



Bushfire Assessment Report

Subdivision & Specialised Retailing Lot 2
DP529914, 11 & 12 DP777034, 56-76 Mandalong
Road, Morisset

Prepared for

Winarch Capital C/ TSA Management

Final V3 / August 2021

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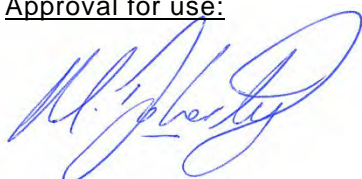
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Approval for use:



Matt Doherty - Director

18 August 2021

This report has been prepared in accordance with Appendix 2 of Planning for Bushfire Protection 2019 and certifies the development conforms to the specifications and requirements of S4.14 of the Environmental Planning and Assessment Act 1979.

Disclaimer

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Finally, the implementation of the measures and recommendations forwarded within this report would contribute to the amelioration of the potential impact of any bushfire upon the development site, but they do not and cannot guarantee that the area will not be affected by bushfire at some time.

EXECUTIVE SUMMARY

MJD Environmental has been engaged by TSA Management on behalf of Winarch Capital to prepare a Bushfire Assessment Report to accompany a Development Application for a Subdivision & Specialised Retailing commercial development over Lots 2 DP529914, 11 & 12 DP777034, 56-76 Mandalong Road, Morisset.

The assessment considered and assessed the bushfire hazard and associated potential threats relevant to the proposal, and outlined the minimum mitigative measures which would be required in accordance with *Planning for Bush Fire Protection 2019* (PBP), as adopted through the *Environmental Planning & Assessment Amendment* (Planning for Bush Fire Protection) *Regulation 2020*.

In order to determine whether the proposed development is bushfire-prone, and if so, which setbacks and other relevant Bush Fire Protection Measures (BPM) will be appropriate, this assessment adhered to the methodology and procedures outlined in PBP (2019) via assessment of acceptable solutions as outlined in Chapter 8 of PBP (2019).

This assessment was based on the bushfire hazards in and around the Site at the time of site inspection and report production.

This BAR addresses the aims and objectives of PBP 2019, being:

- Afford buildings and their occupants protection from exposure to a bushfire;
- Provide for a defensible space to be located around buildings;
- Provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings;
- Ensure that appropriate operational access and egress for emergency service personnel and occupants is available;
- Provide for ongoing management and maintenance of bushfire protection measures; and
- Ensure that utility services are adequate to meet the needs of firefighters.

Chapter 8.3.1 and 8.3.10 of PBP 2019 – *Buildings of Class 5 to 8 under the NCC* specifies the following objectives to be applied in relation to access, water supply and services, and emergency and evacuation planning for developments of this type, applicable to the proposal;

- to provide safe access to/from the public road system for firefighters providing property protection during a bush fire and for occupant egress for evacuation.
- to provide suitable emergency and evacuation (and relocation) arrangements for occupants of the development;
- to provide adequate services of water for the protection of buildings during and after the passage of bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building; and
- provide for the storage of hazardous materials away from the hazard wherever possible.

The proposed development is able to meet the performance criteria for acceptable solutions for commercial development, giving due regards to the requirements of Chapter 8 of PBP 2019, specifically section 8.3.1. A suitable package of BPMs has been developed that is commensurate with the assessed level of risk to the development.

The entire development site, that is B7 Business Park Zoned land will be managed as an IPA for the life of development. The built form of the proposed structures is a factor in the risk profile of the proposal, where all buildings are to be built to the NCC / NASH and have regard to AS3959. Typically, the buildings are of a precast or masonry walls with non-combustible wall materials and non-combustible roof structures (including concrete tilt slab design, metal frame super structure, metal cladding and roofing, or similar) which is highly resistant to radiant heat, and are non-combustible materials. Cladding elements will be added to the exterior of buildings.

Section 3.1 and 3.2 below depict acceptable solution APZ and BAL as it relates to residential developments. Importantly this is provided for context and it is acknowledged the development will not comply with the residential APZ setbacks per PBP 2019 Section 8.3.1, however the package of measures provided by the development includes:

- Provision of defensible space between the hazard and development
- High resilience building typology on elevations facing the hazard
- Access and circulation suitable for a fully loaded fire appliance
- Provision of water (hydrants) for fire fighting purposes

The assessment found that hazard vegetation types occur within 140m of the Site. The primary risk is from the forest-class vegetation located to the North, West and South-West of the Site. These forest-class hazards have been assessed as having the greatest effect on bushfire behaviour. The slope under the hazard vegetation is variable from flat / upslope to 0-5° Downslope.

In summary, the following key recommendations have been generated to enable the proposal to comply with PBP (2019).

Asset Protection Zones

- The entire development site, that is B7 Business Park Zoned land will be managed as an IPA for the life of development.

Access

- A perimeter service road circulates the development area boundary to facilitate access to the rear of each specialty retail building along with the hardware and building supplies outlet. This road is to be a minimum of 8m in width and be trafficable by emergency vehicles in any direction during a bushfire event.
- Internal roads throughout the development concept that provide the main internal circulation paths meet or exceed the minimum 5.5m width criteria and provide regular connection to the internal network of parking areas.
- The proposed perimeter service road and internal travel roads between connections to parking areas comply with RFS requirements for access listed in Appendix 3 of PBP 2019 in terms of surface, vertical clearance, horizontal width, grades and minimum curve radius.
- Roads leading from the main circulation paths within the development into parking areas are suitable for light vehicles only.

Services – Water supply, Gas and Electricity

- The Site will be connected to the reticulated water supply.
- The Site shall be connected to the existing power supply available from Mandalong Road.
- Any future gas connection will be installed in accordance with the provisions of PBP (2019).
- Fire hydrant spacing, design and sizing comply with the relevant clauses of AS 2419.1:2005.
- Any water storage tanks are to include connection points in accordance with PBP (2019) and be readily accessible and clearly marked. If pumps are to be made available, they must be regularly maintained and in good working order.

Landscaping

- Careful consideration of future site landscaping and ongoing fuel management must occur to minimise the potential impact of bushfire on the Site.
- Ongoing fuel management across the Site as part of the maintenance regime should give due consideration to Appendix 4 Asset Protection Zone Requirements of PBP (2019) which provides guidance on maintenance activities to assist in achieving the landscape principles.
- Feigning is to be constructed in accordance with Section 7.6 of PBP (2019).

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GLOSSARY OF TERMS AND ABBREVIATIONS

Term/ Abbreviation	Meaning
APZ	Asset Protection Zone
AS2419-2005	Australian Standard – Fire Hydrant Installations
AS3959-2018	Australian Standard – Construction of Buildings in Bush Fire Prone Areas
BAR	Bushfire Assessment Report
BCA	Building Code of Australia
BC Act	Biodiversity Conservation Act 2016
BMP	Bush Fire Management Plan
BPA	Bush Fire Prone Area (Also Bushfire Prone Land)
BPL	Bush Fire Prone Land
BPLM	Bush Fire Prone Land Map
BPM	Bush Fire Protection Measures
DoE	Commonwealth Department of the Environment
DPI Water	NSW Department of Primary Industries – Water
EPA Act	NSW Environmental Planning and Assessment Act 1979
EPBC Act	Commonwealth Environment Protection and Biodiversity Conservation Act 1999
FDI	Fire Danger Index
FMP	Fuel Management Plan
ha	hectare
IPA	Inner Protection Area
LGA	Local Government Area
LLS Act	Local Land Services Act 2013
OPA	Outer Protection Area
OEH	NSW Office of Environment and Heritage
PBP or PBP (2019)	Planning for Bushfire Protection 2019
RF Act	Rural Fires Act 1997
RF Regulation	Rural Fires Regulation
RFS	NSW Rural Fire Service
TSC Act	NSW Threatened Species Conservation Act 1995 (as repealed)

1 Introduction

MJD Environmental has been engaged by TSA Management on behalf of Winarch Capital to prepare a Bushfire Assessment Report to accompany a Development Application for a Subdivision & Specialised Retailing commercial development over Lots 2 DP529914, 11 & 12 DP777034, 56-76 Mandalong Road, Morisset. Hereafter referred to as the site. Refer to **Figure 1**.

The assessment aims to consider and assess the bushfire hazard and associated potential threats relevant to the proposal, and to outline the minimum mitigative measures which would be required in accordance with *Planning for Bush Fire Protection 2019* (PBP), as adopted through the *Environmental Planning & Assessment Amendment* (Planning for Bush Fire Protection) *Regulation 2020*.

In order to determine whether the proposed development is bushfire-prone, and if so, which setbacks and other relevant Bush Fire Protection Measures (BPM) will be appropriate, this assessment adhered to the methodology and procedures outlined in PBP (2019) via assessment of acceptable solutions as outlined in Chapter 8 of PBP (2019).

This assessment has been made based on the bushfire hazards in and around the Site at the time of site inspection and report production.

1.1 Aims & Objectives

This BAR addresses the aims and objectives of PBP 2019, being:

- Afford buildings and their occupants protection from exposure to a bushfire;
- Provide for a defensible space to be located around buildings;
- Provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings;
- Ensure that appropriate operational access and egress for emergency service personnel and occupants is available;
- Provide for ongoing management and maintenance of bushfire protection measures; and
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Chapter 8.3.1 and 8.3.10 of PBP 2019 – *Buildings of Class 5 to 8 under the NCC* specifies the following objectives to be applied in relation to access, water supply and services, and emergency and evacuation planning for developments of this type, applicable to the proposal;

- to provide safe access to/from the public road system for firefighters providing property protection during a bush fire and for occupant egress for evacuation.
- to provide suitable emergency and evacuation (and relocation) arrangements for occupants of the development;
- to provide adequate services of water for the protection of buildings during and after the passage of bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building; and
- provide for the storage of hazardous materials away from the hazard wherever possible.

1.2 Site Particulars

Locality	The Site is located in Morisset
Land Title	Lot 2 DP529914 & lots 11 & 12 DP 777034
LGA	Lake Macquarie City Council

Area	13.02ha (approx.)
Zoning	The Site is currently zoned B7 – Business Park, with a portion to the North zoned E2 – Environmental Conservation, & a narrow area along Mandalong Road zoned SP2 – Infrastructure. (NSW Planning & Environment 2021).
Boundaries	The Site is bound to the South by Mandalong Road. To the north, east and west the site abuts areas of bushland and rural properties. Environmental zoned land forms part of this rural landscape to the west and north of site.
Current Land Use	The Site currently contains two single-storey residential dwellings, some garages/sheds with managed lawn and areas of native trees exhibiting a closed canopy. An easement for a 132kv high voltage powerline runs through the centre of the Site.
Topography	The Southern boundary is the highest point on the lot, reaching 15m ASL. The land then slopes downhill to the Northern boundary along Mullards Creek. The land along the Western Boundary is defined by Mullards Creek, the slope rises from this waterway to the West within the neighbouring lot.
Climate / Fire History	The Site lies within a geographical area with a Forest Fire Danger Index (FDI) rating of 100. The Site is mapped as containing bushfire prone vegetation. (DPE 2021). Refer to Figure 2 .
Environment & Cultural Significance	Assessment s relating to Aboriginal Cultural Heritage and Biodiversity have been prepared to inform that application.

1.3 Description of Proposal

The Development application seeks for the approval of a staged subdivision (including torrens and community title) and development of a specialised retail precinct with associated car parking, loading docks, internal roads, signage, and landscaping. The proposed application seeks approval for the following works:

- Staged subdivision as follows:
 - Stage 1: Two Lot Torrens subdivision to create a lot encompassing the B7 zone in the western port of Lot 12, and residue lot
 - Stage 2: Community Title Subdivision of the residue lot, with six community lots and one common lot
- Buildings to be used for specialised retailing
- Carparking
- Playground area and amenities
- Internal road works, driveways and loading docks
- Left-in Left-out access onto Mandalong Road
- Access via approved intersection with Gimberts Road / Old Mandalong Road
- Associated drainage works, services and landscaping
- Site Directory Signage including two Pylon Signs

Project Concept

The Morisset Specialised Retail Centre proposed by Winarch Capital (Winarch), aims to capture the substantial market interest to develop a new business precinct, that will generate jobs and provide essential services to the growing West Lake Macquarie community. The development aims to leverage the good exposure to Mandalong Road and the site's easy access to the M1 Pacific Motorway and Morisset Town Centre.

Winarch have developed a Concept Master Plan to further develop the entire site into a 'destination' retail park with a mix of complimentary large format retailers including, hardware, homewares, automotive services, food outlets, and a high-quality outdoor children's play area.

Project Concept and Vision

The Project Vision is to create an indoor-outdoor mall with green, activated spaces and a unique retail experience that promotes lingering, a sense of identity and place, and fosters return visitation.

The Concept Master Plan incorporates the design themes of:

- Homely heritage
- Surrounding bushland
- Urban street art
- Local culture
- Growing the family home

The Project Objectives are to:

- Provide retail spaces and opportunity for shopping experiences that do not currently exist in western Lake Macquarie
- Create a food and beverage hub that offers all day activation with alfresco dining in a shared meeting and gathering zone
- Create a playscape that is an immersive experience, connects to nature and uses organic forms
- Use native and resilient flora to create a welcoming pedestrian friendly environment with legible sustainability features

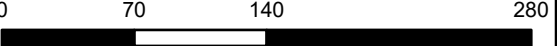
The Concept Master Plan features a major anchor tenant in the centre of the site with three other large buildings in the eastern, southern and western portions of the site for use as specialised retail tenancies. A central spine road provides connectivity between the eastern and western halves of the site with car parking, pedestrian linkages and landscaping provided through the site.

Access to the development is provided by a new intersection with Gimberts and Old Mandalong Road, accessed via the Gateway Boulevard / Mandalong Road roundabout. A left-in left-out access provides secondary access to the development from Mandalong Road in the south eastern corner of the site. Future uses of the nominated undeveloped sites within the precinct could include restaurants and cafes, a supermarket (pending Additional Permitted Use amendment). These will be subject to further development applications and approvals.

Refer to **Appendix A** for plans of the proposal.

MANDALONG ROAD, MORISSET
FIGURE 1: SITE LOCATION

- Legend**
- Subject Site
 - Slope Classification Buffer (100m)
 - Vegetation Classification Buffer (140m)
 - Cadastral Boundaries



Meters
1:4,000



Aerial: NearMap (2020) | Data: MJD Environmental (2021),
Spatial Services (2020), NSW RFS (2019) | Datum/Projection:
GDA 2020 MGA Zone 56 | Date: 6/04/2021 | Version 1 |
GIS/20135 - Mandalong Road, Morisset | This plan should not be
relied upon for critical design dimensions.



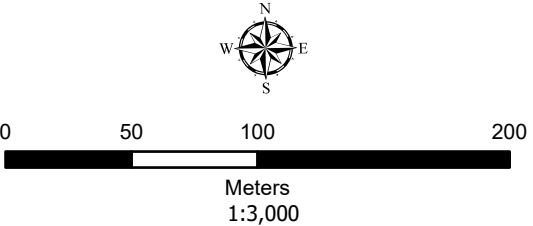
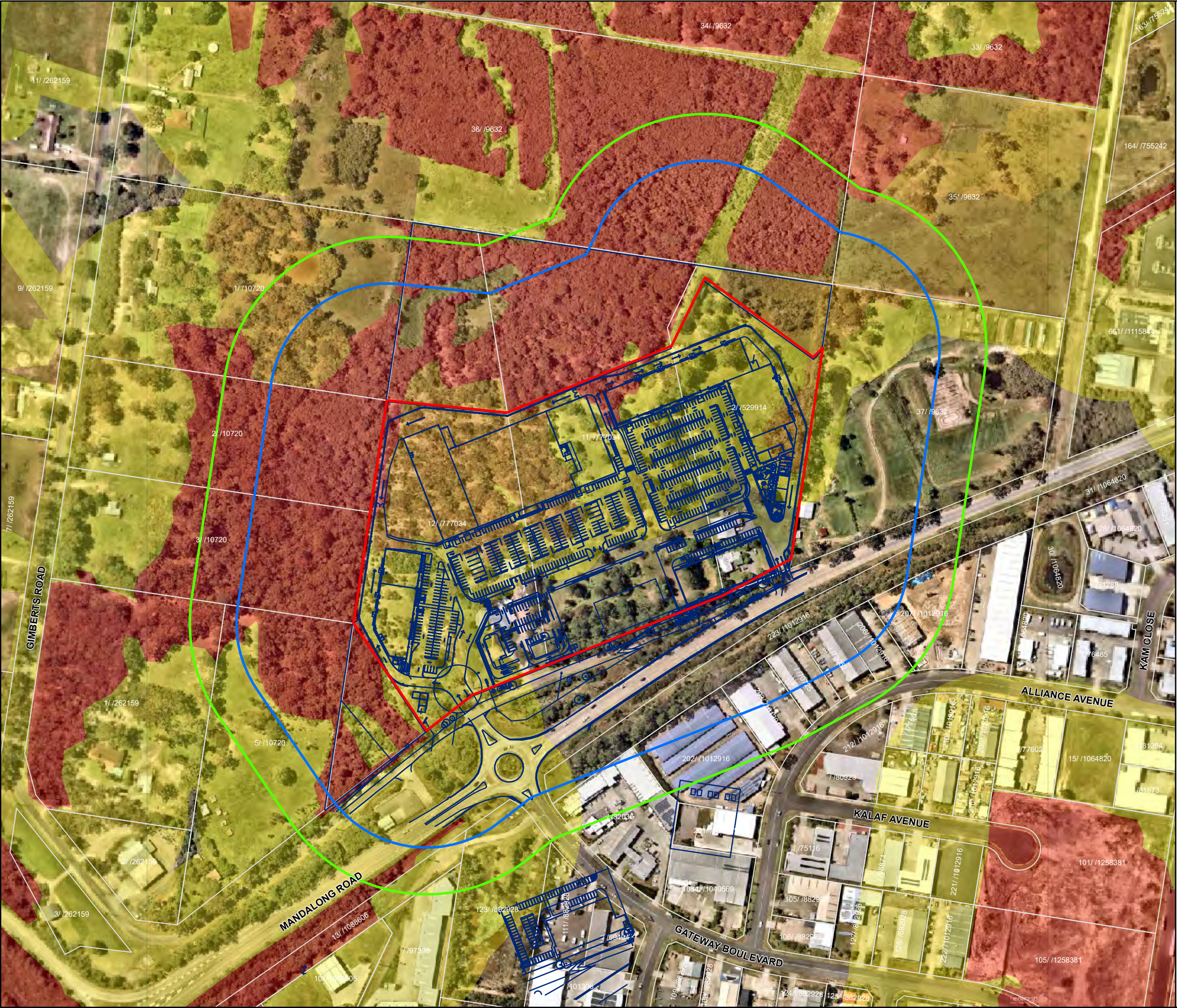
MANDALONG ROAD, MORISSET
FIGURE 2: BUSHFIRE PRONE LAND

Legend

- Proposed Layout
- Subject Site
- Slope Classification Buffer (100m)
- Vegetation Classification Buffer (140m)
- Cadastral Boundaries

Bush Fire Prone Vegetation

- Category 1
- Category 2
- Category 3
- BFPV Buffer



2 Bushfire Hazard Analysis

2.1 Vegetation Assessment

Methodology

The vegetation in and around the Site, to a distance of 140m, has been assessed in accordance with PBP 2019. This assessment has been made via a combination of:

- aerial photo interpretation;
- on-site vegetation classification; and
- reference to regional community vegetation mapping (including Greater Hunter and Keith).

These vegetation communities have been classified for bushfire purposes into structure and formation using the system adopted by Keith (2004) and using Figure A1.2 of PBP (2019) with due regard to Appendix 1 of PBP (2019).

Vegetation Classification

Vegetation classification has been presented in **Table 1** below and **Figure 3**.

Table 1 Vegetation Classification

Direction	Description	Vegetation Classification
North	<ul style="list-style-type: none"> ▪ Forested wetlands and bushland vegetation interspersed with rural uses (clearing, dams, paddock areas) 	Forest
North-east	<ul style="list-style-type: none"> ▪ Forested wetlands and bushland vegetation 	Forest
East	<ul style="list-style-type: none"> ▪ Large lot rural holding ▪ Dwelling and ancillary structures ▪ Farm dam ▪ Managed areas including paddocks 	Managed Land
South	<ul style="list-style-type: none"> ▪ Old Mandalong Road and Mandalong Road ▪ Commercial development ▪ Small and linear patches of vegetation between roadways and built environment 	Remnant (Rainforest)
South-west	<ul style="list-style-type: none"> ▪ Forested wetlands and bushland vegetation ▪ Clearing containing paddock areas 	Forest
West	<ul style="list-style-type: none"> ▪ Forested wetlands and bushland vegetation 	Forest

2.2 Slope Assessment

Methodology

In accordance with PBP (2019), an assessment of the slope was conducted throughout the Site (where a hazard is present) and for a distance of 100m around the Site in the hazard direction. Both the average slope and maximum slopes were considered to determine the level of gradient which will most significantly influence fire behaviour on the Site. The slope transect was categorised within the slope classification under PBP Appendix A1.4.

Slope assessment was assisted by:

- Preparation of elevation model based on Digital Elevation Model data; and
- Preparation of slope assessment based on NSW 1m contours.

Effective Slope

The slope class under the bushfire hazard within 100m is presented in **Table 2** below and **Figure 3**.

Table 2 Slope Class

Direction	Vegetation Classification	Slope Class
North	Forest	0-5° Downslope
North-east	Forest	Flat
South	Rainforest	Flat / Upslope
South-west	Forest	Flat / Upslope
West	Forest	0-5° Downslope

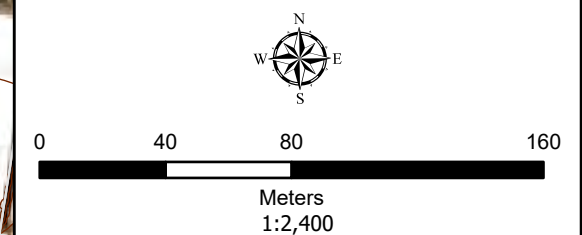
MANDALONG ROAD, MORISSET
**FIGURE 3: SLOPE AND
VEGETATION ASSESSMENT**

Legend

- Proposed Layout
- Contours (1m)
- Subject Site
- Slope Classification Buffer (100m)
- Vegetation Classification Buffer (140m)
- Cadastral Boundaries

Vegetation (Keith 2004)

- Forest
- Grassland
- Remant (Rainforest)
- Managed Land
- Waterbody



MJDEnvironmental

Aerial: NearMap (2020) | Data: MJD Environmental, Buchan (2021), Spatial Services (2020), NSW RFS (2019) | Datum/Projection: GDA 2020 MGA Zone 56 | Date: 18/08/2021 | Version 1 | GIS\20135 - Mandalong Road, Morisset | This plan should not be relied upon for critical design dimensions.



3 Bushfire Protection Measures

PBP sets out a suite of BPMs and criteria that require consideration and assessment for applicable proposals on bushfire prone land in order to provide an adequate level of protection to new developments.

The measures required to be assessed are listed below and discussed throughout this chapter:

- Asset Protection Zones (APZs)
- Bushfire Attack Level (BAL)
- Access
- Services – Water supply, Gas and Electricity
- Landscaping and Fuel Management
- Emergency Management
- Asset Protection Zone Appraisal against 8.3.1 objectives for Commercial Developments

This development proposal entails subdivision and a specialised retail commercial development thereby being of a building type do not strictly trigger the criteria outlined with PBP (2019) for residential and/or Special Fire Protection Purpose (SFPP).

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:

- to provide safe access to/from the public road system for firefighters providing property protection during a bush fire and for occupant egress for evacuation;
- to provide suitable emergency and evacuation (and relocation) arrangements for occupants of the development;
- to provide adequate services of water for the protection of buildings during and after the passage of bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building; and
- provide for the storage of hazardous materials away from the hazard wherever possible.

The proposed development is able to meet the performance criteria for acceptable solutions for commercial development, giving due regards to the requirements of Chapter 8 of PBP 2019, specifically section 8.3.1. A suitable package of BPMs has been developed that is commensurate with the assessed level of risk to the development.

The entire development site, that is B7 Business Park Zoned land will be managed as an IPA for the life of development. The built form of the proposed structures is a factor in the risk profile of the proposal, where all buildings are to be built to the NCC / NASH and have regard to AS3959. Typically, the buildings are of a precast or masonry walls with non-combustible wall materials and non-combustible roof structures (including concrete tilt slab design, metal frame super structure, metal cladding and roofing, or similar) which is highly resistant to radiant heat, and are non-combustible materials. Cladding elements will be added to the exterior of buildings. A copy of the Full DA Architectural drawings has been provided as **Appendix B**.

Section 3.1 and 3.2 below depict acceptable solution APZ and BAL as it relates to residential developments. Importantly this is provided for context and it is acknowledged the development will not comply with the residential APZ setbacks per PBP 2019 Section 8.3.1, however the package of measures provided by the development includes:

- Provision of defensible space between the hazard and development;
- High resilience building typology on elevations facing the hazard;
- Access and circulation suitable for a fully loaded fire appliance; and
- Provision of water (hydrants) for fire fighting purposes.

3.1 Asset Protection Zones

An APZ is a buffer zone between the hazard and buildings that is progressively managed to minimise bushfire hazard (fuel loads and reduce potential radiant heat levels, flame, ember and smoke attack) PBP (2019), in order to mitigate risk to life and asset.

An APZ can include the following:

- Lawns;
- discontinuous gardens;
- swimming pools;
- driveways;
- detached garages;
- open space / parkland;
- car parking; and
- cycleway and formed walkways.

The site lies within the Lake Macquarie City Council LGA and therefore is assessed under an FFDI (Forest Fire Danger Index) rating of 100. As per Table A1.12.2 within PBP (2019), the acceptable solution setbacks have been calculated based on the bushfire hazard analysis presented in Chapter 2. Notably, as the proposal is for commercial development, performance criteria for PBP relates to a package of measures to satisfy the BPM's. Refer to **Table 3** detailing the acceptable solution residential development APZ setbacks. Acceptable solution APZ for residential development is detailed in **Figure 4**.

Table 3 APZ (Residential Developments PBP 2019)

Direction	Vegetation Classification	Slope Class	APZ
North	Forest	0-5° Downslope	29m
North-east	Forest	Flat	24m
South	Rainforest	Flat / Upslope	11m
South-west	Forest	Flat / Upslope	24m
West	Forest	0-5° Downslope	29m

3.2 Determining BAL

By considering the bushfire hazard analysis outcomes presented in Chapter 2, Table A1.12.5 of Appendix 1 of PBP (2019) was applied to the vegetation classification and slope analysis to calculate BAL for residential development based on separation from the hazard for the site. Refer to **Table 4** and **Figure 5**.

Table 4 BAL (Residential Developments PBP 2019)

Direction of Hazard	Vegetation Classification	Slope Class	APZ PBP 2019 (Table A1.12.2)	Separation Distance (m)	BAL
North	Forest	0-5° Downslope	29m	<22 22-<29 29-<40 40-<54 54-<100	BAL- FZ BAL-40 BAL-29 BAL-19 BAL-12.5
North-east	Forest	Flat	24m	<18 18-<24 24-<33 33-<45 45-<100	BAL- FZ BAL-40 BAL-29 BAL-19 BAL-12.5

Direction of Hazard	Vegetation Classification	Slope Class	APZ PBP 2019 (Table A1.12.2)	Separation Distance (m)	BAL
South	Rainforest	Flat / Upslope	11m	<8 8-<11 11-<16 16-<23 23-<100	BAL- FZ BAL-40 BAL-29 BAL-19 BAL-12.5
South-west	Forest	Flat / Upslope	24m	<18 18-<24 24-<33 33-<45 45-<100	BAL- FZ BAL-40 BAL-29 BAL-19 BAL-12.5
West	Forest	0-5° Downslope	29m	<22 22-<29 29-<40 40-<54 54-<100	BAL- FZ BAL-40 BAL-29 BAL-19 BAL-12.5

3.3 Access

In the event of a serious bushfire threat to the proposed development, it will be essential to ensure that adequate ingress/ egress and the provision of defendable space are afforded in the commercial development design with due regard to the requirements of Table 5.3b, Chapter 8.3.1 and Appendix 3 of PBP (2019).

The primary property access to the development is from a public road, namely Mandalong Road. The development and circulation arrangement provides two points of access to Mandalong Road at the northern and southern development extents.

A perimeter service road circulates the development area boundary to facilitate access to the rear of each specialty retail building along with the hardware and building supplies outlet. This road is a minimum of 8m in width and has been designed to allow one way circulation around the development under normal operational conditions. During an emergency the perimeter service road will be trafficable by emergency vehicles in any direction.

Internal roads throughout the development concept that provide the main internal circulation paths meet or exceed the minimum 5.5m width criteria and provide regular connection to the internal network of parking areas.

The proposed perimeter service road and internal travel roads between connections to parking areas comply with RFS requirements for access listed in Appendix 3 of PBP 2019 in terms of surface, vertical clearance, horizontal width, grades and minimum curve radius. Roads leading from the main circulation paths within the development into parking areas are suitable for light vehicles only.

Refer to **Appendix A** for Site Plan showing access.

These features allow the proposal to meet the objectives specified for Class 5-8 buildings under Ch 8.3.1 of PBP 2019;

To provide safe access to/from the public road system for firefighters providing property protection during a bushfire, and for occupant egress for evacuation.

The following summarises the requirements of Table 5.3b, and Appendix 3 of PBP (2019). Deviations from the above acceptable solutions for access may be considered (depending on the situation) through a performance-based assessment.

Table 5 Acceptable solutions for access (PBP 2019)

Performance Criteria	Acceptable Solutions
The intent may be achieved where:	
General Requirements <ul style="list-style-type: none"> Firefighting vehicles are provided with safe, all-weather access to structures. 	<ul style="list-style-type: none"> 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 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.
<ul style="list-style-type: none"> the capacity of access roads is adequate for firefighting vehicles. 	<ul style="list-style-type: none"> 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.
<ul style="list-style-type: none"> there is appropriate access to water supply. 	<ul style="list-style-type: none"> 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 2419.1:2005; and there is suitable access for a Category 1 fire appliances to within 4m of the static water supply where no reticulated supply is available.
Perimeter access roads <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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

Performance Criteria	Acceptable Solutions										
	<ul style="list-style-type: none"> a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided. 										
Non-perimeter access roads <ul style="list-style-type: none"> Access roads are designed to allow safe access and egress for firefighting vehicles while residents are evacuating. 	<ul style="list-style-type: none"> minimum 5.5m carriageway width kerb to kerb; 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. 										
Property Access Firefighting vehicles can access the dwelling and exit the property safely.	<ul style="list-style-type: none"> 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 of the public access road (where the road speed limit is not greater than 70kph) that supports the operational use of emergency firefighting vehicles. <p>In circumstances where this cannot occur, the following requirements apply:</p> <ul style="list-style-type: none"> 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; <table border="1"> <thead> <tr> <th>Curve radius (inside edge in metres)</th><th>Swept path (metres width)</th></tr> </thead> <tbody> <tr> <td>< 40</td><td>4.0</td></tr> <tr> <td>40 - 69</td><td>3.0</td></tr> <tr> <td>70 - 100</td><td>2.7</td></tr> <tr> <td>> 100</td><td>2.5</td></tr> </tbody> </table>	Curve radius (inside edge in metres)	Swept path (metres width)	< 40	4.0	40 - 69	3.0	70 - 100	2.7	> 100	2.5
Curve radius (inside edge in metres)	Swept path (metres width)										
< 40	4.0										
40 - 69	3.0										
70 - 100	2.7										
> 100	2.5										

Performance Criteria	Acceptable Solutions
	<div data-bbox="754 241 1473 947"> <p>The diagrams illustrate four types of road access solutions:</p> <ul style="list-style-type: none"> Type A: A circular road layout with a central access point. Dimensions include a 12000m radius and a 6000m width. A label 'Normal road width' is present. Type B: A T-junction layout. Dimensions include 12000m for the main road width and 6000m for the access road width. A label 'Normal road width' is present. Type C: A T-junction layout with a side access point. Dimensions include 12000m for the main road width and 6000m for the access road width. A label 'Normal road width' is present. Type D: A Y-junction layout. Dimensions include 12000m for the main road width and 6000m for the access road width. A label 'Normal road width' is present. </div> <ul style="list-style-type: none"> 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 a development comprising more than three dwellings has access by dedication of a road and not by right of way. <p><i>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.</i></p>



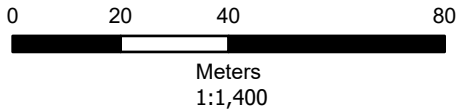
MANDALONG ROAD, MORISSET
**FIGURE 4: ASSET
PROTECTION ZONES**
(Acceptable Solutions Residential
Developments PBP 2019)

Legend

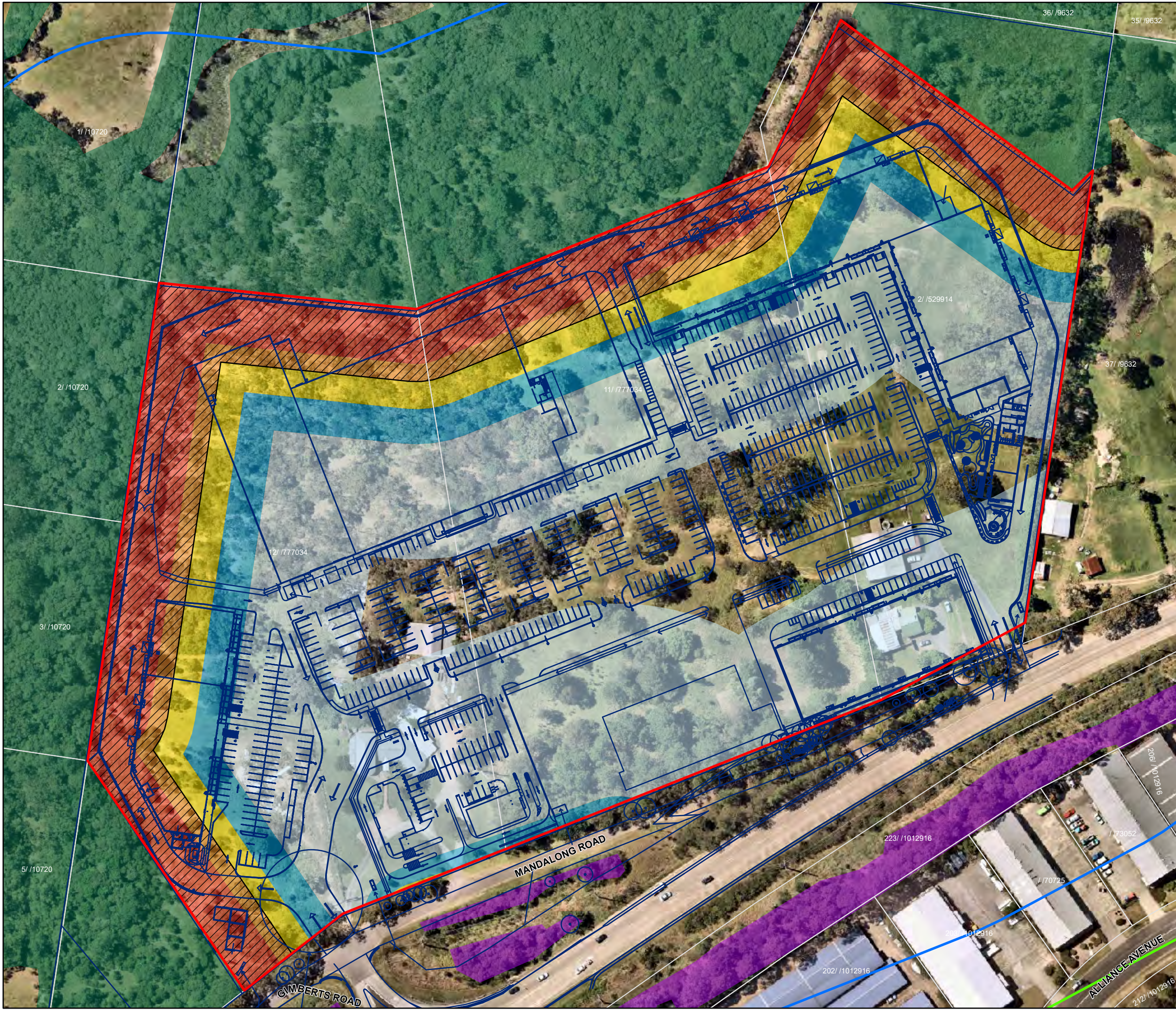
- Proposed Layout
- Subject Site
- Slope Classification Buffer (100m)
- Vegetation Classification Buffer (140m)
- Cadastral Boundaries
- Required Asset Protection Zones

Vegetation (Keith 2004)

- Forest
- Remant (Rainforest)

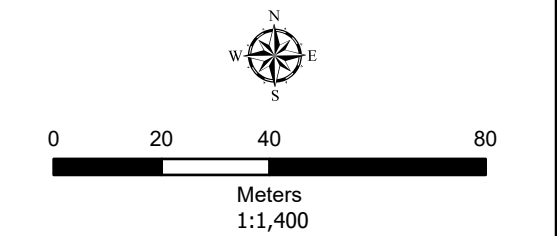


Aerial: NearMap (2020) | Data: MJD Environmental, Buchan (2021), Spatial Services (2020), NSW RFS (2019) | Datum/Projection: GDA 2020 MGA Zone 56 | Date: 18/08/2021 | Version 1 | GIS\20135 - Mandalong Road, Morisset | This plan should not be relied upon for critical design dimensions.



MANDALONG ROAD, MORISSET
**FIGURE 5: BUSHFIRE
ATTACK LEVELS**
(Acceptable Solutions Residential
Developments PBP 2019)

- Legend**
- Proposed Layout
 - Subject Site
 - Slope Classification Buffer (100m)
 - Vegetation Classification Buffer (140m)
 - Cadastral Boundaries
 - Required Asset Protection Zones
- Vegetation (Keith 2004)**
- Forest
 - Remant (Rainforest)
- Required Bushfire Attack Levels**
- BAL-FZ
 - BAL-40
 - BAL-29
 - BAL-19
 - BAL-12.5



3.4 Services – Water, Electricity, Gas

The Site is to be developed in accordance with the PBP (2019) acceptable solutions for services listed in Table 6.

The proposal is able to satisfy these requirements given:

- The Site will be connected to the reticulated water supply.
- The Site shall be connected to the existing power supply available from Mandalong Road.
- Any future gas connection will be installed in accordance with the provisions of PBP (2019).
- Fire hydrant spacing, design and sizing comply with the relevant clauses of AS 2419.1:2005.
- Any water storage tanks are to include connection points in accordance with PBP (2019) and be readily accessible and clearly marked. If pumps are to be made available, they must be regularly maintained and in good working order.

Table 6 Acceptable solutions for services (PBP 2019)

Performance Criteria	Acceptable Solutions										
The intent may be achieved where:											
<ul style="list-style-type: none"> ▪ adequate water supplies are provided for firefighting purposes 	<ul style="list-style-type: none"> ▪ 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 <table border="1"> <thead> <tr> <th>Development Type</th><th>Water Requirements</th></tr> </thead> <tbody> <tr> <td>Residential lots (<1000m²)</td><td>5,000L/lot</td></tr> <tr> <td>Rural-residential lots (1000-10,000m²)</td><td>10,000L/lot</td></tr> <tr> <td>Large rural/lifestyle lots (>10,000m²)</td><td>20,000L/lot</td></tr> <tr> <td>Multi-dwelling housing (including dual occupancies)</td><td>5,000L/dwelling</td></tr> </tbody> </table> 	Development Type	Water Requirements	Residential lots (<1000m ²)	5,000L/lot	Rural-residential lots (1000-10,000m ²)	10,000L/lot	Large rural/lifestyle lots (>10,000m ²)	20,000L/lot	Multi-dwelling housing (including dual occupancies)	5,000L/dwelling
Development Type	Water Requirements										
Residential lots (<1000m ²)	5,000L/lot										
Rural-residential lots (1000-10,000m ²)	10,000L/lot										
Large rural/lifestyle lots (>10,000m ²)	20,000L/lot										
Multi-dwelling housing (including dual occupancies)	5,000L/dwelling										
<ul style="list-style-type: none"> ▪ water supplies are located at regular intervals; and ▪ the water supply is accessible and reliable for firefighting operations. 	<ul style="list-style-type: none"> ▪ fire hydrant spacing, design and sizing complies with AS 2419.1 – 2005. ▪ hydrants are not located within any road carriageway ▪ all above ground water and gas service pipes external to the building are metal, including and up to any taps 										
<ul style="list-style-type: none"> ▪ flows and pressure are appropriate 	<ul style="list-style-type: none"> ▪ fire hydrant flows and pressures comply with the relevant clauses of AS 2419.1:2005 										
<ul style="list-style-type: none"> ▪ the integrity of the water supply is maintained. 	<ul style="list-style-type: none"> ▪ 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. 										
Electricity Services <ul style="list-style-type: none"> ▪ location of electricity services limits the possibility of ignition of surrounding bushland or the fabric of buildings 	<ul style="list-style-type: none"> ▪ where practicable, electrical transmission lines are underground. 										

Performance Criteria	Acceptable Solutions
	<ul style="list-style-type: none"> where overhead electrical transmission lines are proposed: <ul style="list-style-type: none"> lines are installed with short pole spacing (30 metres), unless crossing gullies, gorges or riparian areas; and no part of a tree is closer to a power line than the distance set out in accordance with the specifications in <i>ISSC3 Guideline for Managing Vegetation Near Power Lines</i>.
Gas services <ul style="list-style-type: none"> location of gas services will not lead to ignition of surrounding bushland or the fabric of buildings 	<ul style="list-style-type: none"> reticulated or bottled gas is installed and maintained in accordance with AS/NZ 1596:2014 – <i>The storage and handling of LP Gas</i>, and the requirements of relevant authorities. Metal piping is to be used. all fixed gas cylinders are kept clear of all flammable materials to a distance of 10 metres and shielded on the hazard side of the installation. Above-ground gas service pipes are metal, including and up to any outlets. Connections to and from gas cylinders are metal. polymer sheathed flexible gas supply lines to gas meters adjacent to buildings are not used.

3.5 Landscaping & Fuel Management

All future landscaping on the Site should be designed and managed to minimise impact of bushfire based on the principles set out in PBP (2019) being:

- Prevent flame contact / direct ignition on the dwelling;
- Provide a defendable space for property protection;
- Reduce fire spread;
- Deflect and filter embers;
- Provide shelter from radiant heat; and
- Reduce wind speed.

In this manner, consideration should be given to species selection, planting location, flammability and size at maturity to ensure discontinuous canopy/ structure both vertically and horizontally to ensure the above principles are met.

Ongoing fuel management across the site as part of the maintenance regime should comply with the NSW RFS 'Asset protection zone standards' and *Appendix 4 - Asset Protection Zone Requirements* of PBP (2019) which provides guidance on maintenance activities to assist in achieving the landscape principles.

Fencing is to be constructed in accordance with Section 7.6 of PBP (2019) as follows:

Fences and gates in bush fire prone areas may play a significant role in the vulnerability of structures during bush fires. In this regard, all fences in bush fire prone areas should be made of either hardwood or non-combustible material.

However, in circumstances where the fence is within 6m of a building or in areas of BAL-29 or greater, they should be made of non-combustible material only.

3.6 Emergency Management

Any fire within the Site would be attended in the first instance by Fire and Rescue NSW Morisset Station (1.7km), with support available from Cooranbong, Dora Creek & Wyee Rural Fire Brigade.

To assist emergency response from the NSW RFS and/or NSW Fire and Rescue, site access is to comply with the provisions set out in PBP (2019) and all tanks including connection points be readily accessible and clearly marked. If pumps are to be made available, they must be regularly maintained and in good working order.

3.7 Appraisal against 8.3.1 objectives

The broad objectives are listed with comment on how they are achieved in **Table 7** below.

Table 7 Appraisal against 8.3.1 Objectives

Objective (PBP 2019)	Comment
To provide safe access to/from the public road system for firefighters providing property protection during a bush fire and for occupant egress for evacuation;	<ul style="list-style-type: none"> Refer to Section 3.3. The proposal shall provide and maintain appropriate ingress/ egress to site for emergency vehicle access. The site has direct road frontage and two points of access to a public road – Mandalong Road. The onsite road layout ensures a direct egress from the development away from the primary bushfire hazards proximate to the site. Site circulation paths provide internal roads and perimeter service road linking to the site access points from Mandalong Road. In an emergency this will assist facilitating egress of occupants and ingress of emergency services. <p>This objective is satisfied.</p>
To provide suitable emergency and evacuation (and relocation) arrangements for occupants of the development	<ul style="list-style-type: none"> In all cases future occupants will exit and travel away from the bushfire hazard located to the North of the Site via the Southern access route to Mandalong Road In addition to the provision of a combination of bushfire mitigation measures including defensible space, vegetation management within the development area to an IPA standard, access and circulation, water for firefighting purposes via provision of hydrants in accessible locations within the lot as per PBP (2019), the nature of the industrial buildings construction materials used on external facades and roofing are considered to provide increased bushfire resilience outlined in AS3959-2018/NCC/NASH. Specifically, the structures are typically constructed based on non-combustible wall materials and non-combustible roof structures (including concrete tilt slab design, metal frame super structure, metal cladding and roofing, or similar). <p>This objective is satisfied.</p>
to provide adequate services of water for the protection of buildings during and after the passage of bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building; and	<p>Refer to Section 3.4. The proposal can satisfy this requirement given:</p> <ul style="list-style-type: none"> The Site will be connected to the reticulated water supply The Site shall be connected to the existing power supply available from Mandalong Road. Any future gas connection will be installed in accordance with the provisions of PBP (2019). Fire hydrant spacing, design and sizing comply with the relevant clauses of AS 2419.1:2005. Any water storage tanks are to include connection points in accordance with PBP (2019) and be readily accessible and clearly marked. If pumps are to be made available, they must be regularly maintained and in good working order. <p>This objective is satisfied.</p>

Objective (PBP 2019)	Comment
provide for the storage of hazardous materials away from the hazard wherever possible.	<ul style="list-style-type: none">▪ Power and Gas connections will be in accordance with PBP (2019).▪ The nature of this commercial development encompasses the establishment of a Hardware and Building Supplies and Speciality Retail outlets. Given the nature of the proposal, material and goods to be sold in the development will typically be contained within the buildings to be constructed on site. In all cases a perimeter service road is situated between the buildings and development area boundary. <p>This objective is satisfied.</p>

4 Conclusion & Recommendations

MJD Environmental has been engaged by TSA Management on behalf of Winarch Capital to prepare a Bushfire Assessment Report to accompany a Development Application for a Subdivision & Specialised Retailing commercial development over Lots 2 DP529914, 11 & 12 DP777034, 56-76 Mandalong Road, Morisset.

The assessment considered and assessed the bushfire hazard and associated potential threats relevant to the proposal, and outlined the minimum mitigative measures which would be required in accordance with *Planning for Bush Fire Protection 2019* (PBP), as adopted through the *Environmental Planning & Assessment Amendment* (Planning for Bush Fire Protection) *Regulation 2020*.

In order to determine whether the proposed development is bushfire-prone, and if so, which setbacks and other relevant Bush Fire Protection Measures (BPM) will be appropriate, this assessment adhered to the methodology and procedures outlined in PBP (2019) via assessment of acceptable solutions as outlined in Chapter 8 of PBP (2019).

This assessment was based on the bushfire hazards in and around the Site at the time of site inspection and report production.

This BAR addresses the aims and objectives of PBP 2019, being:

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

Chapter 8.3.1 and 8.3.10 of PBP 2019 – *Buildings of Class 5 to 8 under the NCC* specifies the following objectives to be applied in relation to access, water supply and services, and emergency and evacuation planning for developments of this type, applicable to the proposal;

- to provide safe access to/from the public road system for firefighters providing property protection during a bush fire and for occupant egress for evacuation.
- to provide suitable emergency and evacuation (and relocation) arrangements for occupants of the development;
- to provide adequate services of water for the protection of buildings during and after the passage of bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building; and
- provide for the storage of hazardous materials away from the hazard wherever possible.

The proposed development is able to meet the performance criteria for acceptable solutions for commercial development, giving due regards to the requirements of Chapter 8 of PBP 2019, specifically section 8.3.1. A suitable package of BPMs has been developed that is commensurate with the assessed level of risk to the development.

The entire development site, that is B7 Business Park Zoned land will be managed as an IPA for the life of development. The built form of the proposed structures is a factor in the risk profile of the proposal, where all buildings are to be built to the NCC / NASH and have regard to AS3959. Typically, the buildings are of a precast or masonry walls with non-combustible wall materials and non-combustible roof structures (including concrete tilt slab design, metal frame super structure, metal cladding and roofing, or similar) which is highly resistant to radiant heat, and are non-combustible materials. Cladding elements will be added to the exterior of buildings.

Section 3.1 and 3.2 below depict acceptable solution APZ and BAL as it relates to residential developments. Importantly this is provided for context and it is acknowledged the development will not comply with the residential APZ setbacks per PBP 2019 Section 8.3.1, however the package of measures provided by the development includes:

- Provision of defensible space between the hazard and development
- High resilience building typology on elevations facing the hazard
- Access and circulation suitable for a fully loaded fire appliance
- Provision of water (hydrants) for fire fighting purposes

The assessment found that hazard vegetation types occur within 140m of the Site. The primary risk is from the forest-class vegetation located to the North, West and South-West of the Site. These forest-class hazards have been assessed as having the greatest effect on bushfire behaviour. The slope under the hazard vegetation is variable from flat / upslope to 0-5° Downslope.

In summary, the following key recommendations have been generated to enable the proposal to comply with PBP (2019).

Asset Protection Zones

- The entire development site, that is B7 Business Park Zoned land will be managed as an IPA for the life of development.

Access

- A perimeter service road circulates the development area boundary to facilitate access to the rear of each specialty retail building along with the hardware and building supplies outlet. This road is to be a minimum of 8m in width and be trafficable by emergency vehicles in any direction during a bushfire event.
- Internal roads throughout the development concept that provide the main internal circulation paths meet or exceed the minimum 5.5m width criteria and provide regular connection to the internal network of parking areas.
- The proposed perimeter service road and internal travel roads between connections to parking areas comply with RFS requirements for access listed in Appendix 3 of PBP 2019 in terms of surface, vertical clearance, horizontal width, grades and minimum curve radius.
- Roads leading from the main circulation paths within the development into parking areas are suitable for light vehicles only.

Services – Water supply, Gas and Electricity

- The Site will be connected to the reticulated water supply
- The Site shall be connected to the existing power supply available from Mandalong Road.
- Any future gas connection will be installed in accordance with the provisions of PBP (2019).
- Fire hydrant spacing, design and sizing comply with the relevant clauses of AS 2419.1:2005.
- Any water storage tanks are to include connection points in accordance with PBP (2019) and be readily accessible and clearly marked. If pumps are to be made available, they must be regularly maintained and in good working order.

Landscaping

- Careful consideration of future site landscaping and ongoing fuel management must occur to minimise the potential impact of bushfire on the Site.
- Ongoing fuel management across the Site as part of the maintenance regime should give due consideration to Appendix 4 Asset Protection Zone Requirements of PBP (2019) which provides guidance on maintenance activities to assist in achieving the landscape principles.
- Feigning is to be constructed in accordance with Section 7.6 of PBP (2019).

5 Bibliography

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Keith D. (2004). *Ocean Shore to Desert Dunes*. Department of Environmental and Conservation. Sydney

NSW Planning & Environment (2021). *ePlanning Spatial Viewer*. Accessed from:

<https://www.planningportal.nsw.gov.au/spatialviewer/#/find-a-property/address>

NSW Rural Fire Service (2019). *Planning for Bushfire Protection – A Guide for Councils, Planners, Fire Authorities, and Developers*.

NSW Rural Fire Service (2002). *Circular 16/2002: Amendments to the Rural Fires Act 1997 – hazard reduction and planning requirements*.

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

Appendix A Plan of Proposal



Revisions

Issue	Details	Date
A	Concept Issue	22.03.21
B	Concept - DA	15.04.21
C	Masterplan	06.07.21
D	Submittal	15.07.21
E	Submittal	06.08.21

Revisions

Issue	Details	Date

Appendix B Architectural Package

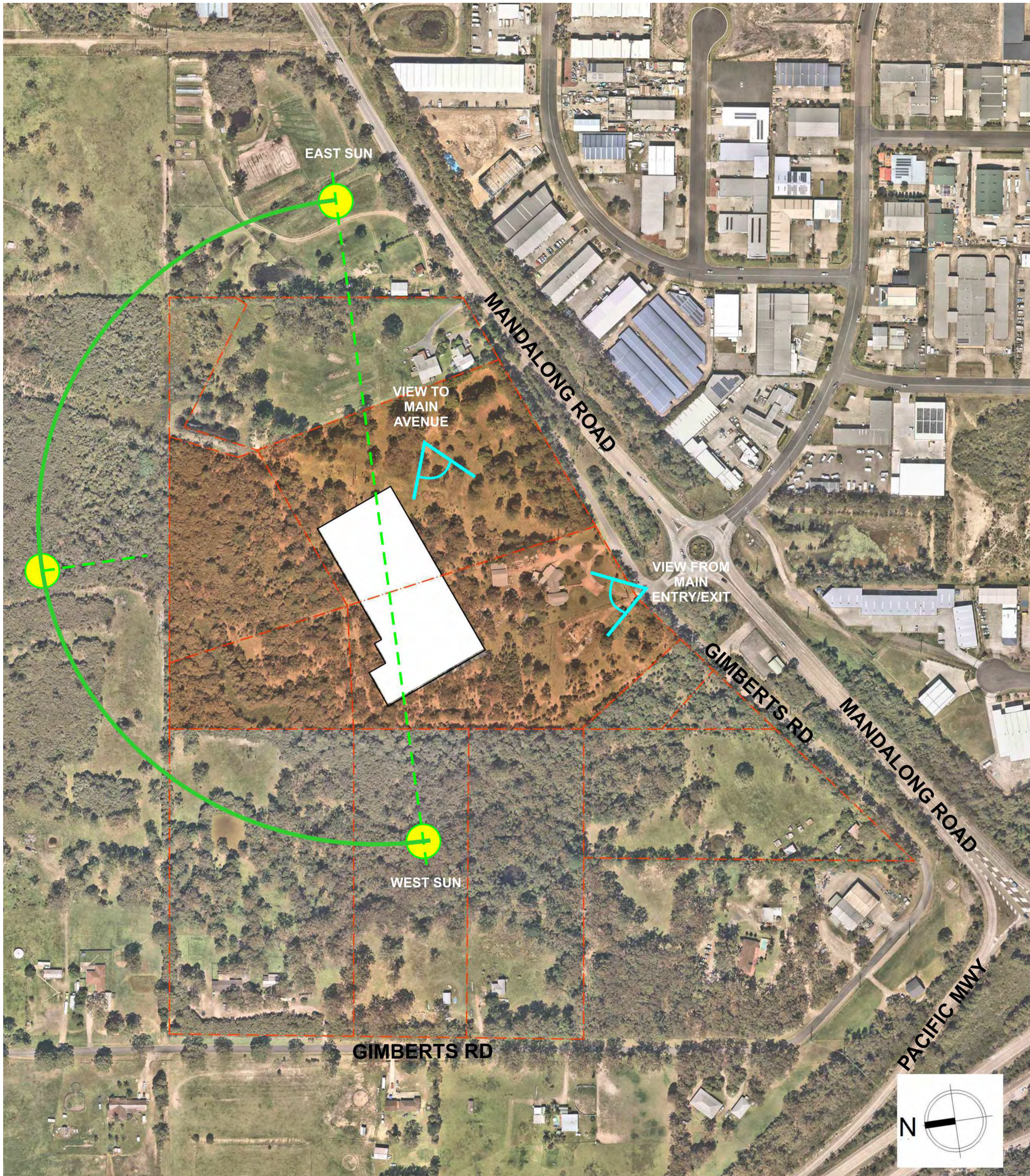
MORISSET SPECIALISED RETAIL

56-76 MANDALONG ROAD, MORISSET, NSW 2264

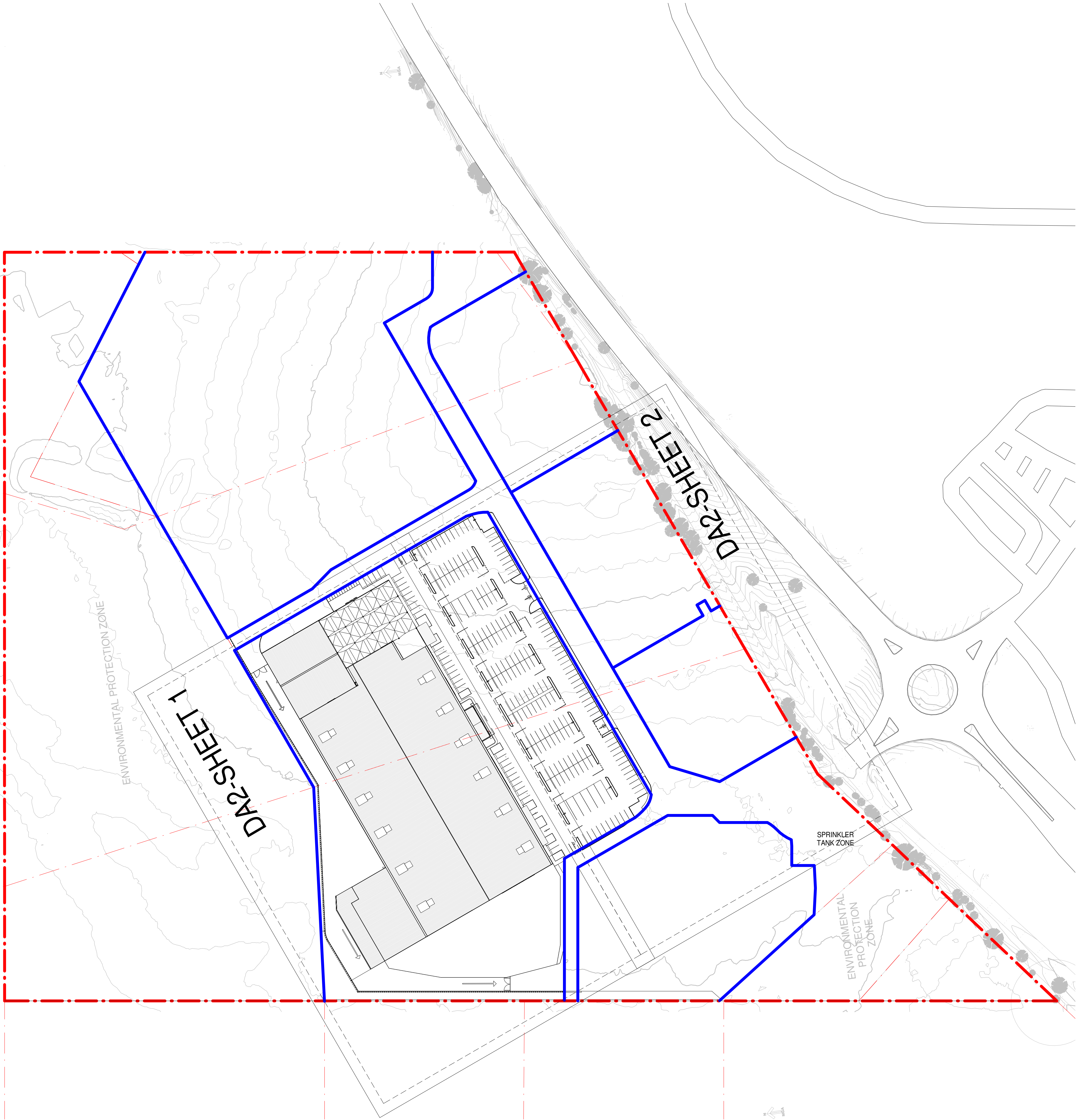
DEVELOPMENT APPLICATION 2 [DA2]



DRAWING LIST - DA2		
DRAWING NUMBER	DRAWING NAME	REV
DA201	COVER PAGE & DRAWING LIST	K
DA202	LOCATION & ANALYSIS PLAN, CONTEXT KEY PLAN	H
DA203	SUBDIVISION PLAN	F
DA215	PROPOSED GROUND FLOOR	B
DA221	PROPOSED GROUND FLOOR PLAN 1	M
DA222	PROPOSED GROUND FLOOR PLAN 2	L
DA231	PROPOSED SITE PLAN & ROOF PLAN 1	L
DA232	PROPOSED SITE PLAN & ROOF PLAN 2	L
DA251	OVERALL ELEVATIONS	K
DA261	OVERALL SECTIONS	K

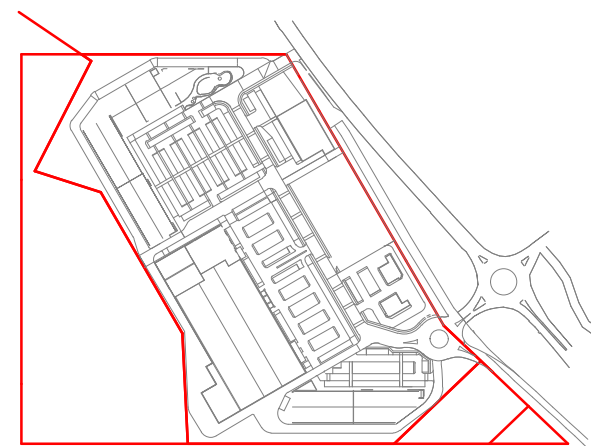


1 LOCATION & ANALYSIS PLAN
1:2000



2 DA2 CONTEXT KEY PLAN
1:1000

Rev.	Date	Description	Iss.	Appr.
A	24/03/2021	COSTING ISSUE DA2	SA	LHC
B	01/04/2021	DA DRAFT	EG/SA	LHC
C	07/04/2021	DA FOR CLIENT APPROVAL	LHC	LHC
D	15/04/2021	DA ISSUE	EC	LHC
E	25/05/2021	CLIENT REVIEW ISSUE	EC	LHC
F	07/06/2021	DA UPDATES	EC	LHC
G	25/06/2021	DA UPDATES	EC	LHC
H	30/07/2021	DA UPDATES	EC	LHC



Keyplan

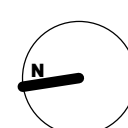
Nominated Architect: Anthony Palamara NSW APN 7274
Do not scale this drawing. Verify all dimensions on site before commencing any work. Copyright © 2021 Buchan. This drawing remains the property of The Buchan Group Australia Pty Ltd. Reproduction in whole or in part without prior consent is forbidden.
File: C:\SCRM\BG-BUC-AR20-ARCHITECTURE_evan.chan.buchan.nvt

life&home
MORISSET

Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264

Project Number
220178

Status
Date Plotted 30-Jul-21 13:50:57
Date Issued 30/07/2021
Scale As indicated @A0



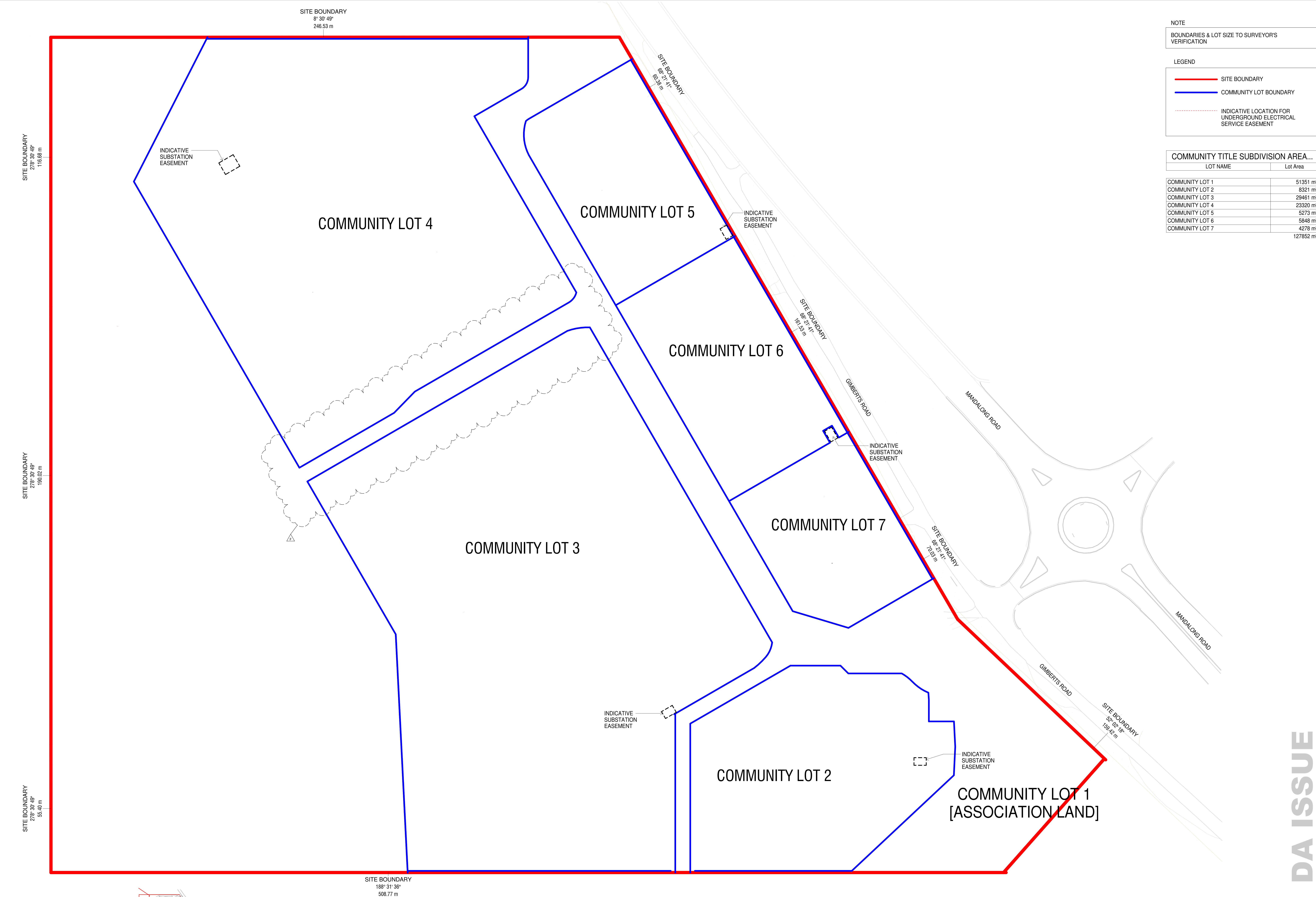
Drawing Title
LOCATION & ANALYSIS PLAN, CONTEXT KEY PLAN
Drawing Number
MOR-BUC-DR-A-DA202

Revision
H

BUCHAN

Sydney Studio
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DA ISSUE



NOTE

BOUNDARIES & LOT SIZE TO SURVEYOR'S VERIFICATION

LEGEND

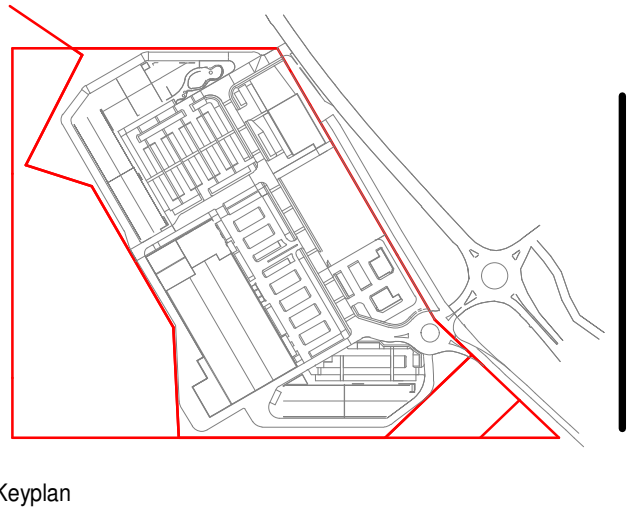
SITE BOUNDARY

COMMUNITY LOT BOUNDARY

INDICATIVE LOCATION FOR UNDERGROUND ELECTRICAL SERVICE EASEMENT

COMMUNITY TITLE SUBDIVISION AREA...	
LOT NAME	Lot Area
COMMUNITY LOT 1	51351 m²
COMMUNITY LOT 2	8321 m²
COMMUNITY LOT 3	29461 m²
COMMUNITY LOT 4	23320 m²
COMMUNITY LOT 5	5273 m²
COMMUNITY LOT 6	5848 m²
COMMUNITY LOT 7	4278 m²
127852 m²	

Rev.	Date	Description	Iss.	Appr.
A	15/04/2021	DA ISSUE	EC	LHC
B	25/05/2021	CLIENT REVIEW ISSUE	EC	LHC
C	07/06/2021	DA UPDATES	EC	LHC
D	08/06/2021	COORDINATION ISSUE	EC	LHC
E	25/06/2021	DA UPDATES	EC	LHC
F	30/07/2021	DA UPDATES	EC	LHC



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Project

MORISSET SPECIALISED RETAIL

56-76 Mandalong Road, MORISSET NSW 2264

Project Number

220178

Status

Date Plotted 30-Jul-21 13:51:00

Date Issued 30/07/2021

Scale 1 : 500 @A0

Drawing Title

SUBDIVISION PLAN

Drawing Number



MOR-BUC-DR-A-DA203

Revision

F

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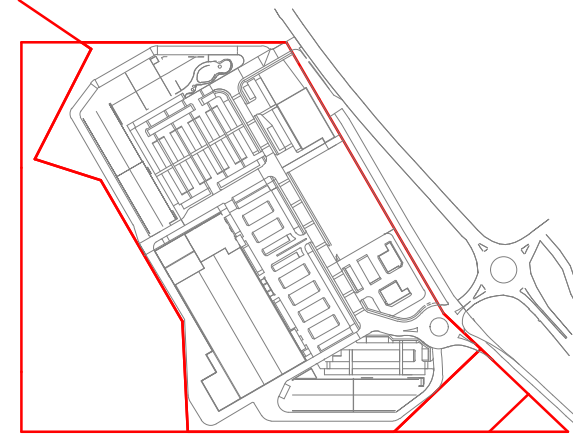
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LEGEND	
	SITE BOUNDARY
	COMMUNITY LOT BOUNDARY
ABBREVIATION LEGEND	
ABBREVIATION	DETAILS
F-BAR-01	ARMCO BARRIER
KERB	APPROVED LIGHT WEIGHT CONSTRUCTION WITH INSULATION AND PLASTERBOARD
M-CON-03	COLOURED CONCRETE TYPE 1 - REFER LANDSCAPE PACKAGE FOR DETAIL



REFER TO BUNNINGS GENERIC DRAWINGS FOR ADDITIONAL INFORMATION. DRAWINGS AVAILABLE ON REQUEST UNDER CLIENT'S APPROVAL.

1 DA2 PROPOSED GROUND FLOOR PLAN
SCALE 1:250



Rev.	Date	Description	Iss.	Appr.
A	30/07/2021	DA UPDATES	EC	LHC
B	11/08/2021	DA UPDATES	EC	LHC

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life&home
MORISSET

Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264

Project Number
220178

Status	
Date Plotted	11-Aug-21 09:59:42
Date Issued	11/08/2021
Scale	1:500 @A0

Drawing Title
PROPOSED GROUND FLOOR

Drawing Number
MOR-BUC-DR-A-DA215

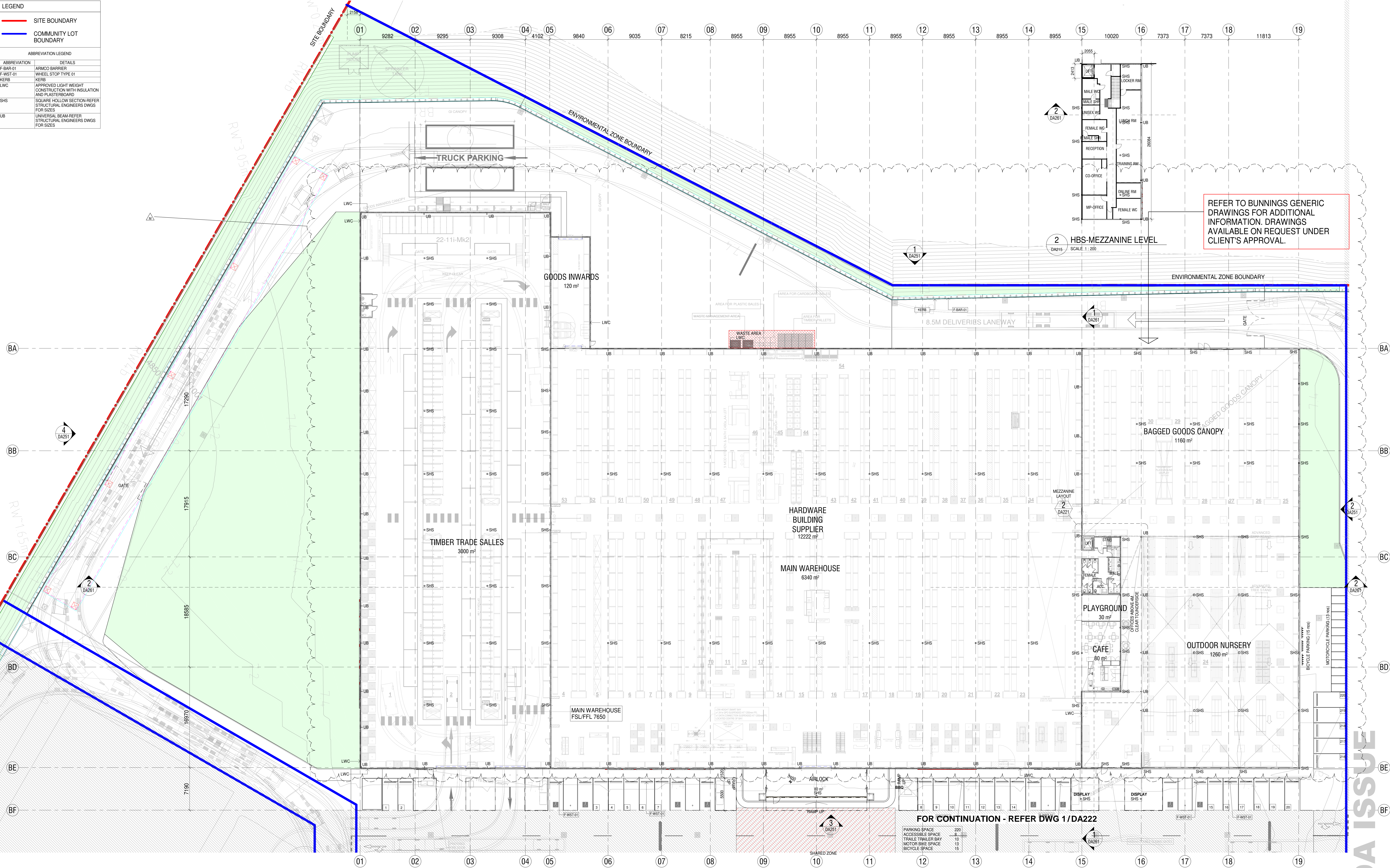
Revision
B

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DA ISSUE

LEGEND	
—	SITE BOUNDARY
—	COMMUNITY LOT BOUNDARY
ABBREVIATION LEGEND	
ABBREVIATION	DETAILS
F-BAR-01	ARMCO BARRIER
F-WST-01	WHEEL STOP TYPE 01
KERB	KERB
LWC	APPROVED LIGHT WEIGHT CONSTRUCTION WITH INSULATION AND PLASTERBOARD
SHS	SQUARE HOLLOW SECTION-REFER STRUCTURAL ENGINEERS DWGS FOR SIZES
UB	UNIVERSAL BEAM-REFER STRUCTURAL ENGINEERS DWGS FOR SIZES

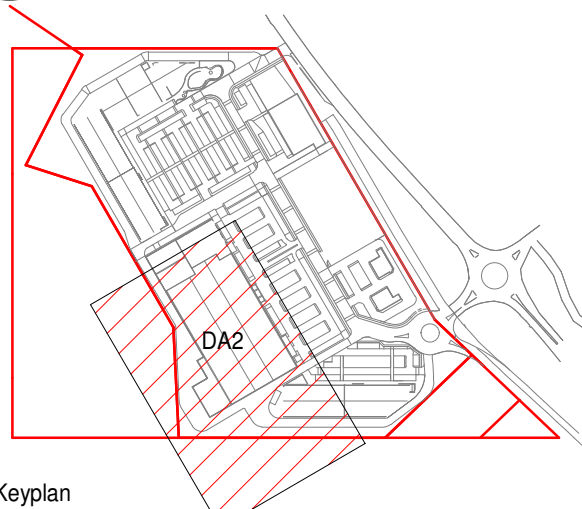


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2 HBS-MEZZANINE LEVEL
DA215 / SCALE 1 : 200

1 DA2 PROPOSED GROUND FLOOR PLAN 1
SCALE 1 : 200

Rev.	Date	Description	Iss.	Appr.
D	07/04/2021	DA FOR CLIENT APPROVAL	LHC	LHC
E	15/04/2021	DA ISSUE	EC	LHC
F	20/05/2021	CLIENT REVIEW ISSUE	EC	LHC
G	07/06/2021	DA UPDATES	EC	LHC
H	08/06/2021	COORDINATION ISSUE	EC	LHC
J	15/06/2021	DA UPDATES	EC	LHC
K	25/06/2021	DA UPDATES	EC	LHC
L	30/07/2021	DA UPDATES	EC	LHC
M	11/08/2021	DA UPDATES	EC	LHC



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Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264
Project Number
220178

Status	
Date Plotted	11-Aug-21 09:56:15
Date Issued	11/08/2021
Scale	1 : 200 @A0

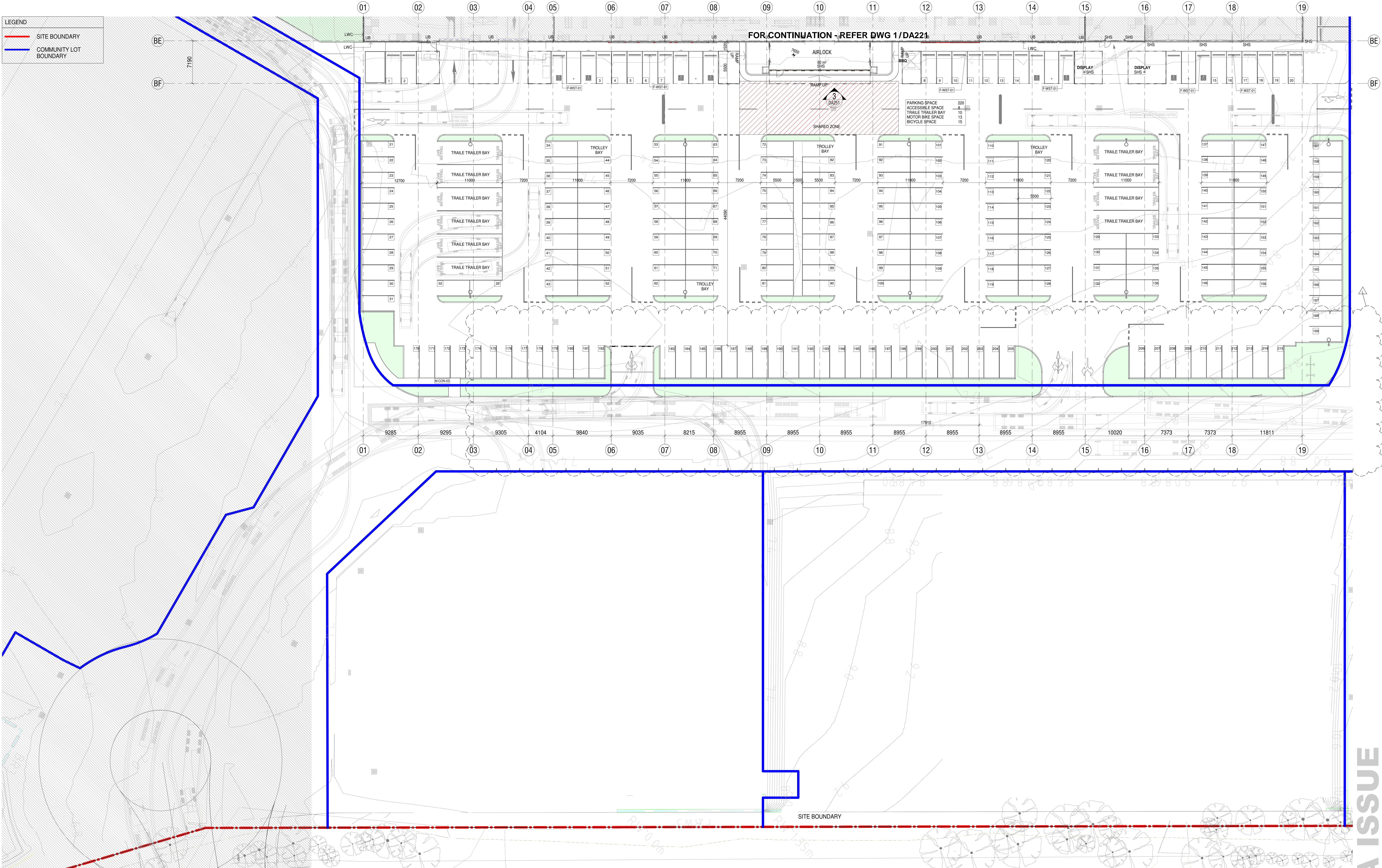
Drawing Title
PROPOSED GROUND FLOOR PLAN 1
Drawing Number
MOR-BUC-DR-A-DA221

Revision
M
Sydney Studio
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LEGEND

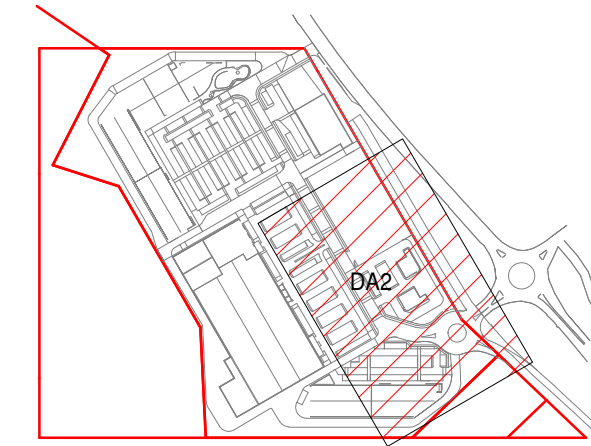
— SITE BOUNDARY

— COMMUNITY LOT BOUNDARY



1 DA2 PROPOSED GROUND FLOOR PLAN 2
SCALE 1:200

Rev.	Date	Description	Iss.	Appr.
C	01/04/2021	DA DRAFT	EC/SA	LHC
D	07/04/2021	DA FOR CLIENT APPROVAL	LHC	LHC
E	15/04/2021	DA ISSUE	EC	LHC
F	25/05/2021	CLIENT REVIEW ISSUE	EC	LHC
G	07/06/2021	DA UPDATES	EC	LHC
H	15/06/2021	DA UPDATES	EC	LHC
J	25/06/2021	DA UPDATES	EC	LHC
K	30/07/2021	DA UPDATES	EC	LHC
L	11/08/2021	DA UPDATES	EC	LHC



Keyplan

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Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264
Project Number
220178

Status

Date Plotted 11-Aug-21 09:56:23

Date Issued 11/08/2021

Scale 1:200 @A0

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Drawing Title
PROPOSED GROUND FLOOR PLAN 2
Drawing Number
MOR-BUC-DR-A-DA222

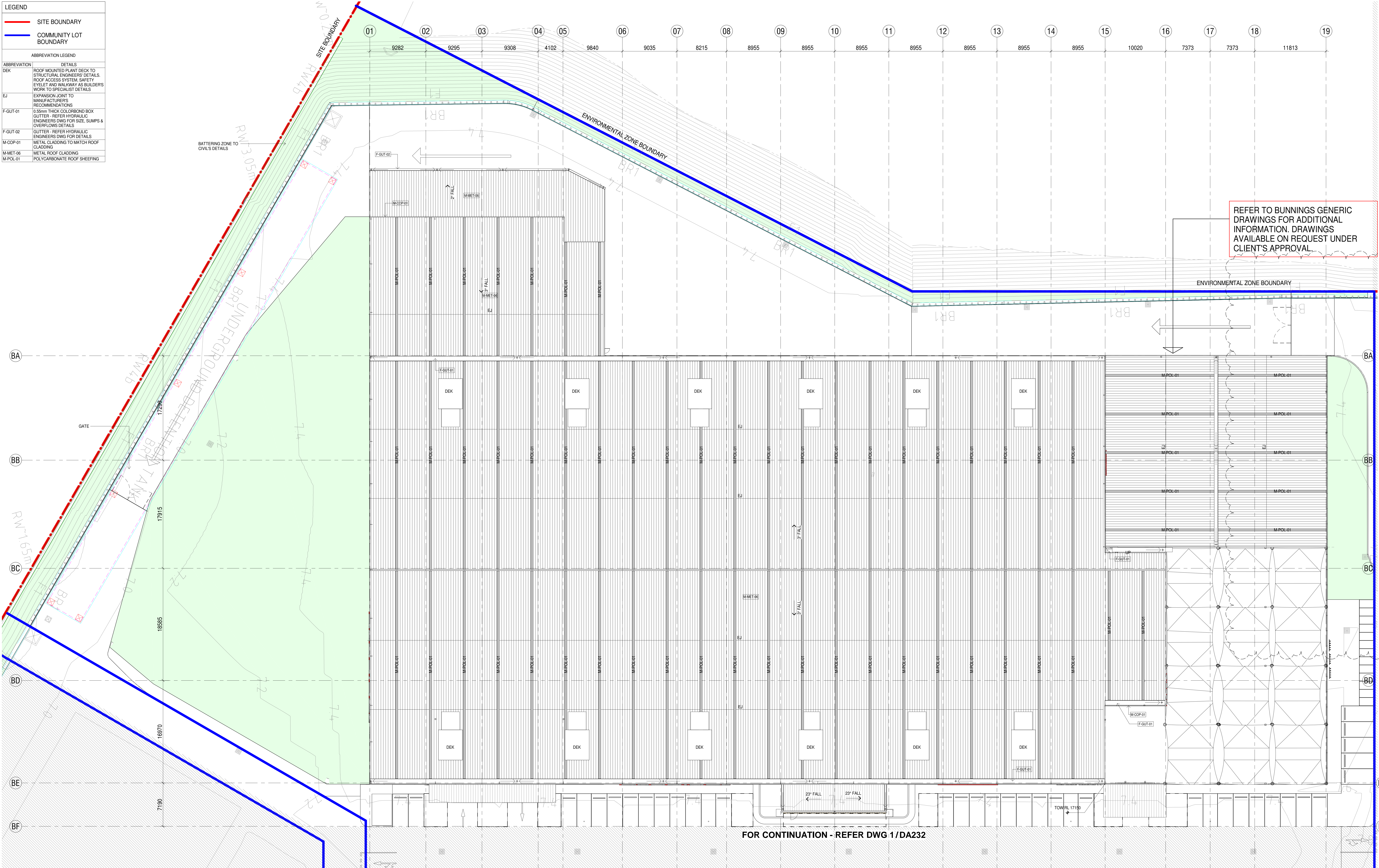
Revision

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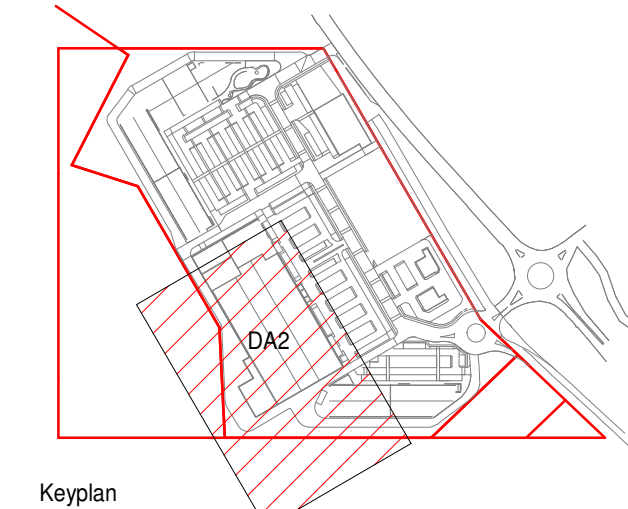
DA ISSUE

LEGEND	
—	SITE BOUNDARY
—	COMMUNITY LOT BOUNDARY
ABBREVIATION LEGEND	
ABBREVIATION	DETAILS
DEK	ROOF MOUNTED PLANT DECK TO STRUCTURAL ENGINEERS' DETAILS ROOF ACCESS SYSTEM SAFETY EYELET AND WALKWAY AS BUILDERS WORK TO SPECIALIST DETAILS
EJ	EXPANSION JOINT TO MANUFACTURERS' RECOMMENDATIONS
F-GUT-01	150mm THICK COLORBOND BOX GUTTER - REFER HYDRAULIC ENGINEERS DWG FOR SIZE, SLUMPS & OVERFLOWS DETAILS
F-GUT-02	GUTTER - REFER HYDRAULIC ENGINEERS DWG FOR DETAILS
M-COP-01	METAL CLADDING TO MATCH ROOF CLADDING
M-MET-05	METAL ROOF CLADDING
M-POL-01	POLYCARBONATE ROOF SHEETING



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1 DA2 PROPOSED SITE & ROOF PLAN 1
SCALE 1 : 200



Rev.	Date	Description	Iss.	Appr.
C	01/04/2021	DA DRAFT	ED/SA	LHC
D	07/04/2021	DA FOR CLIENT APPROVAL	LHC	LHC
E	15/04/2021	DA ISSUE	EC	LHC
F	25/05/2021	CLIENT REVIEW ISSUE	EC	LHC
G	07/06/2021	DA UPDATES	EC	LHC
H	15/06/2021	DA UPDATES	EC	LHC
J	25/06/2021	DA UPDATES	EC	LHC
K	30/07/2021	DA UPDATES	EC	LHC
L	11/08/2021	DA UPDATES	EC	LHC

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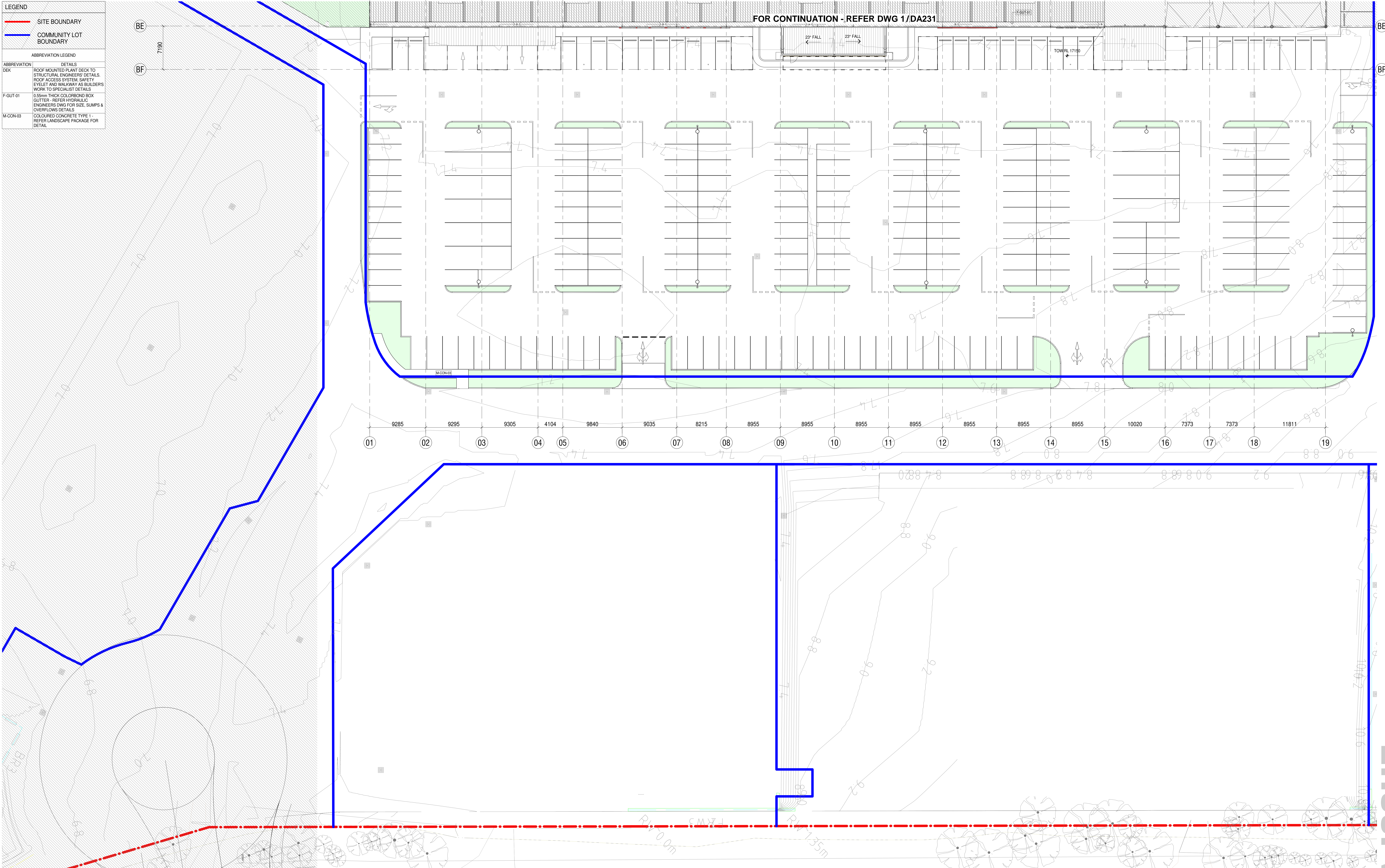
Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264
Project Number
220178

Status	
Date Plotted	11-Aug-21 09:55:54
Date Issued	11/08/2021
Scale	1 : 200 @A0

Drawing Title
PROPOSED SITE PLAN & ROOF PLAN 1
Drawing Number
MOR-BUC-DR-A-DA231

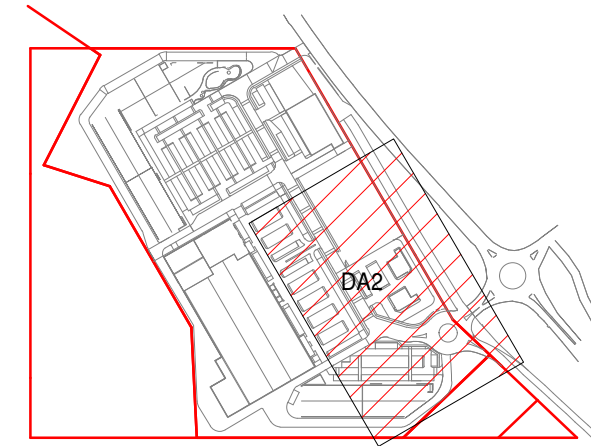
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<p>LEGEND</p> <p>SITE BOUNDARY</p> <p>COMMUNITY LOT BOUNDARY</p> <p>ABBREVIATION LEGEND</p>	
ABBREVIATION	DETAILS
DEK	<p>ROOF MOUNTED PLANT DECK TO STRUCTURAL ENGINEERS' DETAILS.</p> <p>ROOF ACCESS SYSTEM, SAFETY EYELET AND WALKWAY AS BUILDER'S WORK TO SPECIALIST DETAILS</p>
F-GUT-01	<p>0.55mm THICK COLORBOND BOX GUTTER - REFER HYDRAULIC ENGINEERS DWG FOR SIZE, SUMPS & OVERFLOWS DETAILS</p>
M-CON-03	<p>COLORLED CONCRETE TYPE 1, REFER LANDSCAPE PACKAGE FOR DETAIL</p>



1 DA2 PROPOSED SITE & ROOF PLAN 2
SCALE 1 : 200

Rev.	Date	Description	Iss.	Appr.
C	01/04/2021	DA DRAFT	EC/SA	LHC
D	07/04/2021	DA FOR CLIENT APPROVAL	LHC	LHC
E	15/04/2021	DA ISSUE	EC	LHC
F	25/05/2021	CLIENT REVIEW ISSUE	EC	LHC
G	07/06/2021	DA UPDATES	EC	LHC
H	15/06/2021	DA UPDATES	EC	LHC
J	25/06/2021	DA UPDATES	EC	LHC
K	30/07/2021	DA UPDATES	EC	LHC
L	11/08/2021	DA UPDATES	EC	LHC



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Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264

Project Number
220178

Status

Date Plotted 11-Aug-21 09:56:03

Date Issued 11/08/2021

Scale 1 : 200 @A0

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Drawing Title

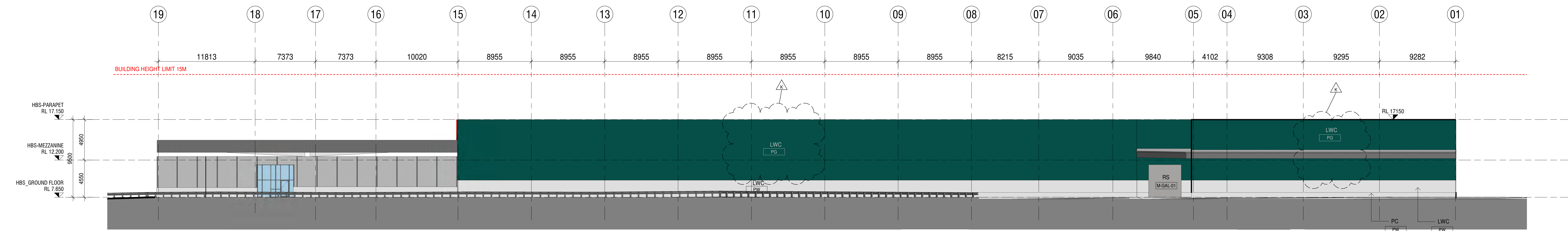
PROPOSED SITE PLAN & ROOF PLAN 2

Drawing Number
MOR-BUC-DR-A-DA232

Revision
L

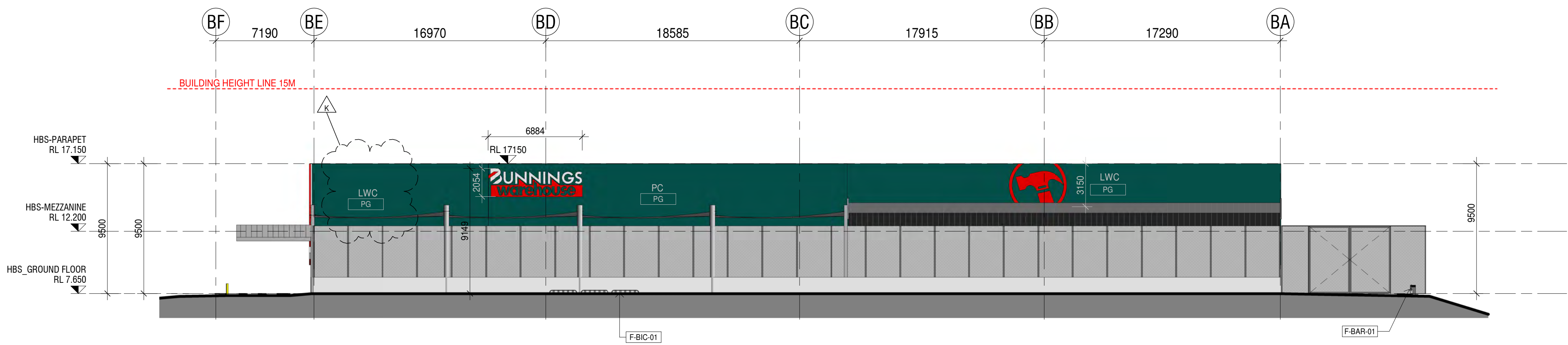
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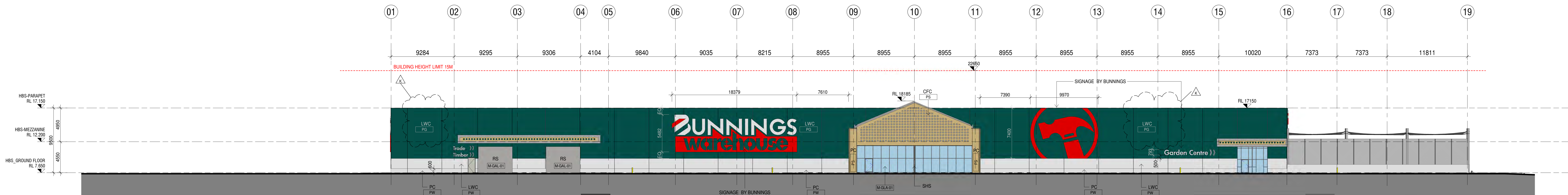


1 DA2 NORTH ELEVATION
DA215 SCALE 1 : 200

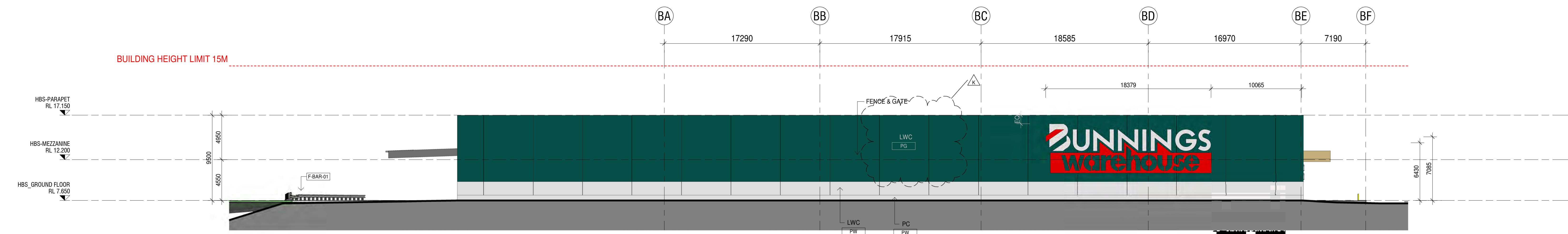
REFER TO BUNNINGS GENERIC DRAWINGS FOR ADDITIONAL INFORMATION. DRAWINGS AVAILABLE ON REQUEST UNDER CLIENT'S APPROVAL.



2 DA2 EAST ELEVATION
DA215 SCALE 1 : 200



3 DA2 SOUTH ELEVATION
DA215 SCALE 1 : 200



4 DA2 WEST ELEVATION
DA215 SCALE 1 : 200

ABBREVIATION LEGEND		
ABBREVIATION		DETAILS
CFG	COMPRESSED FIBRE CEMENT	
F-BAR-01	ALUMINO BARRIER	
F-BIC-01	BICYCLE RACK TYPE 01	
LWC	APPROVED LIGHT WEIGHT CONSTRUCTION WITH INSULATION AND PLASTERBOARD	
M-GAL-01	GALVANISED STEEL FINISH	
PC	GLASS SHOPFRONT	
PG	PRECAST CONCRETE PANEL WALL	
PS	PAINT - DULUX SHADE REF:87745 - "BUNNINGS BUILDING GREEN"	
PW	PAINT - DULUX SHADE REF:87744 - "BUNNINGS STUCCO"	
RS	PAINT - DULUX SHADE REF:87746 - "BUNNINGS BUILDING WHITE"	
SHS	SQUARED HOLLOW SECTION-REFER STRUCTURAL ENGINEERS DWGS FOR SIZES	

Rev.	Date	Description	Iss.	Appr.
B	24/03/2021	COSTING ISSUE DA2	SA	LHC
C	01/04/2021	DA DRAFT	EC/SA	LHC
D	07/04/2021	DA FOR CLIENT APPROVAL	LHC	LHC
E	15/04/2021	DA ISSUE	EC	LHC
F	25/05/2021	CLIENT REVIEW ISSUE	EC	LHC
G	07/06/2021	DA UPDATES	EC	LHC
H	15/06/2021	DA UPDATES	EC	LHC
J	25/06/2021	DA UPDATES	EC	LHC
K	30/07/2021	DA UPDATES	EC	LHC



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Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264

Project Number
220178

Status	
Date Plotted	30-Jul-21 13:50:54
Date Issued	30/07/2021
Scale	1 : 200 @A0

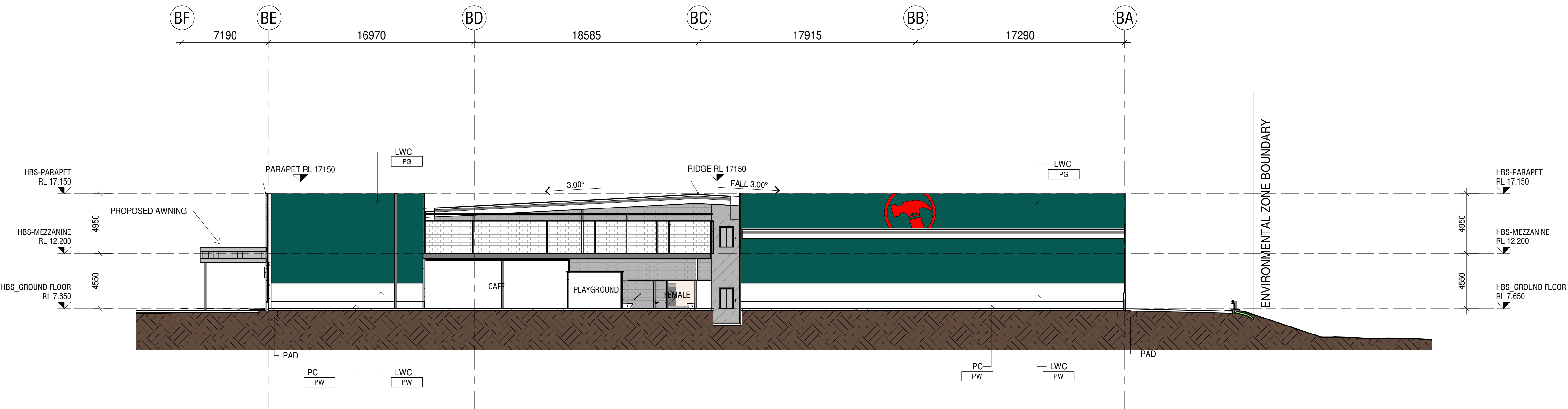
Drawing Title
OVERALL ELEVATIONS
Drawing Number
MOR-BUC-DR-A-DA251

Revision
K
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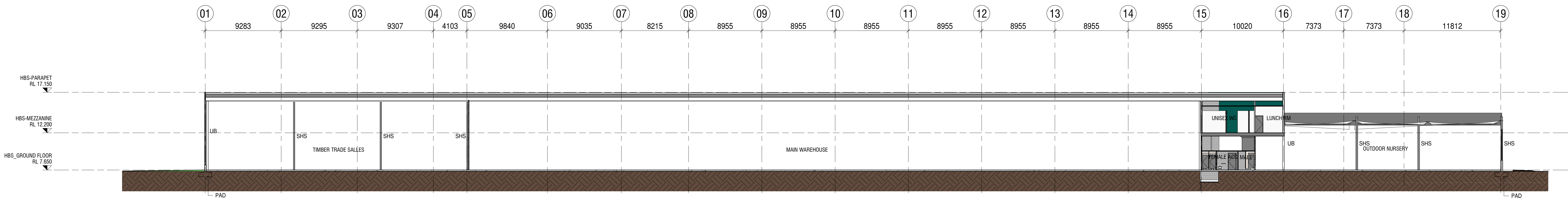
DA ISSUE

REFER TO BUNNINGS GENERIC DRAWINGS FOR ADDITIONAL INFORMATION. DRAWINGS AVAILABLE ON REQUEST UNDER CLIENT'S APPROVAL.

ABBREVIATION LEGEND	
ABBREVIATION	DETAILS
LWC	APPROVED LIGHT WEIGHT CONSTRUCTION WITH INSULATION AND PLASTERBOARD
PAD	PAD FOOTING BEYOND-REFER STRUCTURAL ENGINEERS DWGS FOR SIZES
PC	PRECAST CONCRETE PANEL WALL
PG	PAINT - DULUX SHADE REF.87745 - "BUNNINGS BUILDING GREY"
PW	PAINT - DULUX SHADE REF.87746 - "BUNNINGS BUILDING WHITE"
SHS	SQUARE HOLLOW SECTION-REFER STRUCTURAL ENGINEERS DWGS FOR SIZES
UB	UNIVERSAL BEAM-REFER STRUCTURAL ENGINEERS DWGS FOR SIZES

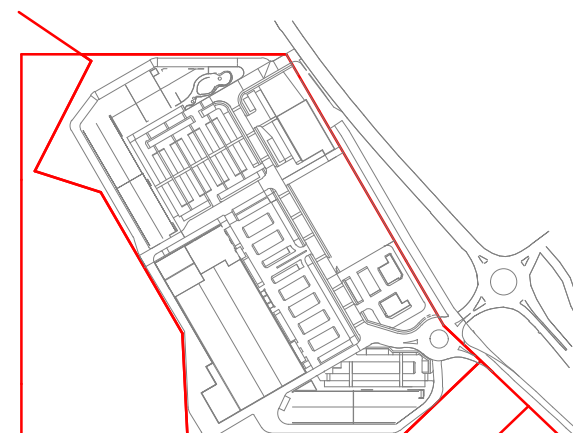


1 DA2 SECTION GRID 15
SCALE 1 : 200



2 DA2 SECTION GRID BC
SCALE 1 : 200

Rev.	Date	Description	Iss.	Appr.
B	01/04/2021	DA DRAFT	EC/SA	LHC
C	07/04/2021	DA FOR CLIENT APPROVAL	LHC	LHC
D	15/04/2021	DA ISSUE	EC	LHC
E	25/05/2021	CLIENT REVIEW ISSUE	EC	LHC
F	07/06/2021	DA UPDATES	EC	LHC
G	15/06/2021	DA UPDATES	EC	LHC
H	25/06/2021	DA UPDATES	EC	LHC
J	30/07/2021	DA UPDATES	EC	LHC
K	11/08/2021	DA UPDATES	EC	LHC



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Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264

Project Number
220178

Status	
Date Plotted	11-Aug-21 09:56:30
Date Issued	11/08/2021
Scale	1 : 200 @A0
	0 3 6 9 12 15m

Drawing Title
OVERALL SECTIONS
Drawing Number
MOR-BUC-DR-A-DA261

Revision
K

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DA ISSUE

MORISSET SPECIALISED RETAIL

56-76 MANDALONG ROAD, MORISSET, NSW 2264

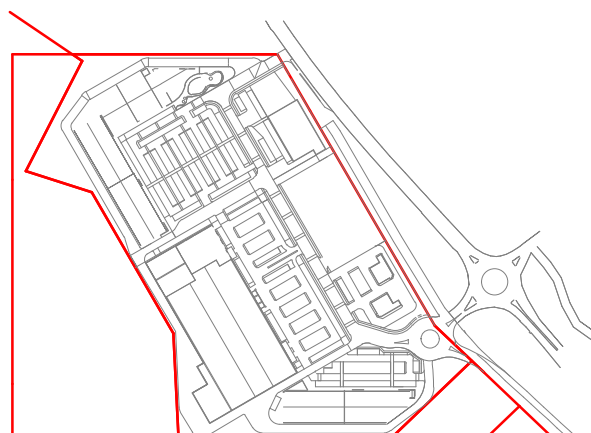
DEVELOPMENT APPLICATION 3 [DA3]



DRAWING LIST - DA3		
DRAWING NUMBER	DRAWING NAME	REV
DA301	COVER PAGE & DRAWING LIST	H
DA302	LOCATION & ANALYSIS PLAN, CONTEXT KEY PLAN	G
DA303	SUBDIVISION PLAN 1	H
DA304	SUBDIVISION PLAN 2	J
DA321	PROPOSED GROUND FLOOR PLAN 1	H
DA322	PROPOSED GROUND FLOOR PLAN 2	J
DA323	PROPOSED GROUND FLOOR PLAN 3	D
DA324	PROPOSED GROUND FLOOR PLAN 4	D
DA331	PROPOSED ROOF PLAN 1	J
DA332	PROPOSED ROOF PLAN 2	J
DA341	TYPICAL TENANCY DETAILS	F
DA351	OVERALL ELEVATIONS BUILDING 3 & 4	J
DA352	OVERALL ELEVATIONS BUILDING 2	E
DA361	OVERALL SECTIONS	J
DA381	MATERIALS AND FINISHES DETAILS	E
DA391	3D VIEWS	C



Rev.	Date	Description	Iss.	Appr.
A	24/03/2021	COSTING ISSUE DA3	EC	LHC
B	22/04/2021	WIP ISSUE	EC	LHC
C	30/04/2021	COORDINATION ISSUE	EC	LHC
D	13/05/2021	DA ISSUE	EC	LHC
E	21/05/2021	CLIENT REVIEW ISSUE	EC	LHC
F	07/06/2021	DA UPDATES	EC	LHC
G	20/07/2021	DA UPDATES	EC	LHC
H	05/08/2021	DA UPDATES	EC	LHC



Key plan

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Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264
Project Number
220178

Status	
Date Plotted	06-Aug-21 16:33:44
Date Issued	06/08/2021
Scale	Not to scale

Drawing Title	
COVER PAGE & DRAWING LIST	
Drawing Number	MOR-BUC-DR-A-DA301

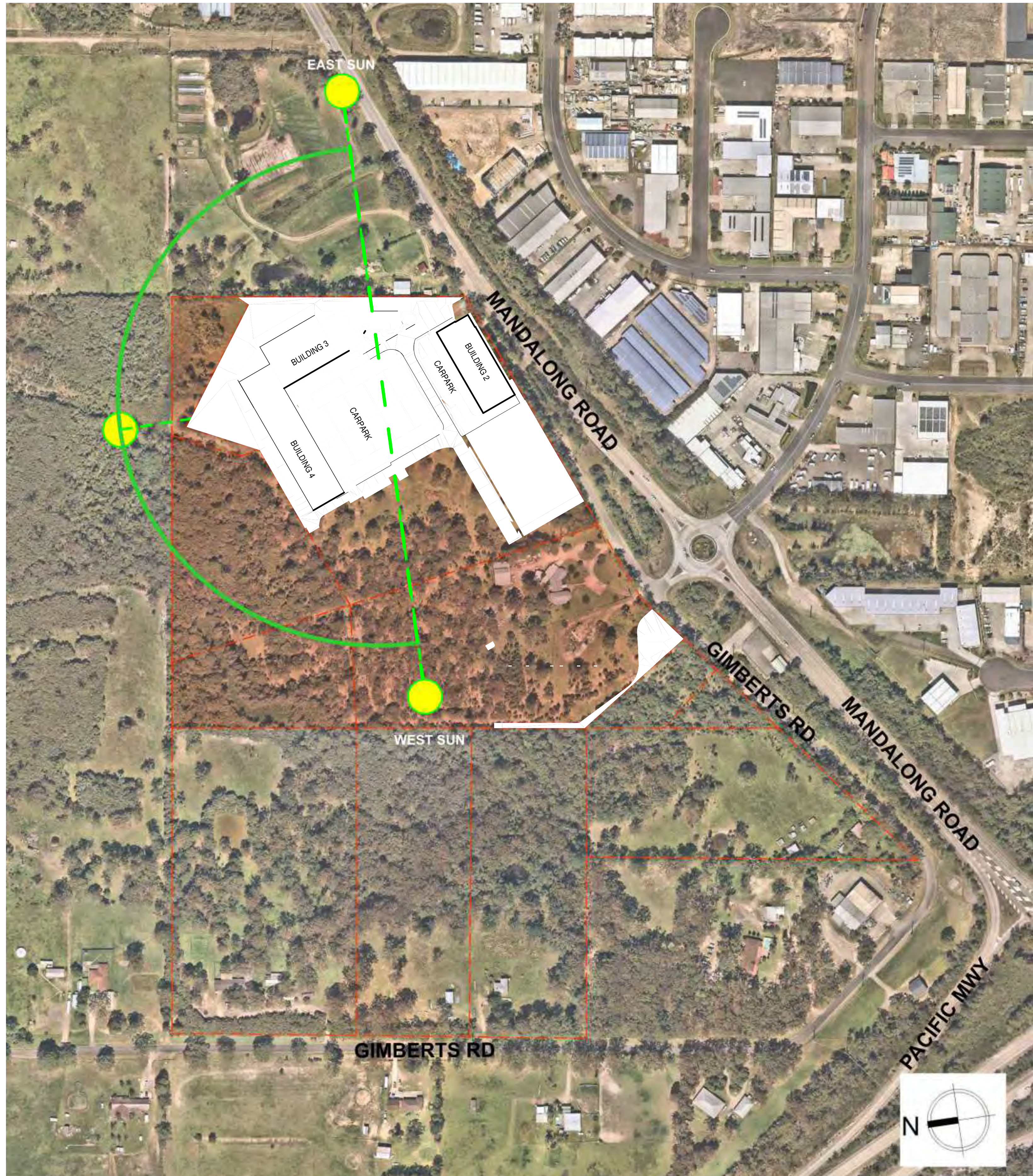
Revision

H

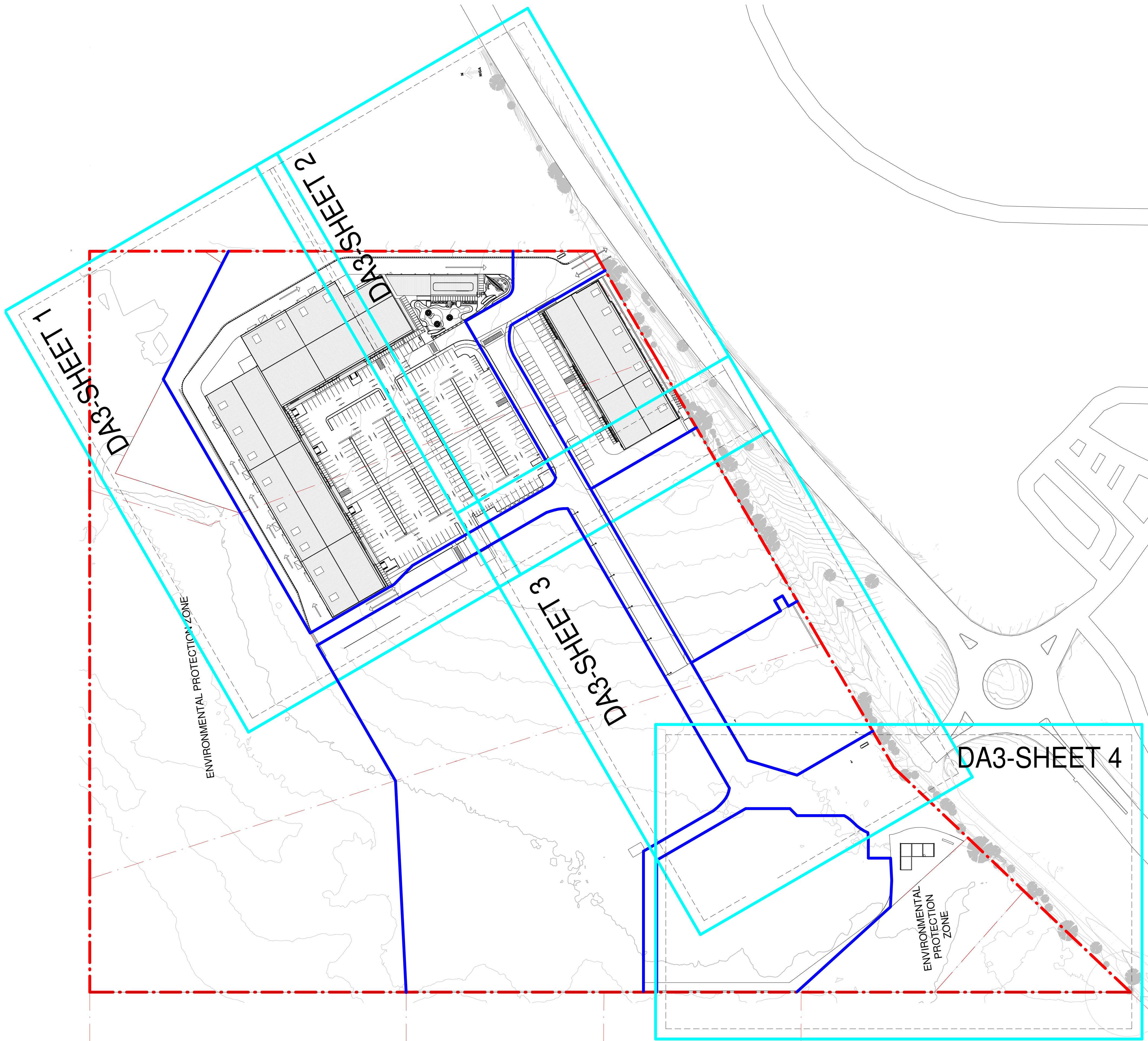
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DA ISSUE



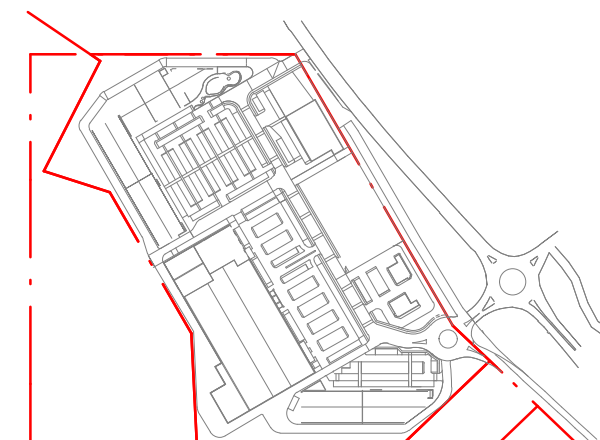
1 LOCATION & ANALYSIS PLAN
1 : 2000



2 DA3 CONTEXT KEY PLAN
1 : 1000

DA ISSUE

Rev.	Date	Description	Iss.	Appr.
A	24/03/2021	COSTING ISSUE DA3	EC	LHC
B	22/04/2021	WIP ISSUE	EC	LHC
C	30/04/2021	COORDINATION ISSUE	EC	LHC
D	13/05/2021	DA ISSUE	EC	LHC
E	21/05/2021	CLIENT REVIEW ISSUE	EC	LHC
F	07/06/2021	DA UPDATES	EC	LHC
G	20/07/2021	DA UPDATES	EC	LHC



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life&home
MORISSET

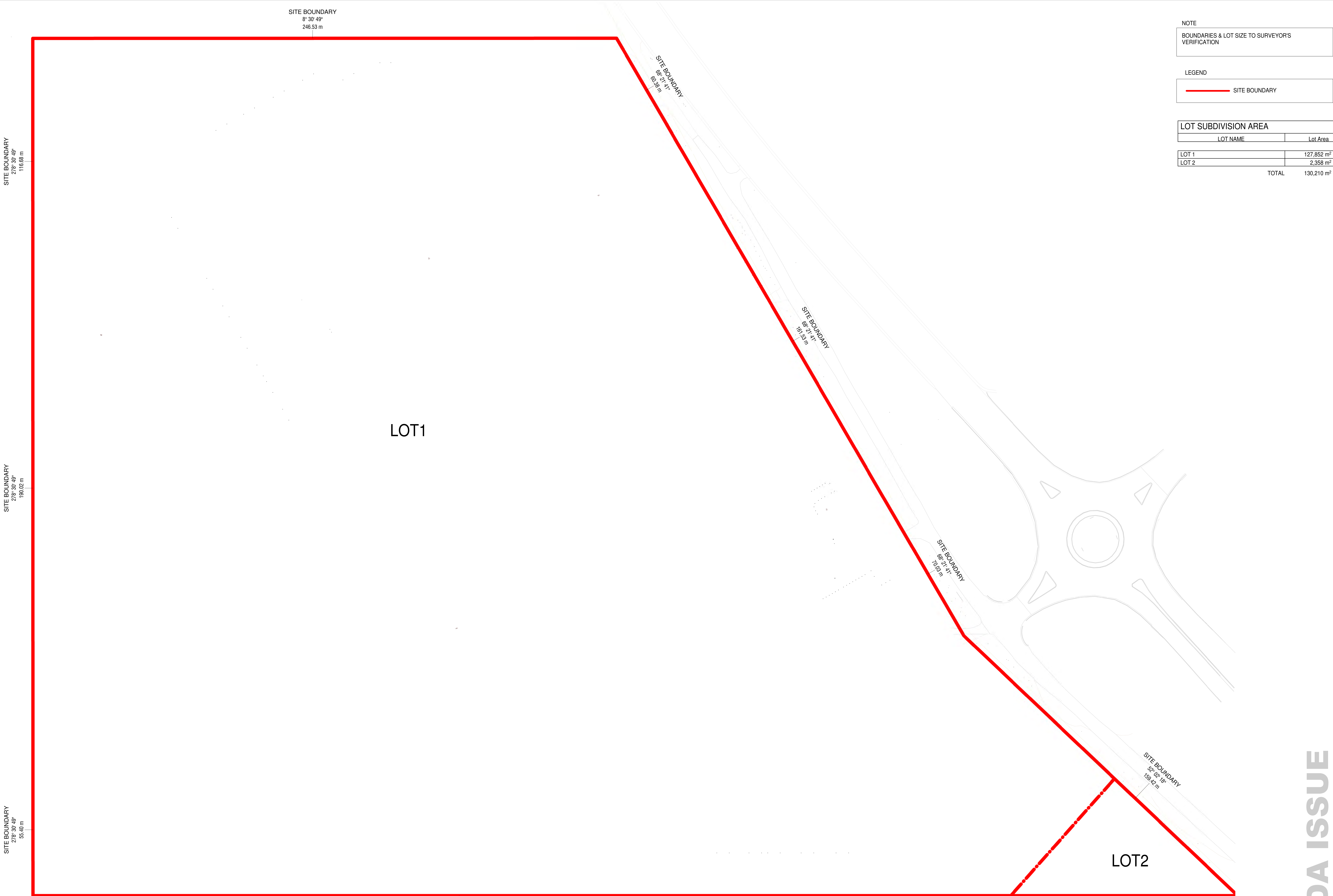
Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264
Project Number
220178

Status
Date Plotted: 20-Jul-21 15:03:01
Date Issued: 20/07/2021
Scale: As indicated @A0

Drawing Title
LOCATION & ANALYSIS PLAN, CONTEXT KEY PLAN
Drawing Number
MOR-BUC-DR-A-DA302

Revision
G

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NOTE

BOUNDARIES & LOT SIZE TO SURVEYOR'S VERIFICATION

LEGEND

SITE BOUNDARY

LOT SUBDIVISION AREA		
LOT NAME		Lot Area
LOT 1		127,852 m ²
LOT 2		2,358 m ²
TOTAL		130,210 m ²

Rev.	Date	Description	Iss.	Appr.
A	13/04/2021	FOR REVIEW	EC	LHC
B	14/04/2021	COORDINATION ISSUE	EC	LHC
C	22/04/2021	WP ISSUE	EC	LHC
D	30/04/2021	COORDINATION ISSUE	EC	LHC
E	13/05/2021	DA ISSUE	EC	LHC
F	21/05/2021	CLIENT REVIEW ISSUE	EC	LHC
G	07/06/2021	DA UPDATES	EC	LHC
H	20/07/2021	DA UPDATES	EC	LHC



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Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264

Project Number
220178

Status

Date Plotted20-Jul-21 08:49:49

Date Issued20/07/2021

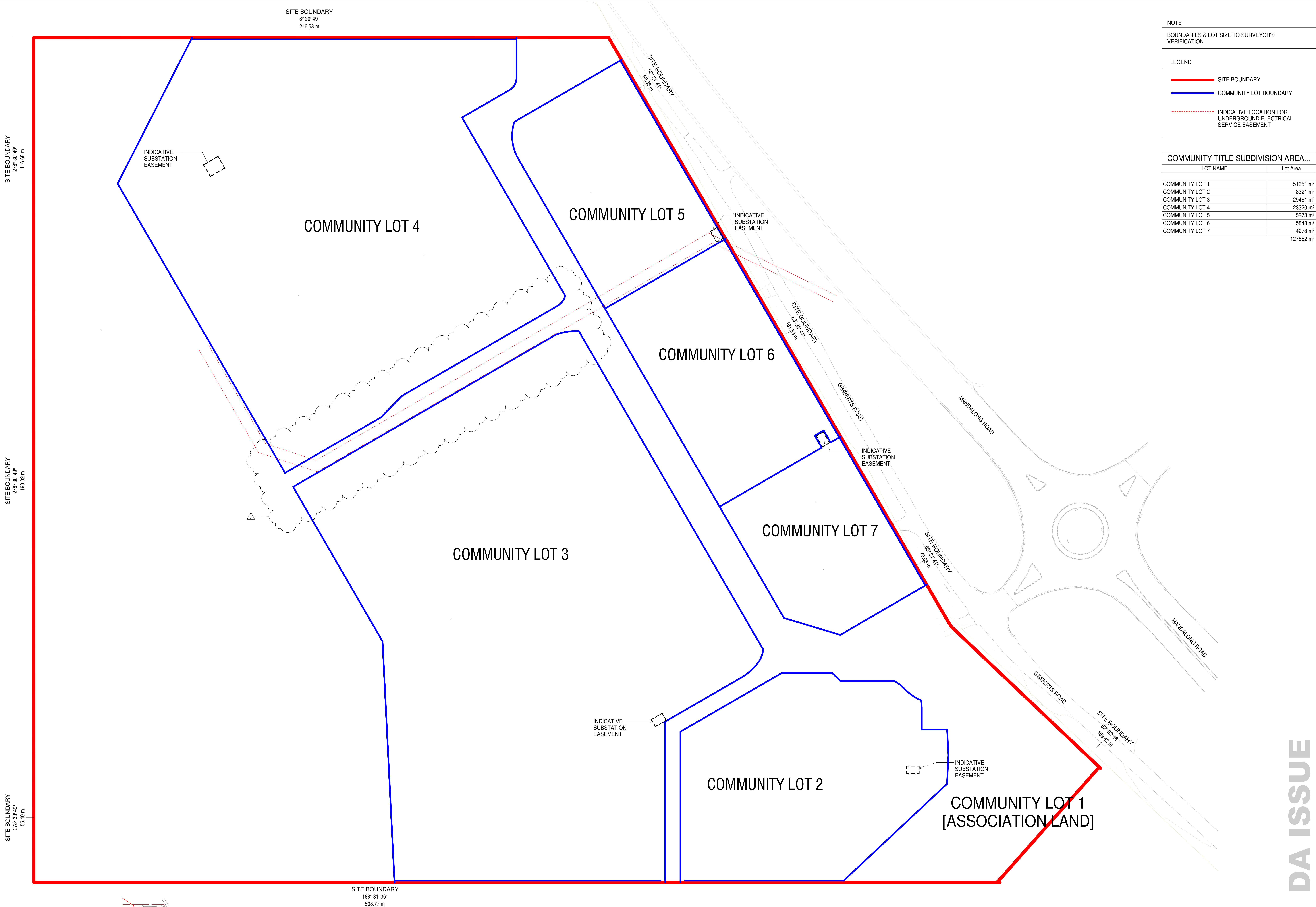
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Drawing Title
SUBDIVISION PLAN 1

Drawing Number
MOR-BUC-DR-A-DA303

Revision
H

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NOTE

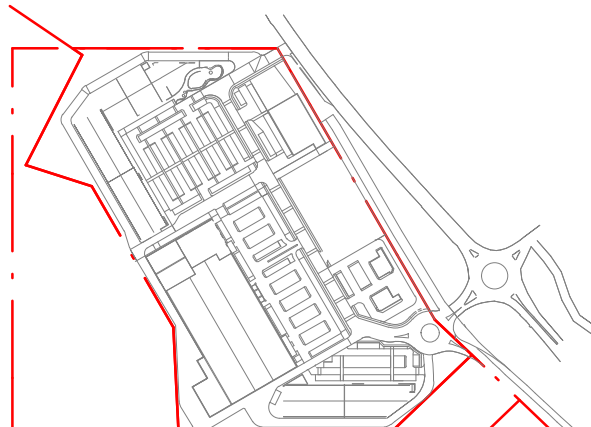
BOUNDARIES & LOT SIZE TO SURVEYOR'S VERIFICATION

LEGEND

- SITE BOUNDARY
- COMMUNITY LOT BOUNDARY
- INDICATIVE LOCATION FOR UNDERGROUND ELECTRICAL SERVICE EASEMENT

COMMUNITY TITLE SUBDIVISION AREA...	
LOT NAME	Lot Area
COMMUNITY LOT 1	51351 m ²
COMMUNITY LOT 2	8321 m ²
COMMUNITY LOT 3	29461 m ²
COMMUNITY LOT 4	23320 m ²
COMMUNITY LOT 5	5273 m ²
COMMUNITY LOT 6	5848 m ²
COMMUNITY LOT 7	4278 m ²
127852 m ²	

Rev.	Date	Description	Iss.	Appr.
A	28/03/2021	DRAFT ISSUE	EC	LHC
B	13/04/2021	FOR REVIEW	EC	LHC
C	14/04/2021	COORDINATION ISSUE	EC	LHC
D	22/04/2021	WIP ISSUE	EC	LHC
E	30/04/2021	COORDINATION ISSUE	EC	LHC
F	13/05/2021	DA ISSUE	EC	LHC
G	21/05/2021	CLIENT REVIEW ISSUE	EC	LHC
H	07/06/2021	DA UPDATES	EC	LHC
J	20/07/2021	DA UPDATES	EC	LHC



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Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264
Project Number
220178

Status

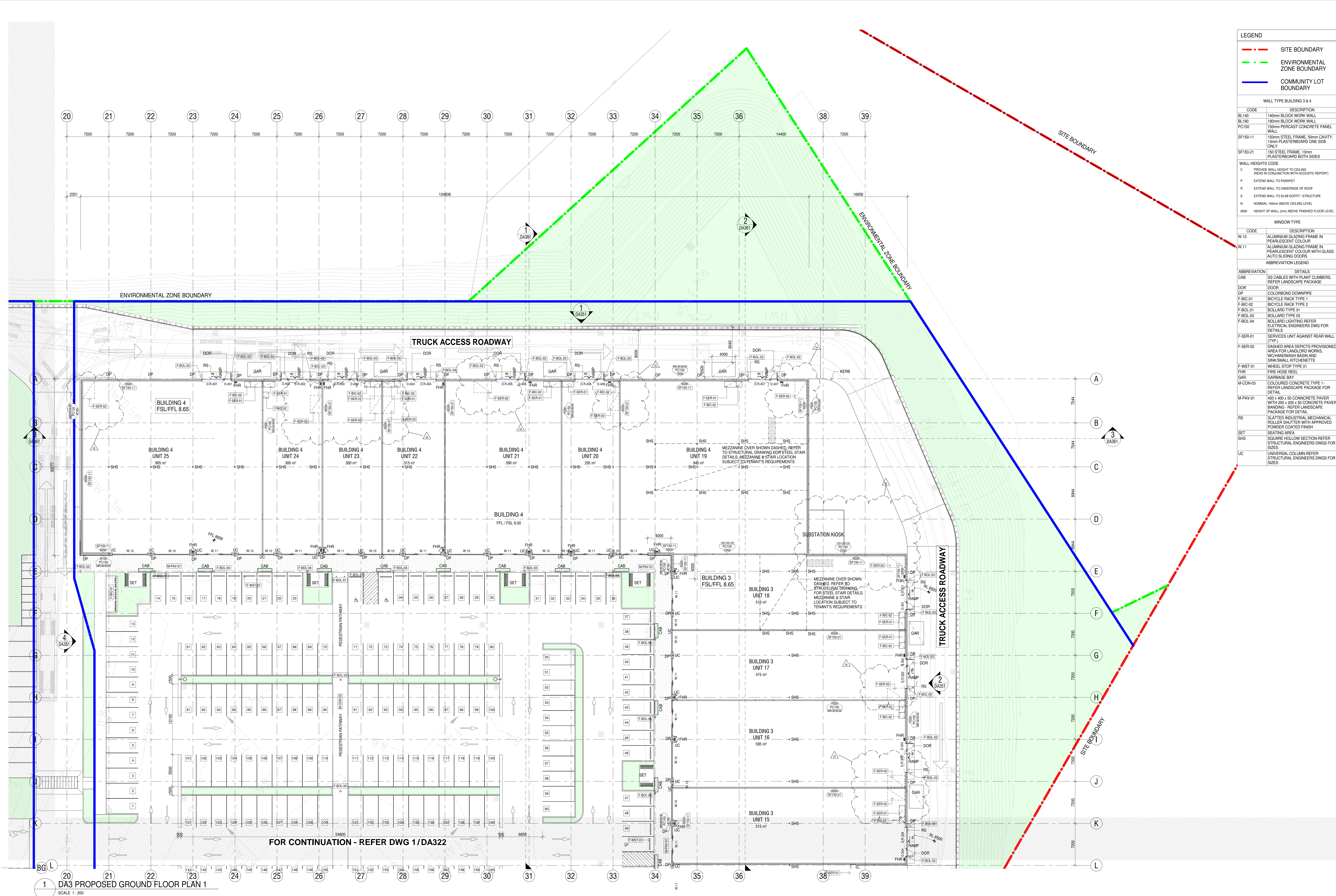
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Date Issued: 20/07/2021
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Drawing Title
SUBDIVISION PLAN 2
Drawing Number
MOR-BUC-DR-A-DA304

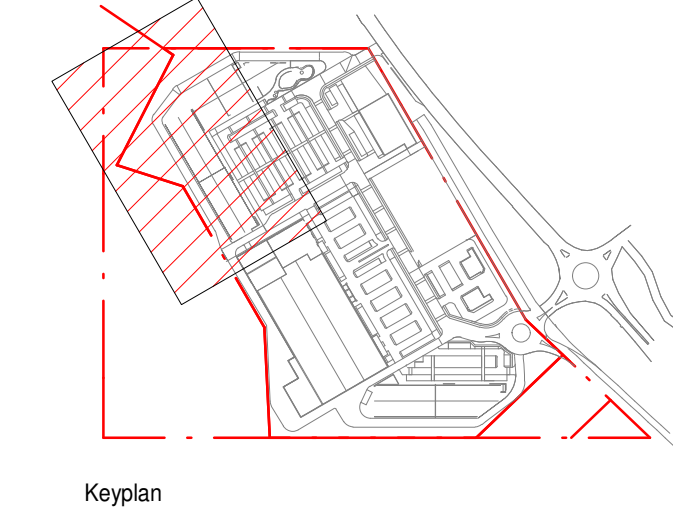
Revision
J

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DA ISSUE



Rev.	Date	Description	Iss.	Appr.
A	09/03/2021	PRELIMINARY	EC	OK
B	24/03/2021	COSTING ISSUE DA3	EC	LHC
C	22/04/2021	WIP ISSUE	EC	LHC
D	30/04/2021	COORDINATION ISSUE	EC	LHC
E	13/05/2021	DA ISSUE	EC	LHC
F	21/05/2021	CLIENT REVIEW ISSUE	EC	LHC
G	07/06/2021	DA UPDATES	EC	LHC
H	20/07/2021	DA UPDATES	EC	LHC



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Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264

Project Number
220178

Status
Date Plotted 20-Jul-21 08:48:14
Date Issued 20/07/2021
Scale 1: 200 @A0

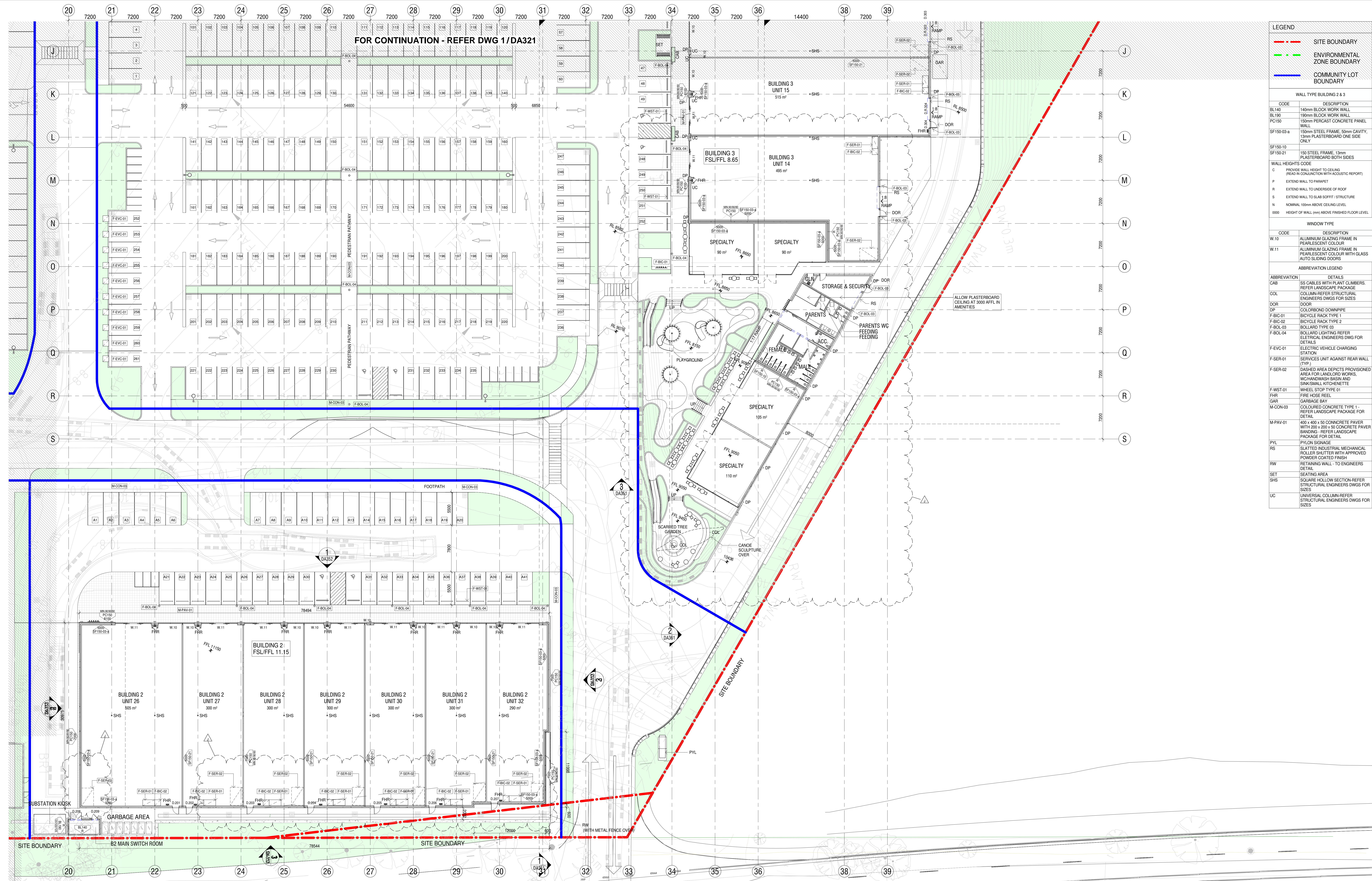
Drawing Title
PROPOSED GROUND FLOOR PLAN 1

Drawing Number
MOR-BUC-DR-A-DA321

Revision
H

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DA ISSUE



1 DA3 PROPOSED GROUND FLOOR PLAN 2
SCALE 1 : 200

Rev.	Date	Description	Iss.	Appr.
A	09/03/2021	PRELIMINARY	EC	OK
B	24/03/2021	COSTING ISSUE DA3	EC	LHC
C	22/04/2021	WIP ISSUE	EC	LHC
D	30/04/2021	COORDINATION ISSUE	EC	LHC
E	13/05/2021	DA ISSUE	EC	LHC
F	18/05/2021	DA ISSUE	EC	LHC
G	21/05/2021	CLIENT REVIEW ISSUE	EC	LHC
H	07/06/2021	DA UPDATES	EC	LHC
J	20/07/2021	DA UPDATES	EC	LHC



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life&home
MORISSET

Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264

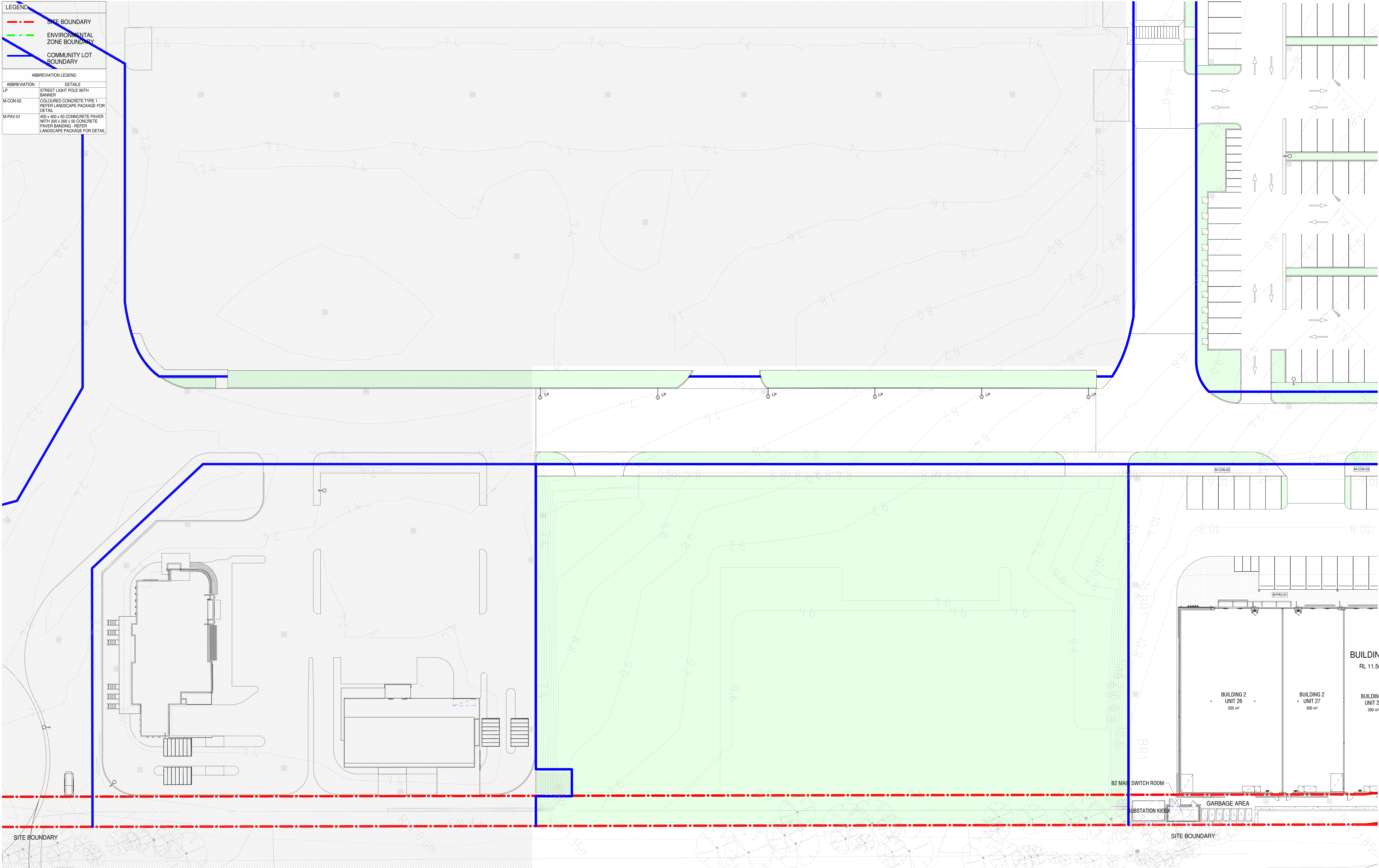
Project Number
220178

Status
Date Plotted 21-Jul-21 17:10:13
Date Issued 20/07/2021
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Drawing Title
PROPOSED GROUND FLOOR PLAN 2
Drawing Number
MOR-BUC-DR-A-DA322

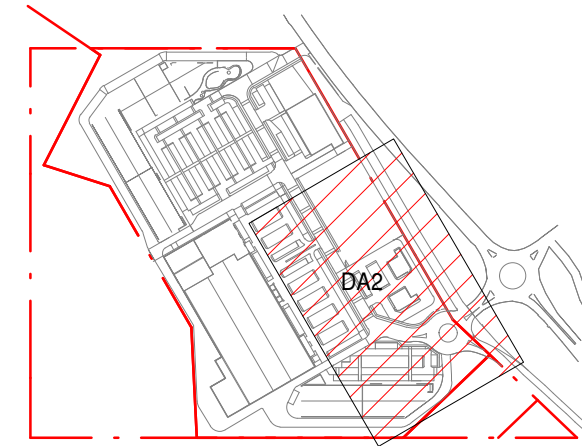
Revision
J

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1 DA3 PROPOSED GROUND FLOOR PLAN 3
SCALE 1 : 200

Rev.	Date	Description	Iss.	Appr.
A	13/05/2021	DA ISSUE	EC	LHC
B	21/05/2021	CLIENT REVIEW ISSUE	EC	LHC
C	07/06/2021	DA UPDATES	EC	LHC
D	20/07/2021	DA UPDATES	EC	LHC



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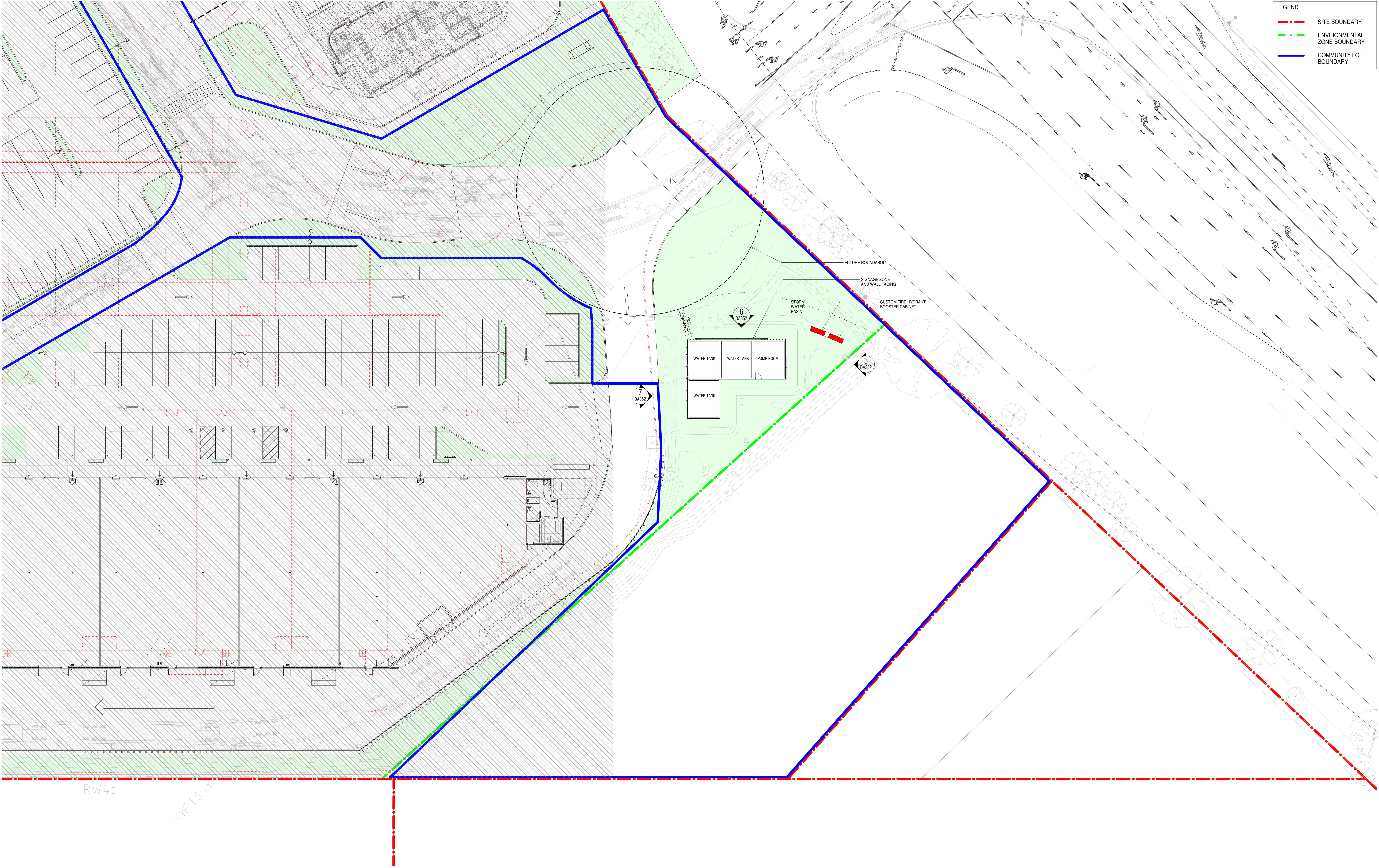


Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264
Project Number
220178

Status
Date Plotted: 20-Jul-21 13:02:23
Date Issued: 20/07/2021
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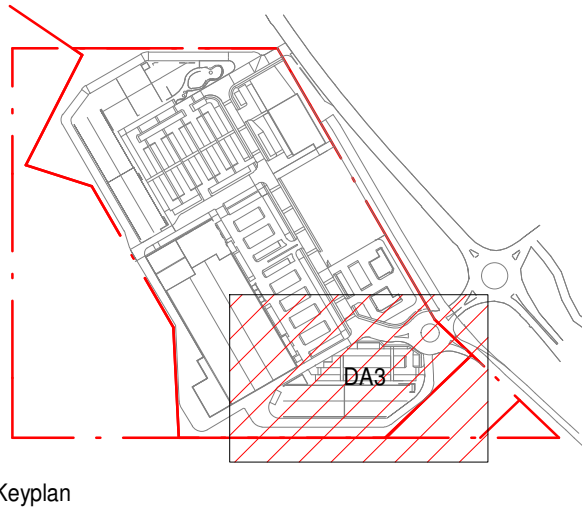
Drawing Title
PROPOSED GROUND FLOOR PLAN 3
Drawing Number
MOR-BUC-DR-A-DA323

Revision
D
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1 DA3 PROPOSED GROUND FLOOR PLAN 4
SCALE 1 : 200

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A	13/05/2021	DA ISSUE	EC	LHC
B	21/05/2021	CLIENT REVIEW ISSUE	EC	LHC
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D	20/07/2021	DA UPDATES	EC	LHC



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MORISSET SPECIALISED RETAIL
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Project Number
220178

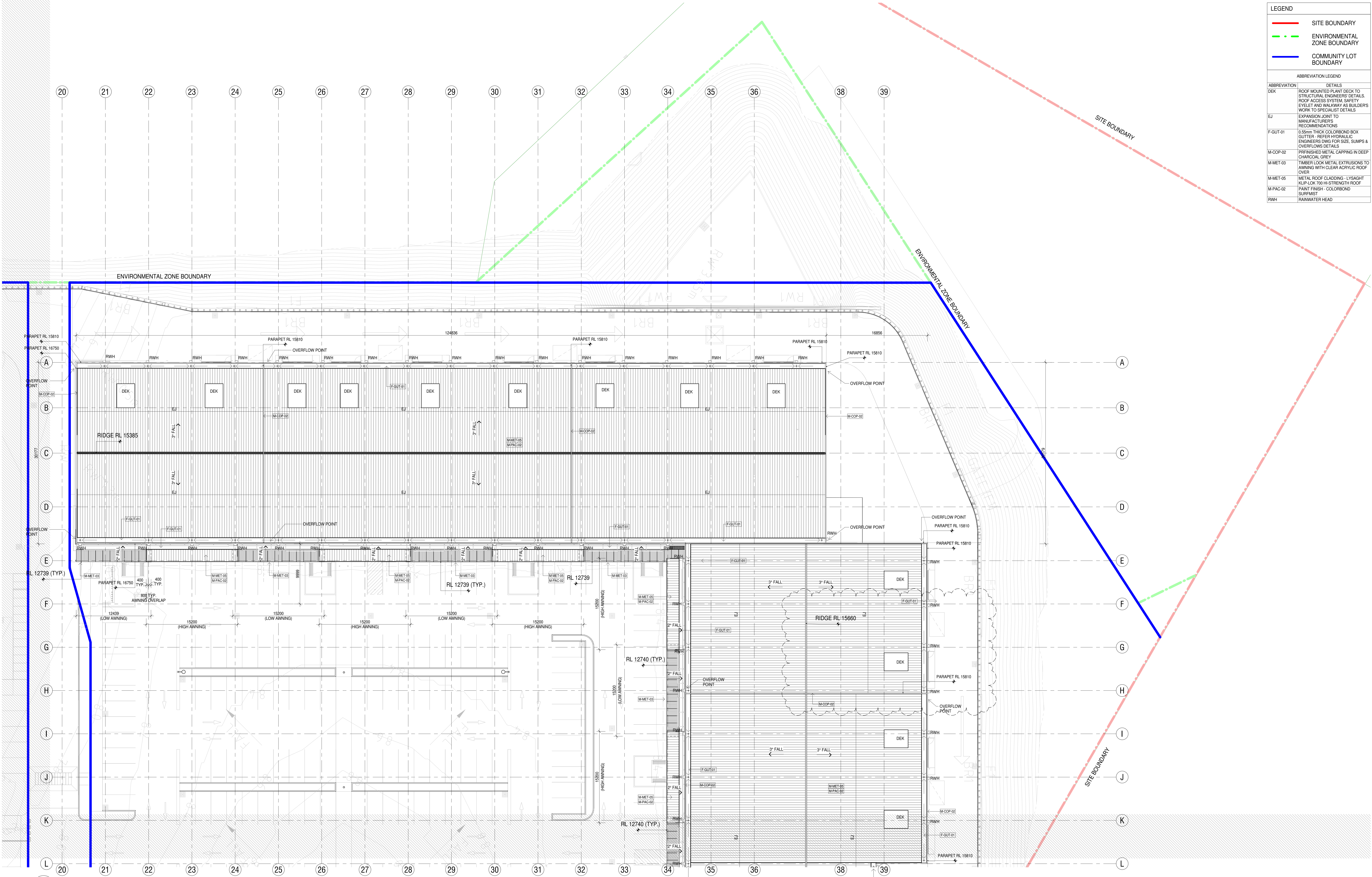
Status
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Date Issued 20/07/2021
Scale 1 : 200 @A0
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Drawing Title
PROPOSED GROUND FLOOR PLAN 4
Drawing Number
MOR-BUC-DR-A-DA324

Revision
D

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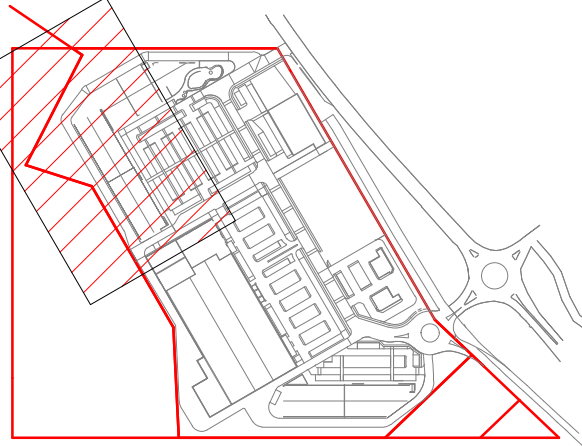
DA ISSUE



LEGEND	
—	SITE BOUNDARY
- - -	ENVIRONMENTAL ZONE BOUNDARY
—	COMMUNITY LOT BOUNDARY
ABBREVIATION LEGEND	
ABBREVIATION	DETAILS
DEK	ROOF MOUNTED PLANT DECK TO STRUCTURAL ENGINEERS DETAILS. ROOF ACCESS SYSTEM SAFETY EYELET AND WALKWAY AS BUILDERS WORK TO SPECIALIST DETAILS
EJ	EXPANSION JOINT TO MANUFACTURERS RECOMMENDATIONS
F-GUT-01	0.55mm THICK COLORBOND BOX GUTTER - REFER HYDRAULIC ENGINEERS DWS FOR SIZE, SUMPS & OVERFLOWS DETAILS
M-COP-02	PRFINISHED METAL CAPPING IN DEEP CHARCOAL GREY
M-MET-03	TIMBER LOOK METAL EXTRUSIONS TO AWNING WITH CLEAR ACRYLIC ROOF OVER
M-MET-05	METAL ROOF CLADDING - LYSAGHT KLIP-LOK 700 HI-STRENGTH ROOF
M-PAC-02	PAINT FINISH - COLORBOND SURIMET
RWH	RAINWATER HEAD

1 DA3 PROPOSED ROOF PLAN 1
SCALE 1 : 200

Rev.	Date	Description	Iss.	Appr.
A	09/03/2021	PRELIMINARY	EC	OK
B	24/03/2021	COSTING ISSUE DA3	EC	LHC
C	22/04/2021	WIP ISSUE	EC	LHC
D	30/04/2021	COORDINATION ISSUE	EC	LHC
E	13/05/2021	DA ISSUE	EC	LHC
F	21/05/2021	CLIENT REVIEW ISSUE	EC	LHC
G	07/06/2021	DA UPDATES	EC	LHC
H	20/07/2021	DA UPDATES	EC	LHC
J	06/08/2021	DA UPDATES	EC	LHC



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Project
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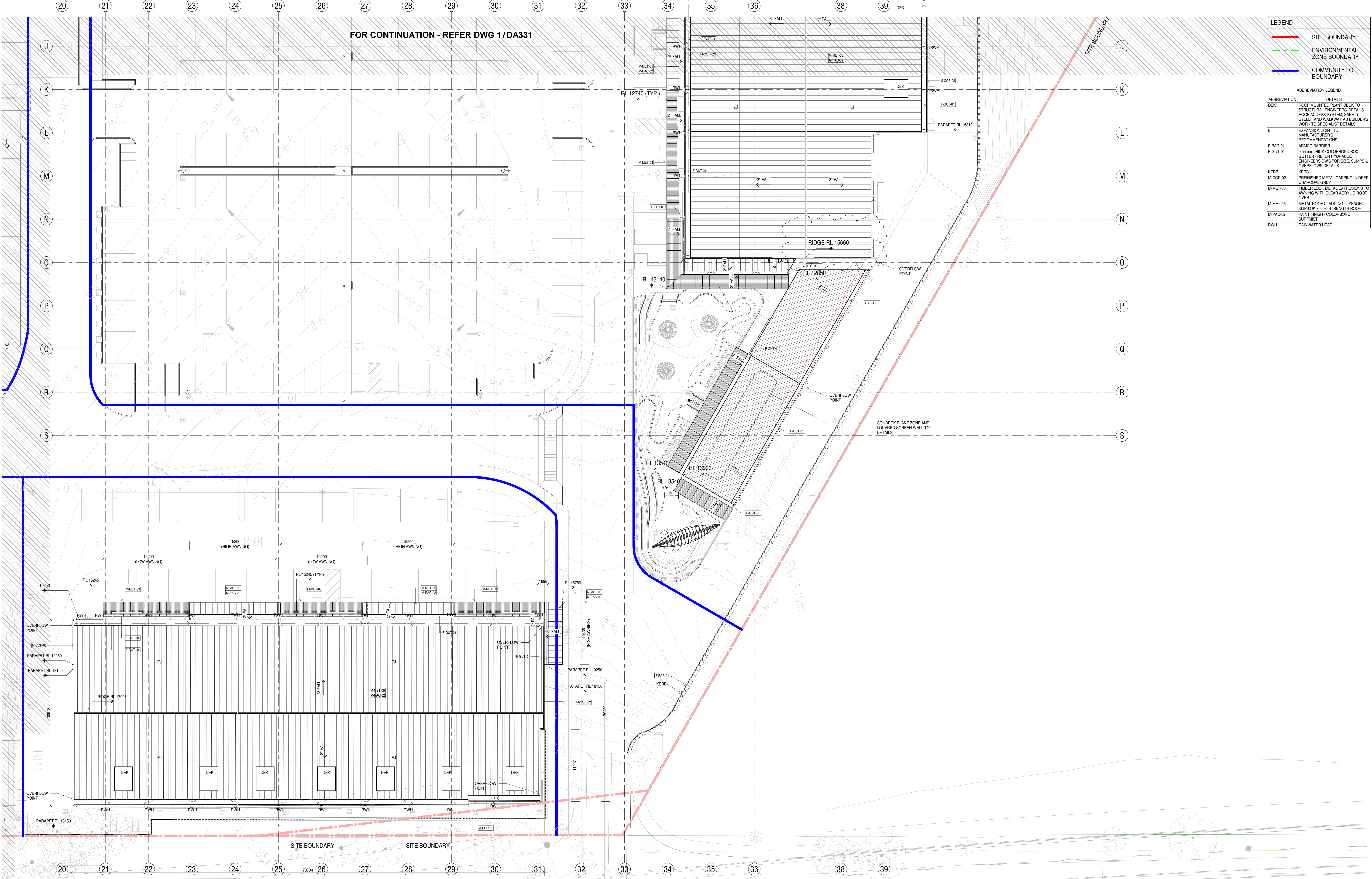
Project Number
220178

Status	
Date Plotted	06-Aug-21 16:42:55
Date Issued	06/08/2021
Scale	1 : 200 @A0

Drawing Title	
PROPOSED ROOF PLAN 1	
Drawing Number	
MOR-BUC-DR-A-DA331	

Revision
J

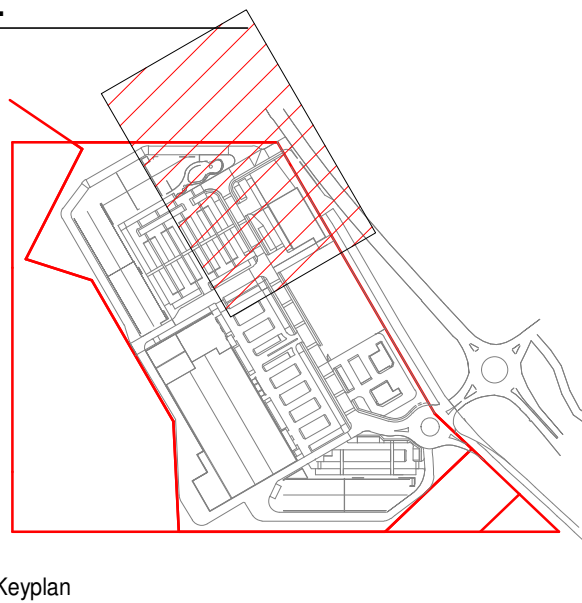
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LEGEND	
—	SITE BOUNDARY
- - -	ENVIRONMENTAL ZONE BOUNDARY
—	COMMUNITY LOT BOUNDARY
ABBREVIATION LEGEND	
ABBREVIATION	DETAILS
DEK	ROOF MOUNTED PLANT DECK TO STRUCTURAL ENGINEERS DETAILS. ROOF ACCESS SYSTEM, SAFETY EYELET AND WALKWAY AS BUILDERS WORK TO SPECIALIST DETAILS
EJ	EXPANSION JOINT TO MANUFACTURERS RECOMMENDATIONS
F-BAR-01	ARMCO BARRIER
F-GUT-01	0.55mm THICK COLORBOND BOX GUTTER - REFER HYDRAULIC ENGINEERS DWG FOR SIZE, SUMPS & OVERFLOWS DETAILS
KERB	KERB
M-COP-02	PREFINISHED METAL CAPPING IN DEEP CHARCOAL GREY
M-MET-03	TIMBER LOOK METAL EXTRUSIONS TO AWNING WITH CLEAR ACrylic ROOF OVER
M-MET-05	METAL ROOF CLADDING - LYSAGHT KLIP-LOK 700 HS-STRENGTH ROOF
M-PAC-02	PAINT FINISH - COLORBOND SURFMIST
RWH	RAINWATER HEAD

1 DA3 PROPOSED ROOF PLAN 2
SCALE 1 : 200

Rev.	Date	Description	Iss.	Appr.
A	09/03/2021	PRELIMINARY	EC	OK
B	24/03/2021	COSTING ISSUE DA3	EC	LHC
C	22/04/2021	WIP ISSUE	EC	LHC
D	30/04/2021	COORDINATION ISSUE	EC	LHC
E	13/05/2021	DA ISSUE	EC	LHC
F	21/05/2021	CLIENT REVIEW ISSUE	EC	LHC
G	07/06/2021	DA UPDATES	EC	LHC
H	20/07/2021	DA UPDATES	EC	LHC
J	06/08/2021	DA UPDATES	EC	LHC



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Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264

Project Number
220178

Status	
Date Plotted	06-Aug-21 16:33:22
Date Issued	06/08/2021
Scale	1 : 200 @A0

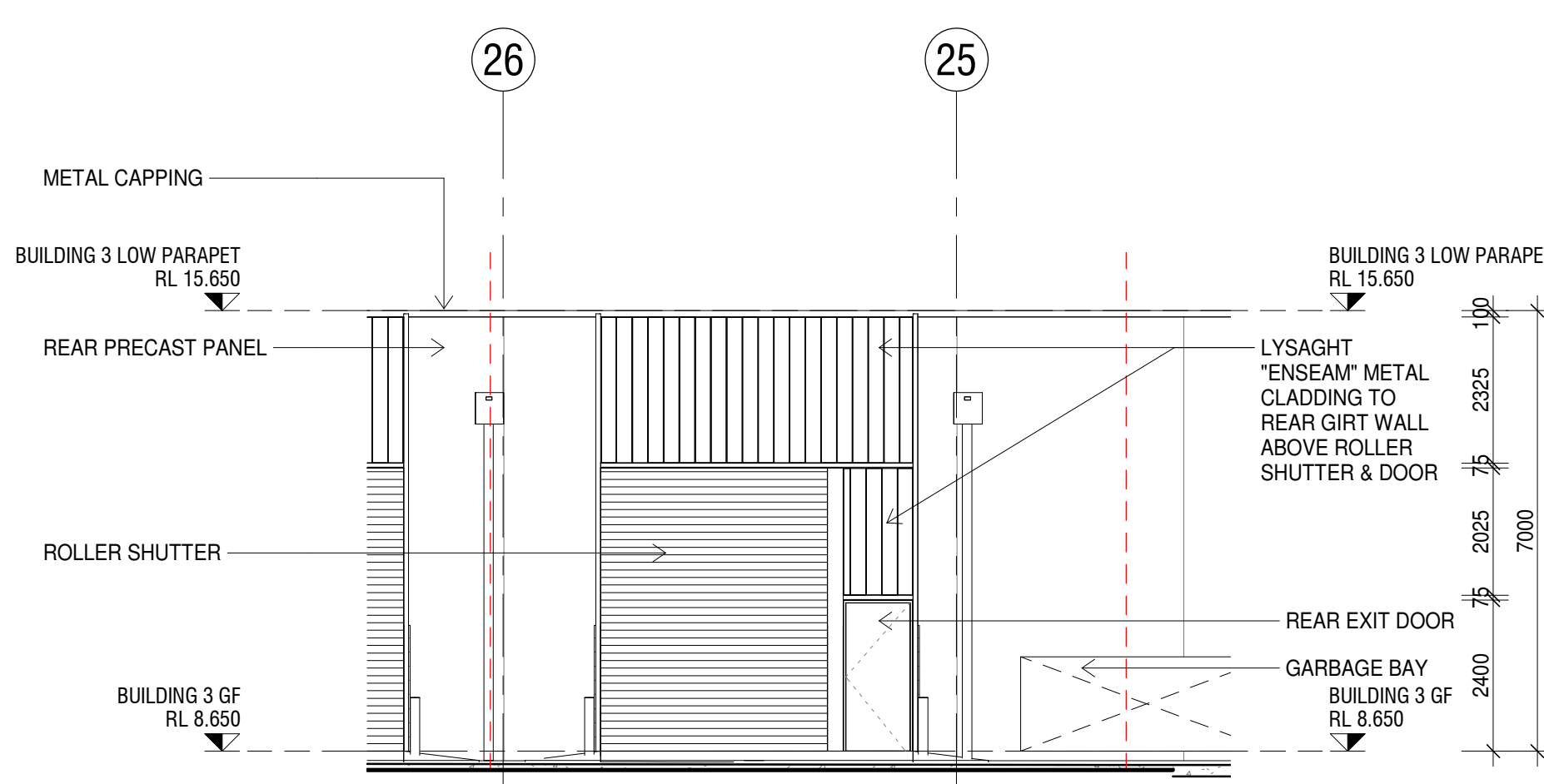
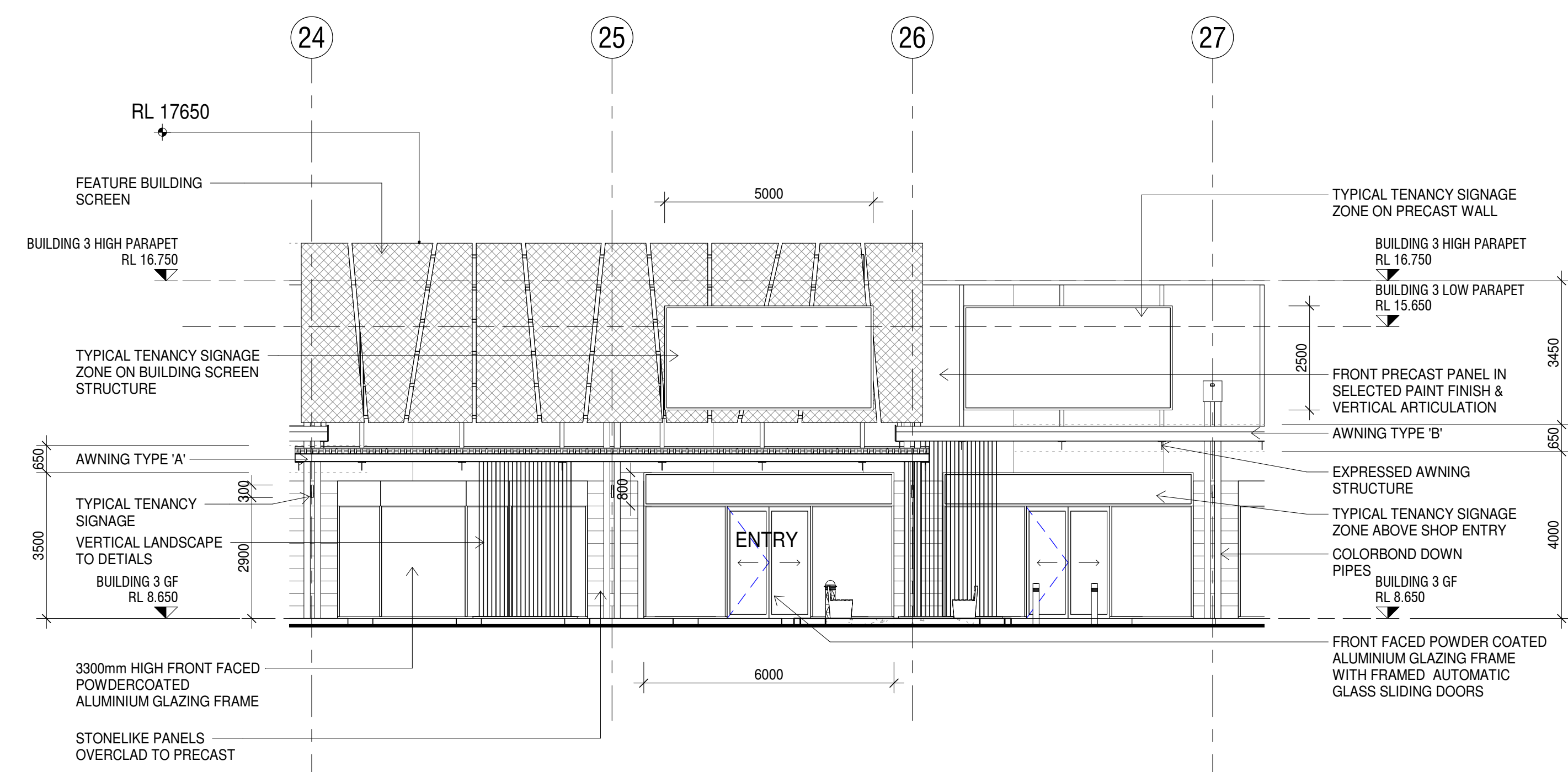
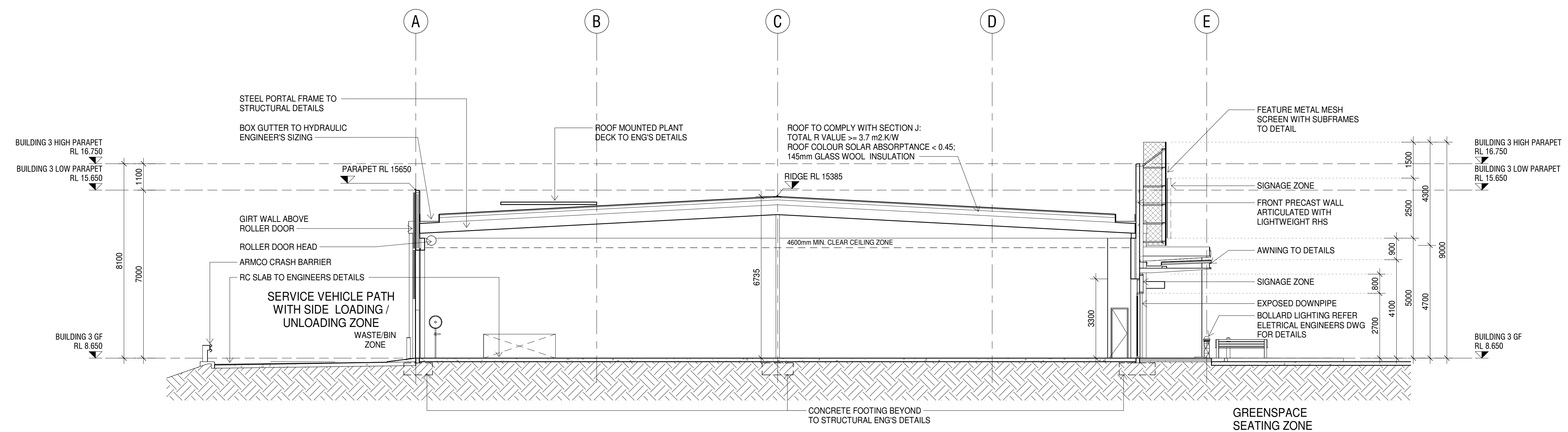
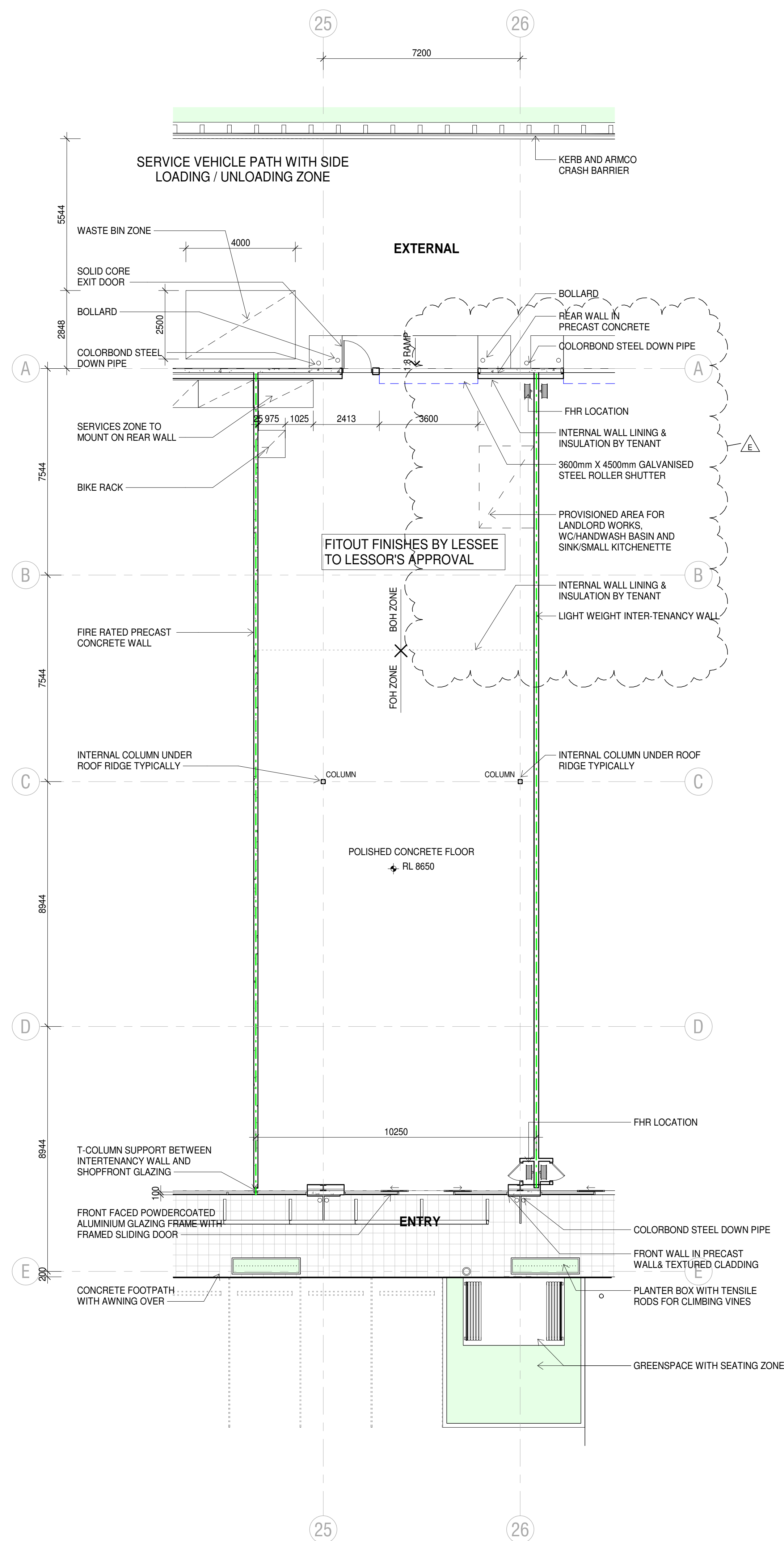
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PROPOSED ROOF PLAN 2

Drawing Number
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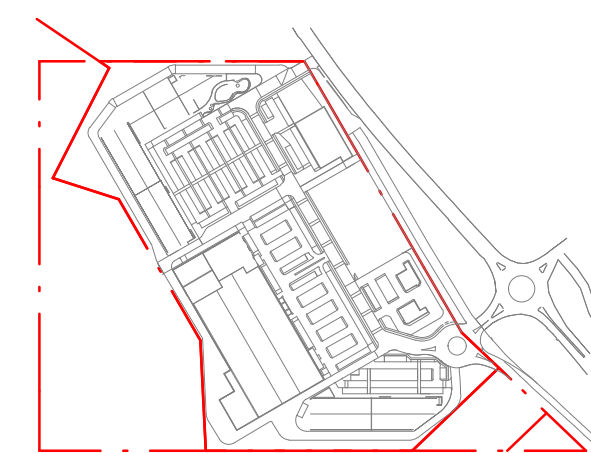
Revision
J

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Rev.	Date	Description	Iss.	Appr.
A	24/03/2021	COSTING ISSUE DA3	EC	LHC
B	13/05/2021	DA ISSUE	EC	LHC
C	21/05/2021	CLIENT REVIEW ISSUE	EC	LHC
D	07/06/2021	DA UPDATES	EC	LHC
E	20/07/2021	DA UPDATES	EC	LHC



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Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264

Project Number
220178

Status

Date Plotted	20-Jul-21 08:48:20
Date Issued	20/07/2021
Scale	1 : 100 @A0

11/11/2019

Drawing Title

TYPICAL TENANCY DETAILS

Drawing Number
MOR-BUC-DR-A-DA341

Revision
E

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Drawing Title

TYPICAL TENANCY DETAILS

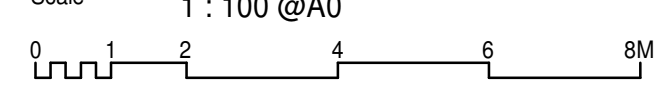
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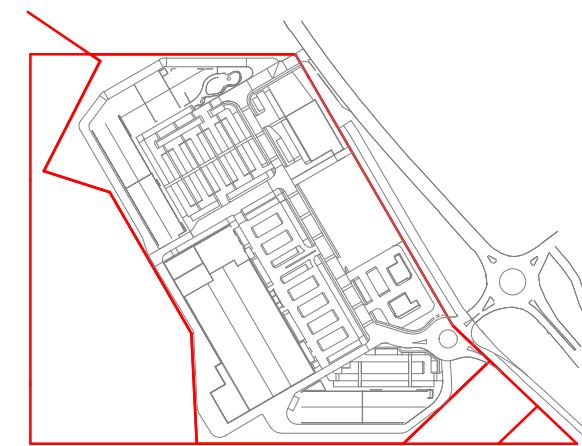
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Date Issued 06/08/2021

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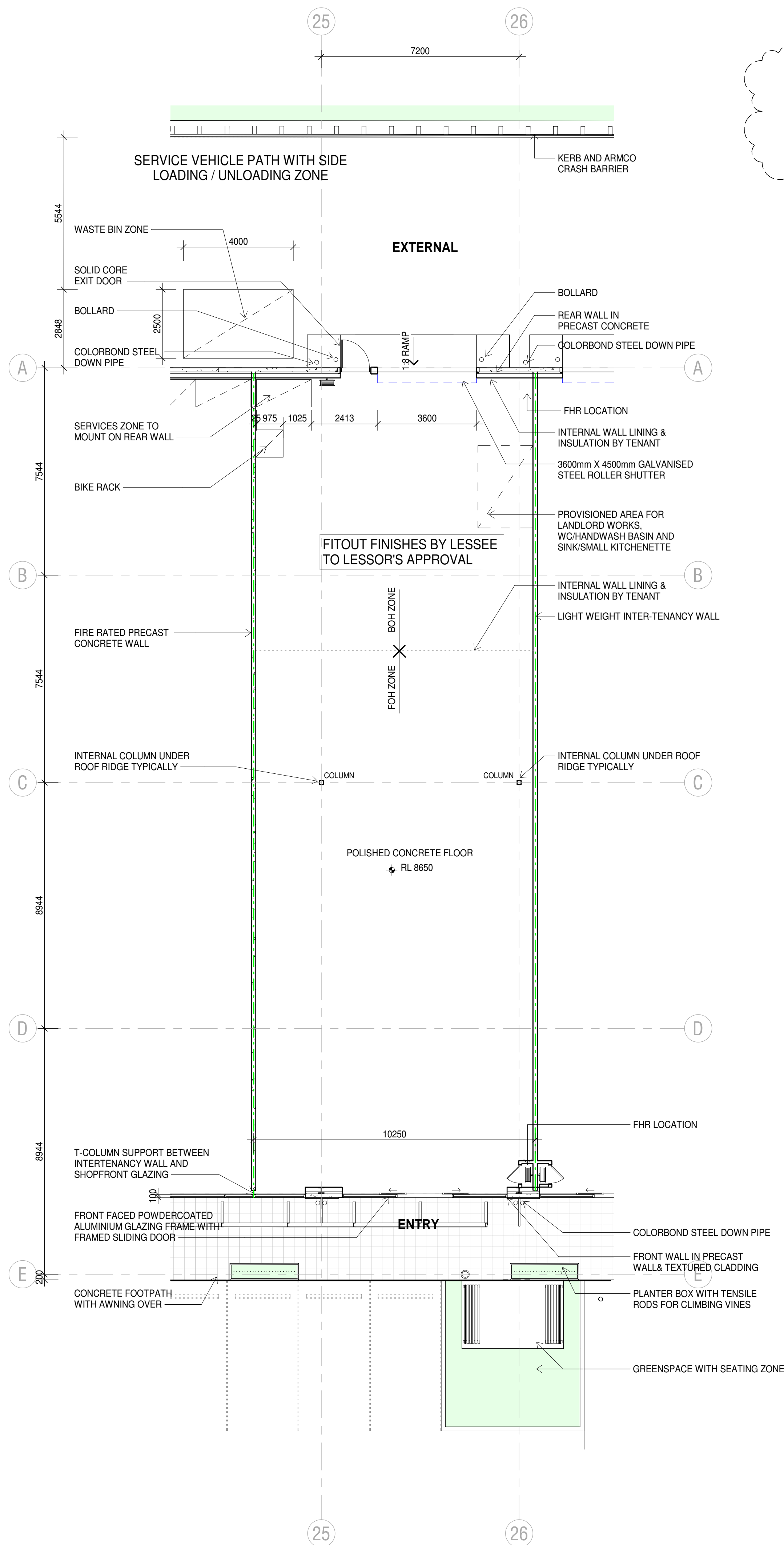
Project

MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264Project Number
220178Nominated Architect: Anthony Palamara NSW APN 7274
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A	24/03/2021	COSTING ISSUE DA3	EC	LHC
B	13/05/2021	DA ISSUE	EC	LHC
C	21/05/2021	CLIENT REVIEW ISSUE	EC	LHC
D	07/06/2021	DA UPDATES	EC	LHC
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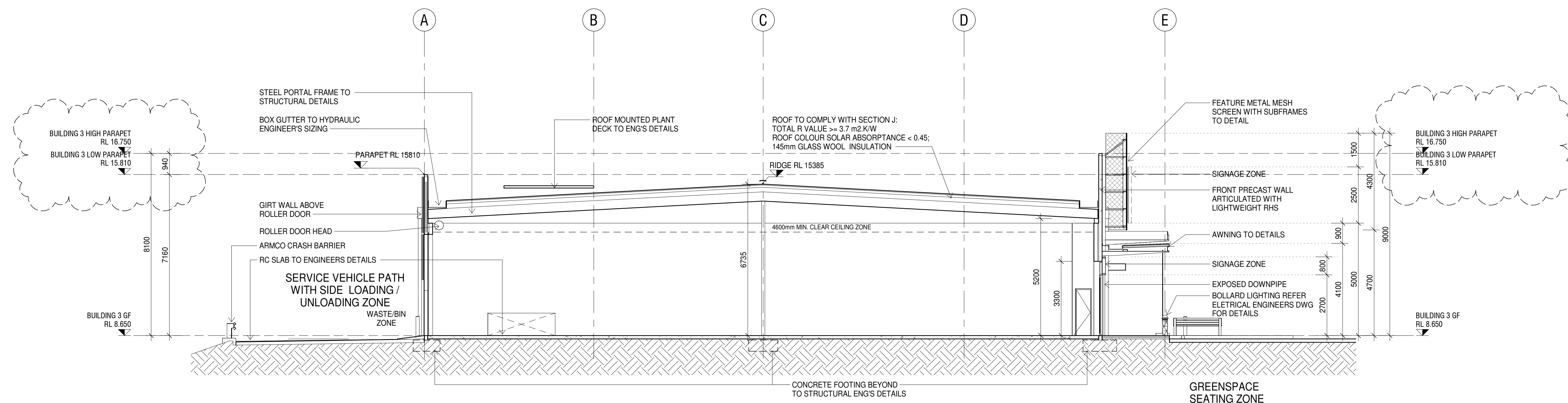
1 TYPICAL TENANCY PLAN

2004 SCALE 1 : 100



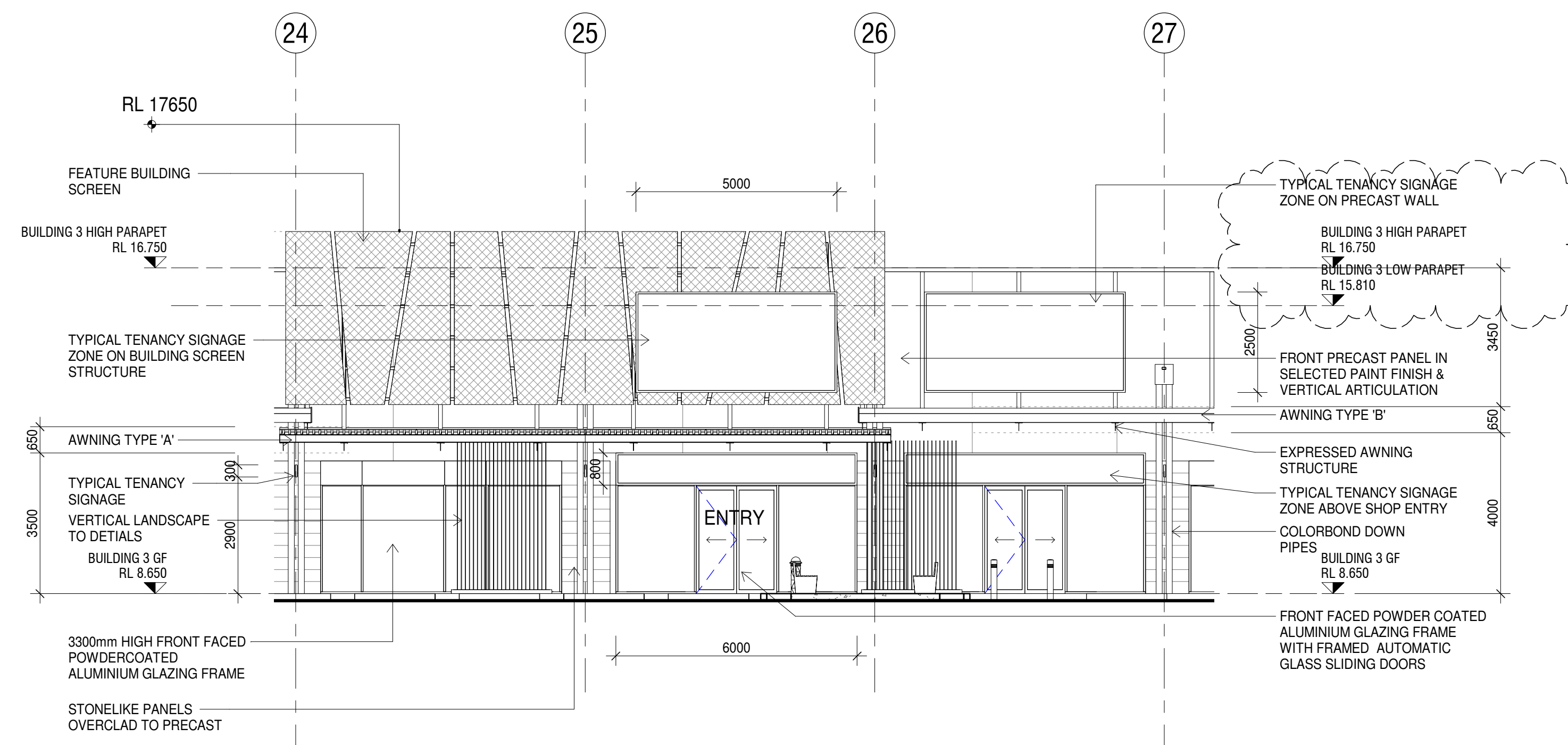
2 TYPICAL TENANCY SECTION

D4381 SCALE 1 : 100



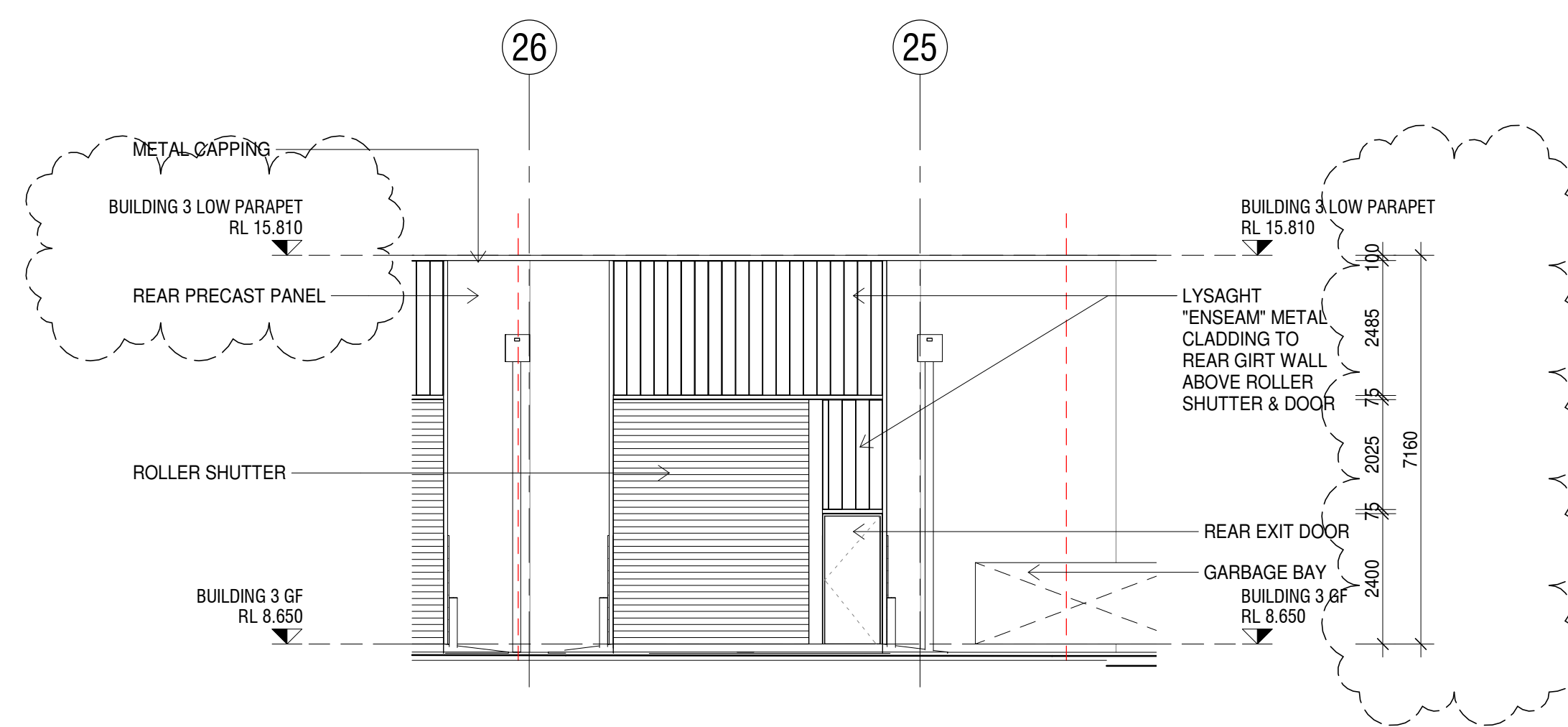
3 TYPICAL TENANCY FRONT ELEVATION

SCALE 1 : 100

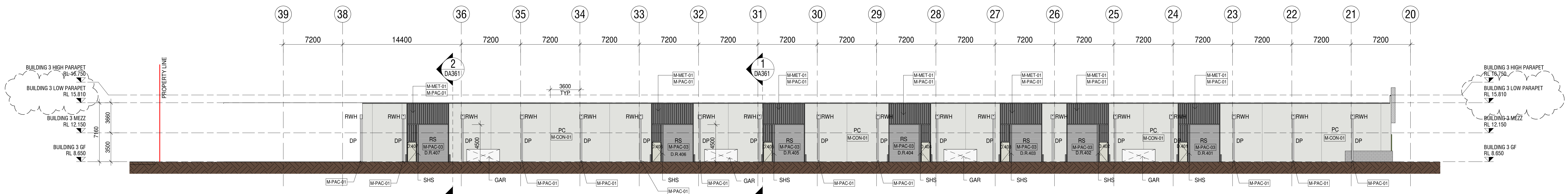


4 TYPICAL TENANCY REAR ELEVATION

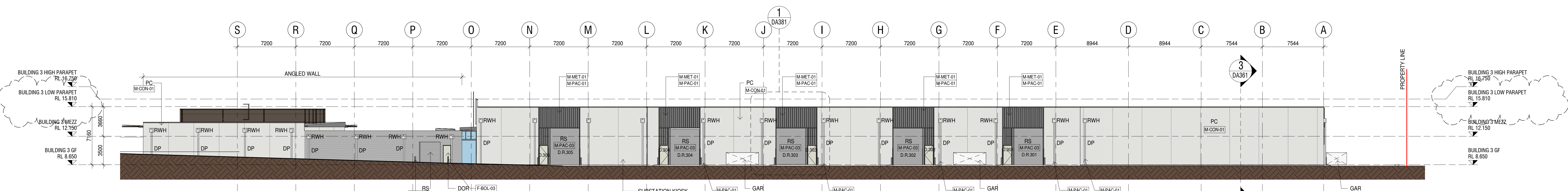
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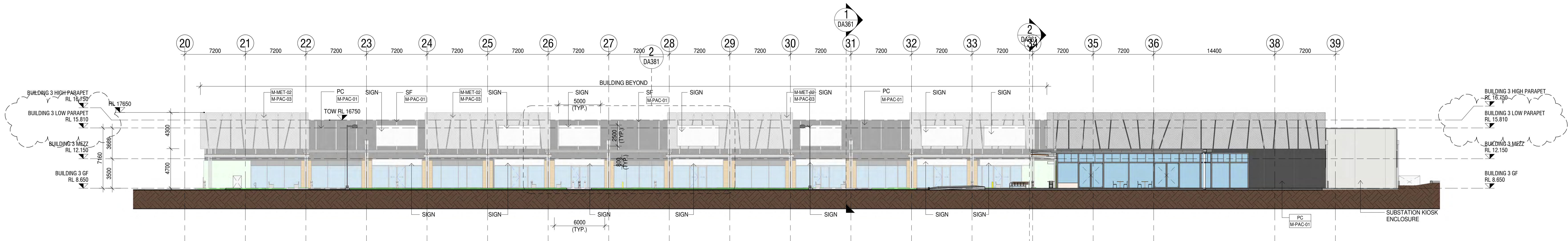
ABBREVIATION LEGEND	
ABBREVIATION	DETAILS
DOR	DOOR
DP	COLORBOND DOWNPIPE
F-BIC-01	BI-CYCLE RACK TYPE 01
F-BOL-03	BOLLARD TYPE 03
GAR	GARBAGE BAY
M-CON-01	PAINTED PRECAST CONCRETE PANEL
M-GRC-01	TRIEBER CRATER TEXTURE OR SIMILAR GRC CLADDING PANELS- COLOUR: SANDSTONE
M-MET-01	METAL CLADDING - LYSAGHT ENSEAM
M-MET-02	EXPANDED METAL MESH CLADDING ITALMESH OR SIMILAR
M-PAC-01	PAINT FINISH- COLORBOND MONUMENT
M-PAC-03	PEARLESCENT COLOUR- DURATEC ETERNITY CITI SILVER PEARL 90702AQ
PC	PRECAST CONCRETE PANEL WALL
RS	SLATTED INDUSTRIAL MECHANICAL ROLLER SHUTTER WITH APPROVED POWDER COATED FINISH
RWH	RAINWATER HEAD
SF	STEEL FRAME-REFER STRUCTURAL ENGINEERS DWGS FOR SIZES
SHS	SQUARE HOLLOW SECTION-REFER STRUCTURAL ENGINEERS DWGS FOR SIZES
SIGN	TENANT SIGNAGE



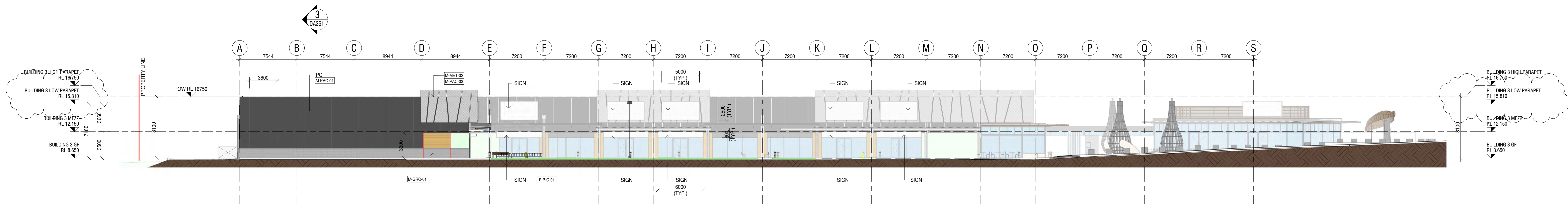
1 DA3 BUILDING 3 & 4 NORTH ELEVATION
DA321 SCALE 1 : 200



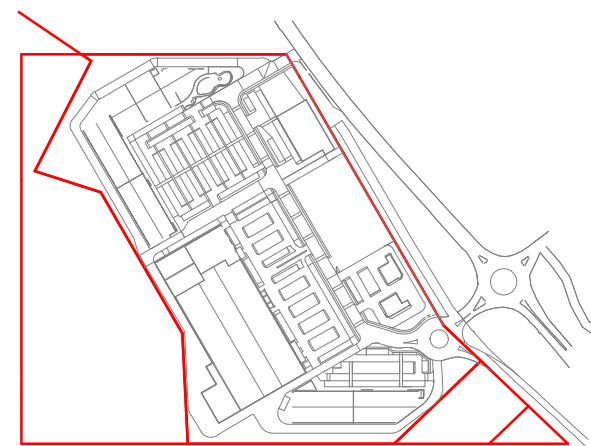
2 DA3 BUILDING 3 & 4 EAST ELEVATION
DA321 SCALE 1 : 200



3 DA3 BUILDING 3 & 4 SOUTH ELEVATION
4101 SCALE 1 : 200



4 DA3 BUILDING 3 & 4 WEST ELEVATION
DA321 SCALE 1 : 200



Keyplan

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Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264

Project Number
220178

Status	
Date Plotted	06-Aug-21 16:33:02
Date Issued	06/08/2021
Scale	1 : 200 @A0
	1 2 3 12 18M

Drawing Title	
	OVERALL ELEVATIONS BUILDING 3 & 4
Drawing Number	MOR-BUC-DR-A-DA351

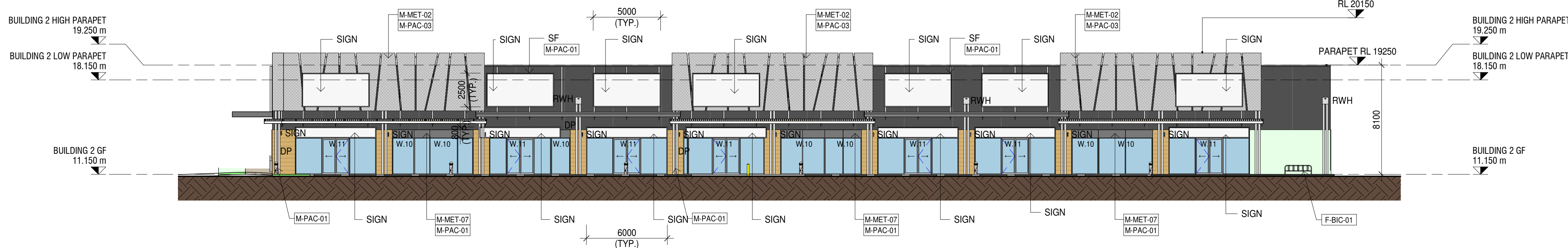
Revision
J

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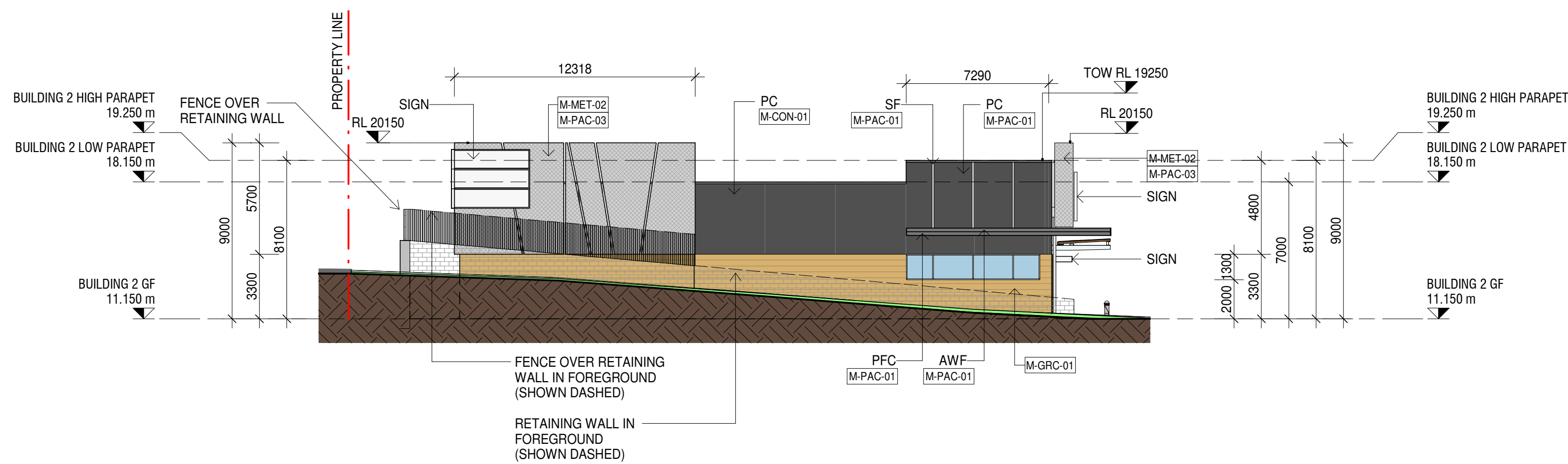
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DA ISSUE

ABBREVIATION LEGEND	
ABBREVIATION	DETAILS
AWF	AWNING FASCIA
DP	COLORBOND DOWNPIPE
F-BIC-01	BICYCLE RACK TYPE 1
M-CON-01	PAINTED PRECAST CONCRETE PANEL
M-GRC-01	RIEDER CRATER TEXTURE OR SIMILAR GRC CLADDING PANELS - COLOUR: SANDSTONE
M-MET-02	EXPANDED METAL MESH CLADDING (ITALMESH OR SIMILAR)
M-MET-07	NON-COMBUSTIBLE ALUMINUM METAL CLADDING PANEL
M-PAC-01	PAINT FINISH - COLORBOND MONUMENT
M-PAC-03	PEARLESCENT COLOUR - DURATEC ETERNITY GT1 SILVER PEARL 90703AC
PC	PRECAST CONCRETE PANEL WALL
PFC	PARALLEL FLANGE CHANNEL REFER STRUCTURAL ENGINEERS DWGS FOR SIZES
RW	RETAINING WALL - TO ENGINEERS DETAIL
RWH	RAINWATER HEAD
SF	STEEL FRAME REFER STRUCTURAL ENGINEERS DWGS FOR SIZES
SIGN	TENANT SIGNAGE



1 DA3 BUILDING 2 NORTH ELEVATION
DA322 SCALE 1 : 200

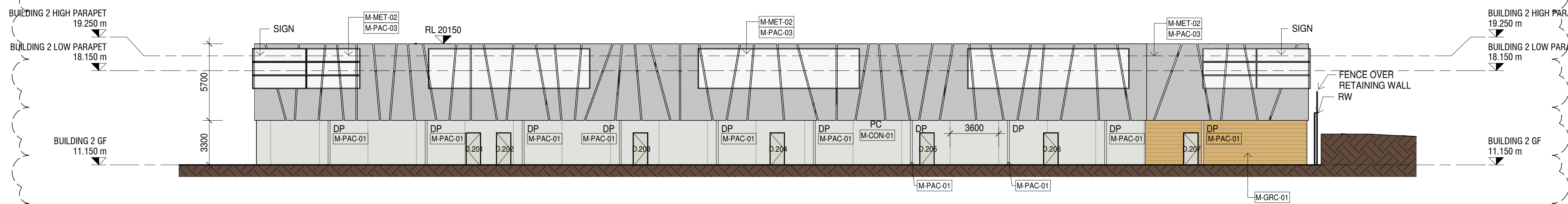


2 DA3 BUILDING 2 EAST ELEVATION
DA322 SCALE 1 : 200

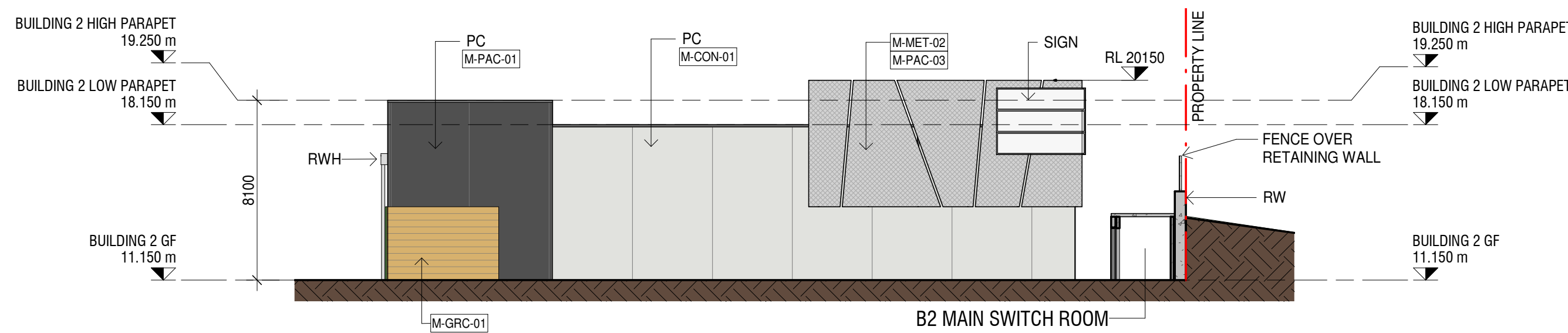
5 WATER TANK SOUTH ELEVATION
DA324 1 : 200

6 WATER TANK EAST ELEVATION
DA324 1 : 200

7 WATER TANK NORTH ELEVATION
DA324 1 : 200

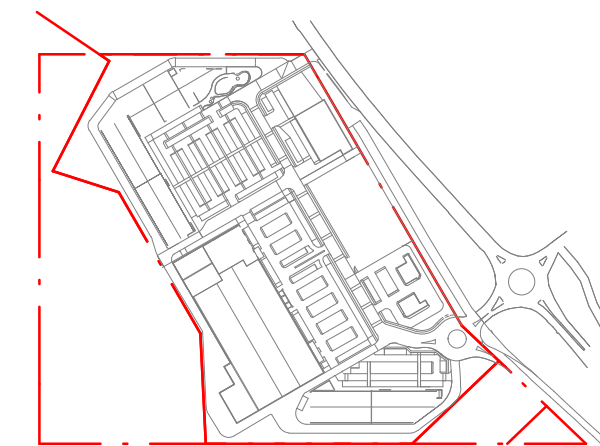


3 DA3 BUILDING 2 SOUTH ELEVATION
DA322 SCALE 1 : 200



4 DA3 BUILDING 2 WEST ELEVATION
DA322 SCALE 1 : 200

Rev.	Date	Description	Iss.	App.
A	20/04/2021	COORDINATION ISSUE	EC	LHC
B	13/05/2021	DA ISSUE	EC	LHC
C	21/05/2021	CLIENT REVIEW ISSUE	EC	LHC
D	07/06/2021	DA UPDATES	EC	LHC
E	20/07/2021	DA UPDATES	EC	LHC



Nominated Architect: Anthony Palamaro NSW APN 7274
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Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264

Project Number
220178

Status	
Date Plotted	20-Jul-21 08:50:03
Date Issued	20/07/2021
Scale	1 : 200 @A0

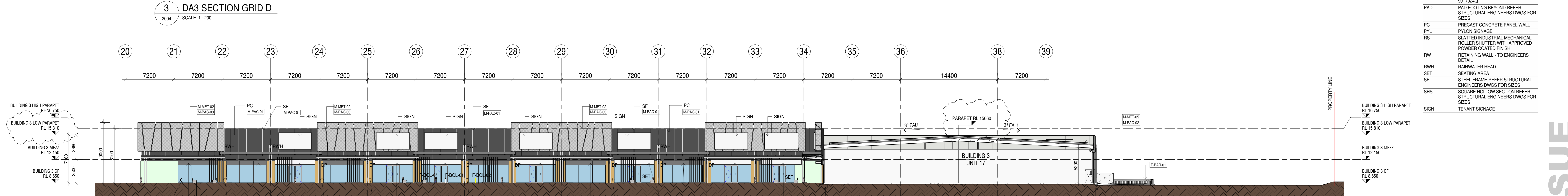
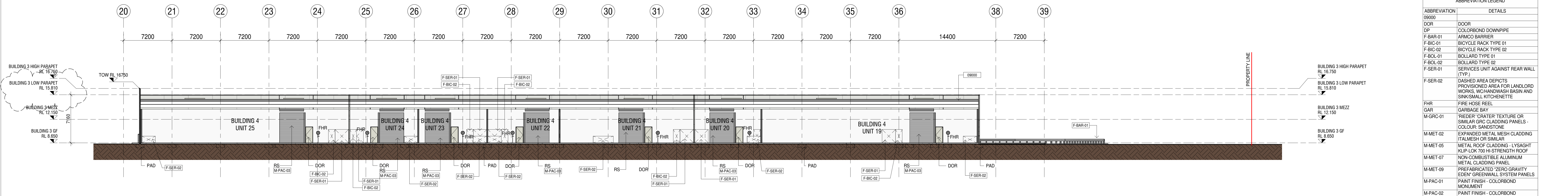
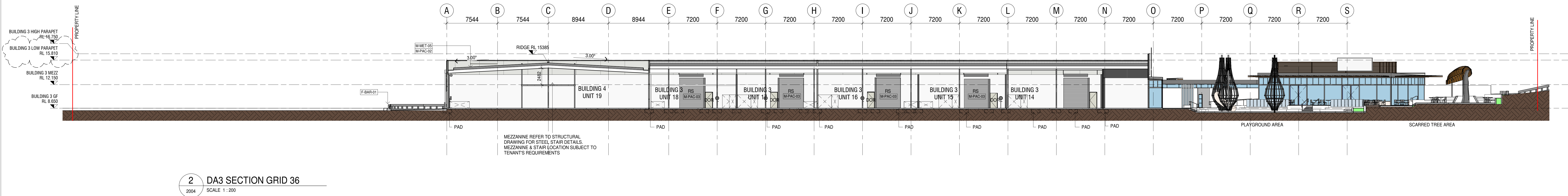
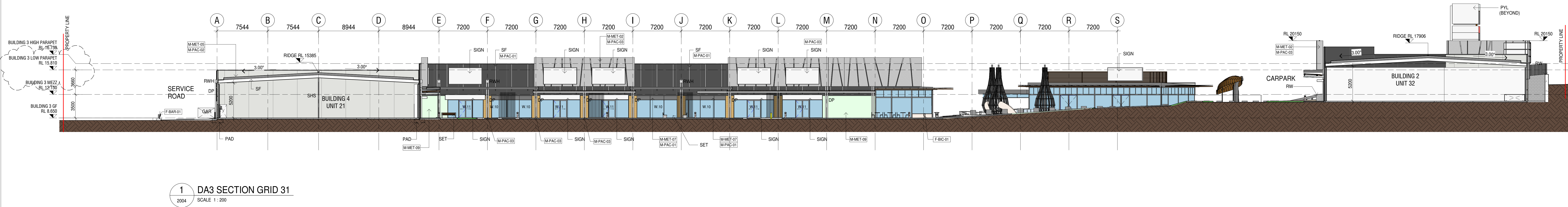
Drawing Title	
OVERALL ELEVATIONS BUILDING 2	
Drawing Number	
MOR-BUC-DR-A-DA352	

Revision
E

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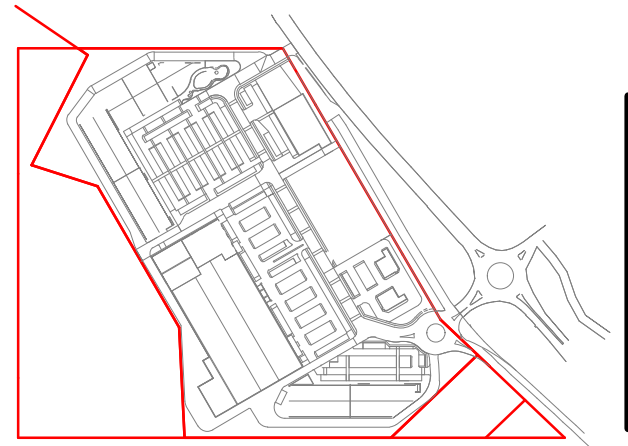
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DA ISSUE



ABBREVIATION LEGEND	
ABBREVIATION	DETAILS
09000	
DOR	DOOR
DP	COLORBOND DOWNPIPE
F-BAR-01	ARMCO BARRIER
F-BIC-01	BICYCLE RACK TYPE 01
F-BIC-02	BICYCLE RACK TYPE 02
F-BOL-01	BOLLARD TYPE 01
F-BOL-02	BOLLARD TYPE 02
F-SER-01	SERVICES UNIT AGAINST REAR WALL (TYP)
F-SER-02	DASHED AREA DEPICTS PROVISIONED AREA FOR LANDLORD WORKS: WCHANWASH BASIN AND SINK/SMALL KITCHENETTE
FHR	FIRE HOSE REEL
GAR	GARBAGE BAY
M-GRC-01	"RIBBED" CRATER" TEXTURE OR SIMILAR GRC CLADDING PANELS - COLOUR: SANDSTONE
M-MET-02	EXPANDED METAL MESH CLADDING (ITALMESH OR SIMILAR)
M-MET-05	METAL ROOF CLADDING - LYSAGHT KLIPLOK 710-H STRENGTH ROOF
M-MET-07	NON-COMBUSTIBLE ALUMINUM METAL CLADDING PANEL
M-MET-09	PREFABRICATED "ZERO GRAVITY EDEN" GREENWALL SYSTEM PANELS
M-PAC-01	PAINT FINISH - COLORBOND MONUMENT
M-PAC-02	PAINT FINISH - COLORBOND SURFMIST
M-PAC-03	PEARLESCENT COLOUR - DURATEC ETERNITY OTI SILVER PEARL 90T0240
PAD	PAD FOOTING BEYOND-REFER STRUCTURAL ENGINEERS DWGS FOR SIZES
PC	PRECAST CONCRETE PANEL WALL
PVL	PYLON SIGNAGE
RS	SLATTED INDUSTRIAL MECHANICAL ROLLER SHUTTER WITH APPROVED POWDER COATED FINISH
RW	RETAINING WALL - TO ENGINEERS DETAIL
RWH	RAINWATER HEAD
SET	SEATING AREA
SF	STEEL FRAME-REFER STRUCTURAL ENGINEERS DWGS FOR SIZES
SHS	SQUARE HOLLOW SECTION-REFER STRUCTURAL ENGINEERS DWGS FOR SIZES
SIGN	TENANT SIGNAGE

Rev.	Date	Description	Iss.	App.
A	10/03/2021	PRELIMINARY	EC	OK
B	24/03/2021	COSTING ISSUE DA3	EC	LHC
C	22/04/2021	WIP ISSUE	EC	LHC
D	30/04/2021	COORDINATION ISSUE	EC	LHC
E	13/05/2021	DA ISSUE	EC	LHC
F	21/05/2021	CLIENT REVIEW ISSUE	EC	LHC
G	07/06/2021	DA UPDATES	EC	LHC
H	20/07/2021	DA UPDATES	EC	LHC
J	06/08/2021	DA UPDATES	EC	LHC



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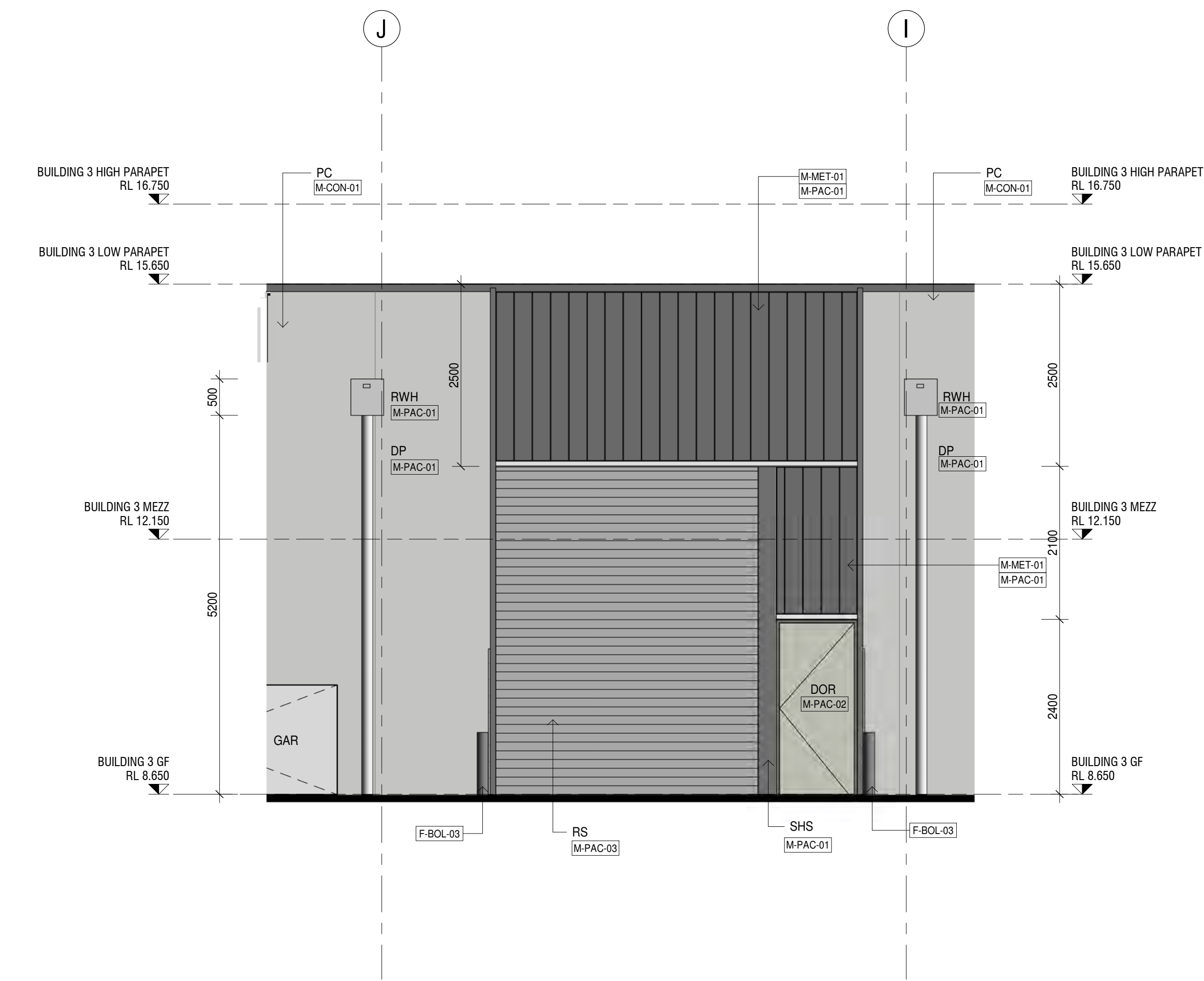
Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264
Project Number
220178

Status
Date Plotted: 06-Aug-21 16:32:40
Date Issued: 06/08/2021
Scale: 1 : 200 @A0
Drawing Title
OVERALL SECTIONS
Drawing Number
MOR-BUC-DR-DA-DA361

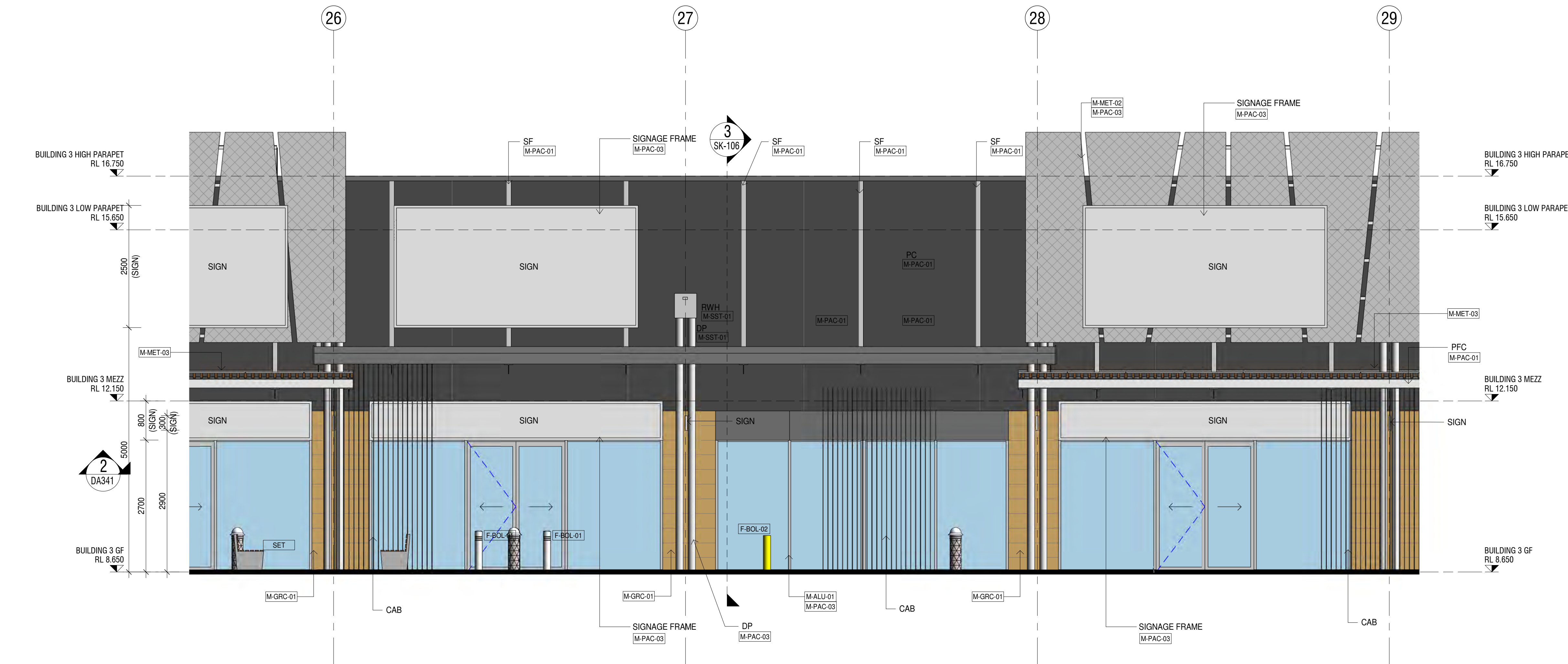
Drawing Title
OVERALL SECTIONS
Drawing Number
MOR-BUC-DR-DA-DA361

Revision
J
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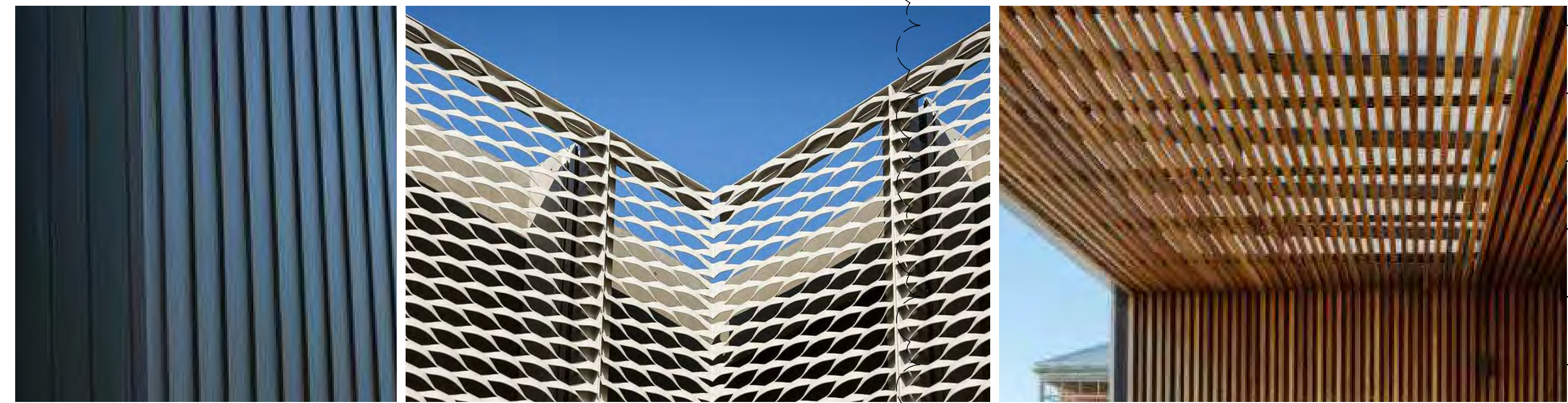
DA ISSUE



1 DA3 EAST ELEVATION
SCALE 1:50



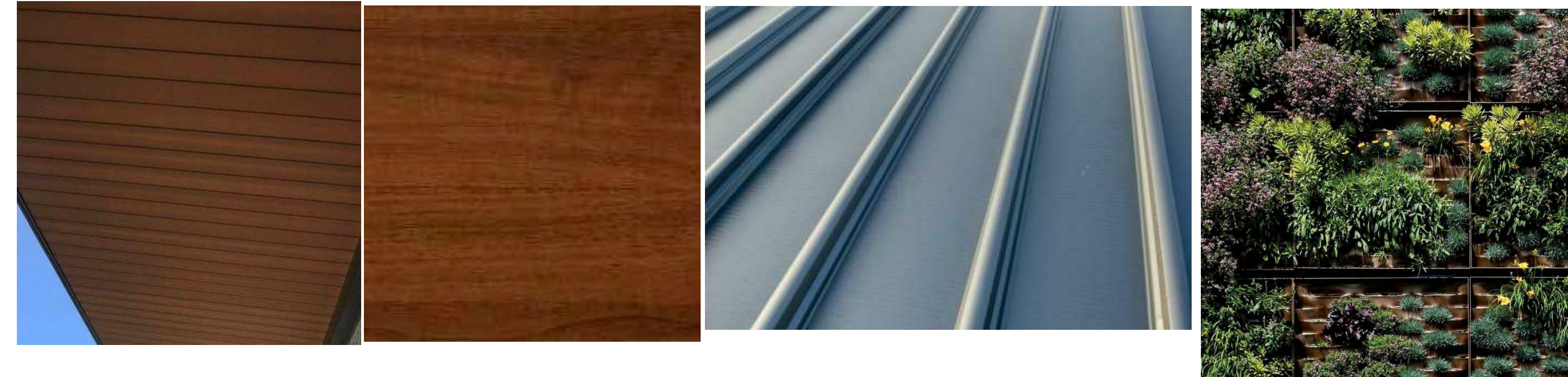
2 DA3 SOUTH ELEVATION
SCALE 1:50



M-MET-01
METAL CLADDING- LYSAGHT ENSEAM IN
COLORBOND MONUMENT COLOUR

M-MET-02
EXPANDED METAL MESH CLADDING (TYPE: BRESCIA 75) BY
ITALMESH.
COLOUR TO MATCH DURATEC ETERNITY CITI SILVER PEARL
90T7024Q

M-MET-03
ALUMINIUM BATTENS, TIMBER LOOK
EXTRUSIONS TO AWNINGS FOOD PRECINCT.
ALTERNATING SHOPFRONT AWNINGS SIMILAR.



M-MET-04
ALL METAL INTERLOCK SYSTEM 0.55mm THICK
COLOUR : UniCote LUX STEEL ASHWOOD

M-MET-05
LYSAGHT KLIP-LOK 700 HI-STRENGTH ROOF
DECKING WITH 0.48mm BASE METAL
THICKNESS IN COLORBOND SURFIST
COLOUR

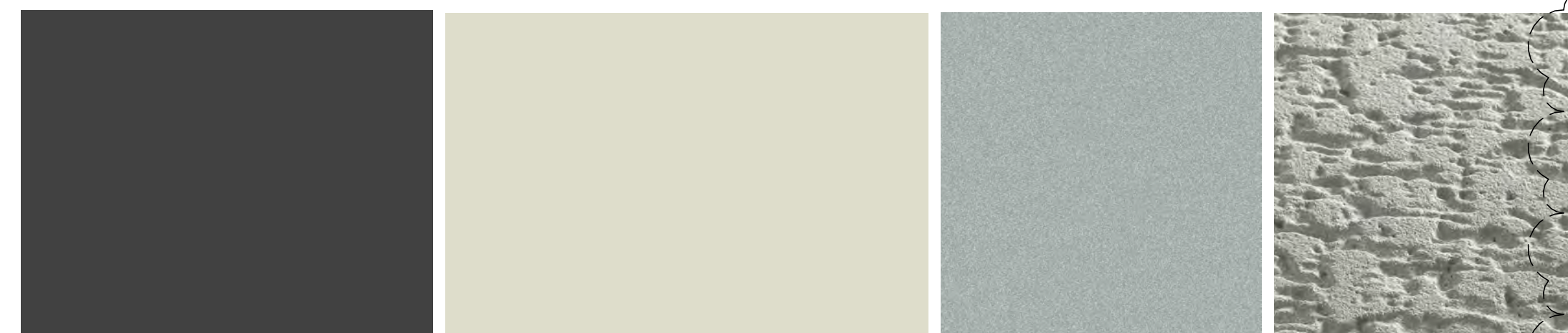
M-MET-09
PREFABRICATED "ZERO GRAVITY EDEN"
GREENWALL SYSTEM PANELS BY
ITALMESH FOR FEATURE GREENWALLS



M-ALU-01
ALUMINIUM GLAZING FRAME IN
DURATEC ETERNITY CITI SILVER PEARL
90T7024Q

RS
ROLLER SHUTTER
POWDERCOATED IN DURATEC ETERNITY CITI
SILVER PEARL 90T7024Q

DP
DOWNPIPE & RAINWATER HEAD
DURATEC ETERNITY CITI SILVER PEARL 90T7024Q



M-PAC-01
PAINT FINISH
COLORBOND MONUMENT

M-PAC-02
PAINT FINISH
COLORBOND SURFIST

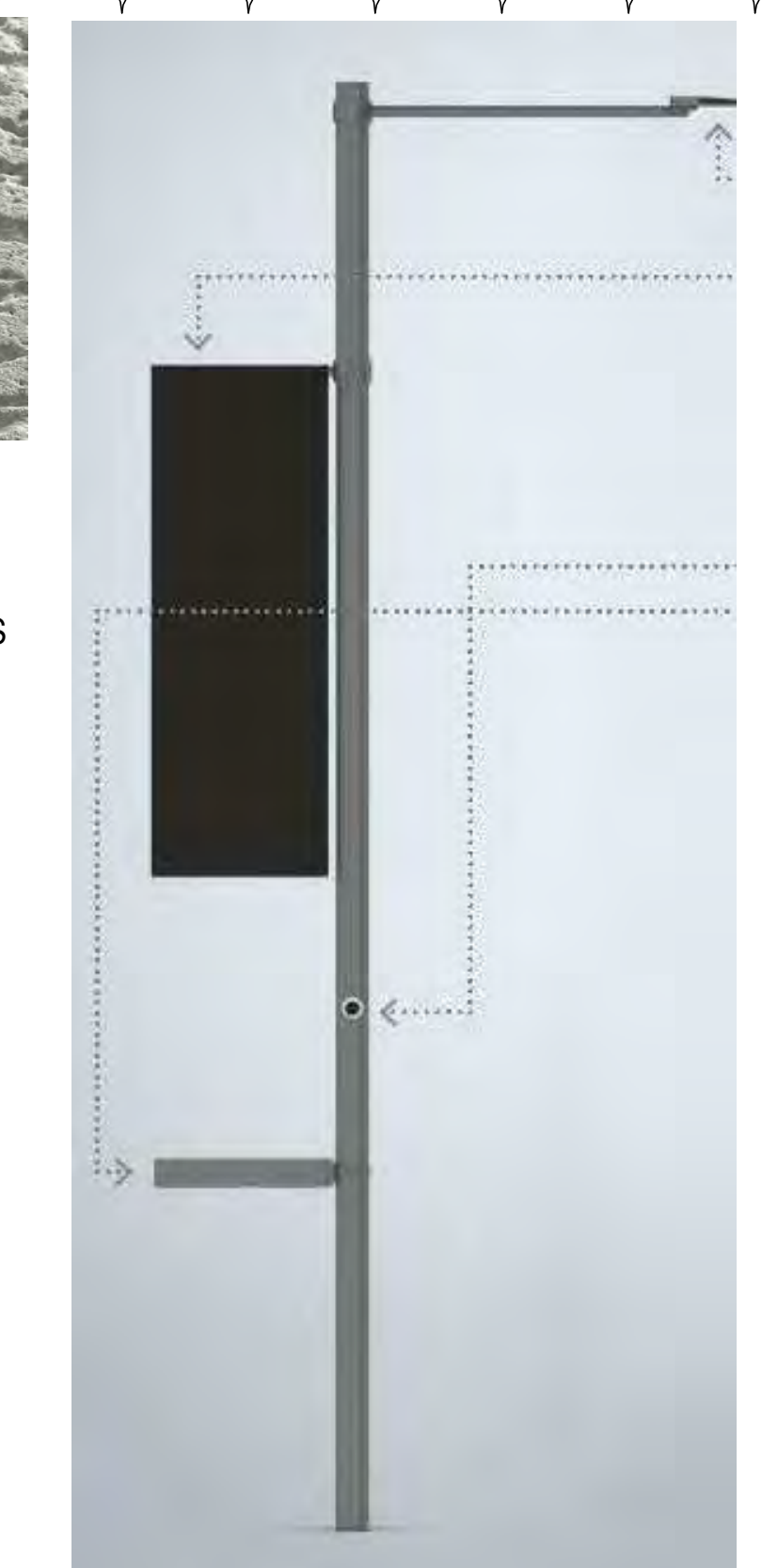
M-PAC-03
PEARLESCENT COLOUR
DURATEC ETERNITY CITI
SILVER PEARL 90T7024Q

M-GR-01
'RIEDER' 'CRATER'
TEXTURE OR SIMILAR
GRC CLADDING PANELS
COLOUR: SANDSTONE



M-ASH-02
ASPHALTIC CONCRETE COLOUR TO
MAIN DRIVEWAY ZONES

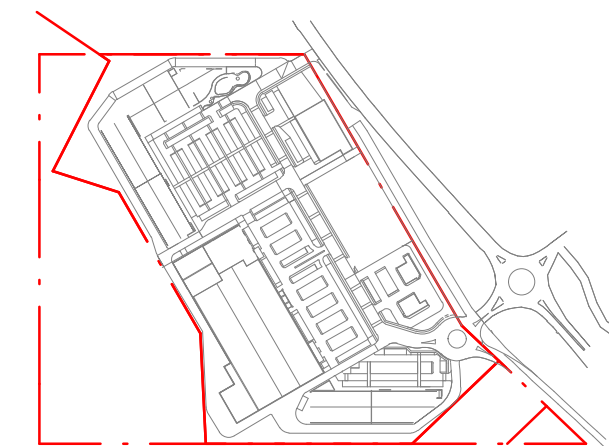
M-ASH-03
TEXTURED GREY FOOTPATH AND
PEDESTRIAN CROSSING, WITH BRICK
BORDERS ALONG TENANCY
SHOPFRONT
[REFER TO LANDSCAPE PLAN
FOR DETAILS]



LP
SMART POLE WITH INTEGRATED
LIGHTING AND BANNER SIGNAGE.
EXACT MODEL TO BE CONFIRMED.

ABBREVIATION LEGEND	
ABBREVIATION	DETAILS
CAB	SS CABLES WITH PLANT CLIMBERS. REFER LANDSCAPE PACKAGE
DOR	DOOR
DP	COLORBOND DOWNPIPE
F-BOL-01	BOLLARD TYPE 01
F-BOL-02	BOLLARD TYPE 02
F-BOL-03	BOLLARD TYPE 03
GAR	GARBAGE BAY
M-ALU-01	ALUMINIUM GLAZING FRAME IN PEARLESCENT COLOUR
M-CON-01	PAINTED PRECAST CONCRETE PANEL
M-GR-01	'RIEDER' 'CRATER' TEXTURE OR SIMILAR GRC CLADDING PANELS - COLOUR: SANDSTONE
M-MET-01	METAL CLADDING - LYSAGHT ENSEAM
M-MET-02	EXPANDED METAL MESH CLADDING ITALMESH OR SIMILAR
M-MET-03	TIMBER LOOK METAL EXTRUSIONS TO AWNING WITH CLEAR ACRYLIC ROOF OVER
M-PAC-01	PAINT FINISH - COLORBOND MONUMENT
M-PAC-02	PAINT FINISH - COLORBOND SURFIST
M-PAC-03	PEARLESCENT COLOUR - DURATEC ETERNITY CITI SILVER PEARL 90T7024Q
M-SST-01	EXTERNAL GRADE (316) STAINLESS STEEL
PC	PRECAST CONCRETE PANEL WALL
PFC	PARALLEL FLANGE CHANNEL-REFER STRUCTURAL ENGINEERS DWGS FOR SIZES
RS	SLATTED INDUSTRIAL MECHANICAL ROLLER SHUTTER WITH APPROVED POWDER COATED FINISH
RWH	RAINWATER HEAD
SET	SEATING AREA
SF	STEEL FRAME-REFER STRUCTURAL ENGINEERS DWGS FOR SIZES
SHS	SQUARE HOLLOW SECTION-REFER STRUCTURAL ENGINEERS DWGS FOR SIZES
SIGN	TENANT SIGNAGE

Rev.	Date	Description	Iss.	Appr.
A	24/03/2021	COSTING ISSUE DA3	EC	LHC
B	30/04/2021	COORDINATION ISSUE	EC	LHC
C	21/05/2021	CLIENT REVIEW ISSUE	EC	LHC
D	07/06/2021	DA UPDATES	EC	LHC
E	20/07/2021	DA UPDATES	EC	LHC



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life&home
MORISSET

Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264

Project Number
220178

Status	
Date Plotted	20-Jul-21 08:47:00
Date Issued	20/07/2021
Scale	1:50 @A0
Scale	0 500 1000 2000 3000 4000mm

Drawing Title
MATERIALS AND FINISHES DETAILS

Drawing Number
MOR-BUC-DR-A-DA381

Revision
E

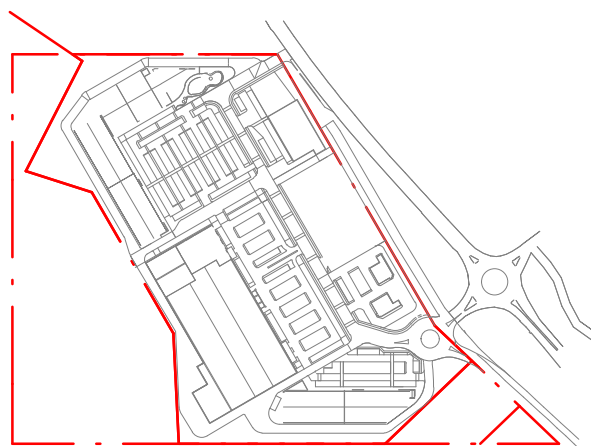
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DA ISSUE

Rev.	Date	Description	Iss.	Appr.
A	21/05/2021	CLIENT REVIEW ISSUE	EC	LHC
B	07/06/2021	DA UPDATES	EC	LHC
C	20/07/2021	DA UPDATES	EC	LHC



Keyplan

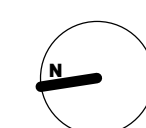
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life&home
MORISSET

Project
MORISSET SPECIALISED RETAIL
56-76 Mandalong Road, MORISSET NSW 2264

Project Number
220178

Status	Date Plotted	Date Issued	Scale
	20-Jul-21 08:50:34	20/07/2021	Not to scale



Drawing Title
3D VIEWS
Drawing Number
MOR-BUC-DR-A-DA391

Revision
C

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