crossfall does not exceed 3 degrees; and	access roads are designed to allow safe access and egress for firefighting vehicles while residents are evacuating as well as providing a safe operational environment for emergency service personnel during firefighting and emergency management on the interface.	**Complies with performance criteria –** perimeter roads are not proposed. The public road network is existing. Unobstructed access <70m is provided to buildings A, B, G and H however a proposed property access road will provide direct access to the public road for buildings C, D, E and F. This property access road complies with the following requirements: 〉 Minimum 4m carriageway width; 〉 A minimum vertical clearance of 4m to any overhanging obstructions, including tree branches; 〉 Provide a suitable turning area in accordance with Appendix 3; 〉 Curves of roads have a minimum inner radius of 6m and are minimal in number to allow for rapid access and egress; 〉 The minimum distance between inner and outer curves is 6m; 〉 The crossfall is not more than 10 degrees;

〉 a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided.		〉 Maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads
Non-Perimeter Roads		
〉 minimum 5.5m carriageway width kerb to kerb; 〉 parking is provided outside of the carriageway width; 〉 hydrants are located clear of parking areas; 〉 roads are through roads, and these are linked to the internal road system at an interval of no greater than 500m; 〉 curves of roads have a minimum inner radius of 6m; 〉 the road crossfall does not exceed 3 degrees; and 〉 a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided.	access roads are designed to allow safe access and egress for firefighting vehicles while residents are evacuating.	**N/A –** non-perimeter roads are not proposed.
Property Access		
〉 There are no specific access requirements in an urban area where an unobstructed path (no greater than 70m) is provided between the most distant external part of the proposed dwelling and the nearest part	firefighting vehicles can access the dwelling and exit the property safely.	**Complies with Acceptable Solution –** The public road network is existing. Unobstructed access <70m is provided to buildings A, B, G and H however a proposed property access road will provide direct access to the public road for buildings

of the public access road (where the road speed limit is not greater than 70kph) that supports the operational use of emergency firefighting vehicles. **In circumstances where this cannot occur, the following requirements apply:** 〉 minimum 4m carriageway width; 〉 in forest, woodland and heath situations, rural property access roads have passing bays every 200m that are 20m long by 2m wide, making a minimum trafficable width of 6m at the passing bay; 〉 a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches; 〉 provide a suitable turning area in accordance with Appendix 3; 〉 curves have a minimum inner radius of 6m and are minimal in number to allow for rapid access and egress; 〉 the minimum distance between inner and outer curves is 6m; 〉 the crossfall is not more than 10 degrees; 〉 maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads; and		C, D, E and F. This property access road complies with the following requirements: 〉 Minimum 4m carriageway width; 〉 A minimum vertical clearance of 4m to any overhanging obstructions, including tree branches; 〉 Provide a suitable turning area in accordance with Appendix 3; 〉 Curves of roads have a minimum inner radius of 6m and are minimal in number to allow for rapid access and egress; 〉 The minimum distance between inner and outer curves is 6m; 〉 The crossfall is not more than 10 degrees 〉 Maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads

〉 a development comprising more than three dwellings has access by dedication of a road and not by right of way. **Note: Some short constrictions in the access may be accepted where they are not less than 3.5m wide, extend for no more than 30m and where the obstruction cannot be reasonably avoided or removed. The gradients applicable to public roads also apply to community style development property access roads in addition to the above.**		
Water Supplies		
〉 reticulated water is to be provided to the development where available; 〉 a static water and hydrant supply is provided for non-reticulated developments or where reticulated water supply cannot be guaranteed; and 〉 static water supplies shall comply with Table 5.3d.	adequate water supplies are provided for firefighting purposes.	**Complies with Acceptable Solution –** The site is to be connected to reticulated water.

〉 fire hydrant, spacing, design and sizing complies with the relevant clauses of Australian Standard AS 2419.1:2017; 〉 hydrants are not located within any road carriageway; and 〉 reticulated water supply to urban subdivisions uses a ring main system for areas with perimeter roads.	Water supplies are located at regular intervals; and the water supply is accessible and reliable for firefighting operations.	**Complies with Acceptable Solution –** hydrants are to be located within 70m of the site. In any case, rainwater tanks are provided for each building with the capacity to supply water for firefighting purposes.
〉 fire hydrant flows and pressures comply with the relevant clauses of AS 2419.1:2017.	flows and pressure are appropriate.	**Complies with Acceptable Solution –** fire hydrant pressures and flows are assumed to be compliant.
〉 all above-ground water service pipes are metal, including and up to any taps; and 〉 above-ground water storage tanks shall be of concrete or metal.	the integrity of the water supply is maintained.	**Complies with Acceptable Solution –** All above ground water service pipes will meet the requirements.
Electricity Services		
〉 where practicable, electrical transmission lines are underground; 〉 where overhead, electrical transmission 〉 lines are proposed as follows: lines are installed with short pole spacing of 30m, unless crossing gullies, gorges or riparian areas; and 〉 no part of a tree is closer to a power line than the distance set out	location of electricity services limits the possibility of ignition of surrounding bush land or the fabric of buildings.	**Complies with Acceptable Solution –** All proposed buildings are able to meet the requirements for electricity services.

in ISSC3 Guideline for Managing Vegetation Near Power Lines.		
Gas Services		
〉 reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 - The storage and handling of LP Gas, the requirements of relevant authorities, and metal piping is used; 〉 all fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side; 〉 connections to and from gas cylinders are metal; 〉 polymer-sheathed flexible gas supply lines are not used; and 〉 above-ground gas service pipes are metal, including and up to any outlets.	location and design of gas services will not lead to ignition of surrounding bushland or the fabric of buildings.	**Can Complies with Acceptable Solution –** All proposed buildings are able to meet the requirements for gas services.
CONSTRUCTION STANDARDS		
〉 BAL is determined in accordance with A1.12.5 to A1.12.7; and 〉 Construction provided in accordance with the MCC and as modified by section 7.5 of PBP 2019.	The proposed building can withstand bush fire attack in the form of embers, radiant heat and flame contact.	**N/A –** The Building Code of Australia (BCA) does not provide for any bush fire specific performance requirements for this type of development and as such AS 3959 does not apply as a set of 'deemed to satisfy' provisions. The general fire safety construction provisions are taken as acceptable solutions.

〉 Fencing and gates are constructed in accordance with section 7.6 of PBP 2019.	Proposed fences and gates are designed to minimise the spread of bush fire.	**Can comply –** any new fencing and gates is to be constructed in accordance with Section 7.6 of PBP.
〉 Class 10a buildings are constructed in accordance with section 8.3.2.	Proposed Class 10a buildings are designed to minimise the spread of bush fir.	**N/A**

7 CONCLUSION & RECOMMENDATIONS

In summary, a Bushfire Risk Assessment has been undertaken for a proposed 1 into 8 lot Precinct Title subdivision and 8 lot strata subdivision at No. 10 & 12 / 91 Gardiner Street, Rutherford NSW 2320. The proposal also involves 14 light industrial units within 6 buildings. The report forms part of the supporting documentation for a Development Application (DA) to be submitted to MCC.

In accordance with Section 4.14 of the EP&A, as the development is on bushfire prone land and will be affected by BAL-FZ, Council will refer the development application to the NSW RFS on an advisory basis.

If the recommendations contained within this report are duly considered and incorporated, it is considered that the fire hazard present is containable to a level necessary to provide an adequate level of protection to life and property on the subdivision. In summary, the following is recommended to enable the proposal to meet the relevant legislative requirements:

1. **Asset Protection Zone (APZ) - The APZ provides space and reduced fuel loads to ensure radiant heat levels at the buildings are below critical limits and to prevent direct flame contact.**

    - To achieve the Bushfire Attack Levels (BAL) as stated in Chapter 5 of this report, the following land is to be managed as an APZ:

        - It is recommended that the areas of the site outside the development footprint be managed as an Inner Protection Area.

    - These distances are to be managed as described under 'Planning for Bushfire Protection (Appendix 4 – Asset Protect Zone Requirements)' and the document titled 'Standards for Asset Protection Zones'.

2. **Perimeter Roads - Access standards provide for emergency evacuation and firefighting operations**

    - The public road network is existing and provides unobstructed access <70m to proposed buildings A, B, G and H however buildings C, D, E and F will have direct access to a proposed property access road that complies with the following requirements from Table 5.3b of PBP 2019:

        - Minimum 4m carriageway width;
        - A minimum vertical clearance of 4m to any overhanging obstructions, including tree branches;
        - Provide a suitable turning area in accordance with Appendix 3;
        - Curves of roads have a minimum inner radius of 6m and are minimal in number to allow for rapid access and egress;
        - The minimum distance between inner and outer curves is 6m;
        - The crossfall is not more than 10 degrees;

- Maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads

3. **Construction Standards – Construction standards seek to increase the protection of the habitable buildings from bushfire. The shorter the APZ (distance between the external wall of the habitable building and the unmanaged vegetation), then the higher the construction standard, which is referred to as the BAL**

    - The proposed industrial units labelled Building E, F and G in the site plans (see Appendix A) have been assessed as **BAL-FZ** from the Northern and Western elevations and **BAL-40** from the Eastern and Southern elevations due to shielding.

    - The proposed unit labelled D has been assessed as **BAL-40** from the Northern elevation and **BAL-29** from the Eastern, Western and Southern elevations due to shielding.

    - The proposed unit labelled H has been assessed as **BAL-29** from the Northern and Western elevations and **BAL-19** from the Eastern and Southern elevations due to shielding.

    - The proposed unit labelled C has been assessed as **BAL-19** from the Northern and Western elevations and **BAL-12.5** from the Southern and Eastern elevations due to shielding.

    - The proposed units labelled A & B have been assessed as **BAL-12.5** from all elevations.

4. **Landscaping – The type, location and ongoing maintenance of landscaping is considered a necessary BPM**

    - The identified APZs are to be managed in accordance with accordance with PBP (Appendix 4);
    - A clear area of low-cut lawn or pavement is maintained adjacent to the buildings; and
    - Fencing details in accordance with PBP (7.6 – Fences and gates)

As the development is for industrial purposes, Chapter 8 should also be addressed for the purposes of bushfire assessment. The document titled 'Planning for Bushfire Protection (Section 8.3.1)' (p.76) states:

'The NCC does not provide for any bush fire specific performance requirements for these particular classes of buildings. As such AS3959 and the NASH Standard are not considered as a set of Deemed to Satisfy provisions, however compliance with AS3959 and the NASH Standard must be considered when meeting the aims and objectives of PBP. Whilst bush fire is not captured in the NCC for Class 5-8 buildings, the following objectives will be applied in relation to access, water supply and services, and emergency and evacuation planning:

In direct response to the objectives for Class 5-8 buildings, a response is provided below in Table 2:

Table 2 – Objectives and Responses

No	Objective	Response
1	To provide safe access to/from the public road system for firefighters providing property protection during a bush fire and for occupancy egress for evacuation.	Safe access to and from Gardiner Street directly and through a proposed property access road that complies with Table 5.3b of PBP 2019.
2	To provide suitable emergency and evacuation (and relocation) arrangements for occupants of the development.	A Bushfire Emergency Management and Evacuation Plan can be prepared for the development, which would be best developed with the future occupants, so that they understand the risk and subsequent evacuation procedures.
3	To provide adequate services of water for the protection of buildings during and after the passage of bush fire, and to located gas and electricity so as not to contribute to the risk of fire to a building.	The site is to be connected to reticulated water and hydrants are suitably located. In any case, a rainwater tank has been provided for each building with the capacity to supply water for firefighting purposes.
4	To provide for the storage of hazardous materials away from the hazard where possible.	Storage of hazardous materials should be on the Southern and Eastern sides away from the Northern and Western bushfire hazards

This report provides the above required information to assist Council and the RFS in determining compliance in accordance with the PBP 2019 and AS 3959-2018.

8 BIBLIOGRAPHY

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Standards Australia (2018). *AS 3959 – 2018: Construction of Buildings in Bushfire-prone Areas.*

APPENDIX A PROPOSED SITE PLANS

DEVELOPMENT APPLICATION

PROPOSED UNIT DEVELOPMENT

10 -12 / 91 GARDINER STREET RUTHERFORD

LOTS 6 & 7 DP 271474

DRAWING SCHEDULE

PROJECT	SHEET	TITLE	REVISION
23263A		COVER SHEET	15
23263A	DA001	SITE ARRANGEMENT PLAN	15
23263A	DA002	SITE PLAN	15
23263A	DA003	VEHICLE MOVEMENT PLANS	15
23263A	DA004	LANDSCAPING PLAN	15
23263A	DA005	DETAILS & NOTES	15
23263A	DA101	FLOOR PLANS & SECTIONS - BUILDINGS A & B	10
23263A	DA102	ELEVATIONS - BUILDINGS A & B	10
23263A	DA201	FLOOR PLANS AND SECTION - BUILDING C	10
23263A	DA202	ELEVATIONS - BUILDING C	10
23263A	DA301	FLOOR PLANS & SECTION - BUILDING D	12
23263A	DA302	ELEVATIONS - BUILDING D	12
23263A	DA401	FLOOR PLANS & SECTIONS - BUILDINGS E & F	11
23263A	DA402	ELEVATIONS - BUILDINGS E & F	11
23263A	DA501	FLOOR PLAN & ELEVATIONS - BUILDING G	12
23263A	DA601	FLOOR PLAN & ELEVATIONS - BUILDING H	10

SITE LOCALITY PLAN
NOT TO SCALE

Council
MAITLAND CITY COUNCIL

Client
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SITE ARRANGEMENT PLAN
Scale 1:250

LEGEND

EXISTING TREE TO BE RETAINED

1 TREE IDENTIFICATION FROM ARBORIST REPORT

EXISTING TREES LOCATED BY SURVEY
- REFER DELFS LASCELLES TREE SURVEY PROJECT NUMBER 24021 REVISION A DATED 06.08.24.
- REFER ARBORIST REPORT BY ABACUS TREE SERVICES DATED 30.09.2024 FOR TREE IDENTIFICATION & DETAILS

15

Scale 1:250
5 0 5 10 15 20 25m

REV.	DATE	DESCRIPTION	DRAWN
15	05.02.25	TREE PRESERVATION AMENDMENTS	MC
14	02.12.24	BUILDING D AMENDMENTS	MC
13	21.11.24	CIVIL DESIGN AMENDMENTS	MC
12	25.09.24	AMENDMENTS AS NOTED	MC
11	17.09.24	UNIT 6 VEHICLE ACCESS AMENDED	MC
10	01.08.24	AMENDMENTS AS NOTED	MC

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Project Title
PROPOSED UNIT DEVELOPMENT

Project Address
10 -12 / 91 GARDINER STREET
RUTHERFORD

Client
JCPMB PTY LTD

Project Status
DEVELOPMENT APPLICATION

Drawing Title
SITE ARRANGEMENT PLAN

Project No.	Revision	Drawing No.
23263A	15	**DA001**

Drawings scaled to an A1 sheet

23263A DA15.pln Last saved on 2/12/2024 by Mark

NORTH

RETAINING WALL - REFER CIVIL ENGINEERS DESIGN

BLACK CHAINWIRE FENCE - 1800H WITH 3 STRANDS BARBED

UNDERGROUND TANK - REFER CIVIL ENGINEERS DESIGN

RETAINING WALL - REFER CIVIL ENGINEERS DESIGN

BDY 23.715m

BDY 12.55m

2.315m

BDY 31.59m

COWHILL ROAD (UNFORMED)

EASEMENT TO DRAIN WATER

LANDSCAPING - GRASSES MIN 5500 OFF BOUNDARY TO PROTECT EXISTING ADJACENT VEGETATION

LANDSCAPING - GRASSES - MIN 6000 BUILDING OFFSET TO PROTECT EXISTING ADJACENT VEGETATION

KERB ONLY

KERB ONLY

KERB ONLY

LOT 6

BUILDING E
AREA - 374 m²

STORAGE AREA

RETAIN EXISTING GROUND LEVEL
MIN 2500 OFF BOUNDARY TO PROTECT EXISTING ADJACENT VEGETATION

RETAINING WALL - REFER CIVIL ENGINEERS DESIGN

RETAINING WALL BENEATH BUILDING

REINFORCED CONCRETE PAVEMENT

EXISTING BOUNDARY

RETAINING WALL - REFER CIVIL ENGINEERS DESIGN

BUILDING D
AREA - 432 m²

LOT 5

ROLLER DOOR OPENING - FOR VENTILATION ONLY

RETAINING WALL BENEATH BUILDING

LOT 8

RAINWATER TANK TYP. - REFER CIVIL ENGINEERS DESIGN

FIRE WALL

BUILDING F
AREA - 449 m²

LOT 1

LOT 7

GRAVEL HARDSTAND TYP

RETAINING WALL - REFER CIVIL ENGINEERS DESIGN

RETAINING WALL / DEEP EDGE BEAM - EXTENDS BENEATH BUILDING - REFER CIVIL ENGINEERS DESIGN

STORAGE AREA

FULL HEIGHT PRECAST FIN PANEL TO PROVIDE 3m SEPERATION OF OPENING FROM BOUNDARY

WHEELSTOP TYP.

BUILDING C
AREA - 378 m²

RETAINING WALL / DEEP EDGE BEAM - REFER CIVIL ENGINEERS DESIGN

COLORBOND FENCE BETWEEN BLADE WALLS

BUILDING G
AREA - 513 m²

BUILDING H
AREA - 755 m²

RETAINING WALL / DEEP EDGE BEAM - EXTENDS BENEATH BUILDING - REFER CIVIL ENGINEERS DESIGN

LOT 4

REINFORCED CONCRETE PAVEMENT

LOT 5

BDY 125.65m

UNIT 3

UNIT 6

FIRE WALL

FIRE WALL

WHEELSTOP TYP.

BLACK CHAINWIRE FENCE - 1800H WITH 3 STRANDS BARBED

LOT 3

KERB ONLY

RAINWATER TANK TYP. - REFER CIVIL ENGINEERS DESIGN

UNIT 2

LOT 8

UNIT 5

UNIT 7

REINFORCED CONCRETE PAVEMENT

BUILDING B
AREA - 415 m²

UNIT 4

UNIT 8

FIRE WALL

FIRE WALL

UNIT 1

CHAINWIRE FENCE BY CLIENT

RETAINING WALL - REFER CIVIL ENGINEERS DESIGN

BDY 40.27m

LARGE SIGNAGE BOARD WITH MAILBOX AT BASE

LOT 2

BUILDING A
AREA - 344 m²

SCREENING

LOT 8

RETAINING WALL - REFER CIVIL ENGINEERS DESIGN

BDY 11.11m

SCREENING

LARGE SIGNAGE BOARD WITH MAILBOX AT BASE

WHEELSTOP TYP.

BDY A27.22m

LARGE SIGNAGE BOARD WITH MAILBOX AT BASE

POSTIVE COVENANT

NOMINAL LOCATION OF ELECTRICAL SUBSTATION IF REQUIRED

REINFORCED CONCRETE DRIVEWAY CROSSINGS CONTSTRUCTED IN ACCORDANCE WITH MAITLAND CITY COUNCIL REQUIREMENTS

A4.675m

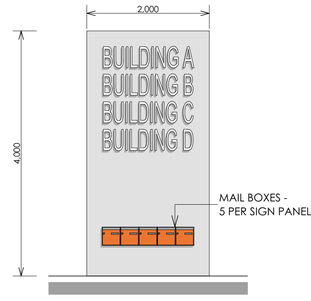
BDY 41.99m

APPROVED DRIVEWAY
DA21-1314

SITE PLAN
Scale 1:250

AREA SCHEDULE		
ZONE	**BUILDING USE**	**AREA**
BULDING A	INDUSTRY	344m²
BULDING B	INDUSTRY	414m²
BULDING C	INDUSTRY	378m²
BULDING D	INDUSTRY	432m²
BULDING E	INDUSTRY	374m²
BULDING F	INDUSTRY	449m²
BULDING G	INDUSTRY	513m²
BULDING H	INDUSTRY	755m²
TOTAL		**3650m²**

CARPARKING SCHEDULE	
RATE REQUIRED	**SPACES REQUIRED**
1/75m²	4.6
1/75m²	5.5
1/75m²	5.1
1/75m²	5.8
1/75m²	4.9
1/75m²	5.9
1/75m²	6.8
1/75m²	10.1
TOTAL	48.7
SPACES PROVIDED	**56**



TYPICAL SIGNAGE PANEL
Scale 1:50

LEGEND

- EXISTING KERB INLET PIT
- EXISTING STORMWATER PIT
- BOLLARD
- ROLLER DOOR
- EXISTING TREE TO BE RETAINED

Scale 1:250
5 0 5 10 15 20 25m

REV.	DATE	DESCRIPTION	DRAWN
15	05.02.25	TREE PRESERVATION AMENDMENTS	MC
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RUTHERFORD

Client
JCPMB PTY LTD

Project Status
DEVELOPMENT APPLICATION

Drawing Title
SITE PLAN

Project No.	Revision	Drawing No.
23263A	15	**DA002**

Drawings scaled to an A1 sheet

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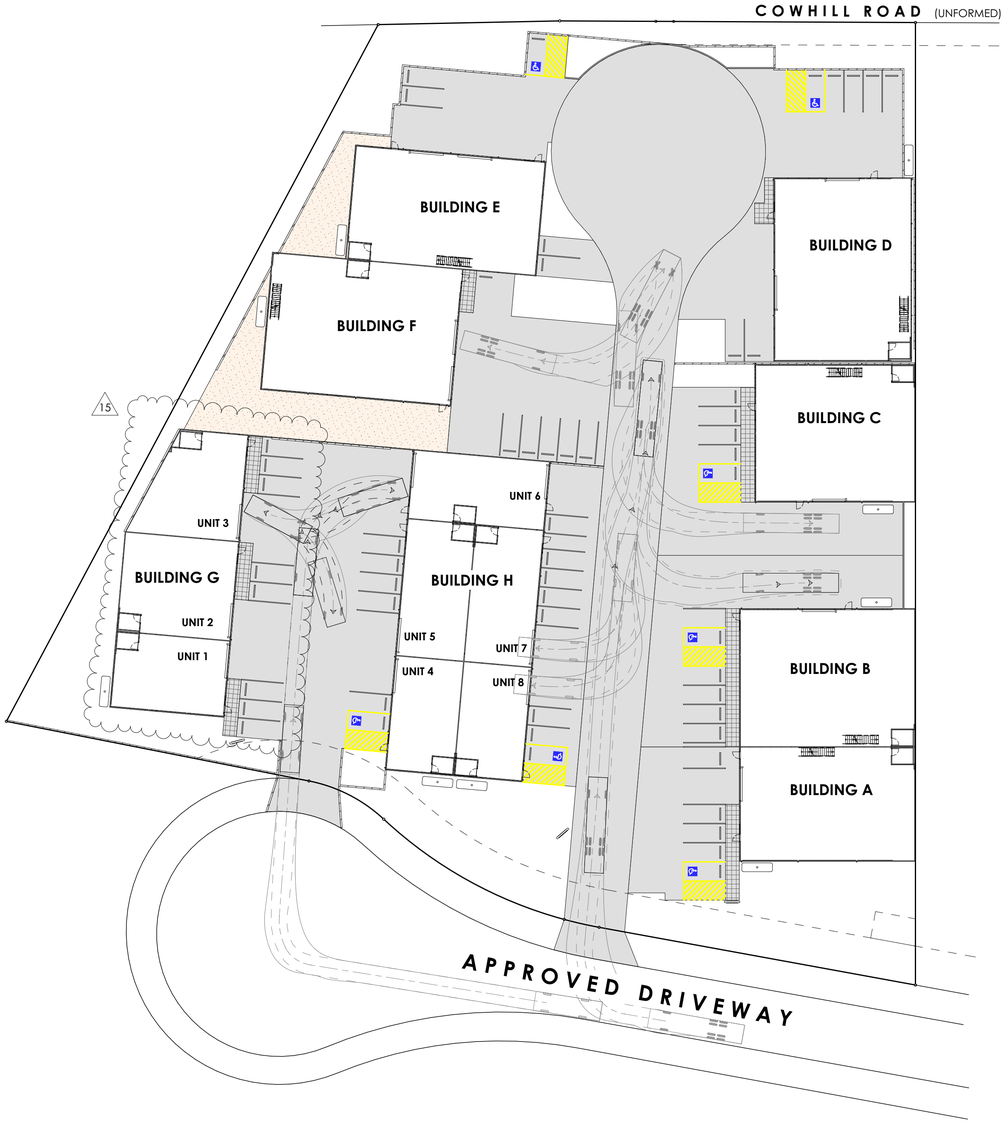
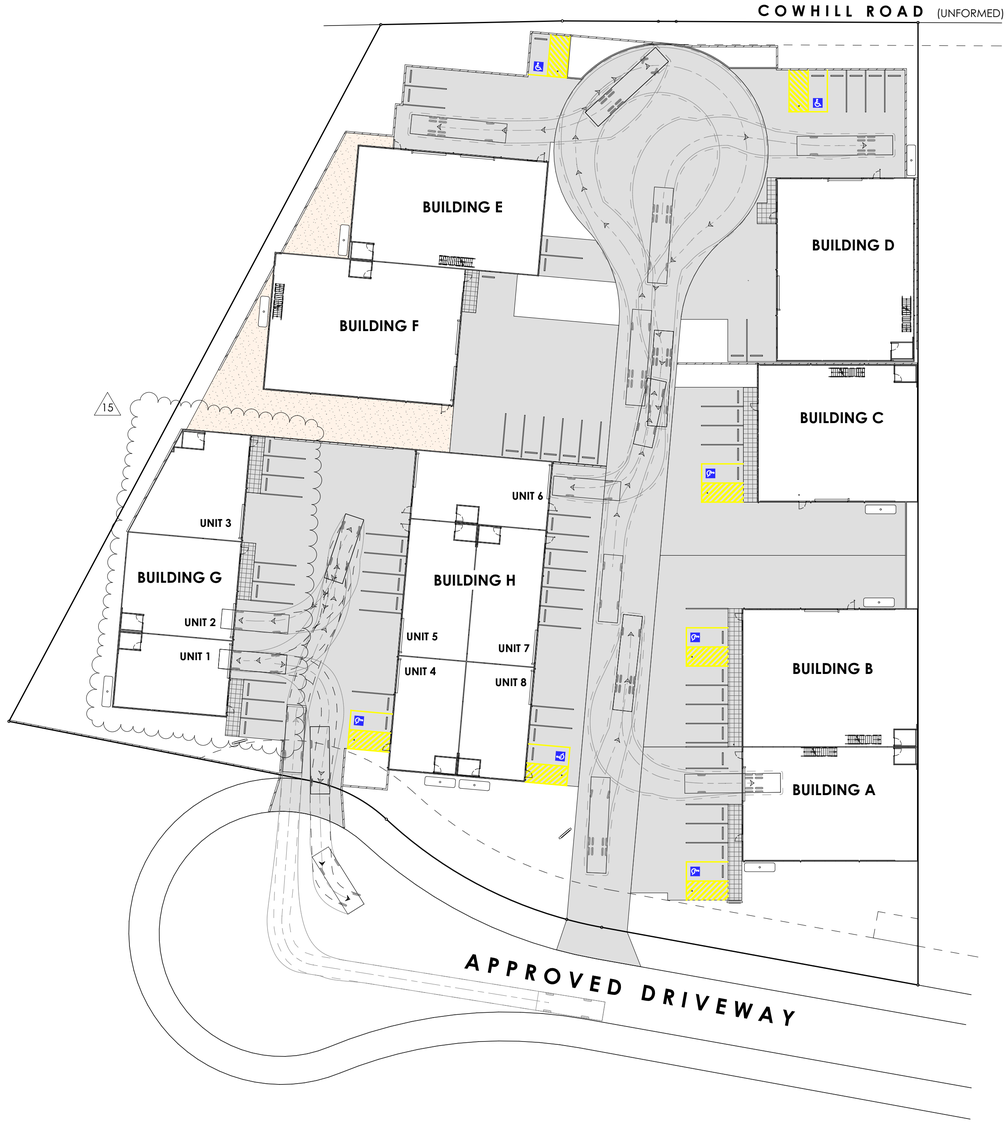
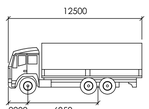
NORTH





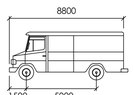
VEHICLE MOVEMENT PLANS

Scale 1:400



12.5m RIGID TRUCK

	mm
Width	: 2500
Track	: 2500
Lock to Lock Time	: 6.0
Steering Angle	: 36.6



SERVICE VEHICLE

	mm
Width	: 2500
Track	: 2500
Lock to Lock Time	: 6.0
Steering Angle	: 38.7

Scale 1:400
5 0 5 10 15 20 25m

REV.	DATE	DESCRIPTION	DRAWN
15	05.02.25	TREE PRESERVATION AMENDMENTS	MC
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Project Status
DEVELOPMENT APPLICATION

Drawing Title
VEHICLE MOVEMENT PLANS

Project No.	Revision	Drawing No.
23263A	15	**DA003**

Drawings scaled to an A1 sheet

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NORTH

LEGEND

CK — KINGS PARK SPECIAL

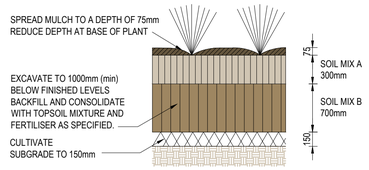
GM — GREVILLEA MOONLIGHT

SA — LILLY PILLY

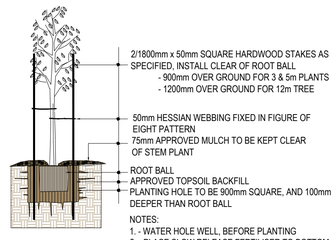
GC — GROUND COVER MASS PLANTING

LANDSCAPING PLAN
Scale 1:250

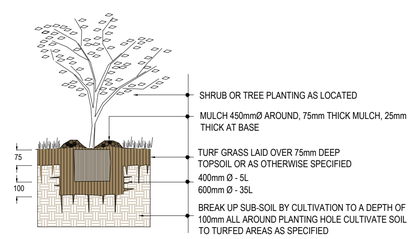
PLANT SCHEDULE							
TYPE	SYMBOL	BOTANICAL NAME	COMMON NAME	MATURE SIZE		QUANTITY	POT SIZE
				HEIGHT (m)	SPREAD (m)		
SHRUBS	CK	Callistemon 'King's Park Special'	KINGS PARK SPECIAL	5	4		200mm
	GM	Grevillea 'Moonlight'	GREVILLEA MOONLIGHT	4	3		200mm
	SA	Syzygium australe	LILLY PILLY	3	2		200mm
GROUND COVERS - MASS PLANTING - SELECT FROM:	GC	Doryanthes excelsa	GYMEA LILY	1		1 PLANT PER m²	TUBE STOCK
		Hardenbergia violacea	NATIVE SARSAPARILLA	0.5			
		Dianella hybrid	SILVER STREAK	0.6			
		Lomandra confertifolia	DWARF MAT RUSH	0.5			
		Hibbertia scandens	GOLDEN GUINEA FLOWER	0.3			
		Dianella caerulea	BLUE FLAX LILY	1			
		Lomandra longifolia	SPINY-HEAD MAT-RUSH	1			
		Isolepis nodosa	KNOBBY CLUB RUSH	1.5			



MASS PLANTING DETAIL
NOT TO SCALE



STAKING & TYING PLANTS WITH GRATE
NOT TO SCALE



TYPICAL TREE OR SHRUB IN TURF
NOT TO SCALE

Scale 1:250
5 0 5 10 15 20 25m

REV.	DATE	DESCRIPTION	DRAWN
15	05.02.25	TREE PRESERVATION AMENDMENTS	MC
14	02.12.24	BUILDING D AMENDMENTS	MC
13	21.11.24	CIVIL DESIGN AMENDMENTS	MC
12	25.09.24	AMENDMENTS AS NOTED	MC
11	17.09.24	UNIT 6 VEHICLE ACCESS AMENDED	MC
10	01.08.24	AMENDMENTS AS NOTED	MC

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Project Title
PROPOSED UNIT DEVELOPMENT

Project Address
10 -12 / 91 GARDINER STREET
RUTHERFORD

Client
JCPMB PTY LTD

Project Status
DEVELOPMENT APPLICATION

Drawing Title
LANDSCAPING PLAN

Project No.	Revision	Drawing No.
23263A	15	**DA004**

Drawings scaled to an A1 sheet

23263A DA15.pln Last saved on 2/12/2024 by Mark

ALL WORK IS TO BE COMPLETED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE (NCC) 2022 AMENDMENT 1 (ALSO REFERRED TO AS 'BCA')

GENERAL

G1. ALL EXISTING UNDERGROUND SERVICES MUST BE LOCATED AND EXPOSED PRIOR TO EARTHWORKS COMMENCING AND IT IS THE RESPONSIBILITY OF THOSE PERSONS USING THIS PLAN TO CONFIRM BOTH POSITION & LEVEL OF THESE UTILITIES IN CONJUNCTION WITH THE APPROPRIATE AUTHORITY.

G2. THE BUILDER SHALL CHECK AND VERIFY ALL DIMENSIONS AND VERIFY ALL ERRORS AND OMISSIONS TO THE DESIGNER. DO NOT SCALE THE DRAWINGS. DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION PURPOSES UNTIL ISSUED BY THE DESIGNER FOR CONSTRUCTION.

G3. WRITTEN DIMENSIONS TO TAKE PRECEDENCE OVER SCALED MEASUREMENTS. IF IN DOUBT REFER TO DESIGNER.

G4. EMERGENCY LIGHTING & EXIT / EXIT DIRECTION SIGNAGE TO BE INSTALLED TO ALL EGRESS PATHS & INTERNAL STAIRWAYS IN ACCORDANCE WITH AS2293.1- 2018 & NCC PART E4.

G5. AMENITIES TO BE MECHANICALLY VENTILATED.

G6. ALL GLAZED ASSEMBLIES TO COMPLY WITH AS1288-2021 AND AS2047-2014 (AS APPLICABLE).

G7. ALL NEW FLOOR LININGS, FLOOR COVERINGS, WALL LININGS & CEILING LININGS TO COMPLY WITH NCC SPECIFICATION 7.

G8. EXIT TRAVEL DISTANCES TO BE IN ACCORDANCE WITH NCC CLAUSE D2D5.

G9. THE MINIMUM UNOBSTRUCTED HEIGHT OF ANY REQUIRED EXIT OR PATH OF TRAVEL TO BE 2000mm THROUGHOUT EXCEPT DOORWAYS (MIN 1980mm) IN ACCORDANCE WITH NCC PART D2D7

G10. WHERE APPLICABLE – TACTILE INDICATORS TO BE PROVIDED TO INTERNAL STAIRWAYS (TOP & BOTTOM LANDINGS).

G11. WHERE APPLICABLE – LIFTS TO COMPLY WITH PART E3 OF THE NCC AND AS 1735.12. MINIMUM DIMENSIONS 1100mm WIDE x 1400mm DEEP WITH 900mm CLEAR OPENING.

G12. WET AREAS TO BE WATERPROOFED IN ACCORDANCE WITH NCC SPECIFICATION 26 & AS3740-2021.

G13. WINDOWS & EXTERNAL SLIDING FRAMED GLAZED DOORS TO COMPLY WITH AS2047-2014.

G14. ARTIFICIAL LIGHTING TO BE PROVIDED IN ACCORDANCE WITH NCC PART F6 & TO COMPLY WITH AS/NZS1680.0-2009

G15. MECHANICAL VENTILATION TO COMPLY WITH AS1668.2-2012.

G16. WHERE APPLICABLE – ALL BALUSTRADES TO MEZZANINE FLOOR & STAIRWAYS TO COMPLY WITH NCC PART D3, AS1170.1, AS1657 & AS1428.1.

G17. WHERE APPLICABLE - STAIRWAYS & RAMPS TO COMPLY WITH NCC PART D3.

G18 DOORS IN A REQUIRED EXIT, FORMING PART OF A REQUIRED EXIT OR IN THE PATH OF A REQUIRED EXIT TO COMPLY WITH NCC PAT D3 OPERATION OF LATCH

G19. DAMP-PROOFING – TO BE IN ACCORDANCE WITH AS2904 DAMP-PROOF COURSES AND FLASHINGS OR AS3660.1 TERMITE MANAGEMENT – NEW BUILDING WORK.

G20 CAR PARKING & DRIVEWAY LAYOUT TO COMPLY WITH AS2890.1-2004.

G21. CONSTRUCTION OF SANITARY COMPARTMENTS TO COMPLY WITH NCC PART F4P5.

G22. OUTDOOR LIGHTING TO COMPLY WITH AS 4282-1997

G23. TERMITE RISK MANAGEMENT SYSTEM TO BE PLACED IN ACCORDANCE WITH NCC PART B1D4 & AS 3660.1

G24. PORTABLE FIRE EXTINGUISHERS ARE TO BE PROVIDED IN ACCORDANCE WITH NCC PART E1D14

G25 METAL SHEET ROOFING MUST COMPLY WITH AS1562.1-2018

ENERGY EFFICIENCY

E1. THERMAL CONSTRUCTION TO AIR CONDITIONED SPACE INSULATION MUST BE INSTALLED IN ACCORDANCE WITH NCC PART J4 & COMPLY WITH AS4859.1.

E2. ROOF & CEILING TO ACHIEVE THE MINIMUM TOTAL "R" VALUE OUTLINED IN TABLE NCC PART J4. CONSTRUCTION OF ROOF TO COMPLY WITH NCC PART J5 (TYPICALLY R3.2) – REFER DETAILS.

E3. GLAZING TO COMPLY WITH NCC PART J1. REFER GLAZING CALCULATED DATA SHEET (AIR CONDITIONED SPACE ONLY) & AS1288-2021.

E4. EXTERNAL DOORS TO AIR CONDITIONED SPACE BE SELF CLOSING & SEALED IN ACCORDANCE WITH NCC PART J5D5.

E5. AIR CONDITIONING TO COMPLY WITH NCC PART J6.

E6. NATURAL LIGHTING TO COMPLY WITH NCC PART F6.

E7. ARTIFICIAL INTERIOR LIGHTING TO COMPLY WITH AS1680 & NCC PART J7.

E8. ARTIFICIAL EXTERIOR LIGHTING TO COMPLY WITH NCC PART J7D6.

E9. VENTILATION TO COMPLY WITH NCC PART F6.

E10. HOT WATER SYSTEM TO BE INSTALLED IN ACCORDANCE WITH SECTION 8 AS3500.4-2021 & NCC PART J8.

E11. EXTERNAL WALLS TO ACHIEVE MINIMUM TOTAL "R" VALUE OUTLINED IN NCC PART J4D6 – REFER DETAILS.

ACCESSIBILITY

A1. DISABLED ACCESS TO BE PROVIDED IN ACCORDANCE WITH NCC PART D4 & AS1428.1.

A2. STAIRWAYS TO COMPLY WITH AS1428.1 INCLUDING COMPLIANT RISERS, CONTRASTING NOSE STRIP & TACTILE INDICATORS AT TOP & BOTTOM LANDINGS.

A3. DOORWAYS TO HAVE MINIMUM CLEAR WIDTH OF 850mm (MINIMUM 920 LEAF DOOR).

A4. DOOR HANDLES TO BE:
- D-TYPE LEVER HANDLES LOCATED BETWEEN 900-1100mm HEIGHT.
- CLEARANCE BETWEEN GRIP AND DOOR FACE TO BE 35-45mm IN ACCORDANCE WITH NCC PART D3D26
- OPENABLE FROM THE SIDE FACING A PERSON SEEKING EGRESS WITHOUT A KEY

A5. MINIMUM CLEAR WIDTH OF ACCESS WAYS TO BE 1000mm.

A6. DOORWAYS INTO & WITHIN THE BUILDING TO HAVE MINIMUM LUMINANCE CONTRAST OF 30% PROVIDED BETWEEN DOOR & JAMB/WALL – MINIMUM WIDTH 50mm IN ACCORDANCE WITH AS1428.1 CLAUSE 13.1.

A7. FLOOR & GROUND SURFACES TO COMPLY WITH AS1428.1 CLAUSE 7.

A8. CARPET – AS1428.1 DOES NOT APPLY. CARPET PILE/BACKING THICKNESS AND HEIGHT TO BE IN ACCORDANCE WITH NCC PART D4D4(g) & (h).

A9. TACTILE INDICATORS TO BE PROVIDED & INSTALLED IN ACCORDANCE WITH AS1428.4.

A10 ALL GLAZING ON ACCESSWAYS TO BE CLEARLY MARKED WITH A MIN 75mm WIDE VISION STRIP IN ACCORDANCE WITH NCC PART D4D13 & AS1428.1 CLAUSE 6.6

A11. DISABLED TOILET TO BE CONSTRUCTED IN ACCORDANCE WITH AS1428.1.

FIXTURES TO WC	
GRAB RAILS	
DIAMETER	Ø30-40mm
HEIGHT	800-810mm
HAND BASIN	LIP 800-830mm
TOILET ROLL HOLDER	700mm MAX
MIRROR	900-1850mm
SOAP DISPENSER	1000-1100mm
SHOWER	
BASE OF ADJUSTMENT	1000-1100mm
TOP	1880-1900mm
FLUSH CONTROL	1100 MAX
DOOR LOCK	ONE HAND UNLOCK 900-1100mm
FLOOR SURFACE	SLIP RESISTANT
GRADIENT	
SHOWER	1:60-1:80
CIRC. AREA	1:80-1:100
ELECTRICAL OUTLET HEIGHT	900-1100mm
SIGN	DISABLED BRAILLE AS PER NCC D4D7, SPEC 15& AS 1428.1 PART 8
LUMINANCE CONTRAST	MIN DIFFERENTIAL 30% AS PER AS1428.1 CLAUSE 13.1
FINISHED FLOOR DIFFERENTIAL SURFACES	MAX 3mm AS PER AS1428.1 Section 7
TACTILE INDICATORS	AS PER NCC PART D4D9
CIRCULATION SPACE	2300 x 1900mm M IN

LANDSCAPING

L1. ALL EXISTING TREES MARKED FOR RETENTION SHALL BE PROTECTED FOR THE DURATION OF BUILDING WORKS. REMOVE FROM SITE ALL PERENNIAL WEEDS SUCH AS OXALIS, ONION WEED AND THE LIKE.

L2. NO REGRADING IS TO BE CARRIED OUT WITHIN THE DRIP LINE OF THE TREES TO BE RETAINED. WHERE EXCAVATION IS NECESSARY USE HAND METHODS TO AVOID DAMAGE TO THE ROOT SYSTEM. DO NOT CUT ROOTS GREATER THAN 50MM. CUT ROOTS CLEANLY WITH A SAW AND DO NOT SEAL THE WOUND.

L3. DO NOT STORE, STOCKPILE, DUMP OR OTHERWISE REPLACE UNDER OR NEAR TREES, BULK MATERIALS AND HARMFUL MATERIALS INCLUDING OIL, PAINT, WASTE CONCRETE, CLEARINGS, BOULDERS AND THE LIKE. DO NOT PLACE SPOIL FROM EXCAVATIONS AGAINST TREE TRUCKS, EVEN FOR SHORT PERIODS. PREVENT WIND-BLOWN MATERIALS SUCH AS CEMENT FROM HARMING TREES & PLANTS.

L4. PREVENT DAMAGE TO TREE BARK. DO NOT ATTACH STAYS, GUYS AND THE LIKE TO TREES.

L5. DO NOT REMOVE TOPSOIL FROM WITHIN THE DRIP LINE OF TREES UNLESS OTHERWISE SPECIFIED. IF IT IS NECESSARY TO EXCAVATE WITH IN THE DRIP LINE USE HAND METHODS SUCH THAT ROOT SYSTEMS ARE PRESERVED, INTACT AND UNDAMAGED.

L6. AVOID COMPACTION OF THE GROUND UNDER TREES. IF THE GROUND UNDER TREES HAS BEEN UNDULY COMPACTED DURING THE WORK. LOOSEN THE SOIL BY CORING.

L7. DO NOT CUT TREE ROOTS EXCEEDING 50MM DIAMETER UNLESS PERMITTED BY THE SUPERINTENDENT. WHERE IT IS NECESSARY TO CUT TREE ROOTS, USE A CHAINSAW OR SIMILAR MEANS SUCH THAT THE CUTTING DOES NOT UNDULY DISTURB OR ROCK THE REMAINING ROOT SYSTEMS. IMMEDIATELY AFTER CUTTING, APPLY AN APPROVED BITUMINOUS FUNGICIDAL SEALANT TO THE CUT SURFACE TO PREVENT THE INCURSION OF ROT OR DISEASE.

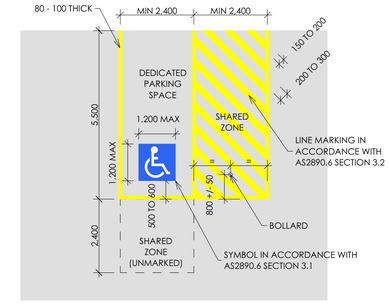
L8. THOROUGHLY CULTIVATE THE SUBSOIL TO THE DEPTHS SPECIFIED.

L9. TREE PLANTING AREAS TO BE MOUNDED 300MM ABOVE EXISTING GROUND LINE TO IMPROVE DRAINAGE FROM PLANTING HOLES. TREE HOLES TO BE EXCAVATED 2 TIMES LARGER THAN THE ROOTBALL AND BACKFILLED.

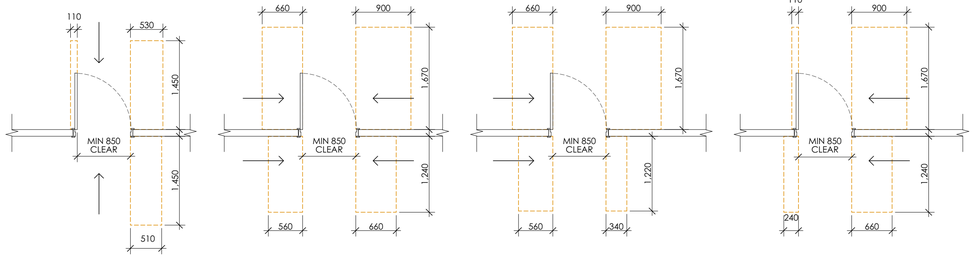
L10. SUPPLY AND PLACE 75MM LAYER OF HARDWOOD HORTICULTURAL GRADE MULCH (GRADED IN SIZE 15MM x 15MM x 15MM. FREE FROM WOOD SLIVERS.) SET DOWN 25MM FROM ADJACENT PAVING.

L11. APPLY SHIRLEYS NO17 LAWN FERTILISER OR SIMILAR TO SOIL. APPLIED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.

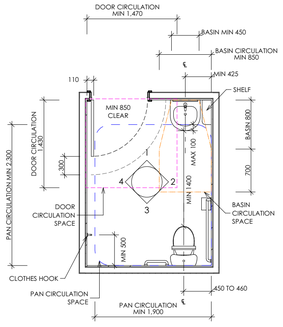
L12. ALL PLANTS SHALL BE TRUE TO TYPE OF HEALTHY GROWTH DISEASE FREE NURSERY STOCK AND NOT DISPLAYING RESTRICTED GROWTH PATTERNS. SHOULD THERE BE A REQUIREMENT FOR SUBSTITUTIONS THEY SHALL NOT BE CHANGED WITHOUT PRIOR APPROVAL. NO VARIEGATED STRAIN SHALL BE USED. ALLOW FOR SLOW RELEASE FERTILISER TO ALL PLANTINGS APPLIED AT THE MANUFACTURES RECOMMENDED RATE TO BE SAME OR SIMILAR TO OSMOCOTE.



TYPICAL ACCESSIBLE CARPARK
Scale 1:100

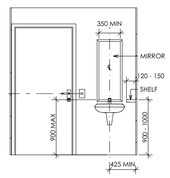


TYPICAL DOOR CIRCULATION SPACES
Scale 1:50

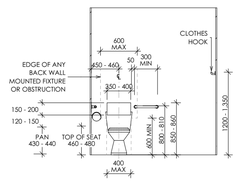


NOTE:
PLANS OF TYPICAL AMENITIES SHOWING MINIMUM CIRCULATION SPACE. OFFSETS & REQUIRED CLEARANCES. REFER FLOOR PLANS FOR PROJECT AMENITIES DIMENSIONS AND LAYOUT.

TYPICAL ACCESSIBLE WC
Scale 1:50



ELEVATION 1



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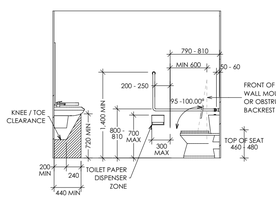

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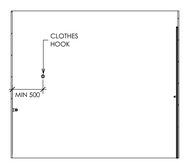

ELEVATION 4

REV.	DATE	DESCRIPTION	DRAWN
15	05.02.25	TREE PRESERVATION AMENDMENTS	MC
14	02.12.24	BUILDING D AMENDMENTS	MC
13	21.11.24	CIVIL DESIGN AMENDMENTS	MC
12	25.09.24	AMENDMENTS AS NOTED	MC
11	17.09.24	UNIT 6 VEHICLE ACCESS AMENDED	MC
10	01.08.24	AMENDMENTS AS NOTED	MC

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Project Title
PROPOSED UNIT DEVELOPMENT

Project Address
10 -12 / 91 GARDINER STREET
RUTHERFORD

Client
JCPMB PTY LTD

Project Status
DEVELOPMENT APPLICATION

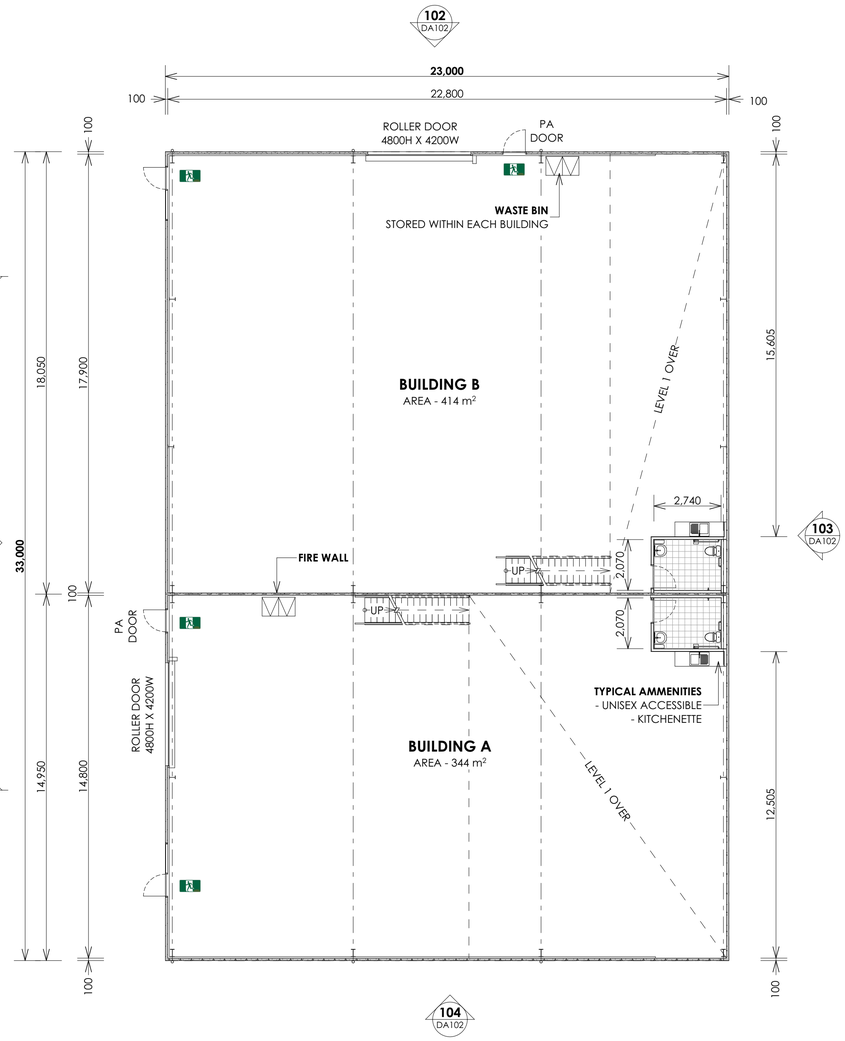
Drawing Title
DETAILS & NOTES

Project No.	Revision	Drawing No.
23263A	15	**DA005**

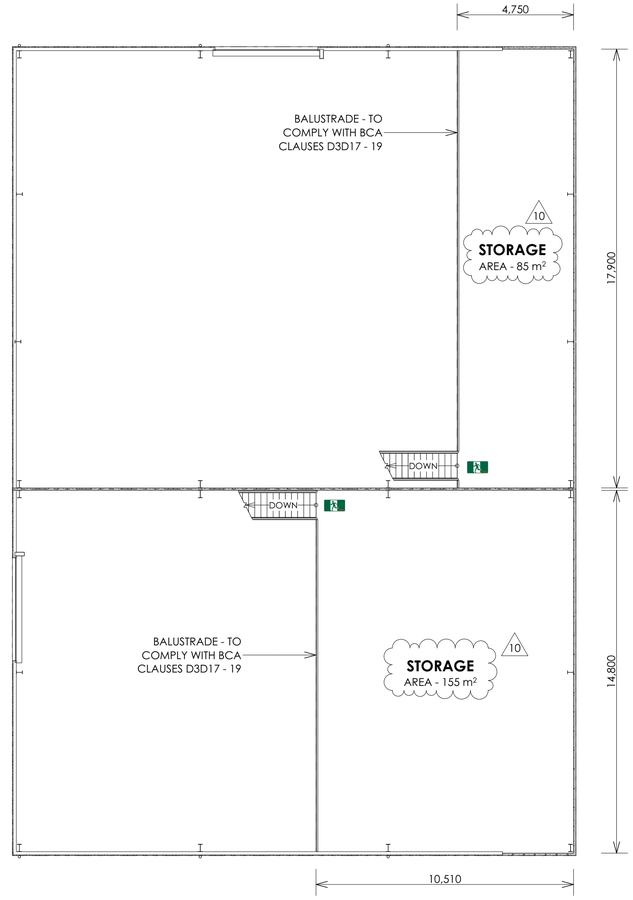
Drawings scaled to an A1 sheet

23263A DAr15.pln Last saved on 2/12/2024 by Mark

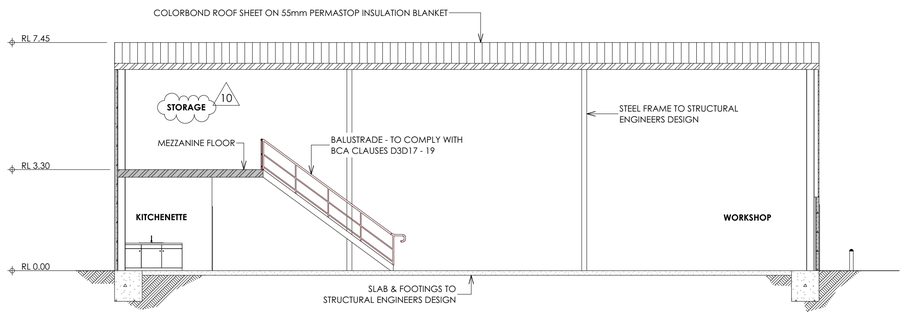
NORTH



GROUND LEVEL
Scale 1:125



MEZZANINE FLOOR
Scale 1:125



SECTION - BUILDING A
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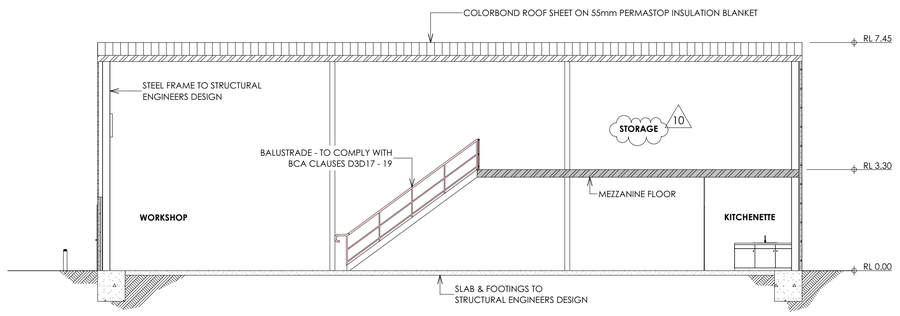

SECTION - BUILDING B
Scale 1:100

Scale 1:125
2 0 2 4 6 8 10m

Scale 1:100
2 0 2 4 6 8m

LEGEND

EMERGENCY EXIT

REV.	DATE	DESCRIPTION	DRAWN
10	01.08.24	AMENDMENTS AS NOTED	MC

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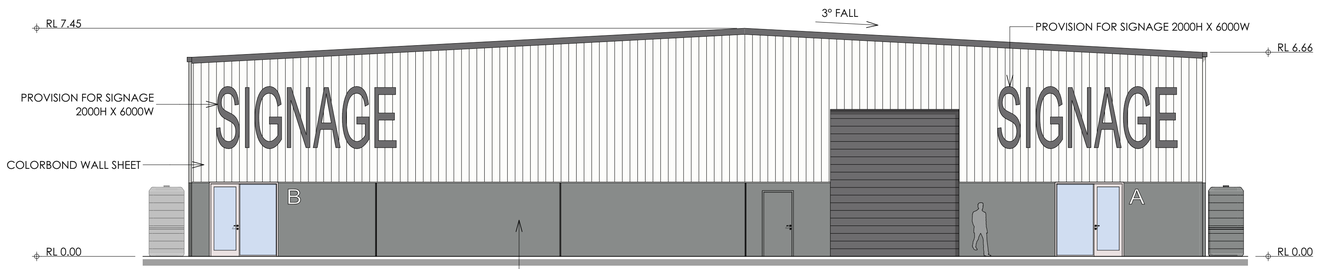
Drawing Title
FLOOR PLANS & SECTIONS - BUILDINGS A & B

Project No.	Revision	Drawing No.
23263A	10	**DA101**

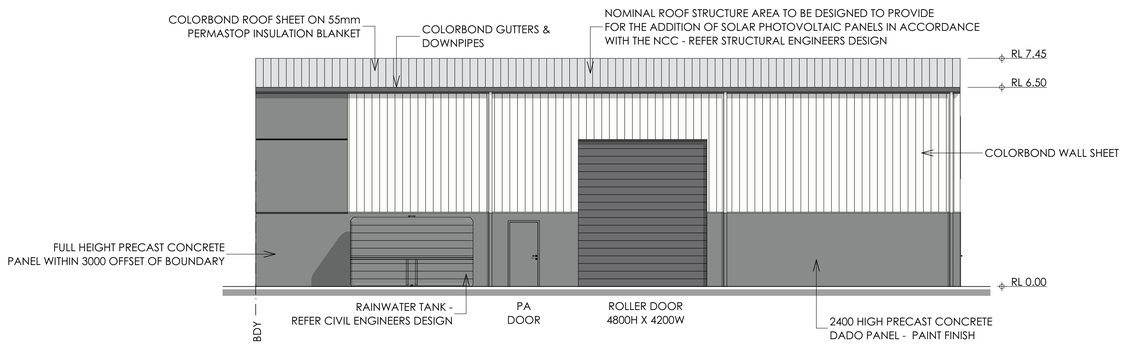
Drawings scaled to an A1 sheet

23263A DA15.pln Last saved on 2/12/2024 by Mark

NORTH



101 DA101 **WEST ELEVATION**
Scale 1:100



102 DA101 **NORTH ELEVATION**
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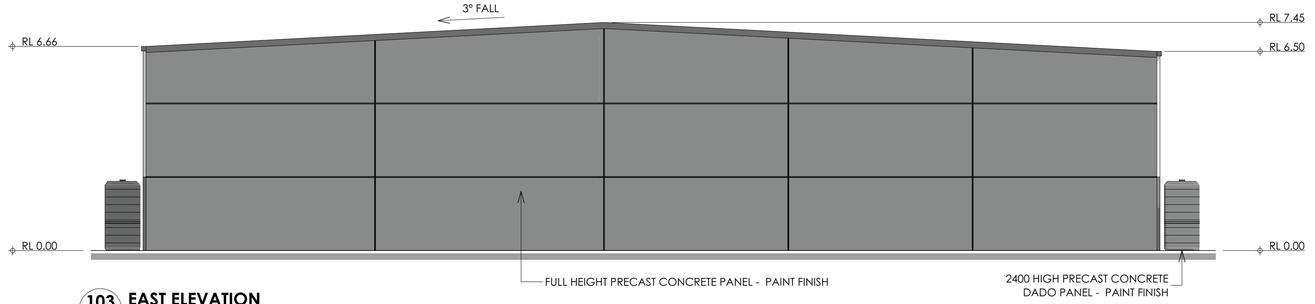

103 DA101 **EAST ELEVATION**
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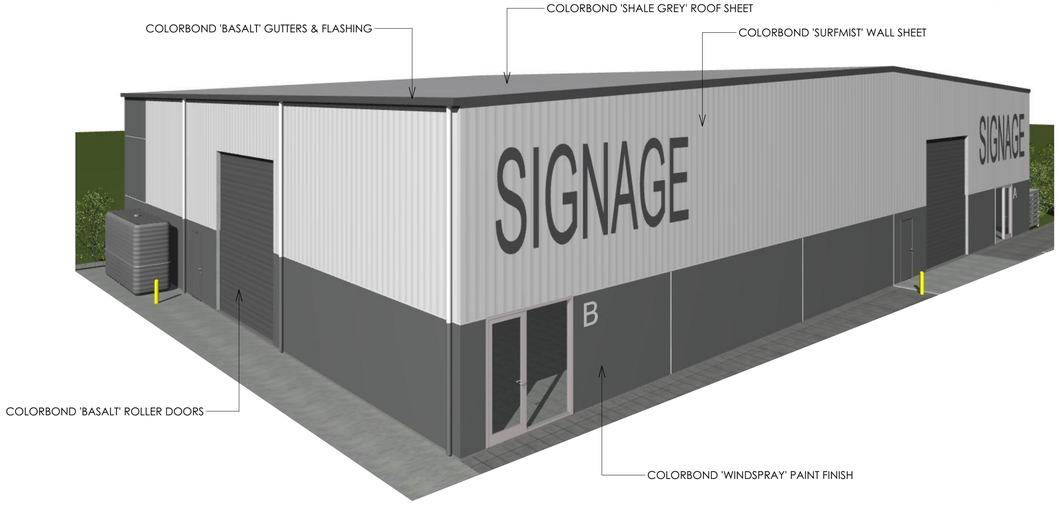

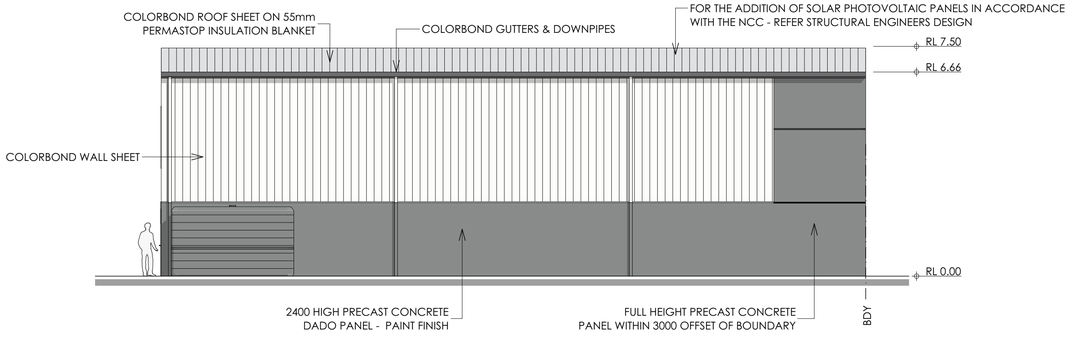

104 DA101 **SOUTH ELEVATION**
Scale 1:100

Scale 1:100
2 0 2 4 6 8m

REV.	DATE	DESCRIPTION	DRAWN
10	01.08.24	AMENDMENTS AS NOTED	MC

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Project Status
DEVELOPMENT APPLICATION

Drawing Title
ELEVATIONS - BUILDINGS A & B

Project No.	Revision	Drawing No.
23263A	10	**DA102**

Drawings scaled to an A1 sheet

23263A DA15.pln Last saved on 2/12/2024 by Mark

NORTH

RC
480
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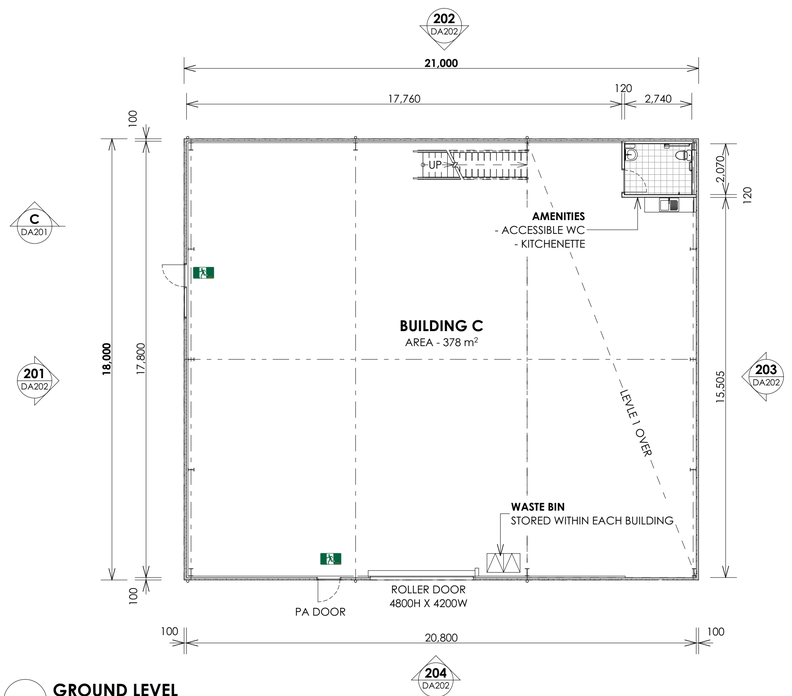
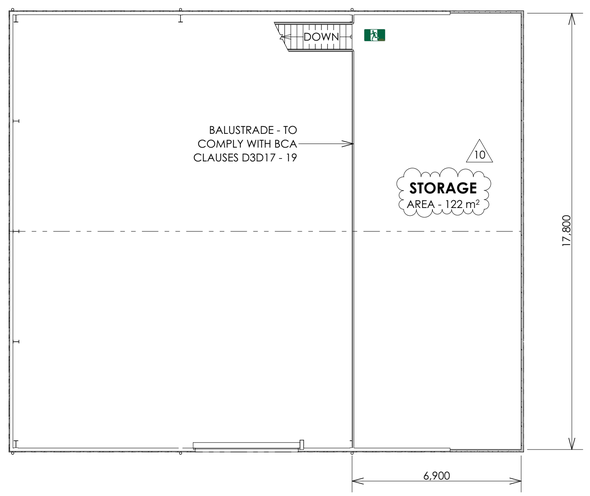
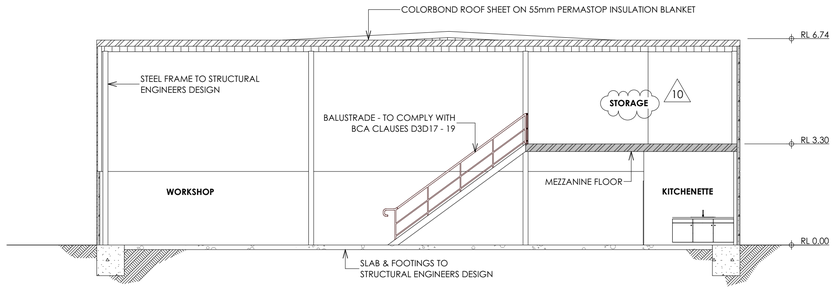


GROUND LEVEL
Scale 1:125



MEZZANINE FLOOR
Scale 1:125



SECTION C
Scale 1:100

LEGEND

EMERGENCY EXIT

Scale 1:125
2 0 2 4 6 8 10m

Scale 1:100
2 0 2 4 6 8m

REV.	DATE	DESCRIPTION	DRAWN
10	01.08.24	AMENDMENTS AS NOTED	MC

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Project Title
PROPOSED UNIT DEVELOPMENT

Project Address
10 -12 / 91 GARDINER STREET
RUTHERFORD

Client
JCPMB PTY LTD

Project Status
DEVELOPMENT APPLICATION

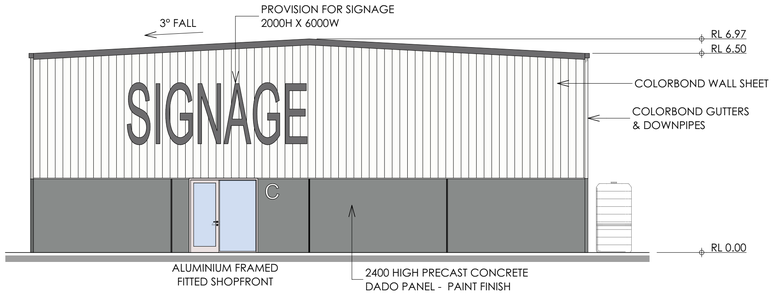
Drawing Title
FLOOR PLANS AND SECTION - BUILDING C

Project No.	Revision	Drawing No.
23263A	10	**DA201**

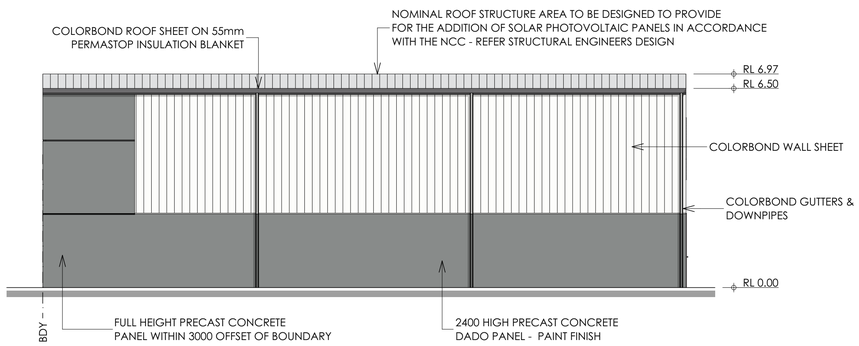
Drawings scaled to an A1 sheet

23263A DA15.pln Last saved on 2/12/2024 by Mark

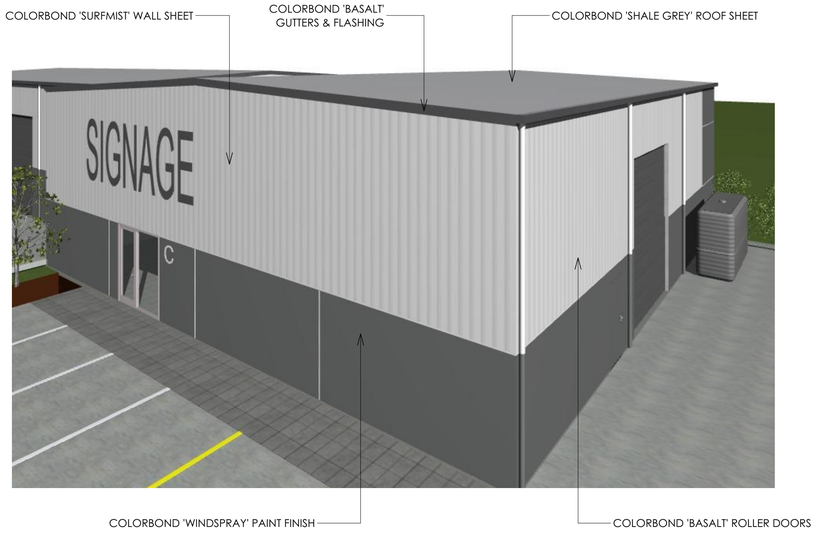
NORTH

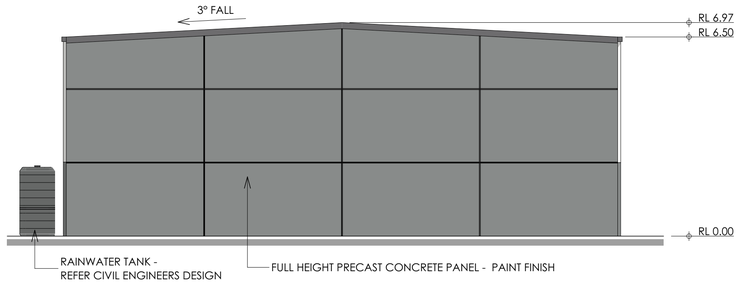


201 DA201 **WEST ELEVATION**
Scale 1:100

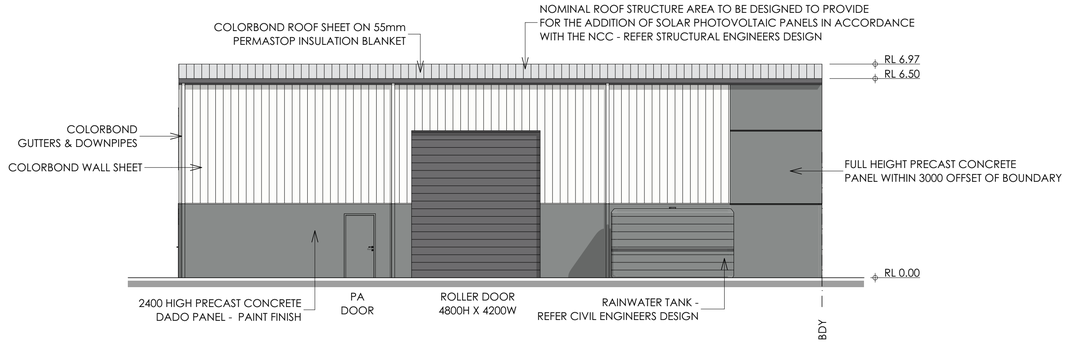


202 DA201 **NORTH ELEVATION**
Scale 1:100





203 DA201 **EAST ELEVATION**
Scale 1:100



204 DA201 **SOUTH ELEVATION**
Scale 1:100

Scale 1:100
2 0 2 4 6 8m

10 01.08.24 AMENDMENTS AS NOTED MC
REV. DATE DESCRIPTION DRAWN

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Project Title
PROPOSED UNIT DEVELOPMENT

Project Address
10 -12 / 91 GARDINER STREET
RUTHERFORD

Client
JCPMB PTY LTD

Project Status
DEVELOPMENT APPLICATION

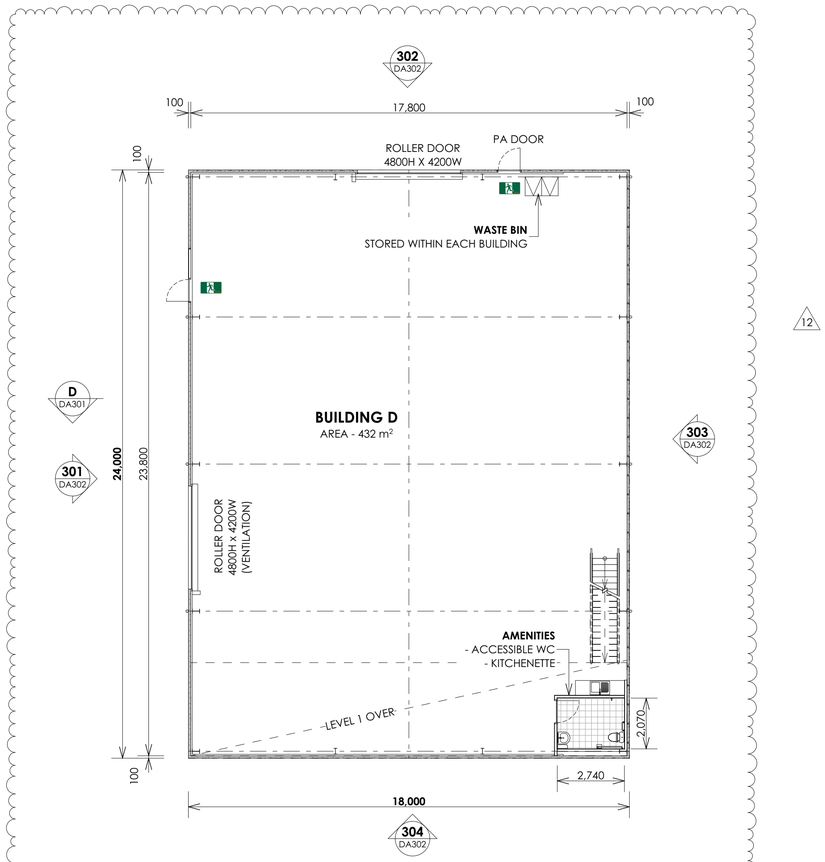
Drawing Title
ELEVATIONS - BUILDING C

Project No.	Revision	Drawing No.
23263A	10	**DA202**

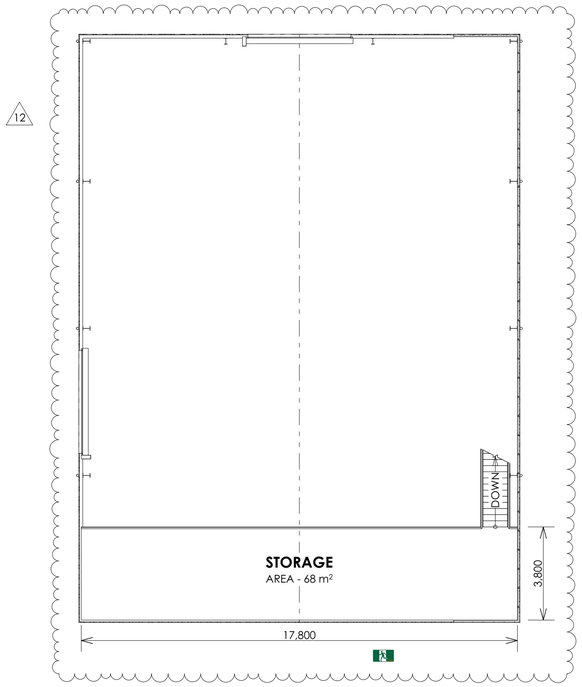
Drawings scaled to an A1 sheet

23263A DAr15.pln Last saved on 2/12/2024 by Mark

NORTH

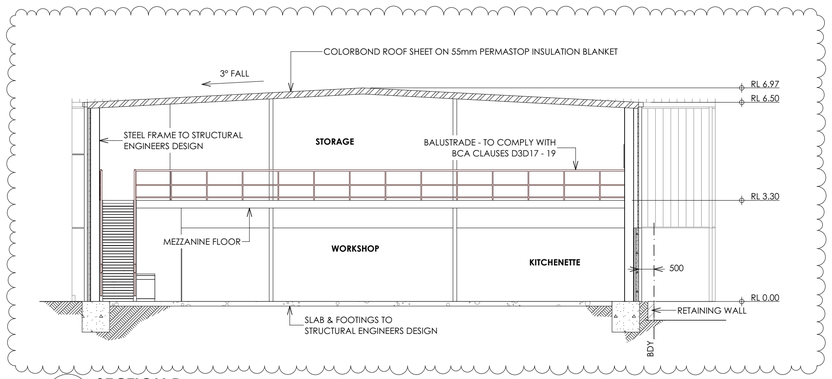


12



MEZZANINE PLAN
Scale 1:125

GROUND LEVEL
Scale 1:125



12

SECTION D
Scale 1:100

LEGEND

EMERGENCY EXIT

Scale 1:125
2 0 2 4 6 8 10m

Scale 1:100
2 0 2 4 6 8m

REV.	DATE	DESCRIPTION	DRAWN
12	02.12.24	SITE ARRANGEMENT AMENDED	MC
11	21.11.24	AMENDMENTS AS NOTED	MC
10	01.08.24	AMENDMENTS AS NOTED	MC

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Project Title
PROPOSED UNIT DEVELOPMENT

Project Address
10 -12 / 91 GARDINER STREET
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Client
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Project Status
DEVELOPMENT APPLICATION

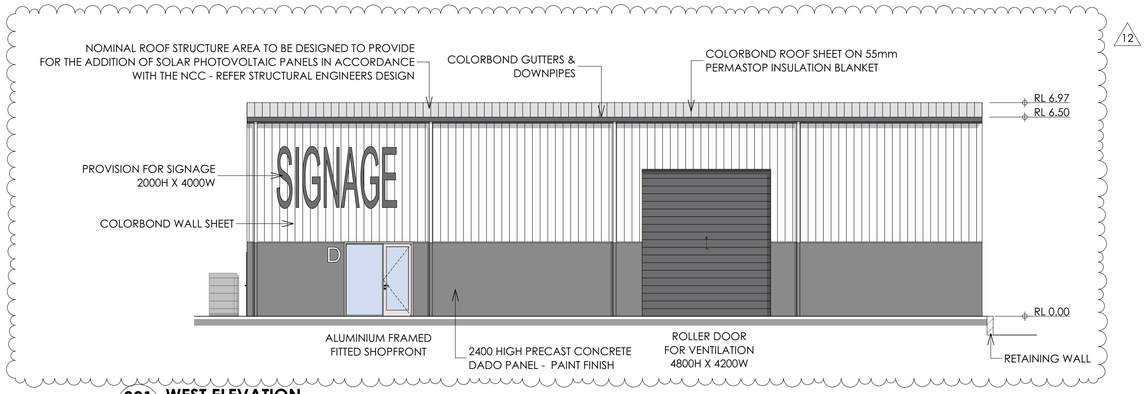
Drawing Title
FLOOR PLANS & SECTION - BUILDING D

Project No.	Revision	Drawing No.
23263A	12	**DA301**

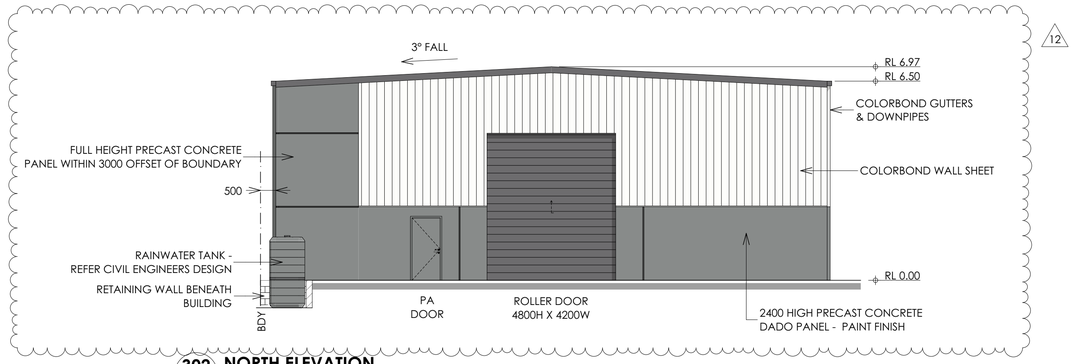
Drawings scaled to an A1 sheet

23263A DA15.pln Last saved on 2/12/2024 by Mark

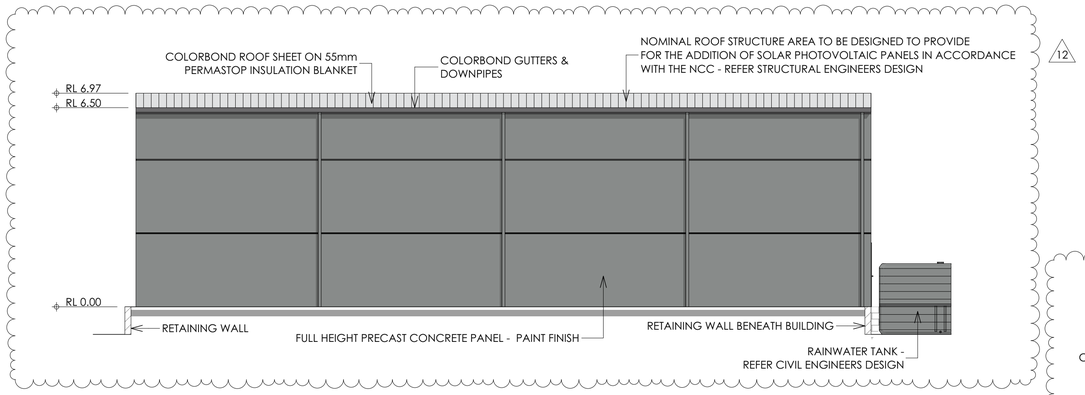
NORTH



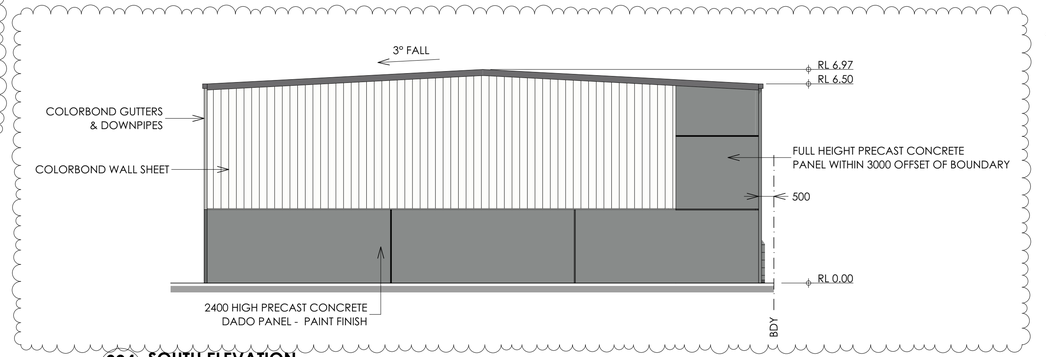
301 DA301 **WEST ELEVATION**
Scale 1:100



302 DA301 **NORTH ELEVATION**
Scale 1:100



303 DA301 **EAST ELEVATION**
Scale 1:100



304 DA301 **SOUTH ELEVATION**
Scale 1:100

Scale 1:100
2 0 2 4 6 8m

REV.	DATE	DESCRIPTION	DRAWN
12	02.12.24	SITE ARRANGEMENT AMENDED	MC
11	21.11.24	AMENDMENTS AS NOTED	MC
10	01.08.24	AMENDMENTS AS NOTED	MC

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Project Title
PROPOSED UNIT DEVELOPMENT

Project Address
10 -12 / 91 GARDINER STREET
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Client
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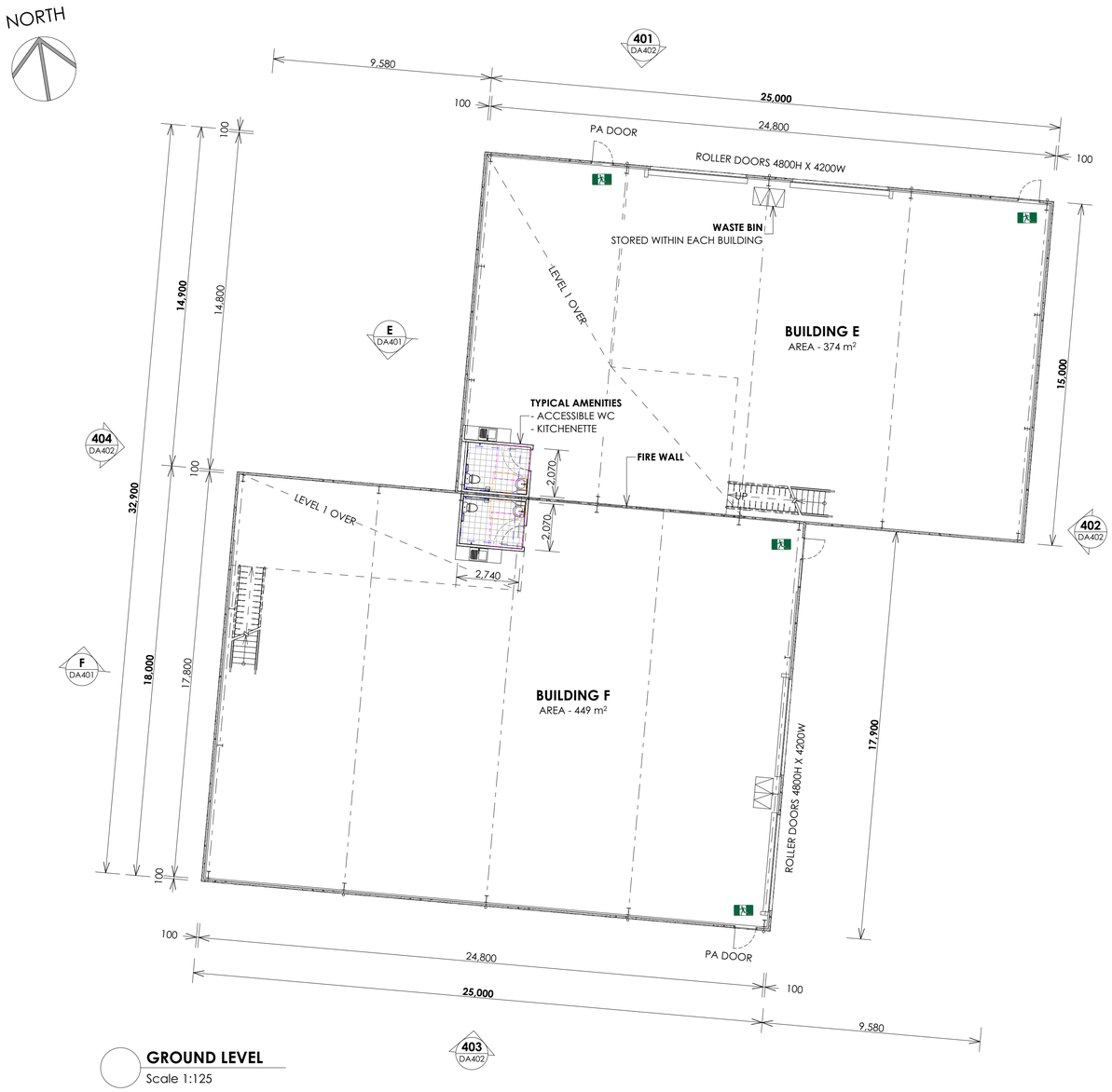
Project Status
DEVELOPMENT APPLICATION

Drawing Title
ELEVATIONS - BUILDING D

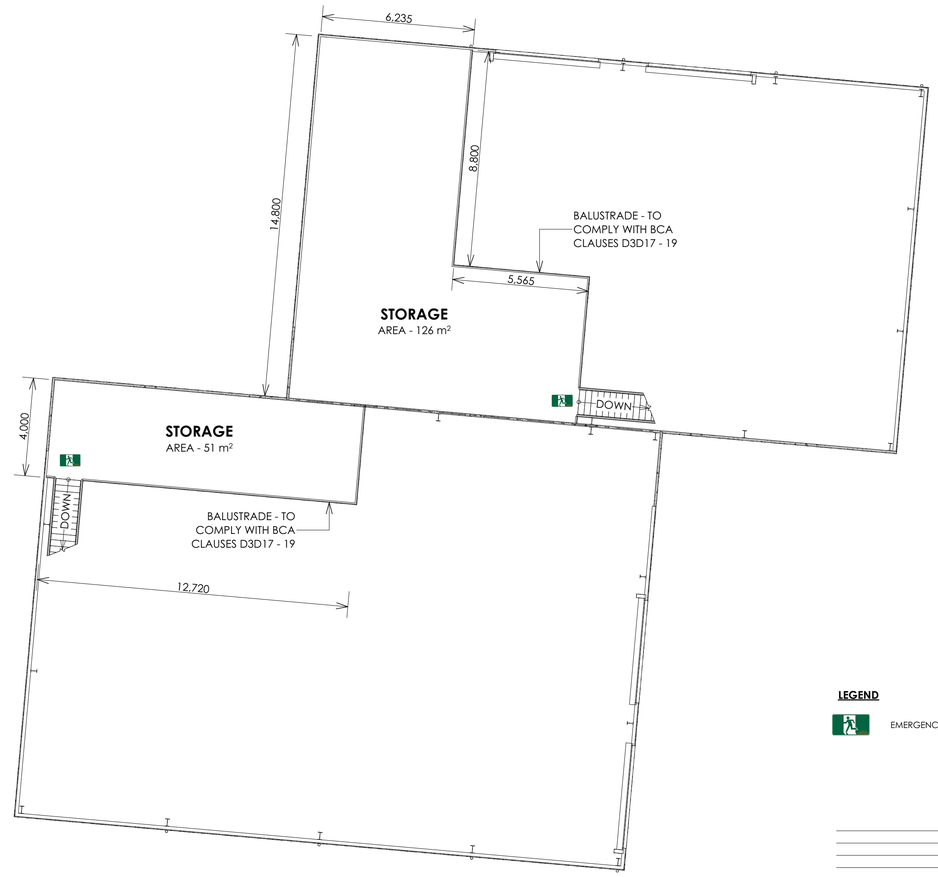
Project No.	Revision	Drawing No.
23263A	12	**DA302**

Drawings scaled to an A1 sheet

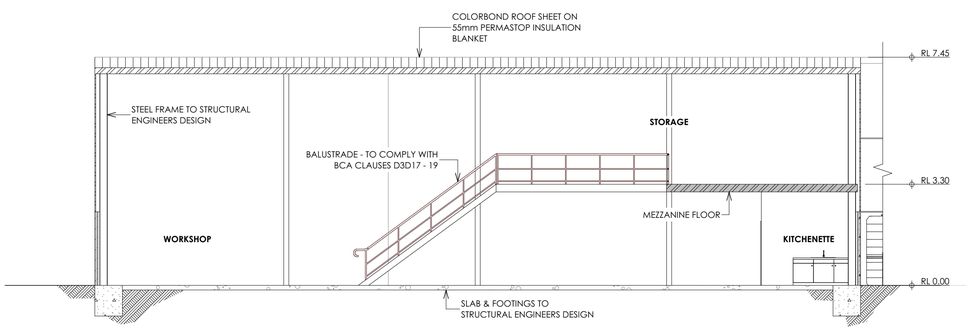
23263A DArt15.pln Last saved on 2/12/2024 by Mark



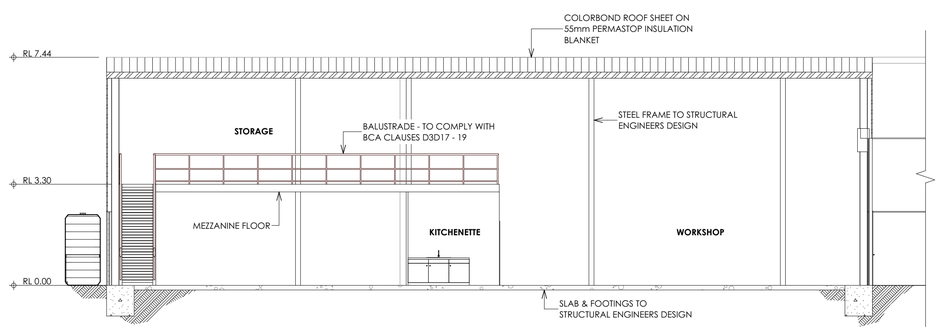
GROUND LEVEL
Scale 1:125



MEZZANINE FLOOR
Scale 1:125



SECTION E
Scale 1:100



SECTION F
Scale 1:100

Scale 1:125
2 0 2 4 6 8 10m

Scale 1:100
2 0 2 4 6 8m

LEGEND

EMERGENCY EXIT

REV.	DATE	DESCRIPTION	DRAWN
11	21.11.24	AMENDMENTS AS NOTED	MC
10	01.08.24	AMENDMENTS AS NOTED	MC

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Project Title
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Project Address
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RUTHERFORD

Client
JCPMB PTY LTD

Project Status
DEVELOPMENT APPLICATION

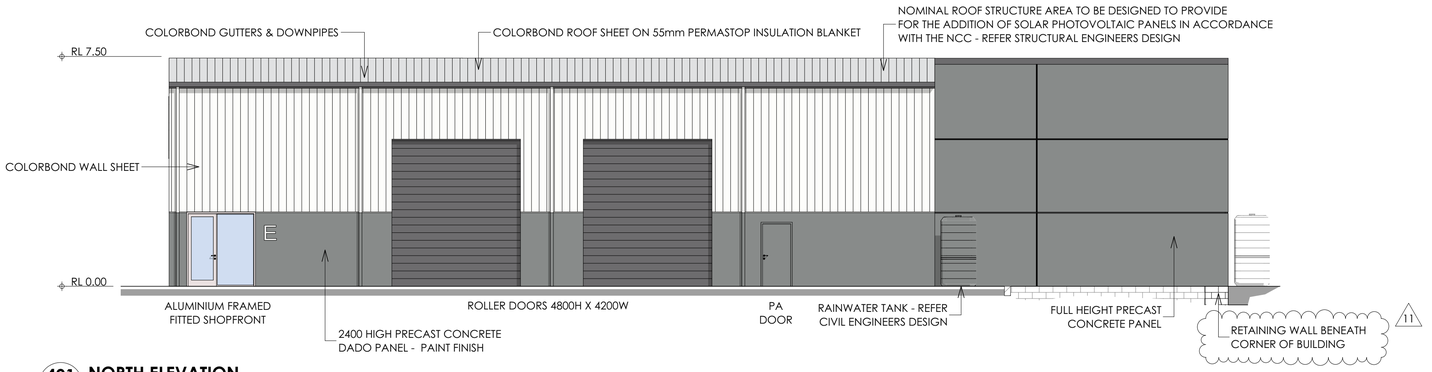
Drawing Title
FLOOR PLANS & SECTIONS - BUILDINGS E & F

Project No.	Revision	Drawing No.
23263A	11	**DA401**

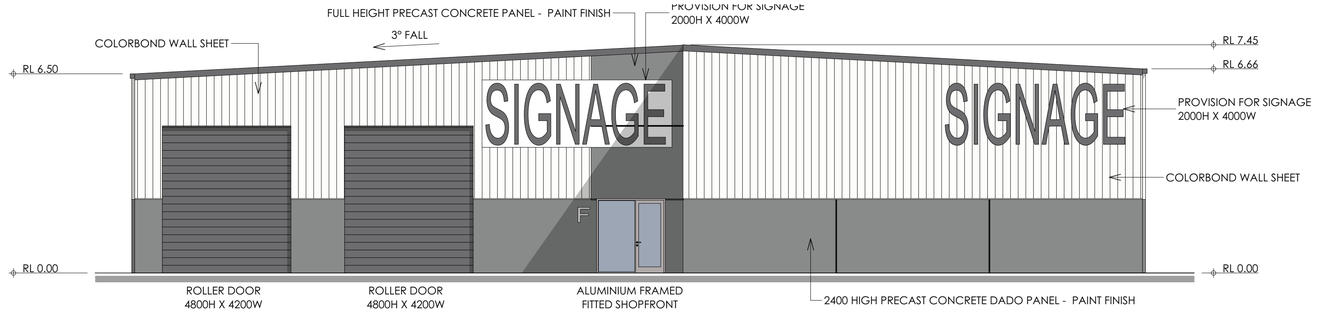
Drawings scaled to an A1 sheet

23263A DA15.pln Last saved on 2/12/2024 by Mark

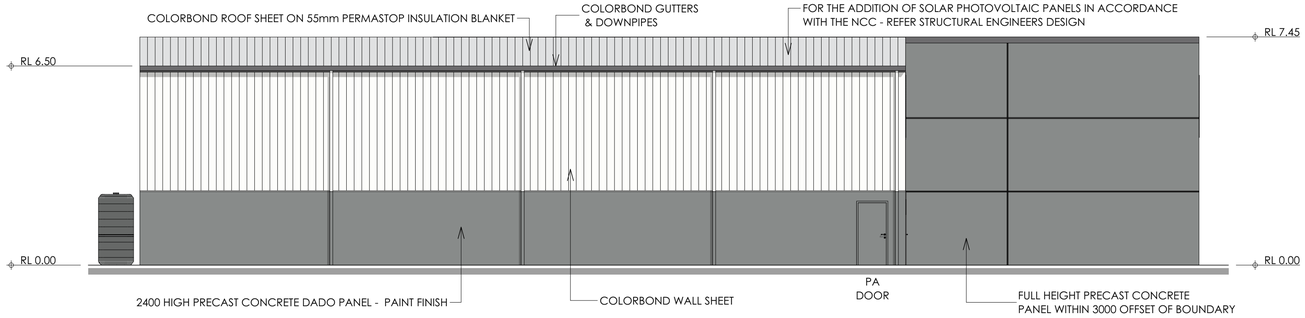
NORTH



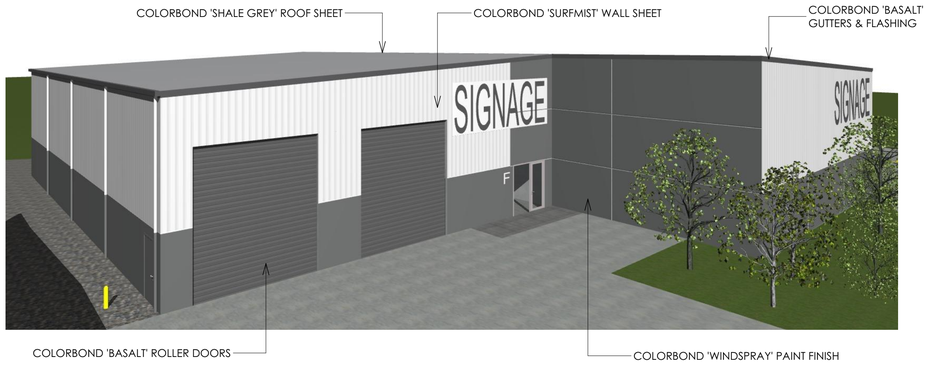
401 DA401 **NORTH ELEVATION**
Scale 1:100

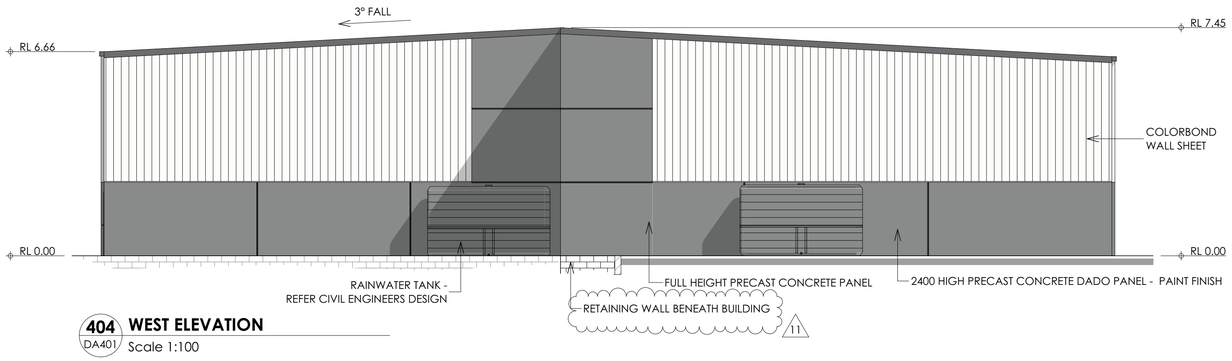


402 DA401 **EAST ELEVATION**
Scale 1:100



403 DA401 **SOUTH ELEVATION**
Scale 1:100





404 DA401 **WEST ELEVATION**
Scale 1:100

Scale 1:100
2 0 2 4 6 8m

REV.	DATE	DESCRIPTION	DRAWN
11	21.11.24	AMENDMENTS AS NOTED	MC
10	01.08.24	AMENDMENTS AS NOTED	MC

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Project Title
PROPOSED UNIT DEVELOPMENT

Project Address
10 -12 / 91 GARDINER STREET
RUTHERFORD

Client
JCPMB PTY LTD

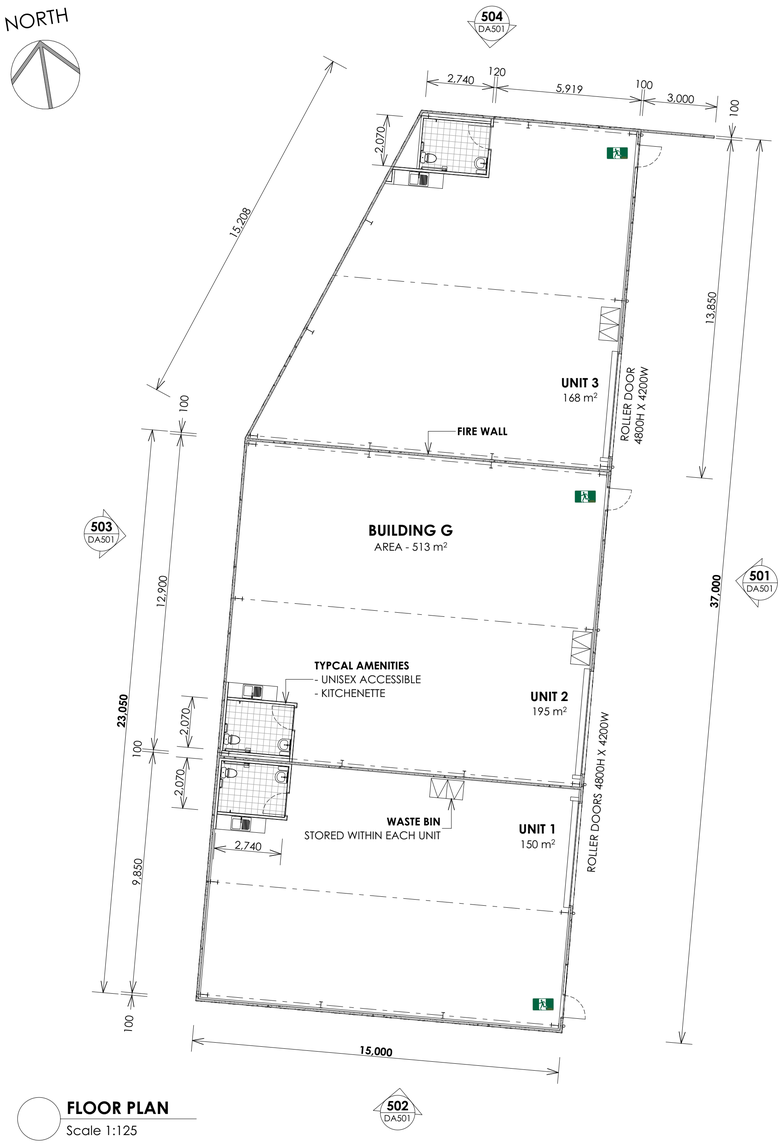
Project Status
DEVELOPMENT APPLICATION

Drawing Title
ELEVATIONS - BUILDINGS E & F

Project No.	Revision	Drawing No.
23263A	11	**DA402**

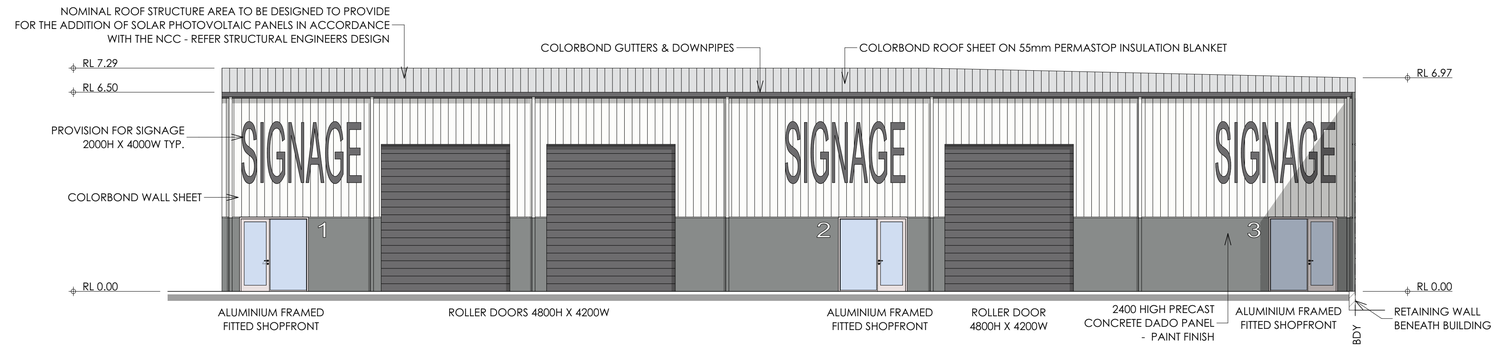
Drawings scaled to an A1 sheet

23263A DAr15.pln Last saved on 2/12/2024 by Mark

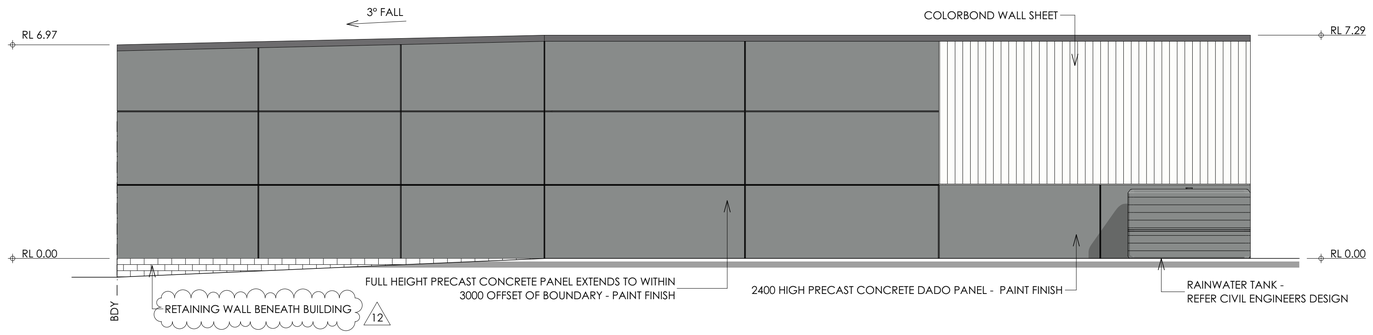


FLOOR PLAN
Scale 1:125

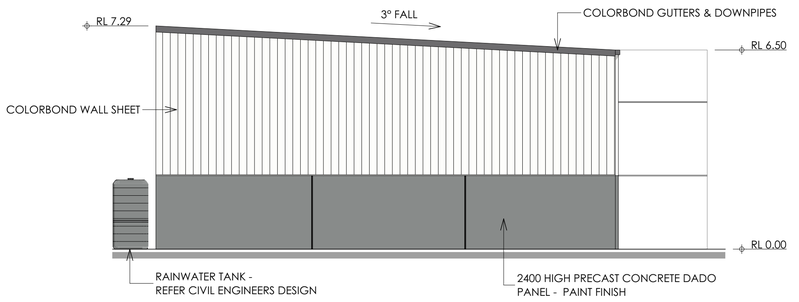
502 DA501



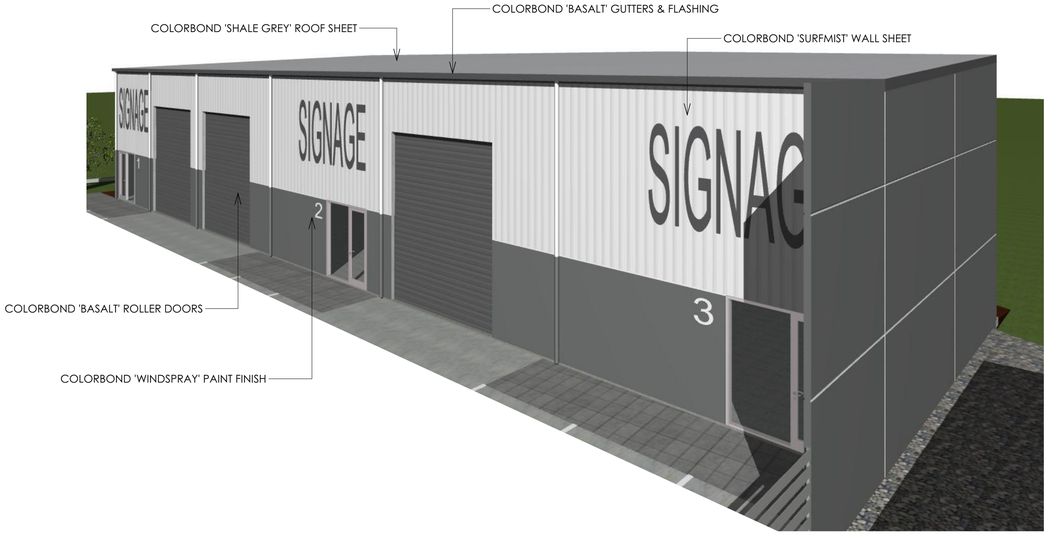
501 EAST ELEVATION
DA501 Scale 1:100

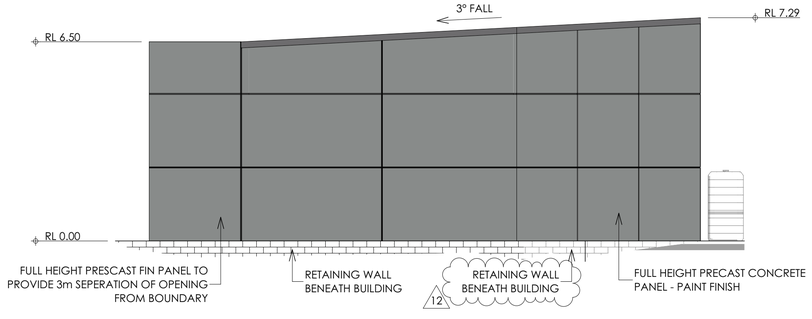


503 WEST ELEVATION
DA501 Scale 1:100



502 SOUTH ELEVATION
DA501 Scale 1:100





504 NORTH ELEVATION
DA501 Scale 1:100

Scale 1:125 2 0 2 4 6 8 10m

Scale 1:100 2 0 2 4 6 8m

LEGEND

EMERGENCY EXIT

REV.	DATE	DESCRIPTION	DRAWN
12	05.02.25	TREE PRESERVATION AMENDMENTS	MC
11	21.11.24	AMENDMENTS AS NOTED	MC
10	01.08.24	AMENDMENTS AS NOTED	MC

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Project Title
PROPOSED UNIT DEVELOPMENT

Project Address
10 -12 / 91 GARDINER STREET
RUTHERFORD

Client
JCPMB PTY LTD

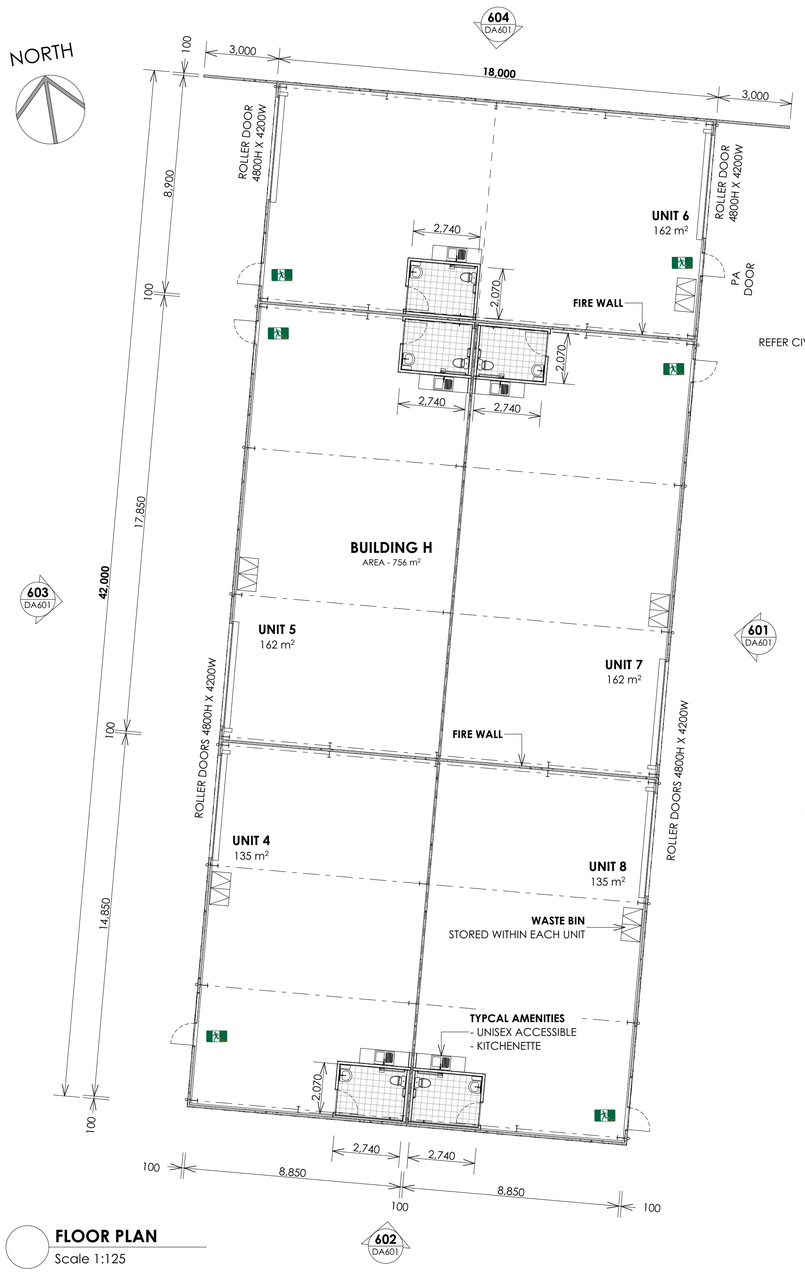
Project Status
DEVELOPMENT APPLICATION

Drawing Title
FLOOR PLAN & ELEVATIONS - BUILDING G

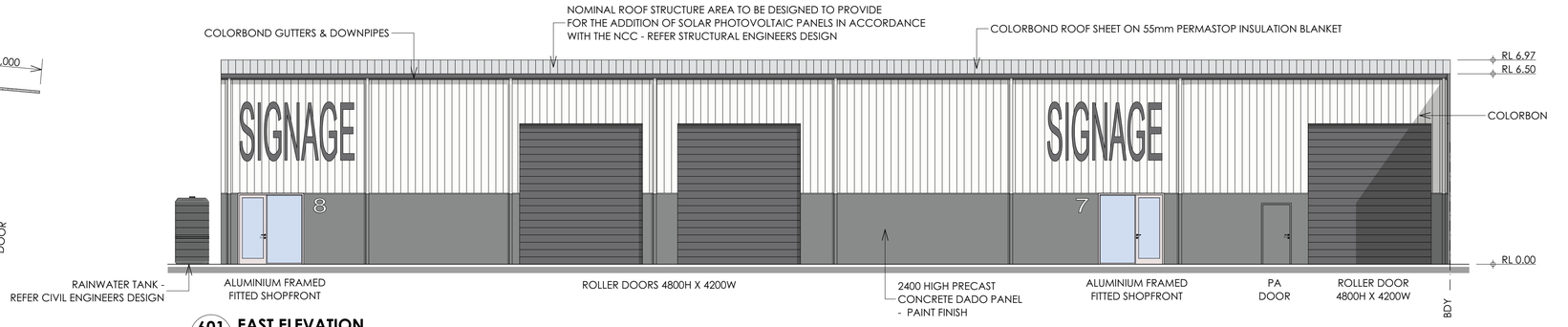
Project No.	Revision	Drawing No.
23263A	12	**DA501**

Drawings scaled to an A1 sheet

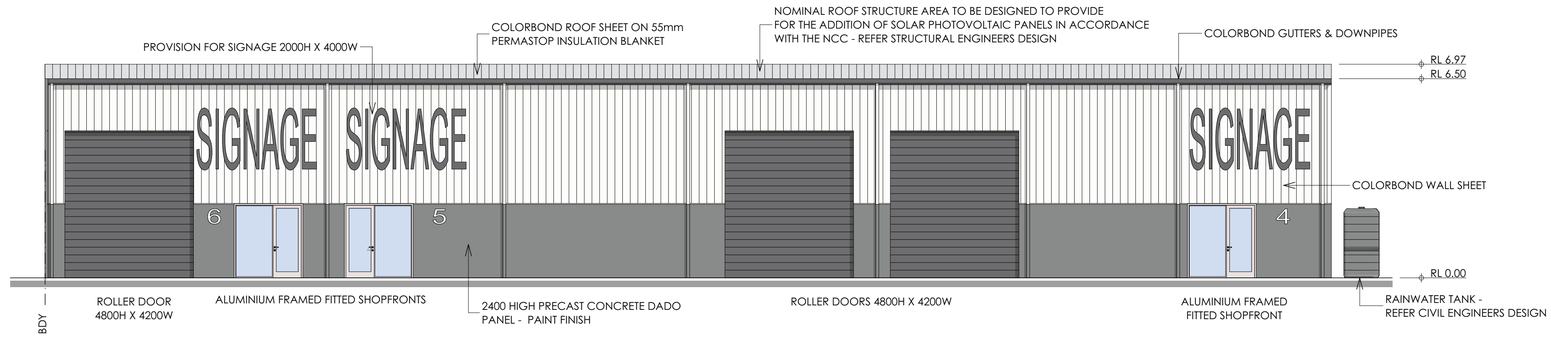
23263A DAr15.pln Last saved on 2/12/2024 by Mark



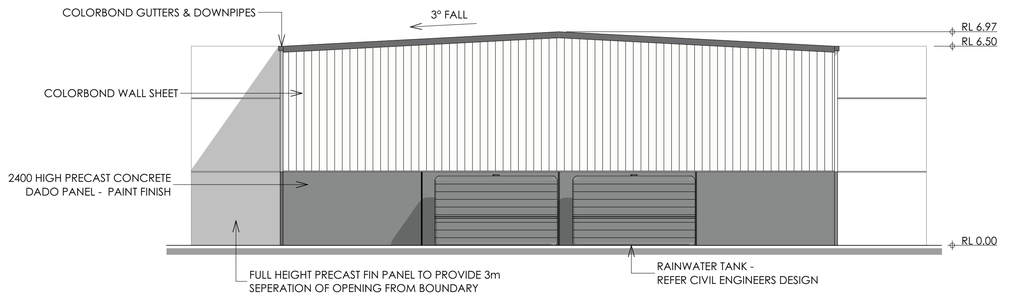
FLOOR PLAN
Scale 1:125



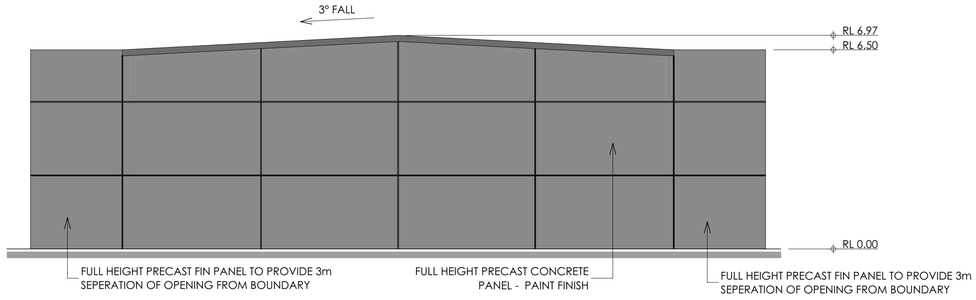
601 EAST ELEVATION
DA601 Scale 1:100



603 WEST ELEVATION
DA601 Scale 1:100



602 SOUTH ELEVATION
DA601 Scale 1:100



604 NORTH ELEVATION
DA601 Scale 1:100

Scale 1:125
2 0 2 4 6 8 10m

Scale 1:100
2 0 2 4 6 8m

LEGEND

EMERGENCY EXIT

REV.	DATE	DESCRIPTION	DRAWN
10	01.08.24	AMENDMENTS AS NOTED	MC

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Project Title
PROPOSED UNIT DEVELOPMENT

Project Address
10 -12 / 91 GARDINER STREET
RUTHERFORD

Client
JCPMB PTY LTD

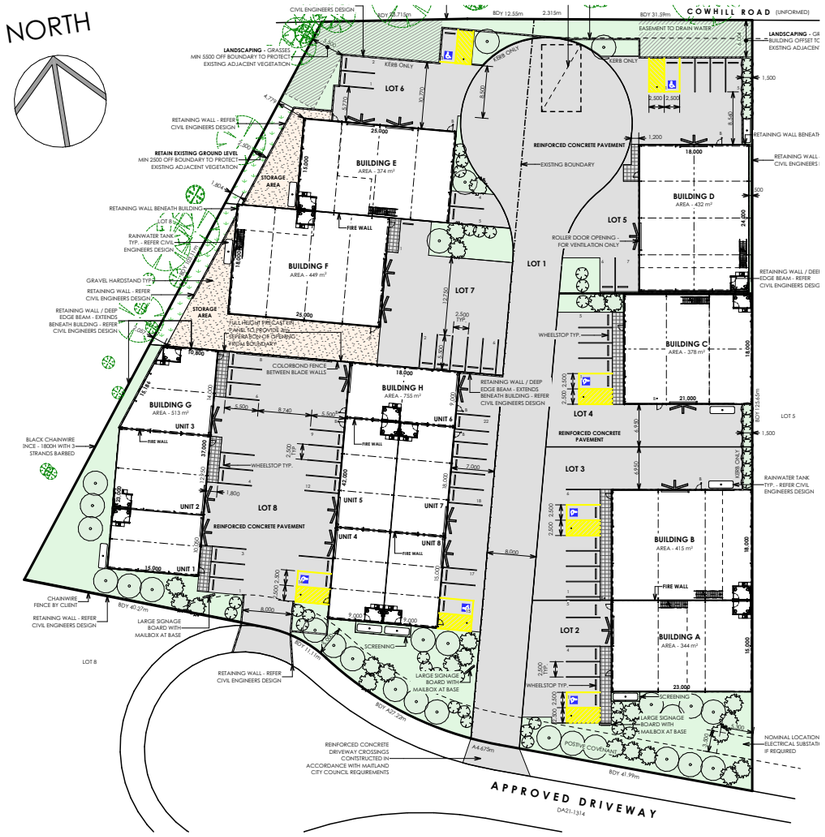
Project Status
DEVELOPMENT APPLICATION

Drawing Title
FLOOR PLAN & ELEVATIONS - BUILDING H

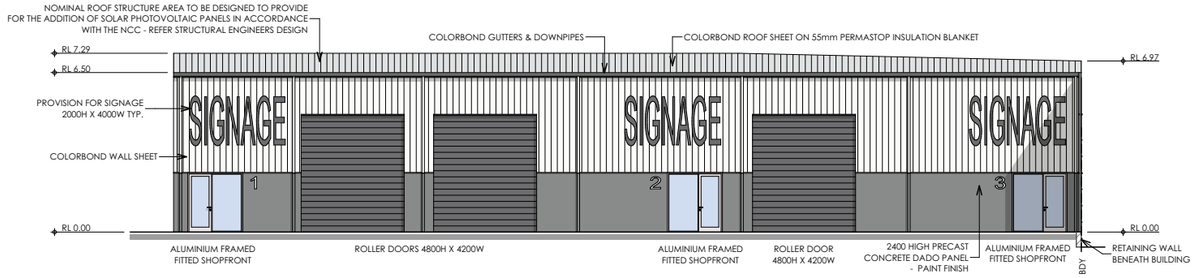
Project No.	Revision	Drawing No.
23263A	10	**DA601**

Drawings scaled to an A1 sheet

23263A DA r15.pln Last saved on 2/12/2024 by Mark

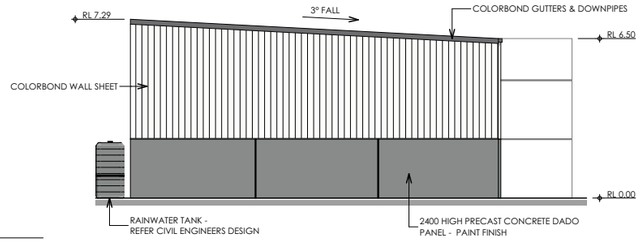


SITE PLAN
Scale 1:1000

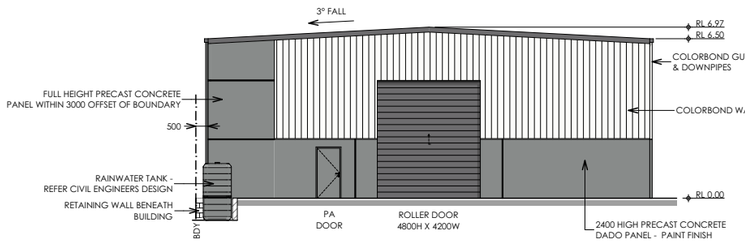


G EAST ELEVATION
Scale 1:250

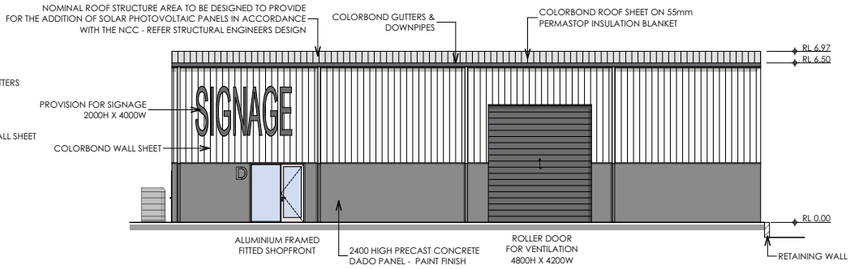
BUILDING G
BUILDING H SIMILAR



G SOUTH ELEVATION
Scale 1:250

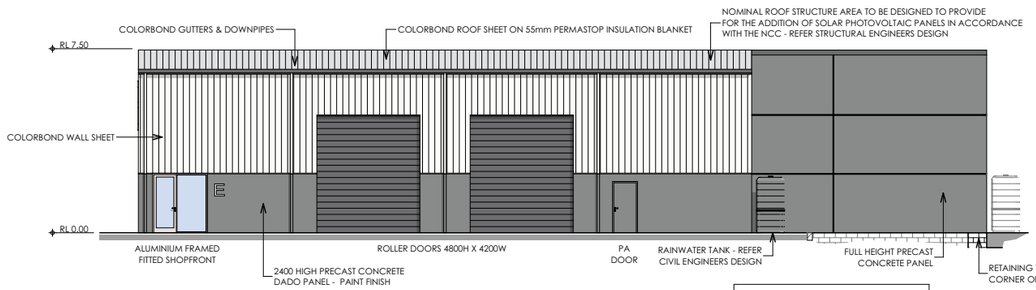


D NORTH ELEVATION
Scale 1:250



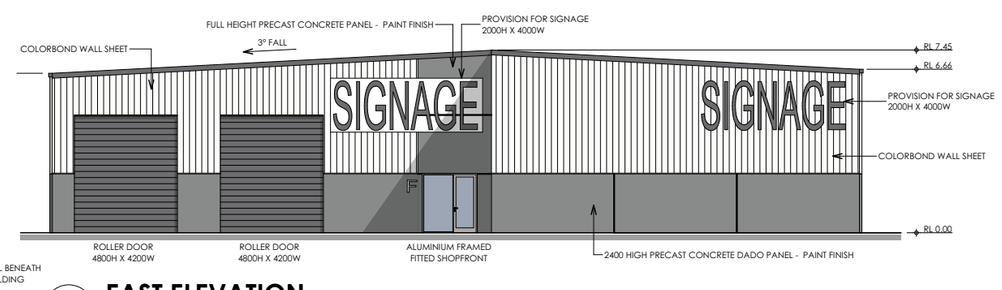
BUILDING D
BUILDING C SIMILAR

D WEST ELEVATION
Scale 1:250



E/F NORTH ELEVATION
Scale 1:250

BUILDING E/F



E/F EAST ELEVATION
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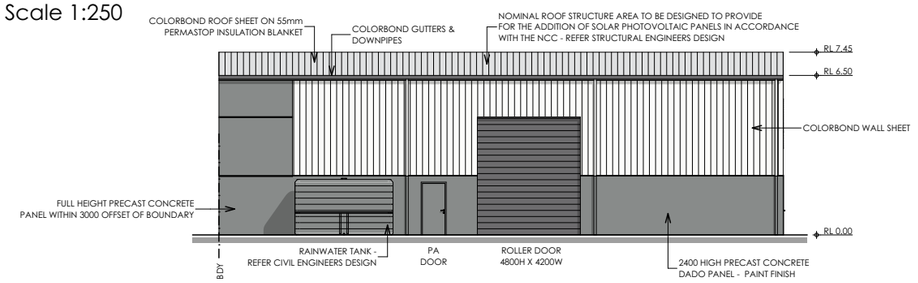
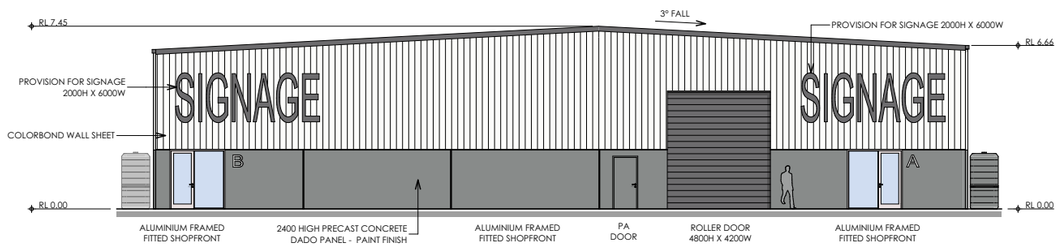


A/B NORTH ELEVATION
Scale 1:250

BUILDING A/B



A/B WEST ELEVATION
Scale 1:250

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Project Title
PROPOSED UNIT DEVELOPMENT

Project Address
10 -12 / 91 GARDINER STREET
RUTHERFORD

Client
JCPMB PTY LTD

Drawing Title
NOTIFICATION PLAN

Project No.	Revision	Drawing No.
23263A	15	**NP**

Drawings scaled to an A3 sheet

APPENDIX B ASSET PROTECTION ZONES

APPENDIX 4

ASSET PROTECTION ZONE REQUIREMENTS

In combination with other BPMs, a bush fire hazard can be reduced by implementing simple steps to reduce vegetation levels. This can be done by designing and managing landscaping to implement an APZ around the property.

Careful attention should be paid to species selection, their location relative to their flammability, minimising continuity of vegetation (horizontally and vertically), and ongoing maintenance to remove flammable fuels (leaf litter, twigs and debris).

This Appendix sets the standards which need to be met within an APZ.

A4.1 Asset Protection Zones

An APZ is a fuel-reduced area surrounding a building or structure. It is located between the building or structure and the bush fire hazard.

For a complete guide to APZs and landscaping, download the NSW RFS document *Standards for Asset Protection Zones* at the NSW RFS Website www.rfs.nsw.gov.au.

An APZ provides:

- a buffer zone between a bush fire hazard and an asset;
- an area of reduced bush fire fuel that allows for suppression of fire;
- an area from which backburning or hazard reduction can be conducted; and
- an area which allows emergency services access and provides a relatively safe area for firefighters and home owners to defend their property.

Bush fire fuels should be minimised within an APZ. This is so that the vegetation within the zone does not provide a path for the spread of fire to the building, either from the ground level or through the tree canopy.

An APZ, if designed correctly and maintained regularly, will reduce the risk of:

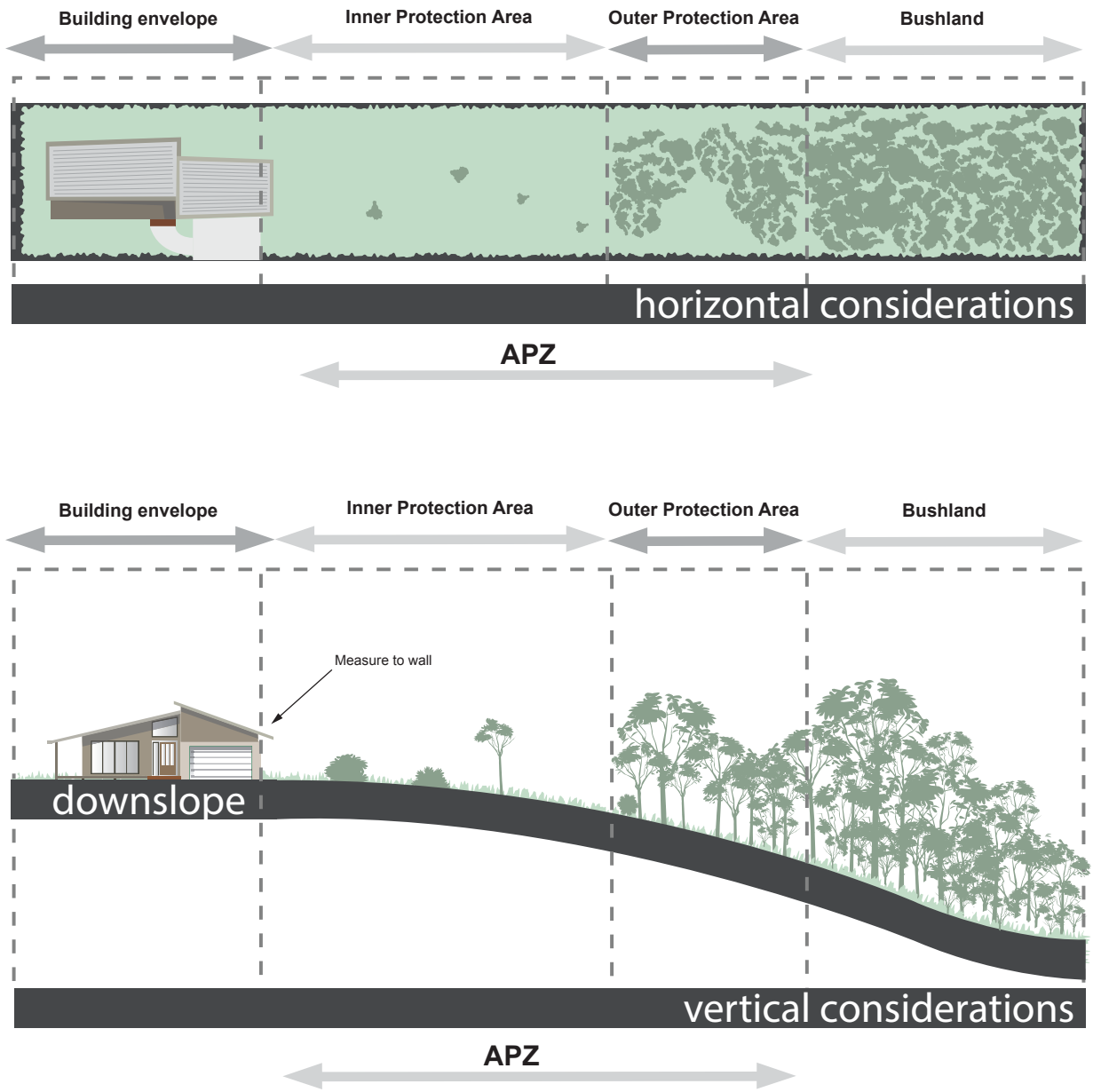
- direct flame contact on the building;
- damage to the building asset from intense radiant heat; and
- ember attack.

The methodology for calculating the required APZ distance is contained within Appendix 1. The width of the APZ required will depend upon the development type and bush fire threat. APZs for new development are set out within Chapters 5, 6 and 7 of this document.

In forest vegetation, the APZ can be made up of an Inner Protection Area (IPA) and an Outer Protection Area (OPA).

Figure A4.1

Typical Inner and Outer Protection Areas.



A4.1.1 Inner Protection Areas (IPAs)

The IPA is the area closest to the building and creates a fuel-managed area which can minimise the impact of direct flame contact and radiant heat on the development and act as a defendable space. Vegetation within the IPA should be kept to a minimum level. Litter fuels within the IPA should be kept below 1cm in height and be discontinuous.

In practical terms the IPA is typically the curtilage around the building, consisting of a mown lawn and well maintained gardens.

When establishing and maintaining an IPA the following requirements apply:

Trees

- tree canopy cover should be less than 15% at maturity;
- trees at maturity should not touch or overhang the building;
- lower limbs should be removed up to a height of 2m above the ground;
- tree canopies should be separated by 2 to 5m; and
- preference should be given to smooth barked and evergreen trees.

Shrubs

- create large discontinuities or gaps in the vegetation to slow down or break the progress of fire towards buildings should be provided;
- shrubs should not be located under trees;
- shrubs should not form more than 10% ground cover; and
- clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation.

Grass

- grass should be kept mown (as a guide grass should be kept to no more than 100mm in height); and
- leaves and vegetation debris should be removed.

A4.1.2 Outer Protection Areas (OPAs)

An OPA is located between the IPA and the unmanaged vegetation. It is an area where there is maintenance of the understorey and some separation in the canopy. The reduction of fuel in this area aims to decrease the intensity of an approaching fire and restricts the potential for fire spread from crowns; reducing the level of direct flame, radiant heat and ember attack on the IPA.

Because of the nature of an OPA, they are only applicable in forest vegetation.

When establishing and maintaining an OPA the following requirements apply:

Trees

- tree canopy cover should be less than 30%; and
- canopies should be separated by 2 to 5m.

Shrubs

- shrubs should not form a continuous canopy; and
- shrubs should form no more than 20% of ground cover.

Grass

- grass should be kept mown to a height of less than 100mm; and
- leaf and other debris should be removed.

An APZ should be maintained in perpetuity to ensure ongoing protection from the impact of bush fires. Maintenance of the IPA and OPA as described above should be undertaken regularly, particularly in advance of the bush fire season.