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Statement of Environmental Effects

Food and Drink Premises



Lot 1, DP1146951 Boundary Road, Moama

Ref: 21057

Applicant: Lot 1 Perricoota Pty. Ltd.

Rev. 1 | March 2022

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Commercial Development Boundary Road, Moama

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1 Introduction

1.1 Overview

This Statement of Environmental Effects (SEE) has been prepared on behalf of Lot 1 Perricoota Pty. Ltd. (referred to herein as "the applicant") to accompany a Development Application for a commercial development and the associated subdivision of land at Boundary Road, Moama (Lot 1 on DP1146951).

This DA seeks approval for a **food and drink premises** to the north-west corner of the subject land – fronting Perricoota Road and Cemetery Road.



3D Render of south-east corner of proposed development

This application also seeks the parallel **subdivision of the site into two (2) new lots** – to create a dedicated lot for the proposed commercial tenancy, and a balance lot to remain vacant and ready for development, which would be subject to a separate DA process. In essence, this application is considered to be the first stage of a sequential commercial development of the site. However, this development is self-sufficient and will contain its own access, carparking, drainage and landscaping.

The site is currently accessed via Cemetery Road to the western boundary and a carriageway easement along its eastern boundary. The carriageway easement is for all intents-and-purposes, a privately-owned road that currently provides access to the existing commercial development and supermarket to the east of the site.

The subdivision also includes the creation of a new east-west carriageway easement through the site between Cemetery Road and the existing accessway, along the southern boundary of proposed lot 1.

This accessway has been designed to provide a generous width to create a "boulevard" style access, including a median strip to create a sense of openness and encourage traffic to enter the site from Cemetery Road from the west. This is considered to create a more attractive and safe access that the current arrangement from Perricoota Road to the north-east of the site – which relies on a turning lane for eastbound traffic.



The proposed works involve the construction of a fast food premises that will have general dimensions of 17.1m and 26.5m. The premises will be located on a 2,662m² lot that will include access, carpark, drive-through service and landscaping. It will be open twenty-four (24) hours, seven (7) days a week.

The proposed premises will be accessed via the local road network – through a carriageway easement along the southern boundary which connects to Cemetery Road to the west and the existing carriageway easement to the east. There will be **no** new access to Perricoota Road.

The proposed building will have a typical elevation for a commercial development, having an eave height of approximately 6.1 metres, with a mix of glass and coloured materials.

We have attached the landowner's consent order to make application for a Development Approval from Murray River Council.

1.2 Consent Authority

Murray River Council is the consent authority for the sought Development Approval.

It is mandatory to obtain a Construction Certificate under the Environmental Planning and Assessment Act 1979 ('the Act') prior to commencing building work. To this end, the applicant will appoint a private certifier for this work subsequent to the current application.

1.3 Development Classification under EP&A Act

The proposed development is considered to be **Local Development** – pursuant to the provisions of the Act.

The proposed development is not considered a Designated Development under Section 4.10 of the Act or Schedule 3 to the EP&A Act. It is also not considered to be Regionally or State Significant Development under Section 4.36 of the Act.

'Local Development' refers to development that requires Development Approval, but which is not 'State or Regionally Significant Development.' As such, the applicant is seeking development approval for 'Local Development.' This is discussed further within the subsequent sections of this report.

1.4 Scope of Statement of Environmental Effects

This Statement of Environmental Effects (SEE) has been prepared on behalf of the applicant and includes the matters referred to in Section 4.15 of the Environmental Planning and Assessment Act 1979 and the matters required to be considered by Council.

Specifically, pursuant to Section 4.2 of the Act, when considering the application, Council will have regard to:

"4.2 Development that needs consent

(1) General

If an environmental planning instrument provides that specified development may not be carried out except with development consent, a person must not carry the development out on land to which the provision applies unless:



- (a) such a consent has been obtained and is in force, and
- (b) the development is carried out in accordance with the consent and the instrument."

In this case, the proposed development is considered to be 'Development that needs Consent' under Division 4.3. The purpose of this SEE is therefore to:

- Seek Development Consent from the relevant consent authority (Murray River Council):
- Describe the land to which the DA relates and the character of the surrounding area:
- Outline the scope and intention of the proposed development;
- Define the statutory planning framework within which the DA is to be assessed and determined; and,
- Assess the proposed development in the light of all relevant heads of consideration.

2 Executive Summary

The proposal is for the use and development of land for a food and drink premises and the associated subdivision of land.

The proposal has been assessed to be in accordance with all relevant provisions of the Murray Local Environmental Plan and contributes to a net community benefit that:

- Supports an appropriate use of commercial land that provides for development in accordance with the intended character of Perricoota Road and surrounding commercial and non-commercial land.
- Incorporates the principles of best-practice urban stormwater design and ensures that any runoff will be directed to the legal point of discharge – to the satisfaction of the responsible drainage authority.
- Uses high-quality materials and urban design that will complement the established commercial uses with the vicinity of the site.
- Includes context-sensitive business identification signage that is consistent with the existing and character.
- Proposes a commercial use consistent with the intended strategic context of the site to the west of the Moama town centre.
- Will contain landscaping along the street frontages to provide an attractive urban streetscape.
- Does not create any significant adverse impacts, through noise, dust, reflectivity or otherwise.



3 Application Details

This application has been prepared by Chris Smith & Associates on behalf of **Lot 1**, **Perricoota Pty. Ltd**, as the applicant and landholder in this matter.

3.1 Subject Land

The subject land in this matter is described cadastrally as **Lot 1 on DP1146951**; the site is commonly known as Boundary Road, Moama.



Cadastre of subject site and adjoining properties overlaid on aerial of subject site

The parcel is a largely rectangular allotment with a total area of 2.013ha. Physically, the site is bounded by roads on all four sides.

However, the boundary along the eastern boundary is not legally a road – being a private road that is within a shared carriageway easement between the subject site and neighbouring property to the east. The site has approximate title dimensions (rounded to nearest metre) of:

- Northern boundary (Perricoota Road) 109m
- Eastern boundary (abutting carriageway easement) 179m
- Southern boundary (Boundary Road) 120m
- Western boundary (Cemetery Road) 136m



The current site conditions are that of a long-vacant commercially-zoned lot cleared in anticipation of development. The site is currently used as a temporary depot for the RMS development of the Echuca-Moama second bridge.

The site is generally flat, with a slight fall to the northern frontage with Perricoota Road.

The site is largely cleared; however, there is a notable patch of remnant vegetation to the south-east of the site. As there is a substantial separated distance between the focus of this DA and these trees, it is considered that these trees will be wholly unimpacted.

The site abuts sealed asphalt urban roads on all sides – typically with formed kerb and channel, with no crossovers yet constructed. A feature survey of the site has identified two (2) temporary accesses to Cemetery Road and Boundary Road – however, these will likely be discontinued once the bridge works have been completed.



Aerial Locality Plan of Perricoota Road Source: SIXMaps



3.2 Surrounding Context

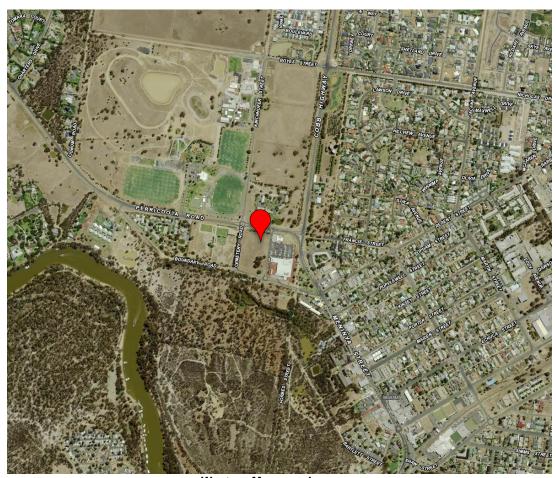
The subject land is located approximately 930m north-west of the Moama town centre and 500m north-east of the Murray River.

The surrounding area to the east of is typical of an established commercial area, comprising the main street and commercial centre of the Moama township. The Moama Woolworths supermarket is located directly east of the site, as well as an existing service station and retail strip along Meninya Street, beyond.

The currently under construction Echuca-Moama second river crossing will be constructed within the current Forbes Street road reserve and will provide a major arterial link within the Moama township – providing immediate connectivity to the Cobb Highway to the north of the town.

The land to the south is largely undeveloped – containing the Murray River corridor and its environs. Accordingly, there is substantial tracts of remnant native vegetation and flood-prone land.

The land to the north and west comprises a mix of civic uses – with the Moama cemetery directly west of the site, Jack Eddy Oval (Moama recreation reserve) and the Council offices to the north of Perricoota Road.



Western Moama urban area Subject Site marked with red pin



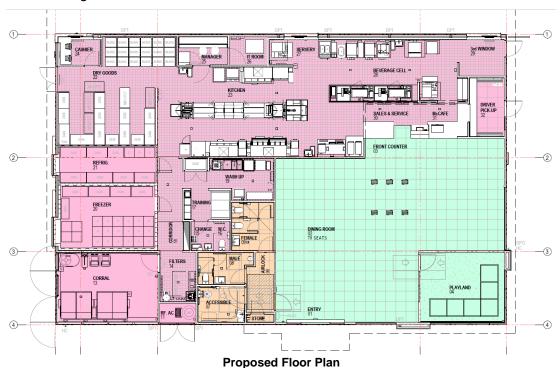
4 Proposal

The proposal includes three (3) distinct elements. The primary element is the proposed food and drink premises, but also incorporates the secondary elements of subdivision and the creation of a carriageway easement to complement the development.

4.1 Proposed Building Works

The proposed food and drink premises will have a total building footprint of approximately 452m²; with a width of 26.5 metres and a depth of 17.1 metres. The building will incorporate a mix of material colour and will be use contemporary architectural design features that are consistent with the operator's commercial branding.

The proposed **food and drink premises** will comprise three (3) distinct elements, being the "front-of-house", "back-of-house" and the "public amenities", as illustrated in the below figure:



The proposal includes **business identification signage** which is largely affixed to the proposed façade of the premises.

The exception to this is the 12m high, approximately 4.3m wide and 3.5m high pylon sign and two flag poles, that will be free-standing along the northern frontage of the site.

4.2 Proposed Carriageway

The proposal will also incorporate a 14-metre-wide carriageway easement to provide vehicular access to the proposed lot, as well as facilitating the future development of the balance of the site.

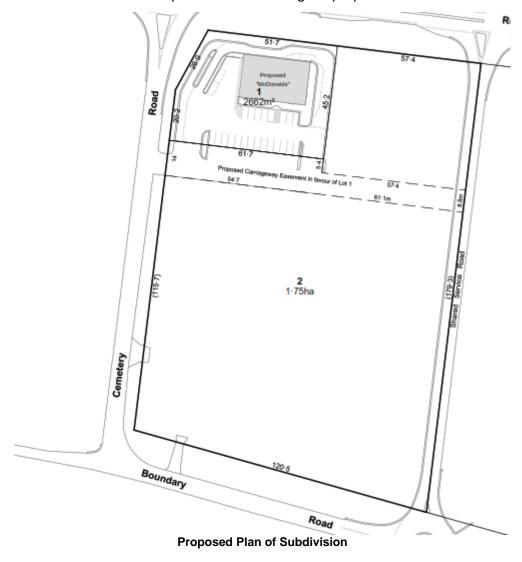


This carriageway easement will provide an 8.8-metre-wide trafficable carriageway, which include dedicated each-way traffic lanes, as well as a 2-metre-wide median strip which will be capable of providing landscaping for practical drainage, in addition to contributing to an attractive urban landscape. The western half of the easement will be 14 metres wide, that will provide for access and 90° car parking along the southern boundary of the food and drink site.

4.3 Proposed Subdivision

In addition to the abovementioned development of the subject land, this application includes the associated subdivision into two (2) new lots, configured as per the below figure.

This subdivision will create a fit-for-purpose lot that will be directly associated with the proposed development, with the second lot to be a vacant balance lot that will provide for future commercial development – once a tangible proposal is known.





4.4 Proposed Landscaping and Drainage

Landscaping

The development will incorporate landscaping along the northern and western site frontages, as illustrated in the accompanied landscaping plan prepared by Taylors Urban Developments. The proposed landscaping will include a mix of understorey shrubs, as well as some larger canopy trees that will provide an attractive streetscape and provide for a high-quality commercial development.



Extract of Proposed Landscaping Plan
Designed by Taylors Urban Developments

The landscaping will largely comprise hardy, indigenous species, with a mix of fast-growing trees to complement the understorey and ensure that there is a diversity in greenery.

The occupier will manage the landscaping throughout the course of the occupancy, under the presumed conditions that would be imposed in the sought DA, as well as the potential lease obligations as a franchisee of a major commercial fast food premises.

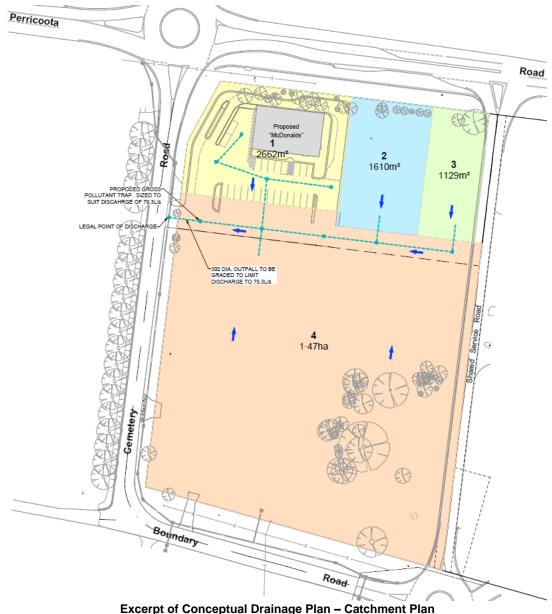
Drainage

There are existing underground drainage assets adjacent to the property in Boundary Road and Cemetery Road, with the network draining from the Perricoota Road/Cemetery Road intersection down towards the river.

The proposed outfall location for the site (legal point of discharge) is proposed as the existing stormwater pipe in Cemetery Road at the entrance to the site. It is proposed



a new pit will be constructed over the existing network to service the proposed subdivision.



Excerpt of Conceptual Drainage Plan – Catchment Plan CS&A Dwg. No 21057-CD01

A detailed assessment of existing site conditions and a summary of the proposed site infrastructure is provided as **Appendix G** – Stormwater Management Plan – prepared by CS&A's engineering department.

4.5 Development Application Trigger/s & Considerations

Under the Murray LEP, a Development Application is triggered for the proposal under the **B2 – Local Centre Zone**, for a food and drink premises – being a land use 'permitted with consent' within the B2.

Further, as the proposal includes the display of advertising signage. Clause 11 of the **State Environmental Planning Policy No 64 – Advertising and Signage** states that



"a person must not display an advertisement, except with the consent of the consent authority or except as otherwise provided by this Policy."

5 Environmental Planning & Assessment Act 1979

The proposal is subject to the provisions of the Environmental Planning & Assessment Act 1979 No. 203.

Under the Act, the consent authority is required to consider the full range of matters listed under Division 4.3, Section 4.15 of the Environmental Planning and Assessment Act 1979 in its assessment of a development application. Each of the relevant matters are addressed below:

Matters for Consideration – General

The consent authority must take into consideration:

- (a) the provisions of:
 - (i) any environmental planning instrument, and
 - (ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and
 - (iii) any development control plan, and
 - (iiia) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and
 - (iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph),

that apply to the land to which the development application relates,

- (b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,
- (c) the suitability of the site for the development,
- (d) any submissions made in accordance with this Act or the regulations,
- (e)the public interest.

Accordingly, the proposal and potential impacts are now considered – in accordance with the above provisions of Section 4.15, under the following headings:

Impacts on the Natural Environment

The proposed development is to be undertaken on a largely cleared, commercially-zoned allotment. The subject site is strategically identified as a key commercial site and is location is close proximity to the Moama town and commercial centre.

The current DA is accompanied by development plans which illustrate the scale of the development, ensuring that there will not be any detrimental off-site impacts as a result of the development.

The surrounding area contains existing urban infrastructure, which will be used to ensure that adjoining landholders and operators are not unduly impacted by the use and development of the site.



Impacts on the Built Environment

The proposed development will be a single-storey commercial development, using non-reflective, contemporary design consistent with the established character of the surrounding commercial area.

The building has incorporated designed features that are recognisable with the commercial brand and will present an interesting and active frontage to adjoining road reserves, as well as the internal access way. The proposal does not include any permitter fencing and concrete carpark will be set behind front landscaping that will contribute to an attractive commercial development.

Social and Economic Impacts

The proposed development will support the economic growth of the Murray River municipality. The subject site and the surrounding area have been designated for commercial development that will support the growth of the region's retail and commercial centre.

Specifically, the proposed use and development itself will further support the existing and growing western Moama township in a capacity as a convenience premises.

The Suitability of the Site

The subject site is a largely cleared, regularly shaped commercial lot with a total developable area in excess of 2 hectares.

The application now submitted to Council is for a commercial land use that will be fully contained within the subject land and has been designed in a site-responsive manner mindful of the context of the site (i.e. site constraints and existing servicing and public infrastructure assets in the vicinity).

Any submissions under the Act or Regulations

Any relevant representations will need to be considered by the Council in determination of the development application.

The Public Interest

The public interest is best served by the orderly and economic use of land for purposes permissible under the relevant context of the site within the Murray River LGA and in accordance with the prevailing planning controls.



6 Rural Fires Act 1997

Pursuant to the provisions of Section 100B of the Rural Fires Act 1997, subdivision triggers integrated development.

Consequently, a Bushfire Assessment Report has been prepared by Mackenzie Davey Consulting (**Appendix E**) to assess and quantify the bushfire threat at the site with respect to the current proposal, as well as consideration of potential future development for a sensitive use such as a Child Care Centre.

In considering the site and landscape features from a bushfire perspective, it was determined that:

... there is limited bushfire fuel and the lack of any steep downslope. Water for firefighting will need to be provided closer to the development than is currently available. Gas and electricity supplies will need to be provided in a way that does not increase the risk in the event of a bushfire. A Bush Fire Emergency Management and Evacuation Plan will need to be developed. Measures should be taken to prevent smoke and embers entering the restaurant in the event of a bushfire.

In considering the low risk of bushfire, it is considered that the proposed development represents an acceptable development outcome. A Condition of the sought DA could readily be imposed that would require an Emergency Management and Evacuation Plan prior to the site being occupied.

7 State Environmental Planning Policies

State Environmental Planning Policies (SEPPs) deal with issues significant to the state and people of New South Wales. The proposal is therefore considered against the relevant SEPPs in the below sections.

7.1 State Environmental Planning Policy 64 — Advertising & Signage

The proposed development proposal includes signage that will be used for the purpose of business identification, thus warrants consideration against the Advertising SEPP and its provisions, as outlined below:

"This Policy aims:

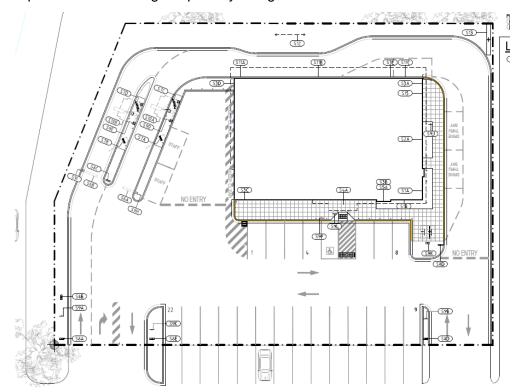
- (a) to ensure that signage (including advertising):
 - (i) is compatible with the desired amenity and visual character of an area, and
 - (ii) provides effective communication in suitable locations, and
 - (iii) is of high quality design and finish, and
- (b) to regulate signage (but not content) under Part 4 of the Act, and
- (c) to provide time-limited consents for the display of certain advertisements, and
- (d) to regulate the display of advertisements in transport corridors, and
- (e) to ensure that public benefits may be derived from advertising in and adjacent to transport corridors.

This Policy does not regulate the content of signage and does not require consent for a change in the content of signage."

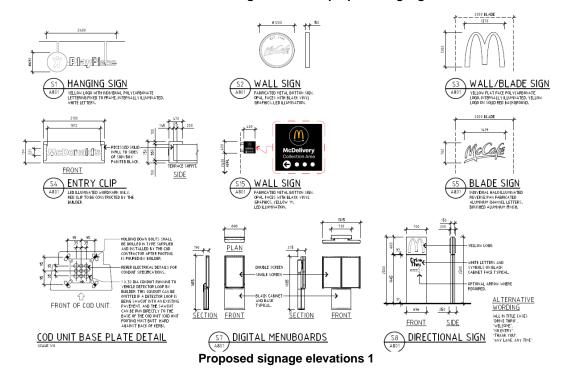
With the exception of two (2) free-standing signs (signs S12 and S13), the extent of signage included with the proposal is affixed to the façade of the proposed building. It



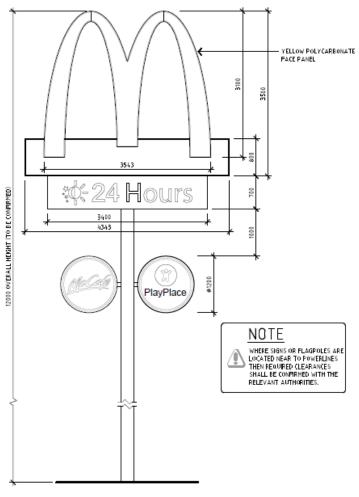
is considered that the signage is therefore incorporated into the design of the development without being the primary design feature.



Site Plan - showing locations of proposed signage







Proposed signage elevations 2

Under Clause 8 of the Signage SEPP; "a consent authority must not grant development consent to an application to display signage unless the consent authority is satisfied:

- (a) that the signage is consistent with the objectives of this Policy as set out in clause 3 (1) (a), and
- (b) that the signage the subject of the application satisfies the assessment criteria specified in Schedule 1"

Accordingly, the proposed signage is considered against Schedule 1 (Assessment criteria), which sets out eight key considerations for signage, being:

- 1 Character of the area
- 2 Special areas
- 3 Views and vistas
- 4 Streetscape, setting or landscape
- 5 Site and building
- 6 Associated devices and logos with advertisements and advertising structures
- 7 Illumination
- 8 Safety

The proposal includes two (2) free-standing signs that would be used for business identification purposes; the remaining signs would be wall-mounted to the proposed building.



The proposed signs would be typical business identification signs and are considered to be consistent with the existing and intended character for a commercial area and would be of minimal visual prominence. The majority of signage would remain below the silhouette of the proposed building, whilst the ground-level signage would be partly screened by the accompanying landscaping.

There will be some internal illumination of the signage along Perricoota Road to the north of the site; however, in considering the inherent character of this road as a major commercial arterial, any impacts are considered to be consistent with what would reasonably be expected in such a locale.

Accordingly, it is highly unlikely that there would be any undue safety or amenity impacts on the surrounding area.

7.2 State Environmental Planning Policy (Infrastructure)

The aim of this Policy is to facilitate the effective delivery of infrastructure across the State by—

- (a) improving regulatory certainty and efficiency through a consistent planning regime for infrastructure and the provision of services, and
- (b) providing greater flexibility in the location of infrastructure and service facilities, and
- (c) allowing for the efficient development, redevelopment or disposal of surplus government owned land, and
- identifying the environmental assessment category into which different types of infrastructure and services development fall (including identifying certain development of minimal environmental impact as exempt development), and
- (e) identifying matters to be considered in the assessment of development adjacent to particular types of infrastructure development, and
- (f) providing for consultation with relevant public authorities about certain development during the assessment process or prior to development commencing, and
- (g) providing opportunities for infrastructure to demonstrate good design outcomes.

The proposal triggers the need for development consent due to the traffic-generating nature of the use and the site's proximity to the Classified Road network – which is addressed further in the below sections. In considering the stated Aims of ISEPP, the DA process provides for adequate statutory oversight through the referral process.

The proposed food and drink premises provides for utilisation of existing assets and will ensure that the safe passage of vehicles within the existing urban area will not be impacted as a result of the proposal development.

Division 17 Roads and traffic

104 Traffic-generating development

Clause 104 applies to "development specified in Column 1 of the Table to Schedule 3 that involves a new premises of the relevant size or capacity".

The below table illustrates the thresholds applicable to the current proposal as a trafficgenerating development – with the proposal being a Food and Drink Premises with a floor area in excess of 300sqm.



Column 1	Column 2	Column 3
Purpose of development	Size or capacity—site with access to a road (generally)	Size or capacity—site with access to classified road or to road that connects to classified road (if access within 90m of connection, measured along alignment of connecting road)
Food and drink premises (other than take away food and drink premises with drive-through facilities)	Car parking for 200 or more motor vehicles	300m² in gross floor area

Extract of ISEPP Schedule 3

Traffic-generating development to be referred to Transport for NSW

- (3) Before determining a development application for development to which this clause applies, the consent authority must take into consideration
 - i. any submission that RMS provides in response to that notice within 21 days after the notice was given (unless, before the 21 days have passed, TfNSW advises that it will not be making a submission), and
 - ii. the accessibility of the site concerned, including
 - a. the efficiency of movement of people and freight to and from the site and the extent of multi-purpose trips, and
 - b. the potential to minimise the need for travel by car and to maximise movement of freight in containers or bulk freight by rail, and
- iii. any potential traffic safety, road congestion or parking implications of the development.

Based on the proposed food and drink premises having a gross floor area exceeding area of 300sqm, it is anticipated that referral to Traffic for NSW would be required under the above provisions of ISEPP.

However, in consideration of the proposed layout and the access to the local road network, the development will be well supported by local roads prior to connecting to the arterial network managed by TfNSW.

8 Murray Local Environmental Plan 2012

8.1 Local Centre Zone (B2)

The subject property is zoned B2 – Local Centre Zone under the provisions of the Murray LEP 2012. The below figure illustrates the subject site within the context of the LEP's zoning map.

The Local Centre Zone comprises the following objectives for development:

- "To provide a range of retail, business, entertainment and community uses that serve the needs of people who live in, work in and visit the local area.
- To encourage employment opportunities in accessible locations.
- To maximise public transport patronage and encourage walking and cycling.
- To reinforce the role of Moama as the main commercial centre in Murray."

Pursuant to the Dictionary of the Murray LEP, a 'Food and Drink Premises' is defined as: "...premises that are used for the preparation and retail sale of food or drink (or both) for immediate consumption on or off the premises."



Development associated with 'Food and Drink Premises' is listed as a land use that is 'Permitted with Consent' within the B2 zone under the Murray LEP.

The proposed use and development of land for a *Food and Drink Premises* is considered to be an expected development within the B2 Zone and falls under the umbrella of "any other development not specified in item 2 or 4".

Accordingly, the proposal is therefore supported by the Murray LEP.



Land zoning under the LEP (source: Murray LEP 2012, LZN006B)

9 Murray Development Control Plan 2012

9.1 Chapter 4 – Commercial Development

The specific objectives are:

- ... to encourage orderly and economic development within the Shire having regard to its commercial and retail needs;
- ... to accommodate the expansion of retail, commercial, professional services and community facilities for local residents in convenient locations within the Shire:
- ... to promote pedestrian movement and connectivity within commercial areas;
- ... to ensure that new commercial development is compatible with the character of the area and enhances the streetscape;



- ... to promote a variety of uses within the Moama and Mathoura town centres that increases their role as a local centres:
- ... to consolidate the retail and commercial functions of the Moama and Mathoura town centre and discourage isolated retail development.

The proposed development is considered to be a commercial development that is supported by substantial strategic justification – being earmarked for commercial infill and being in close proximity to the established Moama town centre.

The development has been designed to ensure that it interfaces with the adjacent road reserves and includes landscaping to complement the existing land uses and provide for an attractive streetscape that would encourage pedestrian traffic.

9.1.1 Location (4.1)

Objectives

- To consolidate existing town centres in Moama and Mathoura.
- To discourage isolated commercial development.
- To encourage infill development within existing town centres.
- To increase retail expenditure in the Shire by enhancing the town centres of Moama and Mathoura.

Controls

- New commercial activities are to be located within the existing commercial centres of Moama and Mathoura.
- Within Moama, the preferred location for 'shops' is in Meninya Street between Echuca and Blair Streets. Council will consider retail proposals outside of this area as inconsistent with the objectives of this clause unless it can be adequately demonstrated that compliance with such objectives is unreasonable and unnecessary under the circumstances.
- Within Mathoura, the preferred location for 'shops' is in Livingstone Street between Lawrence and Morris Streets. Council will consider retail proposals outside of this area as inconsistent with the objectives of this clause unless it can be adequately demonstrated that compliance with such objectives is unreasonable and unnecessary under the circumstances.
- Small businesses principally servicing local neighbourhoods may be located outside of the Business 2 Zone where it is demonstrated that such services are necessary and appropriate.
- Commercial activities are to be located in areas accessible to residents and visitors.

Response

The proposed development would occur on a site that represents a logical expansion and continuation of the Moama town centre.



9.1.2 Appearance and design (4.2)



South and East Elevations

Objectives

- Encourage the use of a combination of materials articulation and fenestration when designing buildings.
- A positive contribution to the existing character and streetscape of the town centres.
- Encourage and promote a consistent and attractive streetscape in terms of building bulk, height, setbacks, street furniture, signage and building designs.

Controls

- Shopfronts predominantly in glass to be provided on commercial buildings constructed to the front building line.
- Shopfronts are to be inviting and active at street level, such as use of large glazed openings and activity at street level, to ensure buildings are inviting and attractive to pedestrians and contribute to the preferred 'main street' character of Moama and Mathoura.
- Large expanse of walls along the street frontage will not be supported.
- Development is designed having regard to safety and where possible implements measure for Crime Prevention Through Environment Design.

Response

The proposed development is a contemporary design that incorporates best practice urban design.

The building incorporates extensive glass frontages for pedestrian traffic – anticipated to come from the south and east of the site. This is anticipated to encourage pedestrian traffic and provide for an active and inviting public realm.

The proposal does not include walls – except around the dedicated loading and unloading – which is a safety requirement.



9.1.3 Landscaping (4.3)

Objectives

 Landscaping is of a control that enhances the amenity of the development and commercial area

Controls

- Developments which are set back from the street frontage shall incorporate appropriate landscaping with the front setback that enhances the visual quality and character of the street.
- Car parks in excess of 10 spaces are to be provided with appropriate internal landscaping.

Response

The proposed development is suitably set back from both Perricoota Road to the north, and Cemetery Road to the west to provide for landscaping.

A formal landscaping plan has been provided in support of this application to demonstrate compliance with the controls mandated by the Murray DCP. In particular, the proposed car parking incorporates landscaping within the site layout to provide a positive urban design outcome.

9.1.4 Heritage (4.4)

Not applicable to this application. Neither the site, nor any of the surrounding land is listed for heritage preservation.

9.1.5 Signage (4.5)

Objectives

Signage does not detrimentally affect the character and amenity of the area.

Controls

- Signage to be kept to a minimum and appropriate for the type of commercial activity being undertaken.
- Signage to be of a scale in proportion of the building (i.e. must not to dominate the building facade or street frontage).
- Signage not to be a hazard for pedestrians or motorists.
- Moving and/or flashing signs are to be avoided.

Response

A response is provided against the controls outlined in the Murray DCP against the Signage SEPP.



9.1.6 Parking (4.6)

Objectives

- To match the supply of car parking with the demand likely to be generated by customers and employees.
- To ensure off-street car parking and manoeuvring areas are to a high control.
- Minimisation of the visual impact of large areas of car park.
- Buffer between car parks and adjoining property.
- Safe car parks (particularly at night).
- Pedestrian and vehicular movement through commercial areas in a functional, safe and integrated fashion.

Controls

- Surface car parking is to be located to the side or rear of the development.
- Car parking to be provided at the rate required in Chapter 5 of the NSW Roads & Maritime guide, shown in Table 4.1 below.
- Parking spaces should be designed in accordance with Australian Standard 2890.1 and 2890.2.
- Car parks adjoining public land (including a road) shall be provided with a landscape strip at the interface.
- Car parking to be accessible at all times during the business hours of the premises.
- Car parks to be designed to provide pedestrian connectivity and minimise conflicts between vehicles and pedestrians.
- Loading facilities are to be located at the rear or side of the building and not adjacent to any residential property.

Response

The proposed development provides a dining area with a seating capacity of seventy (70) seats. Pursuant to Table 4.1 of the Murray DCP, car parking must be provided at a rate of 1 space per 2 seats. Accordingly, the development requires **thirty-five (35) car spaces**.

The proposed development meets this criterion; as it provides thirty-eight (38) car spaces, including staff parking. This comprises twenty-two (22) car spaces for patrons on site, plus two (2) staff spaces – in addition to a further fourteen (14) spaces provided in the carriageway easement that adjoins he site.

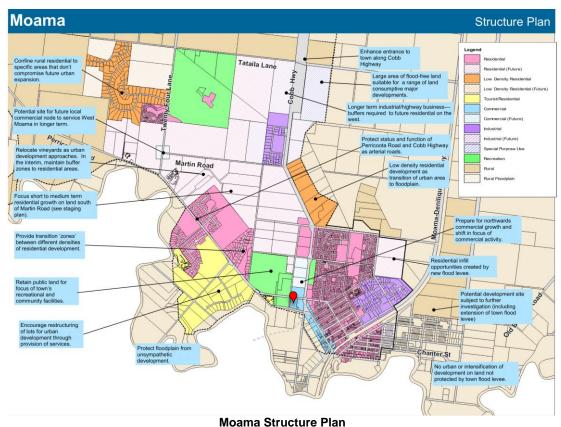


9.2 Chapter 6 – Strategic Land Use Plan

The overall purpose of the SLUP is to guide the future development and use of land within the Shire for the next 20 years and beyond. More specifically the purpose of the SLUP is to assist in:

- preparing a new Shire-wide Local Environmental Plan;
- providing the community with a degree of certainty for the location of various land uses in the future;
- maintaining in production agricultural land not required for urban expansion;
- protecting the riverine environment from use and development detrimental to it;
- separating incompatible land uses;
- reducing development speculation;
- · considering tourist development proposals; and
- discouraging development on flood prone land.

... all development proposals must be consistent with the SLUP.



Response

The subject site is identified within the SLUP for "commercial" uses. As discussed previously within this report, the proposed development is considered to provide for the logical and orderly expansion of the Moama CBD.

Subject site denoted by red pin



9.3 Chapter 7 – Subdivision

This chapter of the DCP applies to the subdivision of land. The relevant purposes of the chapter are:

- To encourage a diversity of lot sizes for residential, industrial and commercial development that is compatible with the character of an area and appropriate for the proposed use
- To provide lots with areas and dimensions which protect environmental features and take account of site constraints.
- To have regard to energy conservation principles in the orientation of lots where for residential subdivisions at least 70% of the lots will have favourable solar orientation.
- To ensure public open space, of appropriate quantity and quality, is provided to meet the recreational and social needs of the community.
- To ensure all public utilities for the development of new lots are adequately planned as part of subdivision.
- To ensure the provision of utilities and infrastructure meets minimum standards.
- To provide a road network that places a high priority upon vehicular and pedestrian connectivity, convenience and safety.

In considering the relatively minor nature of the subdivision – providing a dedicated lot ancillary to a known development proposal – it is considered that the proposed subdivision is consistent with the above objectives and development controls, as well as the applicable controls set out in:

- Chapter 7.1 (Context),
- Chapter 7.2 (Neighbourhood Character)
- Chapter 7.3 (Staging)
- Chapter 7.4 (Movement network)
- Chapter 7.5 (Activity Centres and community facilities)
- Chapter 7.6 (Public open space)
- Chapter 7.7 (Landscaping)
- Chapter 7.8 (Lot design)
- Chapter 7.9 (Infrastructure & services)
- Chapter 7.10 (Natural hazards)
- Chapter 7.11 (Site management)

There is no minimum lot size for the subject site.



CIVIL ENGINEERS

LAND SURVEYORS

URBAN & REGIONAL PLANNERS

PROJECT MANAGERS

■ Level 1, 135 Fryers Street, Shepparton, VIC, 3630

■ Ph: (03) 5820 7700

■ Fax: (03) 5822 4878

www.csmith.com.au

9 September 2021 Our Ref: 21057

Planning Department Murray River Council

Via ePlanning Portal

New Development Application – Takeaway Food and Drink Premises and Subdivision at Boundary Road, Moama

On behalf of the **Buton Pty Ltd**, as the applicant in this matter, please find the following documents attached in support of the abovementioned Development Application for a Takeaway Food and Drink Premises and the associated two (2) lot subdivision:

- Statement of Environmental Effects
 - Appendix A AHIMS Search Result
 - Appendix B Detailed Landscape Plan (by Richmon + Ross Consulting)
 - Appendix C Plan of Existing Conditions (by North East Survey)
- **Development Plans** (by *Brown Falconer Architects*)
- Plan of Proposed Subdivision (by CS&A, Dwg. 21057/02/02, Rev. 0)
- Certificate of Title
 - o Folio 1/1146951 (Lot 1 in DP1146951)
- Owner's Consent Form (signed by authorised representative)

Upon receipt of this application and confirmation of the application fee, the applicant will arrange to make payment of the fee directly to Council.

The development cost of this proposal is anticipated to be **\$1,800,000**, which we have been provided by qualified agents of the proponent.

If you require any further information in this matter, please do not hesitate to contact our office.

Yours sincerely,

Duncan LowisTown Planner

duncan.lowis@csmith.com.au Direct: (03) 5820 7728

Doc No.: 21057_L_Cou_DA Cover Letter_090921



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22 March 2022 Our Ref: 21057

Isobella Lucic
Planning Department
Murray River Council

Via ePlanning Portal

Dear Isobella,

Development Application – PAN-140586 Food and Drink Premises and Two (2) Lot Subdivision Boundary Road, Moama

In response to Council's letter requesting additional information, dated 19 October 2021, we hereby provide the requested information for Council's consideration in support of the proposed DA.

Accordingly, in addition to an **Amended Statement of Environmental Effects (CS&A Ref. 21057, Rev. 1)** prepared by our office, please find attached the following specialist reports:

- Appendix D Waste Management Plan
 - By LID Consulting (incorporating operational WMP by McDonald's)
- Appendix E Bushfire Assessment Report
 - By Mackenzie Davey Consulting (Ref. CMD 11.22)
- Appendix F Preliminary Site Investigation
 - o By Prensa (Ref. 99934M)
- Appendix G Conceptual Stormwater Drainage Plans
 - By CS&A (Ref. SWMP21057)

These appended documents provide the specialist information around environmental and operational considerations requested by Council.

In particular, the amended **Statement of Environmental Effects** has been updated to address the points listed below (including a tracked changes version – provided for Council's convenience):

• The proposal is detailed as a 'take away food and drink premises'; however, Council believe the best fit land use to be defined as a "Food and Drink Premises' as this doesn't restrict the proposal to take away only.

The SEE has now replaced all references to "'Takeaway' Food and Drink Premises" with "Food and Drink Premises" to provide clarity and flexibility on the sought use.

- It is noted the subject site is within approximately 90m of a Classified Road (Cobb Highway being a State Road) however no assessment against the State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) has been provided. It is further noted the proposed development is considered 'Traffic Generating' as per Schedule 3 Column 3 of the Table whereby the proposal is more than 300m2 in gross floor area (GFA). As you are aware, this will trigger the requirement for the application to be referred to Transport for NSW.
- <u>It is also noted given overhead powerlines traverse the front boundary of the subject site, Section 45 of the ISEPP is also triggered.</u>



Doc No.: 21057_L_Cou_Rfi Response_220222

Section 6.2 has been inserted into the SEE to provide a detailed assessment of the relevant provisions of ISEPP.

• It is noted the land is mapped as bushfire prone land, and the subdivision triggers integrated development in accordance with Section 100B of the Rural Fires Act 1997. Subsequently, a Bushfire Assessment Report is required to be provided.

Reference to the Rural Fires Act and the appended Bushfire Assessment Report by Mackenzie Davey is now provided within the relevant sections of the SEE.

Biodiversity

• It is noted from discussions held on 6 October 2021 that the landowner will subdivide the site further in future applications. Currently there is a significant amount of vegetation which screens the front boundary of the allotment as well as vegetation located at the rear of the site. Subsequently since subdivision is proposed, a Test of Significance is required to be provided in accordance with Section 7.3 of the Biodiversity Conservation Act 2016.

As per our office's discussions, we understand that given the substantial size of the vacant lot, a formal assessment of the biodiversity impacts would be appropriate once the scale of development is known, and an appropriate assessment can then be undertaken. An assessment at this stage would be speculative and would not be reflective of the likely development of the site – particular when consideration is made for the cleared area that is available on this lot.

We trust the satisfies Council's request for additional information; should you require any further information in this matter, please do not hesitate to contact our office.

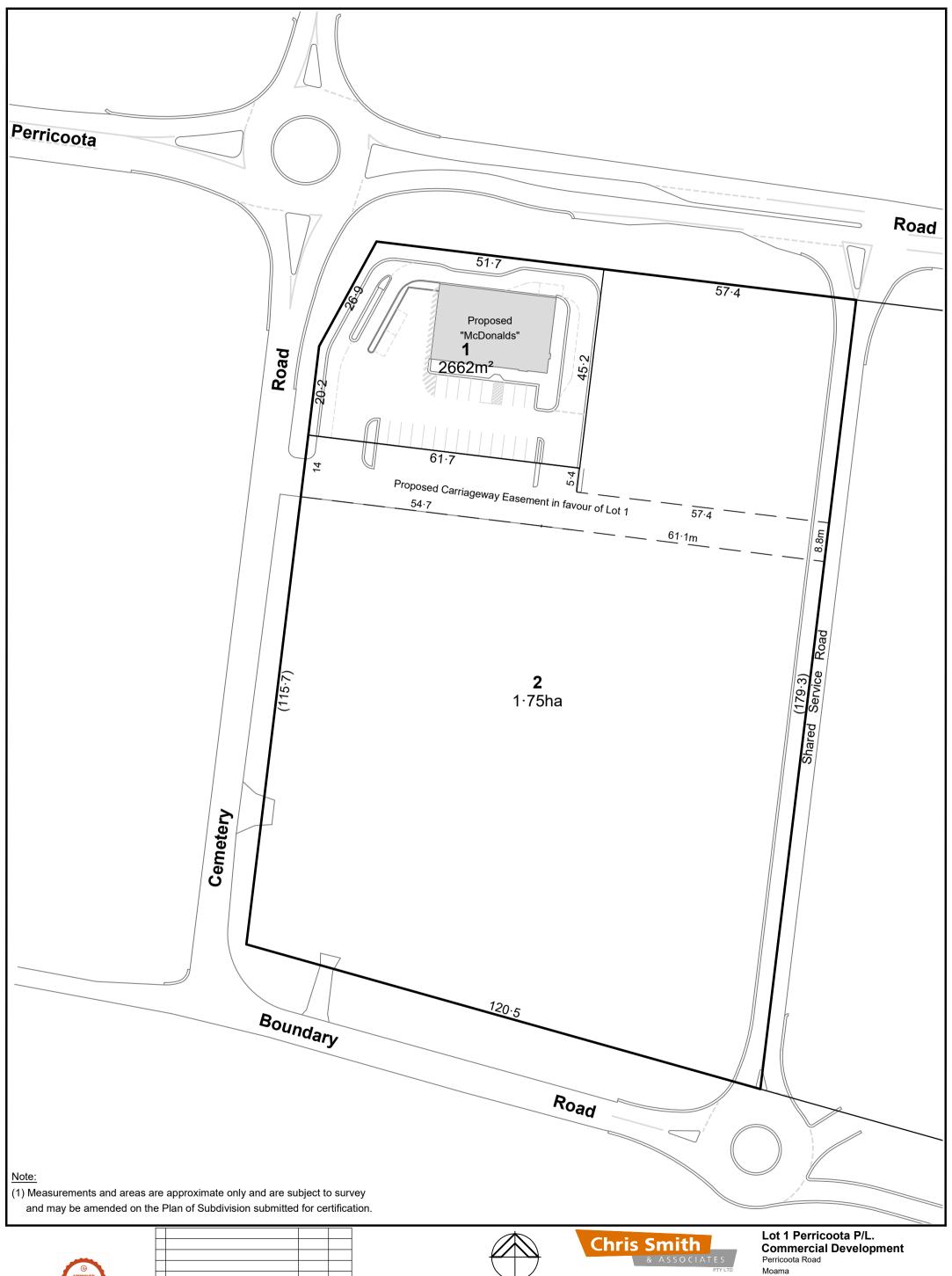
Yours sincerely,

Duncan Lowis

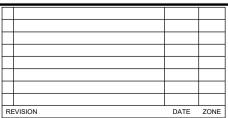
Town Planner

duncan.lowis@csmith.com.au

Direct: (03) 5820 7728













PTY LTD

· LAND SURVEYORS

· PROJECT MANAGERS Designed

Drawn Col Rogers 9th September, 2021 Checked Duncan Lowis Approved

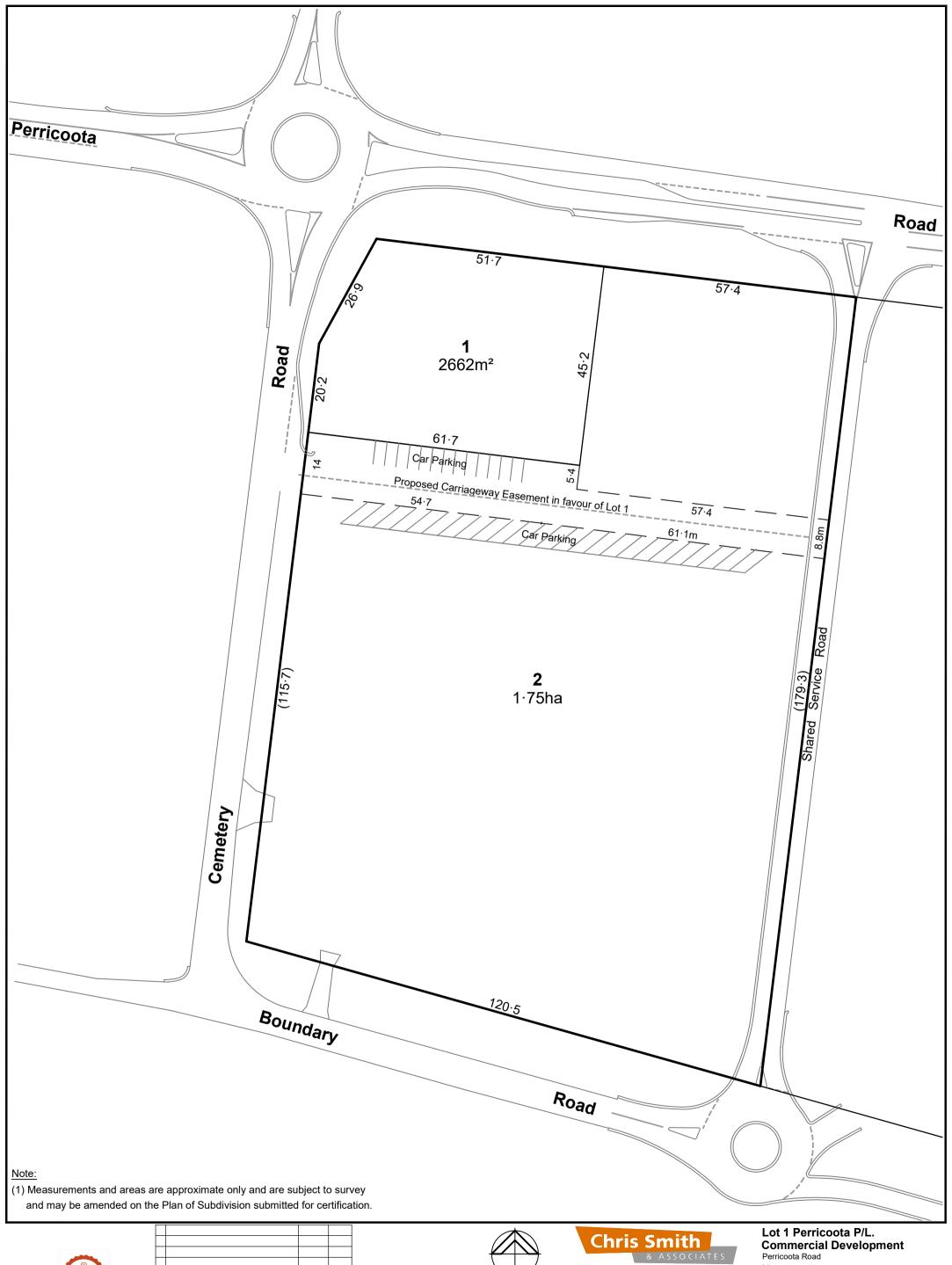
Plan of Proposed Subdivision

Drawing No. 21057/02 Sheet No. 1 of 1 2105702v0.dwg

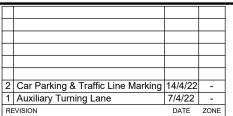
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Rev. 0













Designed					
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· URBAN & REGIONAL	PLANNERS	· PROJECT MANAGERS			
· CIVIL ENGINEERS		· LAND SURVEYORS			
		PTY LTD			

Drawn Col Rogers 9th September, 2021 Checked Duncan Lowis

Moama

Plan of Proposed Subdivision

Drawing No. 21057/02 Sheet No. 1 of 1

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Rev. 2



McDONALDS MOAMA

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Location Plan



Crosier Scott

McDONALDS MOAMA

PERRICOOTA RD MOAMA NSW 2731

COVER PAGE

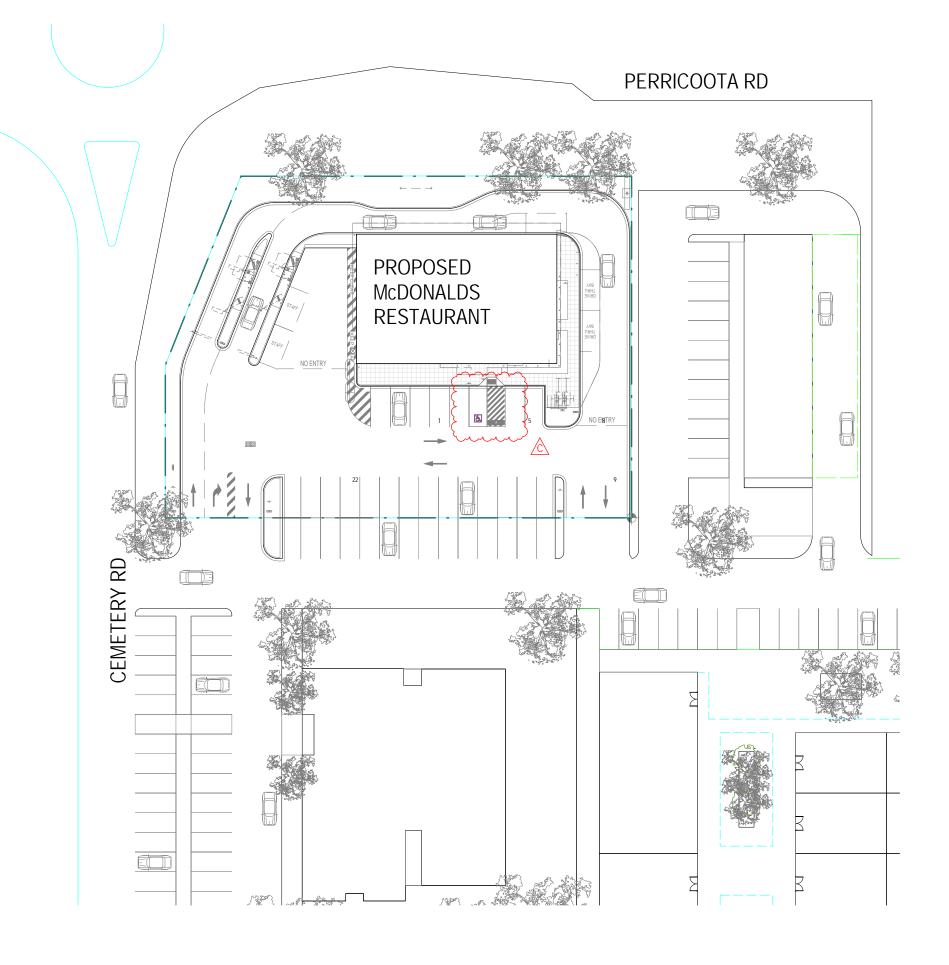
Project Number 22.027 A000.

NOTES:

- 1. TOTAL SITE AREA = 2663m²
- 2. BUILDING GFA = 450m²
- 3. PARKING: 23 TOTAL INCLUDING:
- 21 X 2600 X 5400 CAR SPACES
- 1 X 2400 X 5400 ACCESSIBLE CAR SPACE WITH
- 1 X 2400 X 5400 CLEAR ADJACENT SPACE.
- 2 X 2400 X 5400 STAFF PARKING SPACES
- 1 X 2600 X 5400 SERVERY BAY (3rd WINDOW)
- 2 X WAITING BAY(S)

LEGEND:

BOLLARD



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Crosier Scott Architects 585 Burwood Road Hawthorn VIC 3122 TEL: (03) 8862 7900 Consultants

McDONALDS MOAMA

PERRICOOTA RD MOAMA NSW 2731

As indicated @ A3 BIO MOD

OVERALL SITE PLAN 22.027 A041





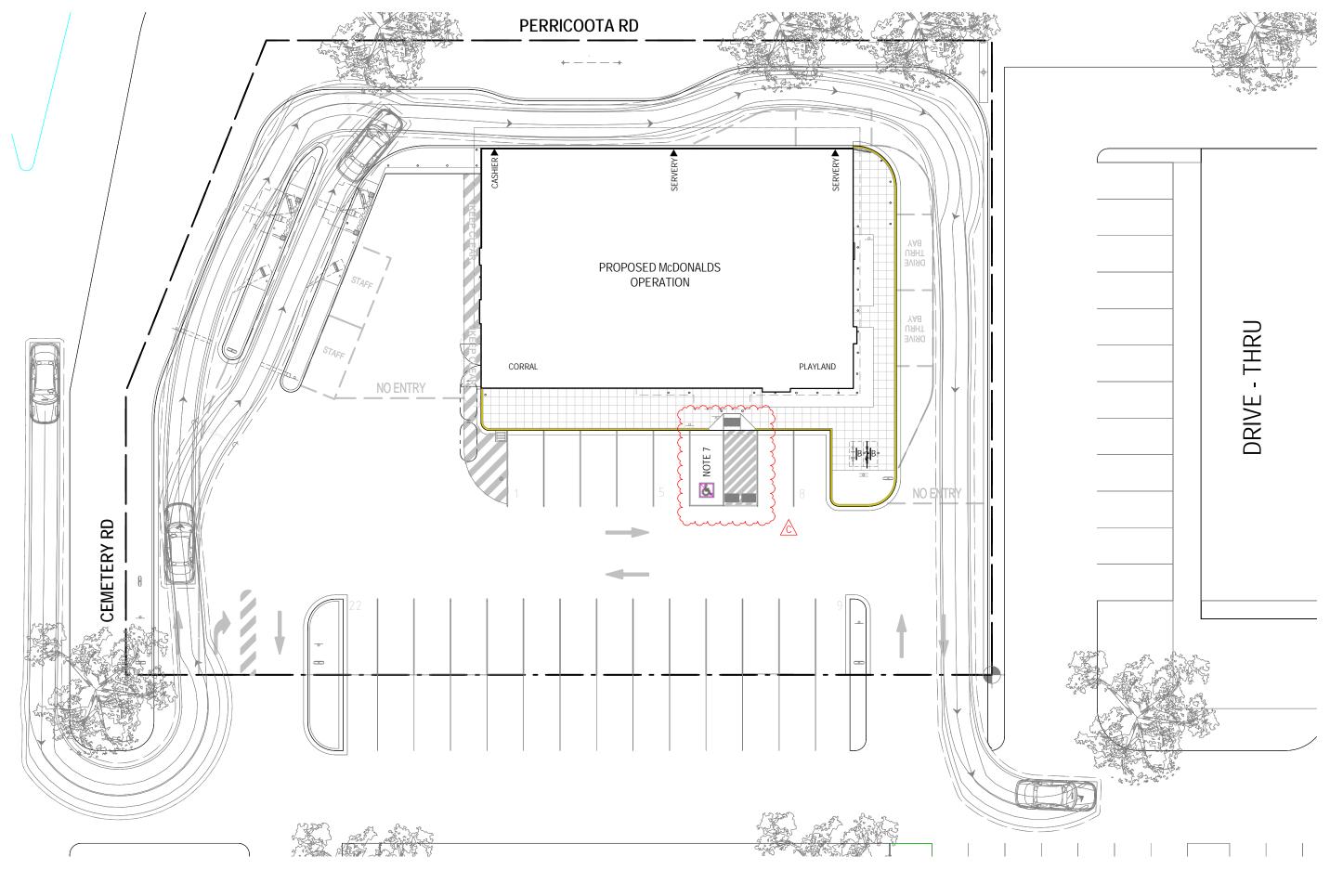
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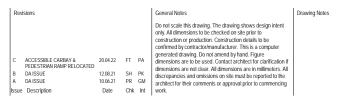
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Architect
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Consultants





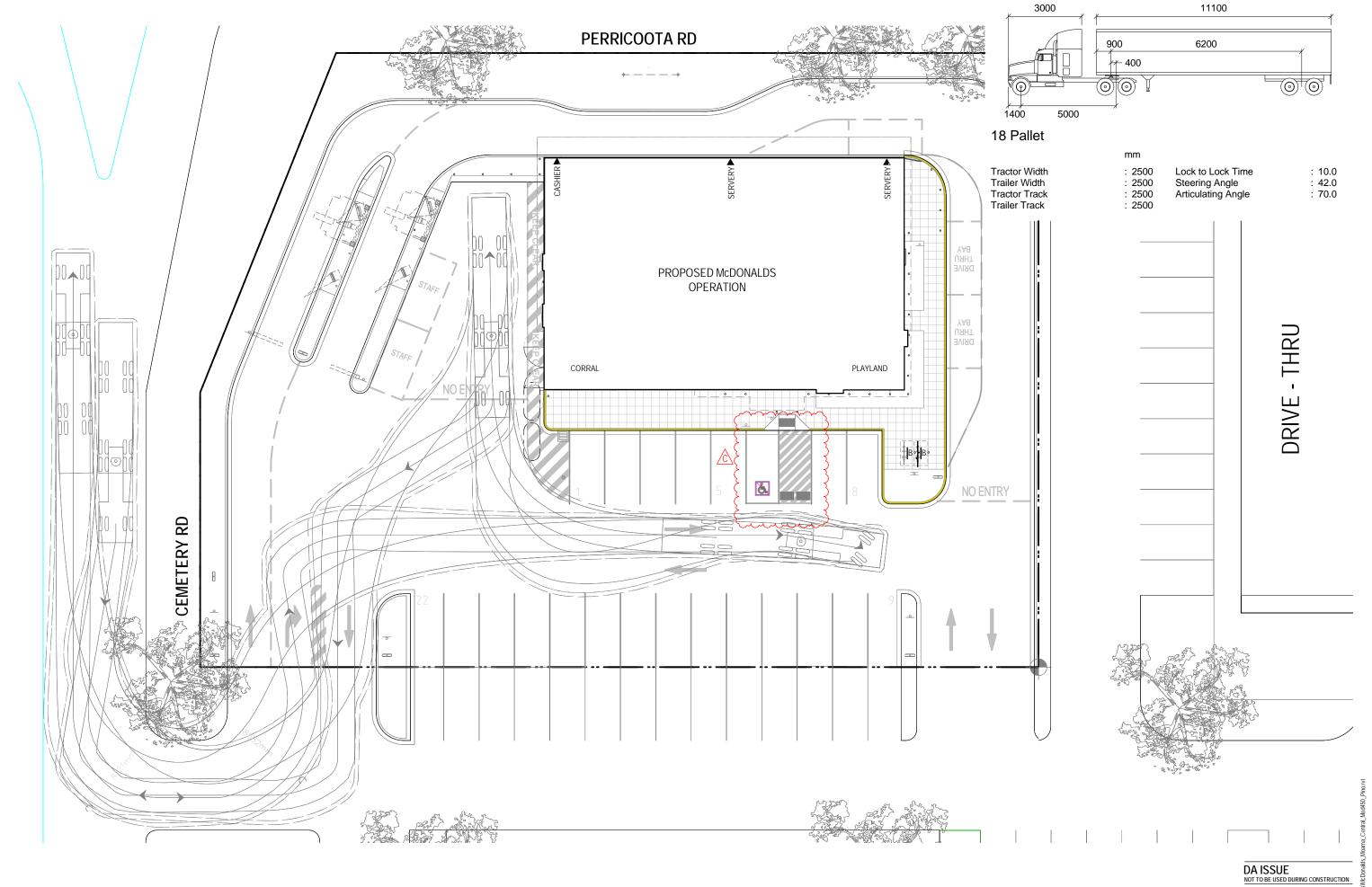




Architect Crosier Scott Architects 585 Burwood Road Hawthorn ViC 3122 ITEL: (03) 8862 7900 Consultants

McDONALDS MOAMA

DA ISSUE NOT TO BE USED DURING CONSTRUCTION 1:250 @ A3 BIO MOD CAR SWEEP PATH Location
PERRICOOTA RD
MOAMA NSW 2731 22.027 A067







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Consultants

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Location
PERRICOOTA RD
MOAMA NSW 2731

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Architect
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Consultants

Project
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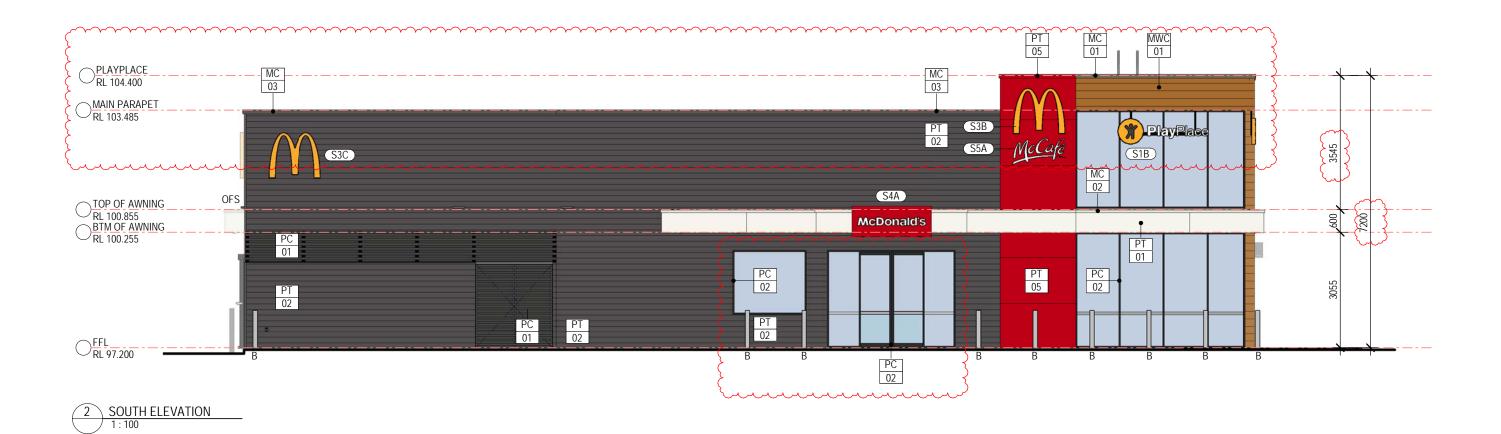
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PROPOSED FLOOR PLAN
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1 EAST ELEVATION 1:100



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Client
McDonald's Australia Limited
ABN. 43 008 496 928
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Project Manager

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Architect
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PERRICOOTA RD MOAMA NSW 2731 DA ISSUE
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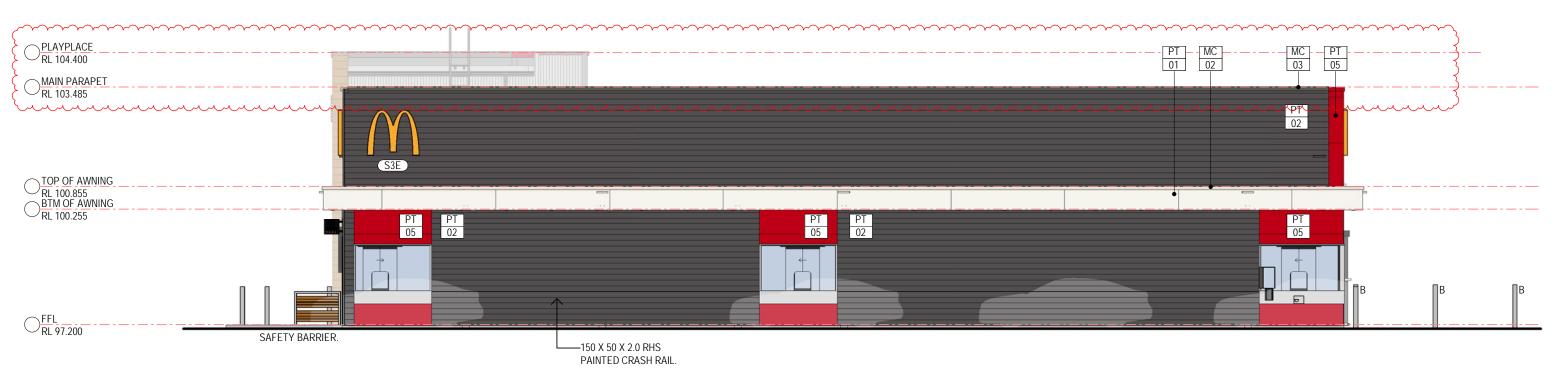
Drawing

EAST & SOUTH ELEVATIONS

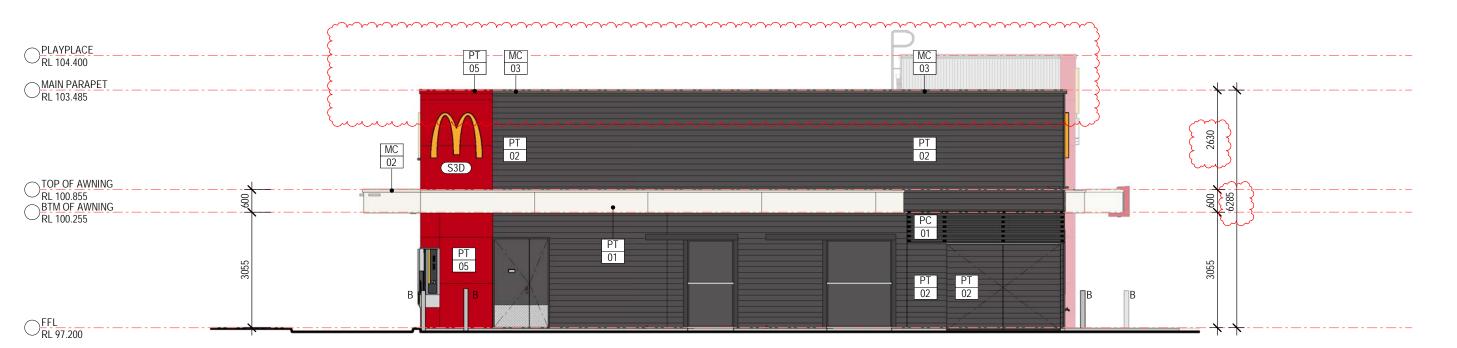
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NORTH ELEVATION 1:100



WEST ELEVATION
1:100

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Architects 585 Burwood Road Hawthorn VIC 3122
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AN	01	ALUMINIUM WINDOWS DOOR FRAMES. REFER	PREFABRICATED ALUMINIUM FRAMING DA CODE 70	CAPRAL	NATURAL FINISH CLEAR ANODISED	
Л С	01	PARAPET CAPPING	PREFINISHED METAL CAPPING / FLASHING DA CODE 60	COLORBOND	JASPER	
МС	02	PARAPET CAPPING	PREFINISHED METAL CAPPING / FLASHING DA CODE 60	COLORBOND	SURFMIST	
МС	03	PARAPET CAPPING	PREFINISHED METAL CAPPING / FLASHING DA CODE 60	COLORBOND	WOODLAND GREY	
МС	04	PARAPET CAPPING	PREFINISHED METAL CAPPING / FLASHING DA CODE 60	COCORBOND	MANOR RED	
/IWC	01	PLAYPLACE & PARAPETS	TIMBER LOOK ALUMINIUM CLADDING SYSTEM USING KNOTWOOD 200mm CLADDING PROFILE DA CODE 70	KNOTWOOD	LIGHT OAK	
MWC	02	ROOF WELL (INTERNAL PARAPET LINING)	CUSTOM ORB CORRUGATED STEEL RIVET FIXED VERTICALLY TO FRAMES DA CODE 60	LYSAGHT	ZINCALUME	
MWC	03	ROOF WELL (PLAYPLACE WALL LINING)	CUSTOM ORB CORRUGATED STEEL RIVET FIXED VERTICALLY TO FRAMES DA CODE 60	LYSAGHT	WOODLAND GREY	

CODE	No.	AREA	DESCRIPTION	MANUFACTURER	COLOUR	IMAGE
PC	01	CORRAL BATTENS & ROOF ACCESS, ELEC. ROOM DOORS	POWDERCOAT FINISH	DULUX DURALLOY DA CODE 60	MONUMENT SATIN (COLORBOND)	
PC	02	ALUMINIUM WINDOWS & DOOR FRAMES, REFER NOTE 1.	POWDERCOAT FINISH	DULUX DURALLOY DA CODE 70	BLACK SATIN (NIGHT SKY) 19268	
PT	01	FASCIAS (RIBBON)	PAINT FINISH. REFER SPECIFICATION FOR DETAILS ON PAINT TYPE APPLICATION	DA CODE 30	VIVID WHITE PW1H9	
PT	02	MAIN BUILDING WALLS	PAINT FINISH. REFER SPECIFICATION FOR DETAILS ON PAINT TYPE APPLICATION	DULUX DA CODE 60	WAYWARD GREY PG1G8	
PT	05	BLADE WALL & DRIVETHRU WINDOWS	PAINT FINISH. REFER SPECIFICATION FOR DETAILS ON PAINT TYPE APPLICATION	DA CODE 60	MCDONALDS RED RGB Value: R189 G0 B22.	
STN	01	DRIVETHRU WINDOW SILL & SURROUND	RECONSTITUTED STONE REFER TO DECOR DOCUMENTS	REFER DECOR DA CODE 20	B B	

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Location PERRICOTA RD MOAMA NSW 2731

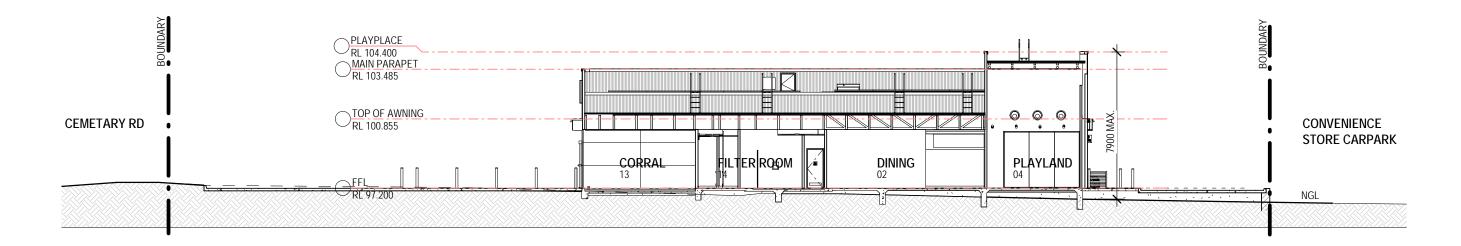
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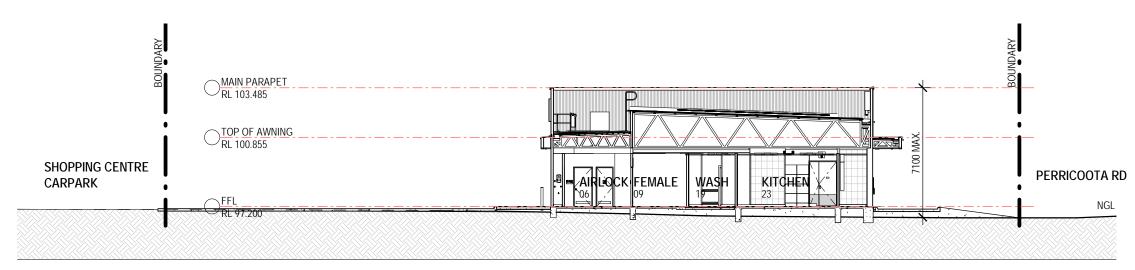
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Drawing Notes
1. FOR BUILDING ELEVATIONS REFER A201-A203



1 SITE SECTION 1 A072 1 : 200



2 SITE SECTION 2 A072 1:200

Ctient
McDonald's Australia Limited
ABN. 43 008 496 9782

20 29875 6666

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MOAMA NSW 2731

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Drawing
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Project Number Drawing Number Issue

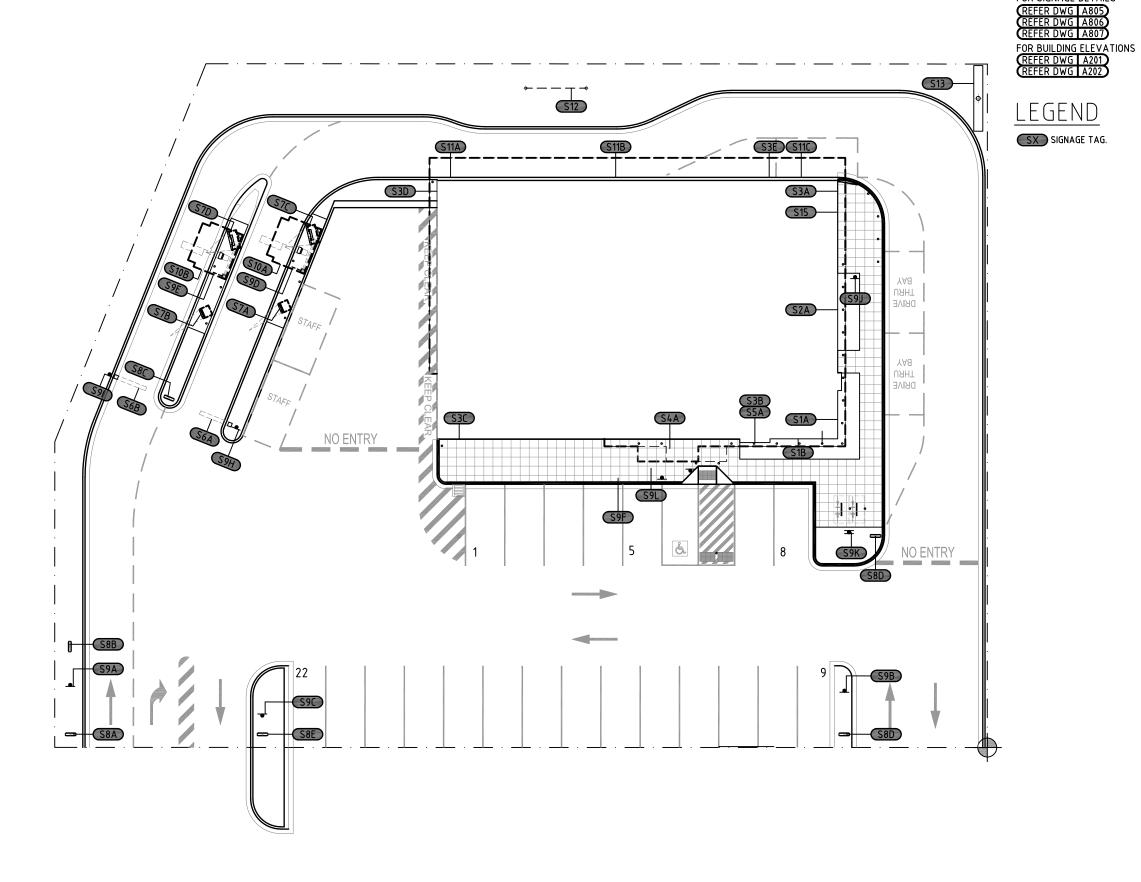
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Revisions

General Notes

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SIGN	AGE SCHEDULE	ILLUMINA	TION
TAG	DESCRIPTION		
S1A, S1B	PLAY PLACE SIGN. LOGO & LETTERING Y FIXED TO HANGING FRAME.		
S2A	WALL SIGN. Ø1200 BUTTON SI WORDING: "McCAFE" FIXED TO		
S3A, S3B, S3C, S3D, S3E	WALL SIGN. 1.371 X 1.200m HIC LOGO FIXED TO WALL/BLADE	5H "M" ·	
S4A	ENTRY CLIP. 2.100 X 0.750m H NON-ILLUMINATED FASCIA WI ILLUMINATED LETTERING: "Mc	TH LED	-
S5A	WALL SIGN. 1.420 X 0.70m HIG WORDING: "McCAFE" FIXED TO	iH.) BLADE.	
S6A, S6B	HEIGHT CLEARANCE GANTRY.		
S7A, S7B	SINGLE DIGITAL PRESELL MEN	IUBOARD	
S7C, S7D	DOUBLE DIGITAL MENUBOARD		
S8A	DIRECTIONAL SIGN. 0.7 X 2.3m DOUBLE SIDED. WORDING: "WE "WELCOME".	HIGH. ELCOME" /	
S8B	DIRECTIONAL SIGN. 0.7 X 2.3m SINGLE SIDED. WORDING: "DRI		
S8C	DIRECTIONAL SIGN. 0.7 X 2.3m SINGLE SIDED. WORDING: "DRI & "ANY LANE, ANY TIME".	HIGH. VE THRU"	
S8D, S8E	DIRECTIONAL SIGN. 0.7 X 2.3m DOUBLE SIDED. WORDING: "TH NO ENTRY".		
S9A, S9B	SHARED ZONE SIGN & SPEED (10km/hr) AS SPECIFIED.	SIGN	NO
S9C, S9D, S9E	STOP SIGN AS SPECIFIED.		
S9F	ACCESSIBLE PARKING AS SPE	CIFIED.	
S9H, S9I, S9J	NO PEDESTRIAN ACCESS SIGN SPECIFIED.	I AS	
S9K	BIKE RACK AS SPECIFIED (DOU SIDED WHERE SHOWN).	JBLE	
S9L	PEDESTRIAN WARNING SIGN A SPECIFIED.	IS	
S10A, S10B	WORDING: "1. ORDER HERE". REFER DWG. A805	<u>A</u>	
S11A, S11B, S11C	INFORMATION SIGNS WORDING: "2. PAY HERE"/"3. HERE" / "4. PICK UP HERE".	PICK UP	
S12	FLAGPOLES AND BANNER.		
S13	PYLON SIGN. 12.0m O/A HEIGH 4.343 X 3.50m HEAD.	IT	YES
S14	WARNING SIGN FOR CONFINED AS SPECIFIED. 0.45 X 0.30m. L AND NUMBER OF SIGNS SHALL BE DE THE MCDONALD'S DEVELOPMENT MAI SUIT SITE SPECIFIC REQUIREMENTS.	OCATION TERMINED BY	NO
S15	"McDELIVERY" BLADE SIGN 0.40 X 0.40m SIGNBOX FIXED	TO WALL.	YES



DA RFI DA ISSUE DA ISSUE

Do not scale this drawing. The drawing shows design intent only. All dimensions to be checked on site prior to construction or production. Construction details to be confirmed by contractormanufacture. This is a computer generated drawing. Do not amend by hand. Figure dimensions are to be used. Contact architect for claffication if dimensions are not clear. All dimensions are in illimeters. All discrepancies and contissons on site must be reported to the architect for their comments or approval prior to commencing work.

LEVEL OF ILLUMINATION (LUX LEVEL) - 24 HR OPERATION

FOR ALL WHITE/ OPAL FACED ILLUMINATED NEXT GEN SIGNAGE MCDONALDS SPECIFIES THIS NOT EXCEED 2500 LUX MEASURED AT THE SIGN FACE

FOR ALL YELLOW & RED FACED ILLUMINATED NEXT GEN SIGNAGE MCDONALDS SPECIFIES THIS NOT EXCEED 1500 LUX MEASURED AT THE SIGN FACE





Crosier Scott 585 Burwood Road Hawthorn VIC 3122 TEL: (03) 8862 7900 Consultants

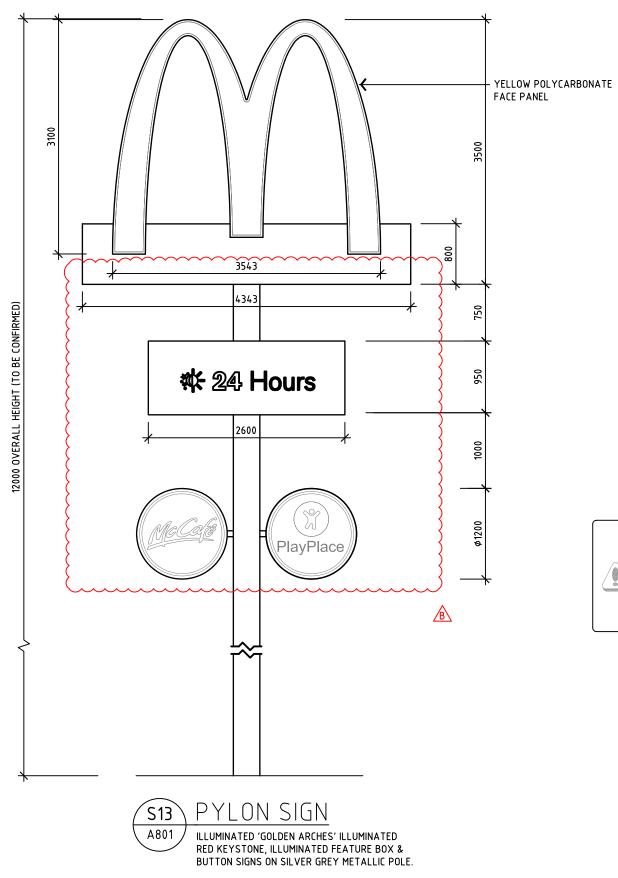
McDONALD'S MOAMA

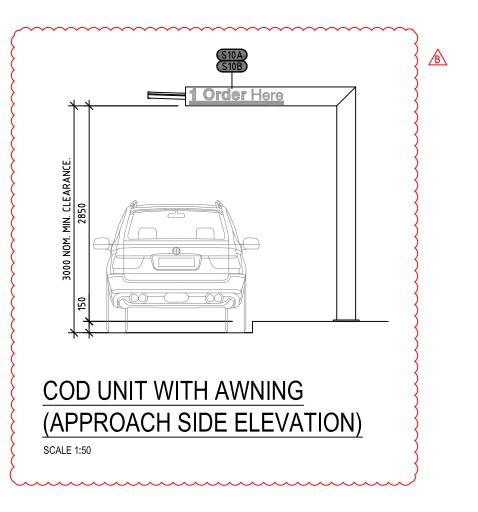
Location PERRICOTTA RD MOAMA NSW 2731

DA ISSUE

1:250 BIOMOD_425 Drawing SITE SIGNAGE PLAN

С 210034 A801





NOTE

WHERE SIGNS OR FLAGPOLES ARE LOCATED NEAR TO POWERLINES THEN REQUIRED CLEARANCES SHALL BE CONFIRMED WITH THE RELEVANT AUTHORITIES.

Crosier Scott Architects
585 Burwood Road Hawthorn
TEL: (03) 8862 7900
VIC 3122 Project McDONALD'S MOAMA

Location PERRICOTTA RD MOAMA NSW 2731

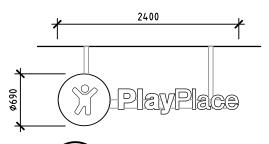
DA ISSUE 1:50 BIOMOD-425

Drawing

SIGNAGE DETAILS В 210034 A805

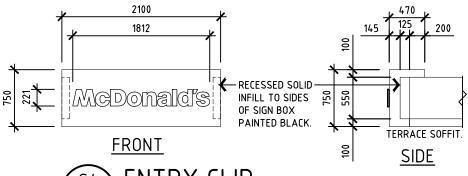
DA RFI. PYLON SIGN ALTERED 20.04.22 FT PA DA ISSUE 10.06.21 SH SC

Do not scale this drawing. The drawing shows design intent only. All dimensions to be checked on site prior to construction or production. Construction details to be confirmed by contractor/mandicturer. This is a computer generated drawing. Do not amend by hand. Figure dimensions are to be used. Contact architect for clarifaction if dimensions are to be used. Contact architect for clarifaction if dimensions are not clear. All dimensions are in millimeters. All discrepancies and omissions on site must be reported to the architect for their comments or approval prior to commencing work.



HANGING SIGN

YELLOW LOGO WITH INDIVIDUAL POLYCARBONATE LETTERING FIXED TO FRAME. INTERNALLY ILLUMINATED. WHITE LETTERS.



ENTRY CLIP

35

FRONT OF COD UNIT.

LED ILLUMINATED WORDMARK ONLY. RED CLIP TO BE CONSTRUCTED BY THE

HOLDING DOWN BOLTS SHALL

BE DRILLED IN TYPE SUPPLIED

AND INSTALLED BY THE COD CONTRACTOR AFTER FOOTING IS POURED BY BUILDER.

REFER ELECTRICAL DETAILS FOR

1 X 32 DIA CONDUIT RUNNING TO

VEHICLE DETECTOR LOOP BY

BUILDER. THIS CONDUIT CAN BE

OMITTED IF A DETECTOR LOOP IS

BEING SAWCUT INTO AN EXISTING

PAVEMENT, AND THE SAWCUT

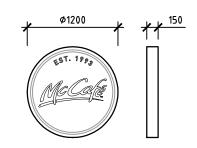
CAN BE RUN DIRECTLY TO THE

FOOTING MUST BUTT HARD

AGAINST BACK OF KERB).

BASE OF THE COD UNIT (COD UNIT

CONDUIT SPECIFICATIONS.



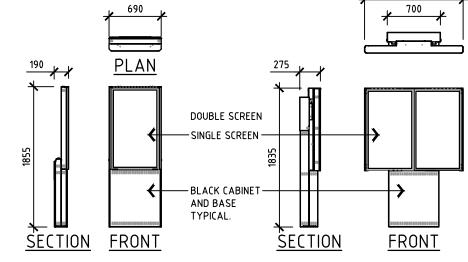
WALL SIGN A801

FABRICATED METAL BUTTON SIGN. OPAL FACES WITH BLACK VINYL GRAPHICS. LED ILLUMINATION.



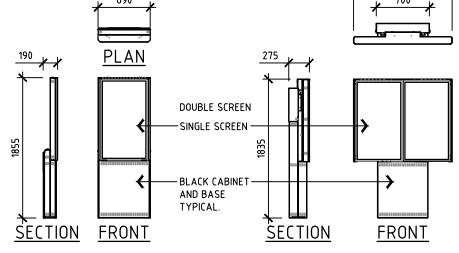
WALL SIGN

FABRICATED METAL BUTTON SIGN. OPAL FACES WITH BLACK VINYL GRAPHICS. YELLOW 'M'. LED ILLUMINATION.

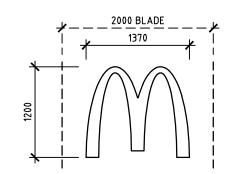


COD UNIT BASE PLATE DETAIL

A801



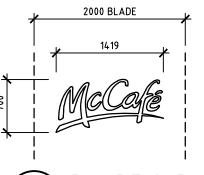
DIGITAL MENUBOARDS



A801

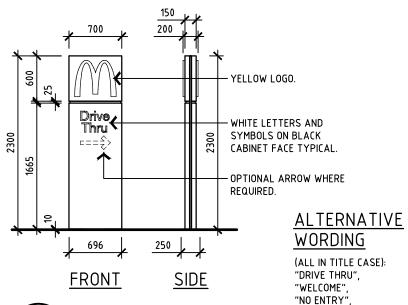
WALL/BLADE SIGN **S**3

YELLOW FLAT FACE POLYCARBONATE LOGO. INTERNALLY ILLUMINATED. YELLOW LOGO ON SOLID RED BACKGROUND.



BLADE SIGN S5

INDIVIDUAL HALO ILLUMINATED REVERSE PAN FABRICATED ALUMINIUM CHANNEL LETTERS. BRUSHED ALUMINIUM FINISH.



A801

"THANK YOU", "ANY LANE, ANY TIME"

DIRECTIONAL SIGN

DA ISSUE

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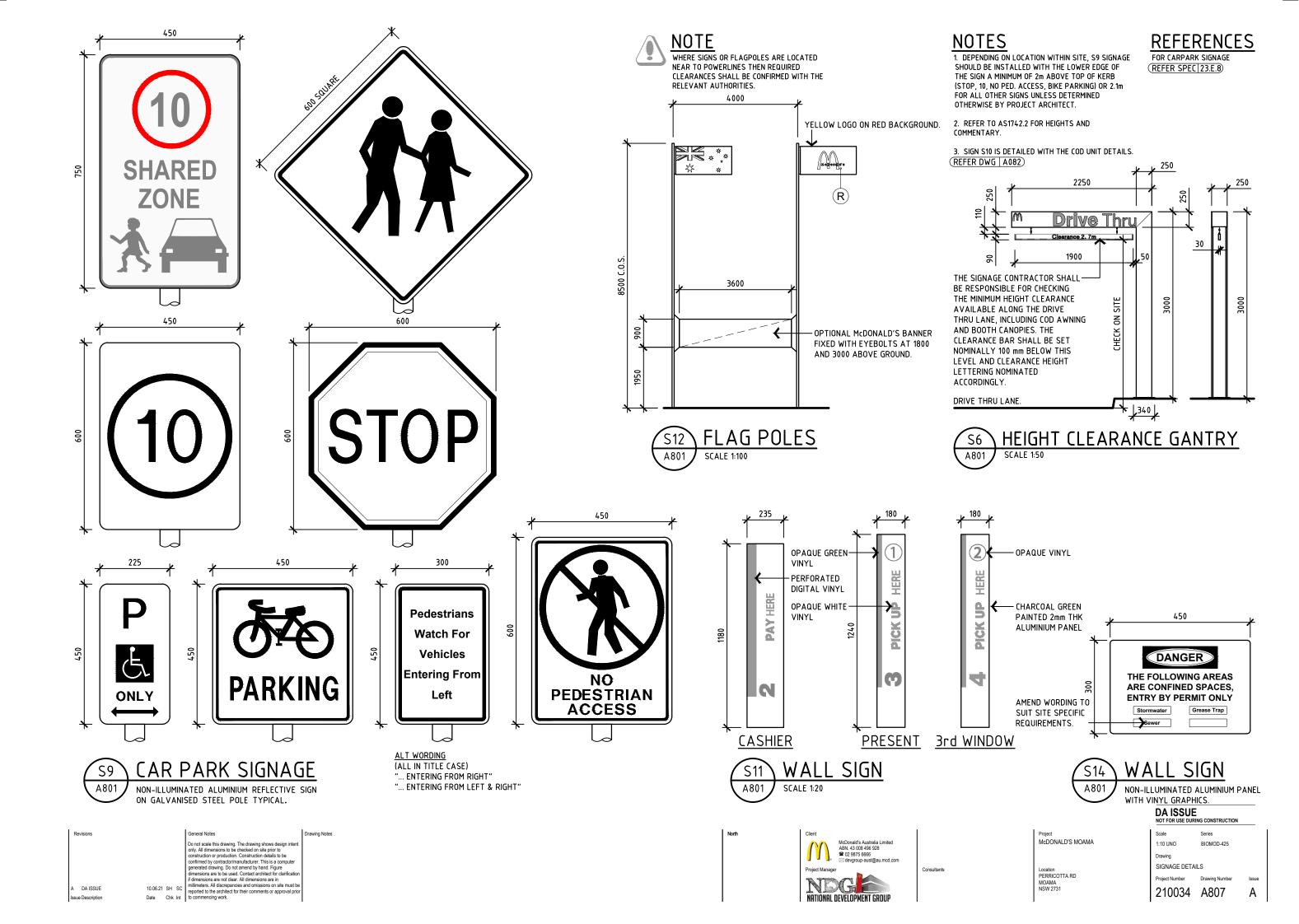
1305

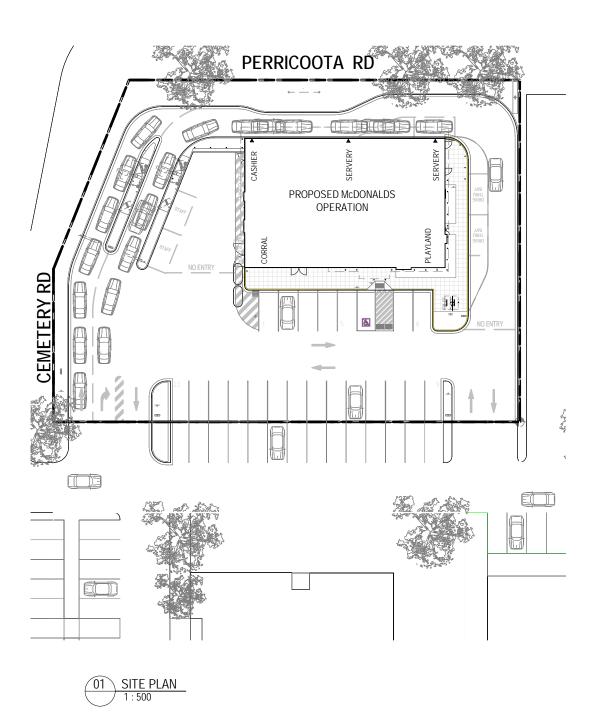
McDONALD'S MOAMA Location PERRICOTTA RD MOAMA NSW 2731

1:50 BIOMOD-425 Drawing SIGNAGE DETAILS 210034 A806

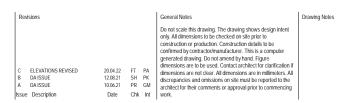
Α

DA ISSUE









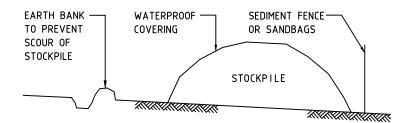
McDonald's Australia Limited ABN. 43 008 496 928 ☎ 02 9875 6666

Architect
Crosier Scott
Architects
585 Burwood Road Hawthorn ViC 3122
TEL: (03) 8862 7900
Consultants

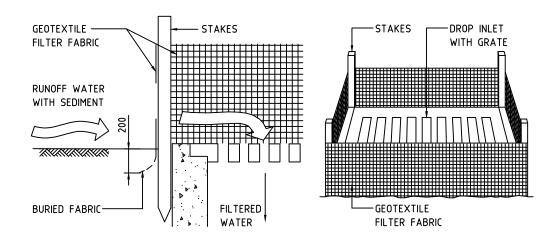
McDONALDS MOAMA

PERRICOOTA RD MOAMA NSW 2731

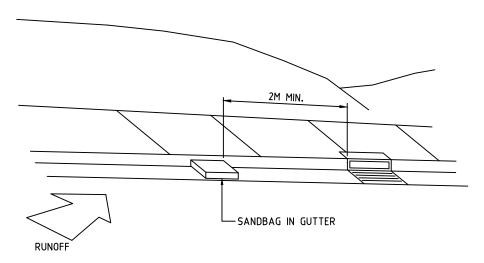
As indicated @ A3 BIO MOD Drawing NOTIFICATION PLAN 22.027 NP01 С



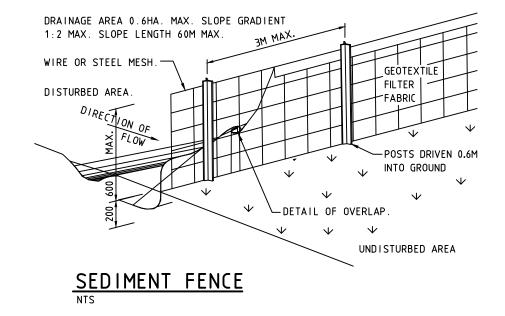
BUILDING MATERIAL STOCKPILES



SEDIMENT TRAP TO STORMWATER SUMP



GRAVELBAG KERB SEDIMENT TRAP



EROSION AND SEDIMENTATION CONTROL NOTES

1. BUILDER SHALL PROVIDE SEDIMENT FENCING MATERIAL DURING CONSTRUCTION TO THE LOW SIDE OF WORK. TIE SEDIMENT FENCING MATERIAL TO CYCLONE WIRE SECURITY FENCE, SEDIMENT CONTROL FABRIC SHALL BE AN APPROVED MATERIAL (EG: HUMES PROPEX SILT STOP) STANDING 300MIN. ABOVE GROUND AND EXTENDING 200 BELOW GROUND.

- 2. EXISTING DRAINS LOCATED WITHIN THE SITE SHALL ALSO BE ISOLATED BY SEDIMENT FENCING MATERIAL.
- 3. NO PARKING OR STOCKPILING OF MATERIALS IS PERMITTED ON THE LOWER SIDE OF THE SEDIMENT FENCE.
- 4. GRASS VERGES SHALL BE MAINTAINED AS MUCH AS PRACTICAL TO PROVIDE A BUFFER ZONE TO THE CONSTRUCTION AREA.

WASTE MANAGEMENT NOTES

1. BUILDER TO USE LOCAL WASTE MANAGEMENT RECYCLING FACILITIES AND REGISTERED LAND FILL LOCATIONS FOR EXCAVATED MATERIALS AND BUILDING WASTE MATIERIAL.

McDONALD'S MOAMA

Location PERRICOTTA RD MOAMA NSW 2731

DA ISSUE

210034

NTS REMODEL SEDIMENTATION CONTROL DETAILS

SED1

Α

confirmed by contractor/manufacturer. This is a computer generated drawing. Do not amend by hand. Figure dimensions are to be used. Contact architect for clarification if dimensions are not clear. All dimensions are in DA ISSUE

REGISTRY Title Search

Information Provided Through Feigl & Newell Pty. Ltd. Ph. 0396293011 Fax.

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 1/1146951

NO CERTIFICATE OF TITLE HAS ISSUED FOR THE CURRENT EDITION OF THIS FOLIO. CONTROL OF THE RIGHT TO DEAL IS HELD BY NATIONAL AUSTRALIA BANK LIMITED.

LAND

LOT 1 IN DEPOSITED PLAN 1146951

AT MOAMA

LOCAL GOVERNMENT AREA MURRAY RIVER PARISH OF MOAMA COUNTY OF CADELL TITLE DIAGRAM DP1146951

FIRST SCHEDULE

BUTON PTY LTD (T AF403505)

SECOND SCHEDULE (6 NOTIFICATIONS)

- 1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
- 2 DP1091697 RESTRICTION(S) ON THE USE OF LAND
 AG100396 RELEASED AS REGARDS ITEM 3.1(A) OF THE
 RESTRICTION CREATED BY DP1091697
- 3 DP1118765 RIGHT OF ACCESS 3.3 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
- 4 DP1118765 RIGHT OF ACCESS 3.3 METRE(S) WIDE APPURTENANT TO THE LAND ABOVE DESCRIBED
- 5 AF403506 MORTGAGE TO NATIONAL AUSTRALIA BANK LIMITED
- * 6 AQ556876 CAVEAT BY LOT 1 PERRICOOTA PTY LTD

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

20157

PRINTED ON 24/3/2021

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24/03/2021 Title Search Results



REGISTRY Title Search

Information Provided Through

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NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 12/1118765

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LAND

- - - -

LOT 12 IN DEPOSITED PLAN 1118765 AT MOAMA LOCAL GOVERNMENT AREA MURRAY RIVER PARISH OF MOAMA COUNTY OF CADELL TITLE DIAGRAM DP1118765

FIRST SCHEDULE

SHOPPING CENTRES AUSTRALASIA PROPERTY GROUP RE LIMITED (T AN515602)

SECOND SCHEDULE (13 NOTIFICATIONS)

- 1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
- 2 DP1091697 RESTRICTION(S) ON THE USE OF LAND WITHIN THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
- 3 DP1118765 RIGHT OF ACCESS 3.3 METRE(S) WIDE APPURTENANT TO THE LAND ABOVE DESCRIBED
- 4 DP1118765 RIGHT OF ACCESS 3.3 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
- 5 AH299451 LEASE TO WOOLWORTHS LIMITED OF PREMISES KNOWN AS "WOOLWORTHS SUPERMARKET & LIQUOR", MOAMA MARKETPLACE, CORNER OF BOUNDARY ROAD AND COBB HIGHWAY, MOAMA SHOWN HATCHED IN PLAN WITH AH299451. EXPIRES: 31/3/2035. OPTION OF RENEWAL: 10 YEARS WITH 3 FURTHER PERIODS OF 10 YEARS.
- 6 AH299452 LEASE TO WOOLWORTHS PETROL LIMITED (SEE AP146259) OF PREMISES KNOWN AS "WOOLWORTHS PETROL", CORNER OF PERRICOOTA ROAD AND COBB HIGHWAY, MOAMA SHOWN CROSSHATCHED IN PLAN WITH AH299452. EXPIRES: 31/3/2025. OPTION OF RENEWAL: 5 YEARS WITH 7 FURTHER PERIODS OF 5 YEARS.
- 7 AK281506 LEASE TO MICTER PTY LTD OF T4, MOAMA MARKETPLACE, 2
 PERRICOOTA ROAD, MOAMA. EXPIRES: 14/12/2020. OPTION OF
 RENEWAL: 5 YEARS AND TWO FURTHER OPTIONS OF 5 YEARS.
- 8 AM899219 LEASE TO WAYNE SPERLING & KATHY SPERLING OF SHOP 5, MOAMA MAKETPLACE, 2 PERRICOOTA ROAD, MOAMA. EXPIRES: 23/8/2024.
- 9 AN428678 LEASE TO ROD STONE PTY LTD OF SHOP T6, MOAMA

END OF PAGE 1 - CONTINUED OVER

20157 PRINTED ON 24/3/2021

24/03/2021 Title Search Results

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 12/1118765

PAGE 2

SECOND SCHEDULE (13 NOTIFICATIONS) (CONTINUED)

MARKETPLACE, 2 PERRICOOTA ROAD, MOAMA. EXPIRES: 8/2/2021. OPTION OF RENEWAL: 3 YEARS.

AQ790066 VARIATION OF LEASE AN428678 EXPIRY DATE NOW 8/7/2024. OPTION OF RENEWAL: RELINQUISHED.

10 AN428693 LEASE TO MOAMA HEALTH GROUP PTY LTD OF SHOP T8, MOAMA MARKETPLACE, 2 PERRICOOTA ROAD, MOAMA. EXPIRES: 3/5/2025. OPTION OF RENEWAL: 7 YEARS.

11 AN515603 MORTGAGE TO WESTPAC BANKING CORPORATION

12 AP448668 LEASE TO JILLIAN HAMIT, MARY-LOUISE MCDONALD & CLINT FLANIGAN OF SHOPS 9 & 10, MOAMA MARKETPLACE, 2 PERRICOOTA ROAD, MOAMA. EXPIRES: 1/2/2024. OPTION OF RENEWAL: 5 YEARS.

AQ544321 MORTGAGE OF LEASE AP448668 TO BENDIGO AND ADELAIDE BANK LIMITED

13 AQ807056 LEASE TO SEABERT PTY LTD OF SHOP K1, MOAMA MARKETPLACE, 2 PERRICOOTA ROAD, MOAMA. EXPIRES: 8/11/2025.

NOTATIONS

DP1220883 PLAN OF ACQUISITION (ROADS ACT, 1993)

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

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INSTRUMENT SETTING OUT TERMS OF EASEMENTS OR PROFITS À PRENDRE INTENDED TO BE CREATED OR RELEASED AND OF RESTRICTIONS ON THE USE OF LAND OR POSITIVE COVENANTS INTENDED TO BE CREATED PURSUANT TO SECTION 88B CONVEYANCING ACT 1919.

DP1118765

Plan of subdivision of lots 1 and 2 in DP 1091697 and lot 1 on DP 834746 covered by Subdivision Certificate No. 4/07 dated 14 February 2007

Full name and address of the owners of the land:

Fabcot Pty Ltd (ACN 002 960 983) I Woolworths Way BELLA VISTA NSW 2153

Perricoota 1 Pty Ltd (ACN 113 216 621) 144 Junction Road NUNAWADING VIC 3131

PART 1 (CREATION)

Number of item shown in the intention panel on the plan	Identity of easement, profit à prendre, restriction or positive covenant to be created and referred to in the plan	Burdened lot(s) or parcel(s):	Benefited lot(s), road(s), bodies or Prescribed Authorities:
1	Right of access 3.3 metres wide	Lot 11	Lot 12
2	Right of access 3.3 metres wide	Lot 12	Lot 11

Se. Mg

D1--

DP1118765

Plan of subdivision of lots 1 and 2 in DP 1091697 and lot 1 on DP 834746 covered by Subdivision Certificate No.4/07 dated 14 February 2007

PART 2 (TERMS)

1 Interpretation

1.1 Definitions

These meanings, in any form, apply unless the contrary intention appears:

Act means the Conveyancing Act 1919 (NSW).

Authorised User means every person authorised by the Grantee to enter the Easement Site.

Easement Site means the site of the easement on the Plan.

Grantee means the owner or mortgagee in possession of the Lot Benefited.

Grantor means the owner or mortgagee in possession of a Lot Burdened.

Lot 11 Owner means the owner or mortgagee in possession of Lot 11 on the Plan.

Lot 12 Owner means the owner or mortgagee in possession of Lot 12 on the Plan.

Lot Benefited means a lot benefited by an easement, positive covenant or restriction on use in this instrument.

Lot Burdened means a lot burdened by an easement, positive covenant or restriction on use in this instrument.

Plan means the plan of subdivision to which this instrument relates.

1.2 References to certain terms

Unless a contrary intention appears, a reference in this instrument to:

- (a) (reference to anything) a reference to anything is a reference to the whole or each part of it; and
- (b) (references to statute) a law, ordinance or code includes regulations and other instruments under it and consolidations, amendments, re-enactments or replacements of them; and
- (c) (singular includes plural) the singular includes the plural and vice versa; and
- (d) (meaning not limited) the words "include", "including", "for example" or "such as" are not used as, nor are they to be interpreted as, words of limitation and, when introducing an example, do not limit the meaning of the words to which the example relates to that example or examples of a similar kind.

SL.

DP1118765

Plan of subdivision of lots 1 and 2 in DP 1091697 and lot 1 on DP 834746 covered by Subdivision Certificate No. 4/07 dated 14 February 2007

1.3 Headings

Headings do not affect the interpretation of this instrument.

1.4 Positive covenants and maintenance requirements

A requirement in an easement which requires a Grantee or Grantor to maintain or repair an Easement Site or any thing in an Easement Site is a positive covenant according to section 88BA of the Act.

1.5 Notice to Owner

If a notice to the Grantor or Grantee is required to be given under this instrument, that notice must also be given to the occupier of the Lot Burdened or Lot Burdened, as the case may be. If the Grantor or Grantee is an owners corporation, the notice must be given to the strata manager and the on-site manager for the owners corporation, if any. Notice required in the case of an emergency may be given verbally.

2 Easements are covenants and agreements between Grantees and Grantor

The conditions, covenants and restrictions, in each of the easements, positive covenants and restrictions on use in this instrument are covenants and agreements between:

- (a) each Grantee for itself, its successors and every person who is entitled to an estate or interest in possession of the Lot Benefited or any part of it with which the right is capable of enjoyment; and
- (b) each Grantor for itself, its successors and every person who is entitled to an estate or interest in possession of the Lot Burdened or any part of it with which the right is capable of enjoyment

to the intent that the benefit and burden of those covenants and agreements are annexed to and pass with the benefits and burdens of the easements, positive covenants and restrictions on use.

3 Terms of right of access 3.3 metres wide numbered 1 and 2 in the Plan

3.1 Grant of easement

Subject to the conditions in this easement, the Grantor grants to the Grantee and its Authorised Users the right to enter, pass and repass to and from the Easement Site:

- (a) at all times; and
- (b) for all lawful purposes; and
- (c) by foot or by a vehicle.

Se

DP1118765

Plan of subdivision of lots 1 and 2 in DP 1091697 and lot 1 on DP 834746 covered by Subdivision Certificate No. 4/07 dated 14 February 2007

3.2 **Obligations of the Grantee**

When they exercise their rights under this easement, the Grantee must and must ensure that its Authorised Users:

- (a) cause as little inconvenience as possible to the Grantor or an Occupier of a Lot Burdened;
- (b) cause as little damage as practicable to the Lot Burdened and any improvement on it.

3.3 **Damage**

The Grantee must promptly repair any damage which they or their Authorised Users cause to the Easement Site.

3.4 No obstruction

The Grantee must not, the Grantor must not and the Grantee and the Grantor must ensue that their Authorised Users do not park or stand a motor vehicle or trailer on the Easement Site, or otherwise obstruct the passage of people and motor vehicles through the Easement Site.

3.5 Maintenance

The Lot 12 Owner is responsible for carrying out all necessary maintenance and repairs to the Easement Site, the cost of such maintenance and repairs (subject to clause 3.3) are to be at the cost of the Lot 12 Owner.



Req:R569042 /Doc:DP 1118765 B /Rev:30-Oct-2007 /NSW LRS /Pgs:ALL /Prt:24-Mar-2021 15:07 /Seq:5 of 5 Office of the Registrar-General /Src:INFOTRACK /Ref:20157

DP1118765

Plan of subdivision of lots 1 and 2 in DP 1091697 and lot 1 on DP 834746 covered by Subdivision Certificate No. 4/07 dated 14 February 2007

SIGNING PAGE

SIGNED by MARK HADRIAUS	GOO
as attorney for FABCOT PTY LTD)
under power of attorney registered)
book 4506 no. 749 in the presence of:)
/ /)

Signature of witness

STEVEN CHESHER

Name of witness (block letters)

BELLA VISTA DEN 2153

By executing this agreement the attorney states that the attorney has received no notice of revocation of the power of attorney

EXECUTED by **PERRICOOTA 1 PTY LTD** in accordance with section 127(1) of the Corporations Act 2001 (Cwlth) by authority of its director:

Signature of Shristopher James Sime who states that he is the sole director / SECRETARY

of PERRICOOTA 1 PTY LTD

EXECUTED for and on behalf of Commonwealth Bank of Australia

Signed at Sydney the 22 (4) day of 20 (7) commonwealth Bank of Australia ABN 48 123 123 124 by its duly appointed Attorney under Power of Attorney Book 4297 No 297

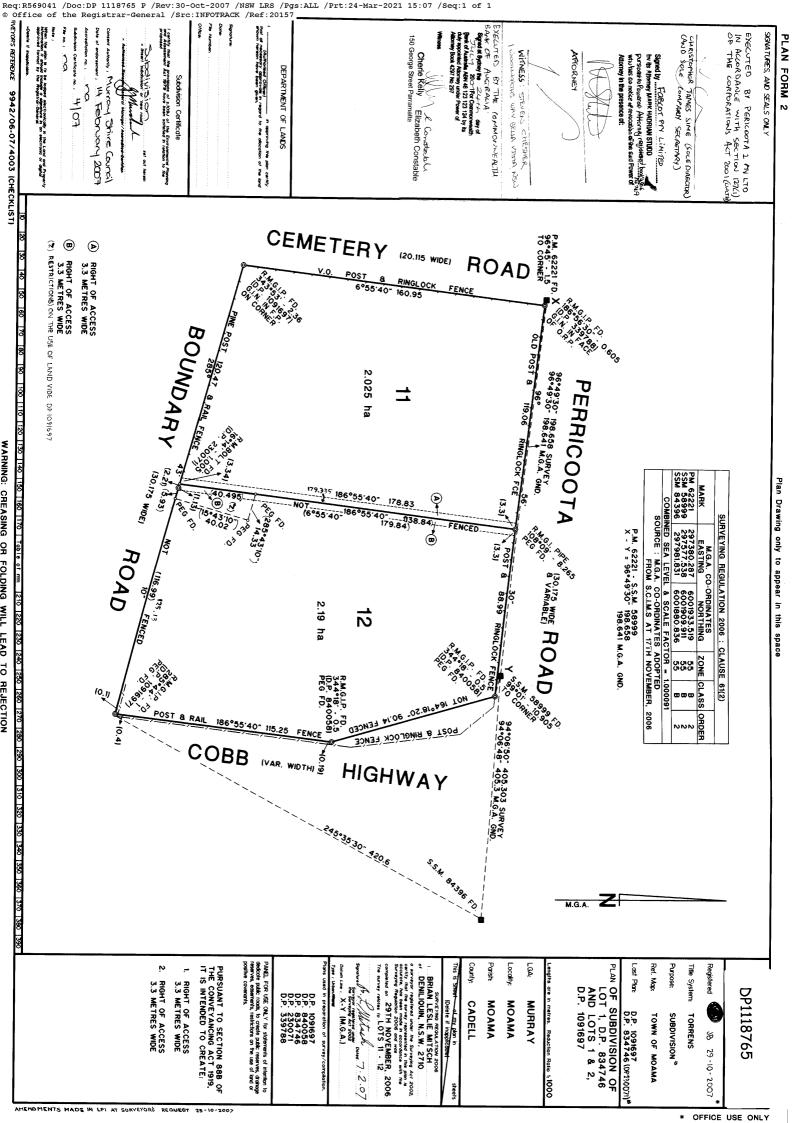
Witness

Elizabeth Constable

Cherie Kelly 150 George Street Parrametta

REGISTERED (38 29-10-2007

Se





Enquiry

Document Information Provided Through Feigl & Newell Pty. Ltd. Ph. 0396293011 Fax.

NEW SOUTH WALES LAND REGISTRY SERVICES - DOCUMENT INQUIRY

Document Number: AG100396

Document Type: RELEASE OR EXTINGUISHMENT OF RESTRICTION ON THE USE OF LAND

Document Status: REGISTERED

Document Status Date: 4/4/2011

Lodged By: 125626F VIKING LEGAL SERVICES PTY LTD

Date Lodged: 4/3/2011

Delivery Party: 519E VIKING LEGAL SERVICES PTY LTD

Lodging Party Ref: COLBUTONP/L

Lodgment Invoice: C39190W

Case: AG100396

Affected Titles: 1/1146951

*** END OF SEARCH ***



Title Search

Information Provided Through Feigl & Newell Pty. Ltd. Ph. 0396293011 Fax.

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 1/1146951

LAND

LOT 1 IN DEPOSITED PLAN 1146951
AT MOAMA
LOCAL GOVERNMENT AREA MURRAY RIVER
PARISH OF MOAMA COUNTY OF CADELL

FIRST SCHEDULE

LOT 1 PERRICOOTA PTY LTD

TITLE DIAGRAM DP1146951

(T AR629040)

SECOND SCHEDULE (5 NOTIFICATIONS)

- 1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
- 2 DP1091697 RESTRICTION(S) ON THE USE OF LAND
 AG100396 RELEASED AS REGARDS ITEM 3.1(A) OF THE
 RESTRICTION CREATED BY DP1091697
- 3 DP1118765 RIGHT OF ACCESS 3.3 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
- 4 DP1118765 RIGHT OF ACCESS 3.3 METRE(S) WIDE APPURTENANT TO THE LAND ABOVE DESCRIBED
- 5 AR629041 MORTGAGE TO MOAMA PTY LTD

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

21057

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24/03/2021 Title Search Results



REGISTRY Title Search

Information Provided Through

Feigl & Newell Pty. Ltd. Ph. 0396293011 Fax.

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 12/1118765

NO CERTIFICATE OF TITLE HAS ISSUED FOR THE CURRENT EDITION OF THIS FOLIO. CONTROL OF THE RIGHT TO DEAL IS HELD BY WESTPAC BANKING CORPORATION.

LAND

- - - -

LOT 12 IN DEPOSITED PLAN 1118765 AT MOAMA LOCAL GOVERNMENT AREA MURRAY RIVER PARISH OF MOAMA COUNTY OF CADELL TITLE DIAGRAM DP1118765

FIRST SCHEDULE

SHOPPING CENTRES AUSTRALASIA PROPERTY GROUP RE LIMITED (T AN515602)

SECOND SCHEDULE (13 NOTIFICATIONS)

- 1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
- 2 DP1091697 RESTRICTION(S) ON THE USE OF LAND WITHIN THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
- 3 DP1118765 RIGHT OF ACCESS 3.3 METRE(S) WIDE APPURTENANT TO THE LAND ABOVE DESCRIBED
- 4 DP1118765 RIGHT OF ACCESS 3.3 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
- 5 AH299451 LEASE TO WOOLWORTHS LIMITED OF PREMISES KNOWN AS "WOOLWORTHS SUPERMARKET & LIQUOR", MOAMA MARKETPLACE, CORNER OF BOUNDARY ROAD AND COBB HIGHWAY, MOAMA SHOWN HATCHED IN PLAN WITH AH299451. EXPIRES: 31/3/2035. OPTION OF RENEWAL: 10 YEARS WITH 3 FURTHER PERIODS OF 10 YEARS.
- 6 AH299452 LEASE TO WOOLWORTHS PETROL LIMITED (SEE AP146259) OF PREMISES KNOWN AS "WOOLWORTHS PETROL", CORNER OF PERRICOOTA ROAD AND COBB HIGHWAY, MOAMA SHOWN CROSSHATCHED IN PLAN WITH AH299452. EXPIRES: 31/3/2025. OPTION OF RENEWAL: 5 YEARS WITH 7 FURTHER PERIODS OF 5 YEARS.
- 7 AK281506 LEASE TO MICTER PTY LTD OF T4, MOAMA MARKETPLACE, 2
 PERRICOOTA ROAD, MOAMA. EXPIRES: 14/12/2020. OPTION OF
 RENEWAL: 5 YEARS AND TWO FURTHER OPTIONS OF 5 YEARS.
- 8 AM899219 LEASE TO WAYNE SPERLING & KATHY SPERLING OF SHOP 5, MOAMA MAKETPLACE, 2 PERRICOOTA ROAD, MOAMA. EXPIRES: 23/8/2024.
- 9 AN428678 LEASE TO ROD STONE PTY LTD OF SHOP T6, MOAMA

END OF PAGE 1 - CONTINUED OVER

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24/03/2021 Title Search Results

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

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PAGE 2

SECOND SCHEDULE (13 NOTIFICATIONS) (CONTINUED)

MARKETPLACE, 2 PERRICOOTA ROAD, MOAMA. EXPIRES: 8/2/2021. OPTION OF RENEWAL: 3 YEARS.

AQ790066 VARIATION OF LEASE AN428678 EXPIRY DATE NOW 8/7/2024. OPTION OF RENEWAL: RELINQUISHED.

10 AN428693 LEASE TO MOAMA HEALTH GROUP PTY LTD OF SHOP T8, MOAMA MARKETPLACE, 2 PERRICOOTA ROAD, MOAMA. EXPIRES: 3/5/2025. OPTION OF RENEWAL: 7 YEARS.

11 AN515603 MORTGAGE TO WESTPAC BANKING CORPORATION

12 AP448668 LEASE TO JILLIAN HAMIT, MARY-LOUISE MCDONALD & CLINT FLANIGAN OF SHOPS 9 & 10, MOAMA MARKETPLACE, 2 PERRICOOTA ROAD, MOAMA. EXPIRES: 1/2/2024. OPTION OF RENEWAL: 5 YEARS.

AQ544321 MORTGAGE OF LEASE AP448668 TO BENDIGO AND ADELAIDE BANK LIMITED

13 AQ807056 LEASE TO SEABERT PTY LTD OF SHOP K1, MOAMA MARKETPLACE, 2 PERRICOOTA ROAD, MOAMA. EXPIRES: 8/11/2025.

NOTATIONS

DP1220883 PLAN OF ACQUISITION (ROADS ACT, 1993)

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

20157

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Received: 24/03/2021 14:47:20

^{*} Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register. InfoTrack an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act 1900.

INSTRUMENT SETTING OUT TERMS OF EASEMENTS OR PROFITS À PRENDRE INTENDED TO BE CREATED OR RELEASED AND OF RESTRICTIONS ON THE USE OF LAND OR POSITIVE COVENANTS INTENDED TO BE CREATED PURSUANT TO SECTION 88B CONVEYANCING ACT 1919.

DP1118765

Plan of subdivision of lots 1 and 2 in DP 1091697 and lot 1 on DP 834746 covered by Subdivision Certificate No. 4/07 dated 14 February 2007

Full name and address of the owners of the land:

Fabcot Pty Ltd (ACN 002 960 983) I Woolworths Way BELLA VISTA NSW 2153

Perricoota 1 Pty Ltd (ACN 113 216 621) 144 Junction Road NUNAWADING VIC 3131

PART 1 (CREATION)

Number of item shown in the intention panel on the plan	Identity of easement, profit à prendre, restriction or positive covenant to be created and referred to in the plan	Burdened lot(s) or parcel(s):	Benefited lot(s), road(s), bodies or Prescribed Authorities:
1	Right of access 3.3 metres wide	Lot 11	Lot 12
2	Right of access 3.3 metres wide	Lot 12	Lot 11

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DP1118765

Plan of subdivision of lots 1 and 2 in DP 1091697 and lot 1 on DP 834746 covered by Subdivision Certificate No.4/07 dated 14 February 2007

PART 2 (TERMS)

1 Interpretation

1.1 Definitions

These meanings, in any form, apply unless the contrary intention appears:

Act means the Conveyancing Act 1919 (NSW).

Authorised User means every person authorised by the Grantee to enter the Easement Site.

Easement Site means the site of the easement on the Plan.

Grantee means the owner or mortgagee in possession of the Lot Benefited.

Grantor means the owner or mortgagee in possession of a Lot Burdened.

Lot 11 Owner means the owner or mortgagee in possession of Lot 11 on the Plan.

Lot 12 Owner means the owner or mortgagee in possession of Lot 12 on the Plan.

Lot Benefited means a lot benefited by an easement, positive covenant or restriction on use in this instrument.

Lot Burdened means a lot burdened by an easement, positive covenant or restriction on use in this instrument.

Plan means the plan of subdivision to which this instrument relates.

1.2 References to certain terms

Unless a contrary intention appears, a reference in this instrument to:

- (a) (reference to anything) a reference to anything is a reference to the whole or each part of it; and
- (b) (references to statute) a law, ordinance or code includes regulations and other instruments under it and consolidations, amendments, re-enactments or replacements of them; and
- (c) (singular includes plural) the singular includes the plural and vice versa; and
- (d) (meaning not limited) the words "include", "including", "for example" or "such as" are not used as, nor are they to be interpreted as, words of limitation and, when introducing an example, do not limit the meaning of the words to which the example relates to that example or examples of a similar kind.

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DP1118765

Plan of subdivision of lots 1 and 2 in DP 1091697 and lot 1 on DP 834746 covered by Subdivision Certificate No. 4/07 dated 14 February 2007

1.3 Headings

Headings do not affect the interpretation of this instrument.

1.4 Positive covenants and maintenance requirements

A requirement in an easement which requires a Grantee or Grantor to maintain or repair an Easement Site or any thing in an Easement Site is a positive covenant according to section 88BA of the Act.

1.5 Notice to Owner

If a notice to the Grantor or Grantee is required to be given under this instrument, that notice must also be given to the occupier of the Lot Burdened or Lot Burdened, as the case may be. If the Grantor or Grantee is an owners corporation, the notice must be given to the strata manager and the on-site manager for the owners corporation, if any. Notice required in the case of an emergency may be given verbally.

2 Easements are covenants and agreements between Grantees and Grantor

The conditions, covenants and restrictions, in each of the easements, positive covenants and restrictions on use in this instrument are covenants and agreements between:

- (a) each Grantee for itself, its successors and every person who is entitled to an estate or interest in possession of the Lot Benefited or any part of it with which the right is capable of enjoyment; and
- (b) each Grantor for itself, its successors and every person who is entitled to an estate or interest in possession of the Lot Burdened or any part of it with which the right is capable of enjoyment

to the intent that the benefit and burden of those covenants and agreements are annexed to and pass with the benefits and burdens of the easements, positive covenants and restrictions on use.

3 Terms of right of access 3.3 metres wide numbered 1 and 2 in the Plan

3.1 Grant of easement

Subject to the conditions in this easement, the Grantor grants to the Grantee and its Authorised Users the right to enter, pass and repass to and from the Easement Site:

- (a) at all times; and
- (b) for all lawful purposes; and
- (c) by foot or by a vehicle.

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DP1118765

Plan of subdivision of lots 1 and 2 in DP 1091697 and lot 1 on DP 834746 covered by Subdivision Certificate No. 4/07 dated 14 February 2007

3.2 **Obligations of the Grantee**

When they exercise their rights under this easement, the Grantee must and must ensure that its Authorised Users:

- (a) cause as little inconvenience as possible to the Grantor or an Occupier of a Lot Burdened;
- (b) cause as little damage as practicable to the Lot Burdened and any improvement on it.

3.3 **Damage**

The Grantee must promptly repair any damage which they or their Authorised Users cause to the Easement Site.

3.4 No obstruction

The Grantee must not, the Grantor must not and the Grantee and the Grantor must ensue that their Authorised Users do not park or stand a motor vehicle or trailer on the Easement Site, or otherwise obstruct the passage of people and motor vehicles through the Easement Site.

3.5 Maintenance

The Lot 12 Owner is responsible for carrying out all necessary maintenance and repairs to the Easement Site, the cost of such maintenance and repairs (subject to clause 3.3) are to be at the cost of the Lot 12 Owner.



Req:R569042 /Doc:DP 1118765 B /Rev:30-Oct-2007 /NSW LRS /Pgs:ALL /Prt:24-Mar-2021 15:07 /Seq:5 of 5 Office of the Registrar-General /Src:INFOTRACK /Ref:20157

DP1118765

Plan of subdivision of lots 1 and 2 in DP 1091697 and lot 1 on DP 834746 covered by Subdivision Certificate No. 4/07 dated 14 February 2007

SIGNING PAGE

SIGNED by MARK HADRIAUS	GOO
as attorney for FABCOT PTY LTD)
under power of attorney registered)
book 4506 no. 749 in the presence of:)
/ /)

Signature of witness

STEVEN CHESHER

Name of witness (block letters)

BELLA VISTA DEN 2153

By executing this agreement the attorney states that the attorney has received no notice of revocation of the power of attorney

EXECUTED by **PERRICOOTA 1 PTY LTD** in accordance with section 127(1) of the Corporations Act 2001 (Cwlth) by authority of its director:

Signature of Shristopher James Sime who states that he is the sole director / SECRETARY

of PERRICOOTA 1 PTY LTD

EXECUTED for and on behalf of Commonwealth Bank of Australia

Signed at Sydney the 22 (4) day of 20 (7) commonwealth Bank of Australia ABN 48 123 123 124 by its duly appointed Attorney under Power of Attorney Book 4297 No 297

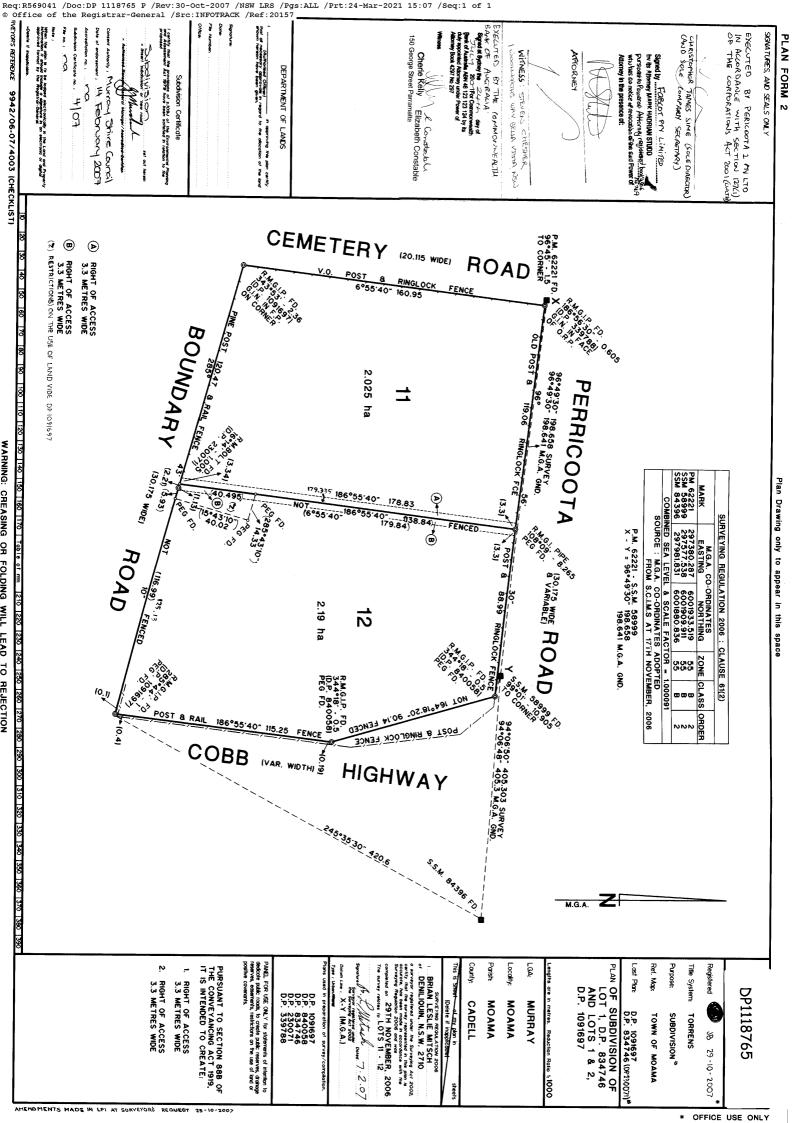
Witness

Elizabeth Constable

Cherie Kelly 150 George Street Parrametta

REGISTERED (38 29-10-2007

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Enquiry

Document Information Provided Through Feigl & Newell Pty. Ltd. Ph. 0396293011 Fax.

NEW SOUTH WALES LAND REGISTRY SERVICES - DOCUMENT INQUIRY

Document Number: AG100396

Document Type: RELEASE OR EXTINGUISHMENT OF RESTRICTION ON THE USE OF LAND

Document Status: REGISTERED

Document Status Date: 4/4/2011

Lodged By: 125626F VIKING LEGAL SERVICES PTY LTD

Date Lodged: 4/3/2011

Delivery Party: 519E VIKING LEGAL SERVICES PTY LTD

Lodging Party Ref: COLBUTONP/L

Lodgment Invoice: C39190W

Case: AG100396

Affected Titles: 1/1146951

*** END OF SEARCH ***

Your Ref/PO Number : 21057

Client Service ID: 620862

Date: 09 September 2021

Duncan Lowis

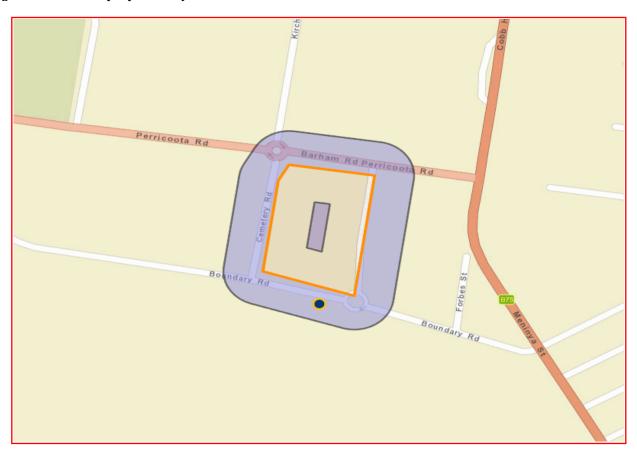
Level 1, 135 Fryers Street Shepparton Victoria 3630 Attention: Duncan Lowis

Email: duncan.lowis@csmith.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot: 1, DP:DP1146951, Section: - with a Buffer of 50 meters, conducted by Duncan Lowis on 09 September 2021.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

1	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it.
 Aboriginal places gazetted after 2001 are available on the NSW Government Gazette
 (https://www.legislation.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.

ABN 34 945 244 274

Email: ahims@environment.nsw.gov.au

Web: www.heritage.nsw.gov.au

• This search can form part of your due diligence and remains valid for 12 months.



LANDSCAPE NOTES:

IRRIGATION

If irrigation is to be installed, we recommend an automatic controller, such as Rainbird ESP or similar. Lateral lines should be PVC and HDPE combination, drip irrigation lines are to be Netafirm 'Techline' or similar, installed beneath mulch.

A qualified irrigation contractor should be engaged to design the system (including controller, valve and piping requirements) and to complete all irrigation works (trenching and conduit installation may be completed by the contractor).

Conduits to planters and garden beds are to be installed beneath paving, drainage outlet points are to be coordinated with the building storm water

Water and electrical connection points are to be coordinated with the building design and specified on the engineers drawings. Upon completion, the system is to be tested and commissioned prior to hand-over, as-built drawings and manuals to be prepared and submitted.

DRAINAGE

Drainage for the development will be integrated and connected into the building stormwater design. Proposed topping areas to be graded/drained to prevent water discharge into neighbouring properties.

PLANTING

Driveway trees to have lower limbs uplifted to maintain clear site lines and be positioned to ensure trunk is offset min. 600mm from kerb. Trees adjacent to driveway should incorporate structural soil mix within 2.0m radius under pavement.

Trees and shrubs shall be healthy nursery stock free from insects, diseases and weeds, the specified plant heights, and pot sizes are minimum. If plant material is unavailable in these sizes, larger stock must be used. Plant substitution is not acceptable.

GENERAL NOTES

This drawing is for Town Planning purposes only. Do not scale from plan - contractor to verify all dimensions on site prior to commencing construction.

The plants used have low water requirements. Native plant species selection environmental appropriateness maintenance/irrigation requirements.

Low growing shrub forms maintain sight lines and provide colour interest.

Neat architectural foliage to provide year-round green texture without ongoing maintenance (clipping, pruning) requirements.

LEGEND

Existing Street Trees to be Retained Proposed Trees
(refer to planting schedule)

Proposed Shrubs

(refer to planting schedule) Proposed Low Grasses (refer to planting schedule)

> Mulched Gardenbed (Mossrock 'Hogged Bark' or similar)

Naturestrip to be Reinstated (Hydroseeding to match existing)

Pedestrian Access (Tile Paved)

Road / Carpark (Asphalt surface) Footpath

(Concrete surface)

Property Boundary

INDICATIVE PLANTING PALETTE:









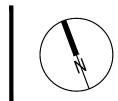


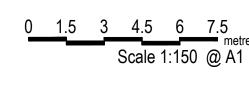


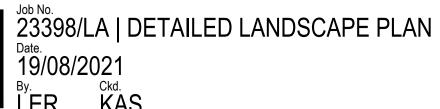


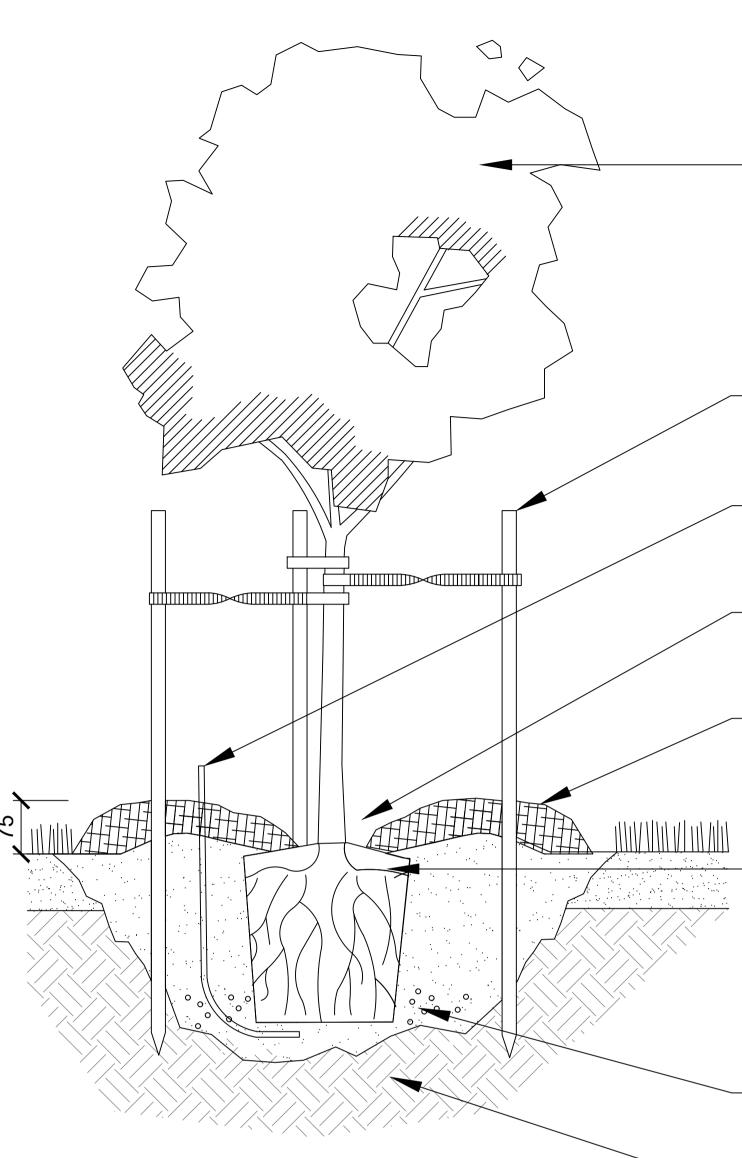
CODE	BOTANIC NAME	COMMON NAME	SIZE (MATURITY)	RECOMMEND POT SIZE	QUANTIT
TREES					
Ai	Acacia Implexa	Lightwood	8 x 4	45Lt	4
Ер	Eucalyptus polyanthemos	Red Box	14 x 6	45Lt	3
PcA	Pyrus calleryana 'Chanticleer'	Chanticleer Pear	12 x 6	45Lt	2
PcC	Pyrus calleryana 'Capital'	Capital Pear	11 x 3	45Lt	3
SHRUBS		·			
As	Acmena smithii 'Hedgemaster'	Lilly-Pilly	0.6 x 0.6	140mm	46
Ca	Callistemon 'Little John'	Bottlebrush	1.0 x 1.0	140mm	28
Wf	Westringia 'Wynyabbie Gem'	Coastal Rosemary	1.5 x 2.0	140mm	15
GRASSES	& GROUNDCOVERS				
Cm	Carpobrotus modestus	Inland Pigface	0.2 x 1.0	140mm	36
Ct	Carex testacea	Orange sedge	0.5 x 0.5	140mm	38
Dc	Dianella caerulea	Blue Flax Lily	1.0 x 1.0	140mm	38
De	Doryanthes excelsa	Gymea Lily	3.0 x 2.0	140mm	7
Dg	Dietes grandiflora	Wild Iris	1.0 x 1.0	140mm	13
Dr	Dianella revoluta	Pale-anther Flax Lily	0.5 x 0.5	140mm	239
LÍ	Lomandra longifolia	Spiny-head Mat Rush	0.7 x 0.7	140mm	44
Pl	Poa labillardierei	Tussock Grass	1.0 x 0.8	140mm	33
Sc	Santolina chamaecyparissus	Lavender Cotton	0.5 x 1.0	140mm	17
Yf	Yucca filamentosa	Adam's needle	1.2 x 1.0	140mm	6











-All trees to be healthy specimens free of pests and diseases. Trees to be well watered a maximum of 24 hours prior to planting.

-Tree Stakes and Ties: No.3 25 x 25 x 1800mm hardwood stakes with flexible rubber or canvas in figure '8' configuration.

- -Plave 65/90mm diameter AG-pipe into plant hole prior to planting to extend 25mm only above finished mulch level.
- Saucer-shaped bowl formed to hold at least 4 litres of water.
- -75mm depth of approved shredded pinewood mulch to a minimum of 1000mm diameter from centre of tree and beyond the edge of the planting hole, overlapping undisturbed soil

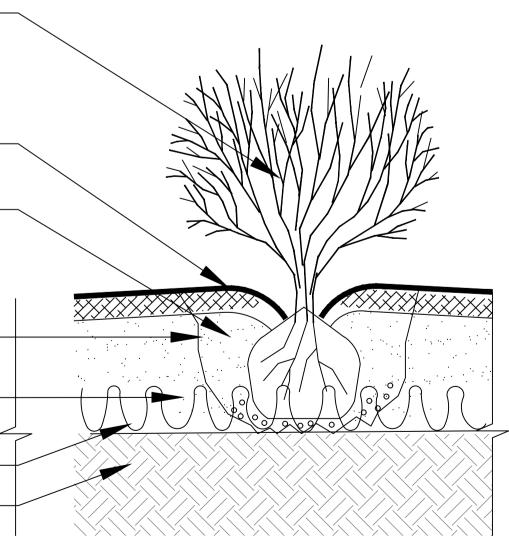
-Excavated a shallow planting hole with sloping sides 3 times the width of the root ball and break-up sides and base. Refirm base. Top of rootball must be at the same height as surrounding level. Backfill with 50/50 blend imported topsoil, firming progressively.

-100gm of osmocote slow release fertiliser or similar. Add water storing granules according to manufacturer's instructions. Existing subgrade

Α L02

TYPICAL TREE PLANTING DETAIL (ADVANCED STOCK)

Shrubs to be healthy-disease free specimens. Typical shrub from 150 - 300mm diameter pots. Water plants in their pots the day of planting and remove plant from pot 75mm depth approved shredded pinewood mulch.— Mulch to be feathered away from stems Over-excavate hole by at least 3 times pot width.— Ensure sides of hole are roughened. Backfill with imported topsoil. Water each plant immediately after planting and regularly during establishment period. 150mm layer of imported good quality,free draining topsoil. Spread Osmocote slow release fertiliser or similar-@ 25gm / 150mm pot, 50gm / 300mm pot 🜙 150mm layer cultivated site soil— Existing subgrade-



LER

TYPICAL SHRUB PLANTING DETAIL

L02

not to scale

not to scale

23398/LA | DETAILED LANDSCAPE PLAN Date. 19/08/2021

MAINTENANCE NOTES

The Landscape maintenance period is to be a minimum **24 months** duration from Practical Completion and continue until Hand Over to Council.

Maintenance shall be comprised of the following works to ensure continuous healthy growth of all vegetation and ensure the site is maintained in a tidy fashion for the duration of the Maintenance Period:

Initial establishment (first 3 months);

- minimum weekly site visits

Consolidation period (3-6 months);

- minimum weekly site visits during warmer months
- minimum fortnightly site visits during cooler months

Ongoing period (6-24 months);

- minimum fortnightly site visits

Maintenance Works

Commencement: Immediately following Practical Completion Maintenance Period Duration: 24 months (104 weeks)

Actions to be undertaken: All vegetation planted as part of the program of works will be regularly maintained to ensure ongoing health and establishment of the works, including:

- watering,
- weeding,
- rubbish removal,
- fertilising,
- pest and disease control,
- re-staking and tying,
- replanting,
- mulching, and
- pruning

This work will be undertaken by the landscape contractor appointed by the developer. The work is to be undertaken on a minimum basis outlined above and as required to ensure successful establishment as per the contract specifications.

The developer will be responsible for the costs associated with the Maintenance Period until handed over to Council.

Maintenance Specification

Maintain the landscape works intensely for a period of 13 weeks to ensure healthy establishment (weekly visits) followed by regular ongoing maintenance for a minimum duration of 24 months following the date of the issue of the Certificate of Practical Completion by the Superintendent. Any defects shall be rectified immediately. Maintenance shall include the care of the works by accepted horticultural practices, as well as rectifying any defects that become apparent in the works under normal use. This shall include, but shall not be limited to, the following items where and as required:

WATERING, FERTILIZING, CULTIVATION, TOP DRESSING, RENOVATING. WEEDING. PESTS AND DISEASE CONTROL STAKING MAINTENANCE, REPLACEMENT OF PLANT MATERIALS, REPLANTING. PRUNING. RE-MULCHING. MOWING OF GRASS. KEEPING THE SITE NEAT AND TIDY.

Any soil subsidence or erosion which may occur after the soil filling and preparation operations shall be made good.

All newly planted areas shall be protected from casual pedestrian traffic as specified herein. Protective fences, where required, shall be removed following successful establishment of the works.

All mulched surfaces shall be kept in a clean and tidy condition and be reinstated or topped up where necessary.

Defects liability: The whole of the works shall be upheld against any defects due to faulty and / or inferior quality materials and / or workmanship as per the requirements of the Head Contract.

Practical completion of planting: Practical completion of the planting works includes, but is not limited to the replacement of plants which have failed, been damaged or been stolen during the works.

Program: Furnish a proposed planting maintenance program, and amend it as required. Comply with the amended program.

Log book: Keep a log book recording when and what maintenance work has been done and what materials, including toxic materials, have been used. Make the log book available for inspection on request.

Existing planting and grass: Where existing planting or grass is within the landscape contract area, maintain it as for the corresponding classifications of new grassland or planting.

Recurrent works: Throughout the maintenance period, continue to carry out recurrent works of a maintenance nature including, but not limited to, watering, mowing, weeding, rubbish removal, fertilising, pest and disease control, reseeding, returfing, staking and tying, replanting, cultivating, pruning, hedge clipping, aerating, renovating, top dressing, weekly mowing of grass and keeping the site neat and tidy.

Replacements: Continue to replace failed, damaged or stolen plants. If failed due to incorrect/insufficient establishment or maintenance or technique, or neglect, no additional cost for replacement may be claimed.

It is the Contractor's responsibility to demonstrate plants have been stolen/vandalised.

Mulched surfaces: Maintain the surface in a clean and tidy condition and reinstate the mulch as necessary.

Grassed areas: Carry out grass mowing throughout the contract period only as required to maintain the site in a neat, healthy condition

Insecticide Spraying: Spray against insect and fungus infestation as required, and if considered necessary by the Superintendent.

All spraying shall be carried out in accordance with the manufacturer's directions.

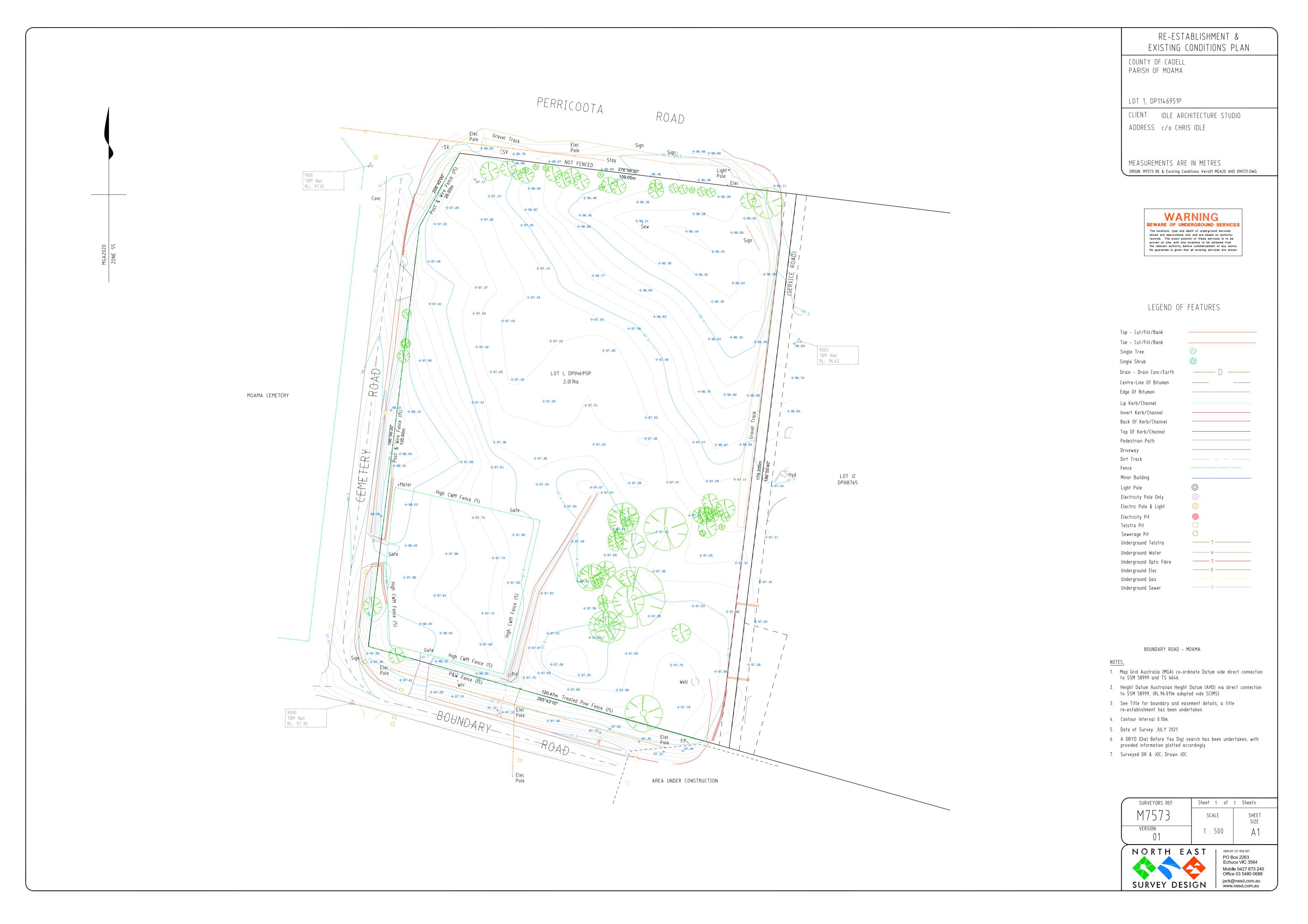
Report any occurrence of insect attack or evidence of disease amongst the plant material. The Superintendent shall be notified prior to spraying work being carried out.

Watering: All planting and garden beds are to be watered regularly to ensure continuous healthy growth. The minimum requirement shall be consistent with the natural rainfall of the site location. New planting shall receive regular and frequent deep soakings to ensure establishment and healthy growth. Watering method and technique shall accord with current water restrictions. Monitor water requirements and water adequately to ensure active growth, especially during warmer months.

Garden Areas: Garden beds shall be maintained in a weed free state. Any use of spot spraying or other form of weeding shall be undertaken so as not to damage plants planted as art of the contract. Any planting planted as part of the contract which is damaged by the contractor shall be replaced at the contractor's expense.

The Contractor shall mow the grass areas at a suitable height as instructed so as to maintain healthy growth and a neat appearance. The mowing frequency may be subject to change as approved by the Superintendent due to weather and other circumstances. Other maintenance activities for grassing such as weeding, reseeding, and rolling etc. shall be priced separately and approved by the Superintendent. If approved, grass areas to be weeded shall be sprayed with approved selective herbicide against broadleaf weeds in accordance with the manufacturer's directions.

Expiry: On expiry of the **104 week** Maintenance Period, a site inspection shall be arranged between the Superintendent or Landscape Architect and the Landscape Contractor and Council. On approval of the works, and rectification of any defects, the Maintenance Period shall be deemed completed. A final Completion Certificate will then be issued and the site handed over to Council



Low Impact Development Consulting

Recycling & Waste Management Plan – demolition, construction and in-operation

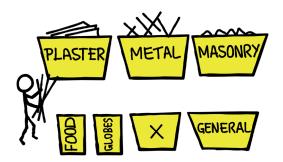
Commercial Development

Boundary Rd / Perricoota Road, Moama (Lot 1 on DP1146951)

Prepared for: Chris Smith & Associates

Prepared by: JR - Low Impact Development Consulting

Date: 1/12/2021

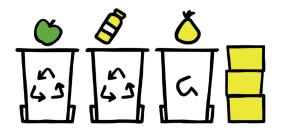


e: info@lidconsulting.com.au

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w: www.lidconsulting.com.au



Version	Date	Description	Prepared by	Checked by
1.0	1/12/2021	WM Issue	JR	СН

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Commercial waste calculations are based on rates provided by government organisations and adopted and used as an industry standard. Bin numbers and spatial requirements have been calculated in accordance with these guidelines. The end user requirements may vary from this depending on the business use, type and operational practice.

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LID acknowledges and pays respect to the Australian Aboriginal and Torres Strait Islander people, to their ancestors and elders, past, present and emerging, as the traditional custodians of the lands upon which we work and live. We recognise Aboriginal and Torres Strait Islander people's deep cultural and spiritual relationships to the water, land and sea, and their rich contribution to society.

1 Waste Summary

1.1 Operational Waste Summary

A private collection service is proposed to collect the following bins at the indicated frequency. The bins will be collected from within the bin store area and returned to the bin store area by the contractor.

Commercial Waste	Private Collection Service – within the bin store area		
Waste stream	No. of bins/tanks and capacity	Collection frequency	
Paper and Cardboard	1 x 3 m ³	Weekly	
Landfill	1 x 3 m ³	Weekly	
Used Cooking Oil	1 x 100 L	Weekly	
Sanitary and disposable nappy waste	Container Removal and Replacement Service	As often as required	
Grease trap waste	1 x 100 L	4 times weekly	
Green Garden waste	N/A	By garden contractor	

The approved Waste Management Plan (WMP) will be the model to be adopted for this development. Detailed design and as-built installation must incorporate the design proposed and approved under this WMP. Any revisions of the WMP or changes to the approved waste system of the development may require Council approval and may require a re-submitted Waste Management Plan. More detail is contained within this report.

1.2 Demolition & Construction waste summary

There is no existing development on site and demolition waste relates mainly to vegetation removal and excavation.

Regarding construction stage, the following materials will be recycled/disposed in Moama Waste Disposal Depot (see services and fees on Appendix 6):

- Concrete
- Metal
- Plastic
- Paper and Cardboard
- Glass
- Paint
- Timber

1.3 Recycling & Waste Management Plan

Low Impact Development (LID) Consulting was engaged by Chris Smith & Associates to assess the proposed development at Boundary Road / Perricoota Road, Moama (Lot 1 on DP1146951) to provide a Waste Management Plan (as required by Murray River Council's Statutory Planning).

A waste management analysis has been undertaken based on the following documents:

- NSW EPA Better Practice Guide for Resource Recovery in Residential Developments 2019 (includes commercial rates).
- Murray River Council's Return of Development Application PAN-140586 dated 19 October
- AS 2601 2001 Demolition of Structures, published by Standards Australia
- Code for the Control & Regulation of Noise on Building Sites NSW
- Environment Protection Authority Guidelines for Removal of Lead Paint & Asbestos
- Waste Avoidance and Resource Recovery Act 2001
- Contaminated Land Management Act 1997
- Refrigerant Handling Code of Practice 2007 (AIRAH/IRHACE)
- NSW Waste Avoidance and Resource Recovery Strategy 2014 2021

This report is based on the drawing sets:

A000 -A205, Revision A, dated 10th June 2021 prepared by Richmond + Ross

1.4 Waste Context

In 2016-17, the Australian economy generated or imported 68.9 megatonnes of waste, of which the largest contributors were:

- Construction (20.4 megatonnes, 29.6%)
- Households (13.8 megatonnes, 20.0%)
- Electricity, gas, water and waste services generation (12.7 megatonnes, 18.4%)
- Manufacturing (10.8 megatonnes, 15.6%).

The intent of demolition and construction and operational waste management plans is to assist in reducing this.

1.5 Development Outline

Site Address: Boundary Road / Perricoota Road, Moama (Lot 1 on DP1146951)

Applicant: Chris Smith & Associates

Type: Commercial Building

Key Project 1. Moama McDonald's Waste Management Report (Appendix 7) **Documents:**

2. Drawings A101- A205 dated 10/6/2021 prepared by Richmond +

Ross

Existing Buildings and other structures:

 The subject site it is relatively flat with minimal vegetation and without existing developments.



Brief description of proposal:

The proposed development comprises of a commercial building. A central internal driveway connects to the carpark with vehicular access from Cemetery Road. Additionally, space for the collection, separation and storage of waste and recyclables has been provided.

The details provided in this report are the recommendations for better practice management of demolition and construction waste. Generally, hand/manual demolition is proposed to effect better recycling and re-use rates. Separation of waste streams is also preferred for improved recycling of excess construction materials and is considered practical given the size of the site and project.

1.6 Actions for Good Waste Minimisation

A circular economy is a system where products and services are designed to be reused or ideally be regenerative ie repair the environment – as opposed to the predominantly linear model of "take, make and waste" that we have seen in the last few decades.

Food organics is an example of where waste can be regenerative. Food waste is now being actively used via composting to improve the quality of soils.

While occupants of buildings are generally limited in how they can impact on the design of products to make them



re-useable, they can change their own and others behaviour to minimise waste.

Where possible building occupants should practice the waste reduction hierarchy.

Avoidance of landfill waste by building occupants might involve

- Purchase only what you will consume
- Purchase items of quality that can be re-used, sold on donated or up-cycled.
- Use re-usable drink bottles, lunch containers, shopping bags
- Avoid single use plastics
- Compost anything that once was alive

The following measures help to ensure reduced waste to landfill:

- 1. Selection of demolition, excavation and head construction contractor. Contractors waste minimisation strategies should be detailed and specific.
- 2. Selection of demolition contractor who undertakes significant hand demolition rather than demolition by excavator.
- 3. Selection of contractor and waste processing facilities used: A Greenstar experienced contractor and waste processing facility is preferred. The demolition contractor and waste receiving facility should hold a Green Star Compliance Verification Summary issued by a suitable qualified auditor, confirming compliance with the Green Star Construction and Demolition Waste Operational and Reporting Criteria.
- 4. Inclusion of a discussion of the intent to recycle and minimise waste in all site inductions.
- 5. Inclusion in contract conditions that plasterers supply their own plasterboard recycling bins.
- 6. Change of contractor behaviour by the inclusion in contract conditions that other trades such as studwork framers and electrical supply their own bins and clean up their own work at the end of the day, placing waste into their own bins specifically timber of metal stud off cuts or cabling for recycling.
- 7. Commitment to keeping a waste register as required by DCP 2012
- 8. Supervision of waste bins and enforcement of separation of waste types
- 9. During construction ensuring the labourer stockpiles materials suitable for re-use in work locations daily.

10. Separate bins with lids on for workers food waste and wrappers. Reduces contamination of other 11. recycling loads.



2 Demolition & Construction Waste Details

2.1 Waste Register

A register is to be kept for recording types and quantity of waste taken off site, waste contractor used and destination for the treatment or disposal of the waste.

Monthly waste and recycling contract reports provided by the waste processing facilities, indicating the amount of waste received, and a breakdown of materials recycled or sent to landfill will form the basis of the waste register.

The register should also include tracking of contaminated wastes generated on site that include but may not be limited to:

- Contaminated soils
- Materials containing asbestos or older electrical equipment including lighting controls containing PCBs (possible within garage building on site)
- Waste oils, oil and fuel filters from machinery used on site, oily water
- Solvents, paints and adhesives and their containers

2.2 Accurate Estimation

The design involves common construction methods and can be readily estimated with accuracy by experienced contractors for material take-offs.

Careful estimation, ordering and prefabrication offsite prior to site construction will ensure that minimal excess material is wasted and that variations on site that result in waste are minimised.

2.3 Waste Charges by Volume & Weight

Most demolition and construction waste is charged by volume (set price for the bin or per standard size truck), and also by weight. This means that even some lightweight voluminous products are expensive to be disposed of – which may improve the incentive to recycle more. For example PVC pipe can take up a large volume and fill bins quickly. Utilising recycling of good volumes of clean PVC pipe is a smart move to save on the number of waste bins or trucks.

2.4 Site Training in Waste Management

All contractors on site should be trained in the contents of this waste management plan as part of site induction procedures, to maximise the use of recycling storage provided on site and the diversion of demolition and construction waste from general landfill.

2.5 Pollution Control Measures

Pollution control measures should be identified and documented, prior to work commencing. This should identify where pollution control measures will be installed, and how erosion and loose waste will be managed.

Examples of measures follow:

- Capping / properly sealing off all pipe ends to underground stormwater and sewer connections either at ground level, as the pipes leave the site or at the mains.
- Drain filters/sediment traps in front of side entry pits or over grated pits (see image below)
- Silt fences on the down slope side of the site where the site has a slope steeper than 1:20 (see image below)
- Silt bunds in swales to retain site erosion materials but allow water flow through

- Erosion control blankets over mounded earth
- Installation of tarps/coverings on site waste bins during non-work hours to prevent blown material leaving the site.





Example - Silt Fencing

Example – Drain Filtering / Sediment trap

2.6 Runoff, Spills, Siltation & other Pollutants

Suitable measures are to be taken to ensure the possibility of pollutant runoff from the site is contained and managed. Containment fencing and silt management measures at the boundaries are recommended.

Once excavation is below street level run-off externally from the site should not occur. Ground infiltration could still occur but should be minimised if onsite water is minimised.

Following are some indicative measures that can be implemented for runoff management and spill containment.

2.7 Vehicle Spills

Spill and sediment tracking off the site from vehicles leaving the site should be managed to minimise pollutant and sediment loads that could otherwise enter street stormwater catchment.

2.8 Truck / Bin Clean-up

For the majority of the work, demolition will be carried out on a concrete pavement. Trucks will need to be inspected to ensure broken glass, shards of metal and brick rubble is not transported off-site on to the roadways.

During the excavation works trucks will potentially collect soil on wheels. The use of crushed rock on internal roadways will reduce this, as will the use of rumble grids. Washing down trucks and storage bins prior to leaving site is another method that may be required to prevent silt and pollutants leaving the site, All measures reduce the need to clean down roadways.

2.9 Demolition & Excavation Stage

The following outlines the general sequence and waste streams identified for the demolition and excavation phase and recommends appropriate methods for recovery and disposal.

2.9.1 Contractors

The demolition and excavation contractors are to confirm or improve on re-use or recycling options in this plan, or document an explanation if otherwise.

2.9.2 Sequence

The general sequence to be followed for completing the demolition and excavation stages is as follows:

- 1. Installation of hoardings & fencing and boundaries to protect the public and significant vegetation.
- 2. Installation/indentification of temporary access roads, washdown and other site safety protection measures
- 3. Excavation
 - o Given the site will predominantly be built on with building or hardstand pavement, there is little need to retain topsoil on site. Topsoil to be retained can be stockpiled in the corner of the site.
 - o A net of 60m³ cut is estimated (excluding a 30-50% bulking factor) based on McDonalds Waste Management Plan Report (Appendix 7).
 - o The fill material should be inspected with the hope that it can again be sent to a clean fill site for re-use.

2.9.3 Contaminated Land

Should any contamination be found, it would be expected to be within the boundary of planned excavation, if additional contamination is identified after excavation has commenced it is to be remediated and disposed of to an approved contaminated/remediated soil facility per the Contaminated Land Management Act as required by NSW EPA.

2.9.4 Contamination & Hazardous Materials

Any contaminated and hazardous materials found on site during demolition should be removed and disposed of in the authorised manner. Refer to the Demolition Phase/ Hazardous Materials section for procedures and indicative locations of asbestos.

2.9.5 Trees

If not keeping the existing, there are few trees to be removed at the north of the site.

Table 1 Demolition phase waste analysis – Site Establishment, Demolition, and Excavation

	Materials on Site		Destination		Contractor#
Type of Material	Location / examples	Estimated Qty – TBA by contractor	Reuse and recycling	Disposal	Operating in the local area
Excavated fill and Vegetation	Clean and leveling Site	• 60 m ³	 Excavated fill is often able to be re-used so long as the fill is clean and uncontaminated. Excavated fill can often be used on construction projects by the main contractor or external contractor, depending on the project subsequently occurring at the time. 	If no avenues for re-use, or if the fill is unclean or an insufficient soil type, it may be disposed of in Moama Waste Disposal Depot (Appendix 6).	Liberty Industrial, Bingo,

[#] For further information regarding each contractor refer to the Waste Contractors section of this report.

2.10 Construction Stage

For Bin Placement and Vehicle Collection Path see: Appendix 3 - Demolition and Construction Waste Bin Collection Location Plan.

2.10.1 Contractors

The choice of head contractor and attitude to waste has a significant impact on the waste performance of a building site. Tendering contractors should identify their planned waste minimisation strategies. Waste minimisation strategies should identify which products are to be recycled and where they are to be taken to, and which are not to be recycled and where they will be sent to.

The construction contractor is to confirm or improve on re-use or recycling options in this plan, or document an explanation if otherwise.

Table 2 below outlines the waste streams identified for the construction stages and recommends appropriate methods for recovery and disposal to be followed, particularly where individual trades contractors are to be appointed.

2.10.2 Construction System & Take-offs

Items to be pre-fabricated off-site in controlled yards or factories and delivered complete to site will reduce on-site waste significantly. Pre-fabricated products include:

- Roofing sheets cut to length
- Windows
- Joinery
- Screens

Further; waste is generally reduced at off-site fabricators for economic benefits.

Contractors can further reduce waste by the selected building system. Pre-cast panels generate less waste than blockwork structures. Prefabricated walls reduce waste in comparison to site built framed walls.

In-addition careful and accurate ordering of materials, along with clean-up and retention of reuseable materials will assist to reduce on-site waste.

2.10.3 Waste Recovery by the Public

Timber stud offcuts will be re-used where possible (a good labourer stockpiling materials in work locations can help re-use of materials) or stockpiled for the public use or recycled as timber mulch.

2.10.4 Waste Container Guidelines

All waste containers / skip bins are to be clearly visible, accessible and labelled in a well-lit area to ensure use.

No hazardous, flammable or explosive materials are to be disposed of within skip bins. Storage of skip bins is not to cause disturbance to normal stormwater flow.

2.10.5 Contamination of soil during construction

Contamination of soil, which then needs to be removed off site, often occurs and can be addressed in the following ways in *italics*

- small items such as discarded fasteners, food scraps packaging and straws locate small easy to find bins with lids around the site
- broken polystyrene cut and sweep up immediately then place in bins with lids
- rubble mixed into soil that might otherwise become a garden bed ensure crushed rock for ground stabilisation is placed in locations that will be covered by paths and not garden beds.

2.10.6 Sequence

The general sequence to be followed for completing the construction stages is as follows:

1. Foundations and carpark construction

Expected to include in-situ poured concrete slab and footings,

• Slab in-situ concrete - Experienced concreters order loads accurately, ordering on a load by load basis near the end of the pour. Waste concrete would be a fraction of one load per pouring day i.e. approx. 1-2m³ at most on the last delivery of the pour. Waste to be crushed and used for ground stabilisation or removed and crushed for re-use in road base or similar.

2. Upper structure construction

Expected to include timber stud framing

• Timber stud offcuts will be re-used where possible (a good labourer stockpiling materials in work locations can help re-use of materials) or stockpiled for the public use or recycled as timber mulch.

3. Roof

Metal roofing is usually cut to size to reduce off-cuts on site and improve the finishes of edges.

 Metal sheet, guttering offcuts, damaged downpipes can easily be recycled.

Installation of the ground level downpipes should be delayed until the end of the job to reduce the chance of damage. Temporary plastic downpipes reduce wastage of metal downpipes and can be re-used.



4. Services installation

- Installation of electrical systems. Wire waste should not end up in general waste bins on site but should be removed, stored and sent for recycling of the copper.
- If installed, leftover steel pipe offcuts from the fire system can be recycled.
- Plumbing and drainage would include water, sewer piping, and PVC drainage pipe installation. Accurate ordering of quantities will ensure minimal pipe waste. If cleanup is thorough, some pipework can be recovered for use on other jobs. Significant volumes of clean PVC drainage pipe can be separated for collection and may be recovered for granulation and reuse. Otherwise it may be disposed to landfill.

 Waste solvents from PVC drainage gluing are to be tracked in the contaminated waste register and disposed to a suitable landfill for solvent container disposal.

5. Fitout and cladding

Application of internal and external linings: including façade glazing and features, awnings, cladding and plasterboard linings, lighting and insulation.

- Lighting, cabinetry, aluminium windows and fittings will generate plastic and cardboard packaging waste. Separate cardboard and plastics bins or enclosures should be provided to capture this waste.
- Any large quantities of unframed damaged glass should be recycled
- Experienced insulation installers should be able to estimate quantities accurately,
 with small cut-offs being reused elsewhere on site in small gaps. Leftover insulation
 can also be taken offsite by the contractor for reuse in other jobs. Small amounts of
 damaged insulation may be generated and should be disposed of to landfill.

6. Finishes

Work includes painting and rendering, detailing of architectural façade features, floor sealing and finishes, cleaning.

Paint and floor sealing contractors will produce waste containers that are
contaminated solvent-based waste, requiring tracking and disposal to an approved
landfill facility. A bin for paint, adhesive and solvent containers will be used to store
this waste and movements should be recorded in the waste register for
contaminated materials.

7. Restoration

Re-establishment of kerbing, vehicle crossings and footpaths. Involves concrete pouring, and paving.

Contract conditions on trades and subcontractors

Trades on site that are likely to produce waste as a result of their activity, for example the plastering contractor, should be required to recycle waste that is recoverable, through contract conditions requiring the use of marked bins provided by the primary contractor for recoverable material, and including the waste management plan content as part of the contractor site induction conditions.

Table 2 Construction phase waste analysis – Structure, Services, Fit-out and Finishes

Materials On Site and Collection Bin		Destination			
Maleriais Of	i sile dila collec	.non bin	Reuse and Recycling		Disposal
Type of Material	Bin / Container	Estimated Qty – TBA by contractor	On-site (Re-use / onsite recycling)	Off-site (Offsite Recycling)	(Contractor and landfill site)
Concrete	Concrete	2m³	The small volumes of waste concrete expected may be reused onsite as ground stabilisation or binned for offsite recycling.	A concrete recycler can receive waste concrete and blockwork hauled off site. Separating masonry / concrete / bitumen attracts reduced charges from offsite recyclers compared with mixed materials.	Moama Waste Disposal Depot
Metals - ferrous Roof	Metals - ferrous	2m³		Recycled building products contractor or scrap metal merchant	Moama Waste Disposal Depot
Metal – non ferrous. Roof sheeting, aluminium cladding, fencing, windows & door frames balustrading, copper pipes,	Metals – Non Ferrous	2m³	Much of the aluminium products will be prefabricated offsite which reduces waste.	Recycled building products contractor or scrap metal merchant. Non-ferrous metals are valuable.	Moama Waste Disposal Depot
Plasterboard clean wall and ceiling lining trimmings / damaged sheet	РВ	4m³	Large off cuts can be readily used on site	Plasterboard recycling service or landfill at Disposal Depot	Sydney Gyprock Recycling, ReGyp,Veolia / Moama Waste Disposal Depot
Electrical cabling/wiring offcuts	Mixed metals or separate wiring bin	2m³		A copper wire recycling facility will accept quantities from 2kg upwards, with better prices for large quantities of wire.	

Materials On Site and Collection Bin			Destination			
			R	Reuse and Recycling		
Type of Material Bin / Container Estimated Qty – TBA by contractor		On-site (Re-use / onsite recycling)	Off-site (Offsite Recycling)	(Contractor and landfill site)		
Plastic and cardboard packaging	Plastic / cardboard recycling	3m³		To general recycling waste as handled by council's recycling trade waste service	Moama Waste Disposal Depot	
Paint / Solvent / Adhesive waste tins	Solvents	30L		Paintback	Moama Waste Disposal Depot	
Plastic (PVC drainage pipe offcuts, plastic wiring cable reels)	Plastic / Mixed recycling	1m³		Can be processed by a mixed waste recycling contractor	Moama Waste Disposal Depot	
Timber studs	Timber	2m³	Utilizing off-cuts on site if possible	Recycled as timber mulch	Moama Waste Disposal Depot	

3 Operational Waste Management Details

3.1 Proposed Commercial Waste Solution

Tenancy/space Area McDonald's 418.52 m²

Site Layout: Refer to Appendix 4 for Site Layout Plan

Collection Type: Private collection service to collect all waste streams

Collection Location: On site

Commercial	McDonald's	Proposed solution			
	Weekly estimated waste generation	No. of Bins	Bin/Tank Size	Collection Frequency	
Garbage	3 m ³	1	3m ³	Once weekly	
Paper and Cardboard	2 m³	1	3m ³	Once weekly	
Used Cooking Oil	100 L	1	100L	Once weekly	
Sanitary and disposable nappy waste	NA Container Removal and Replacement Service	1		As often as required	
Grease trap waste	400 L	1	100L	Four times weekly	

NOTE: Streaming of waste into dedicated bins is encouraged where possible. The type of recycling bins nominated above may be swapped to suit the type of recyclable commercial waste generated. Possible additional waste streams include:

- hard plastics
- soft plastics

3.2 Management Responsibilities

Store management is responsible for all aspects of waste management including implementing adequate safe operating procedures. Items to be addressed in maintaining the system include:

- Store management is responsible in providing access for the waste contractor to enter the site and bin store on the day(s) of collection.
- Allocation of responsibility to the contractor to retrieve bins directly from the bin store area
 and return emptied bins at the time of collection. Responsibility should include ensuring the
 contractor collects any waste that spills from the bins during emptying.
- Cleaners & staff are responsible for placing waste in the appropriate colour coded bins in
 provided in work areas and then transferring them to corresponding bin in the bulk bin store
 to ensure all waste types are collected and recycled where possible.

- That bins and bins store areas are monitored regularly with bins rotated as required to ensure areas are fully operational with regular cleaning of the bins and bin store spaces and clean-up after collection if necessary.
- Management and coordination for bulky hard waste & eWaste collections.
- Provision of information to occupants with guides of how to using the various bin systems
 e.g. boxes to be flattened, containers for recycling washed, bins to not be over-full. See
 Section 4.14 for further information about Signage, Education & Safety.
- Monitoring and feedback to occupants if the system is not working properly. Undertake a
 waste audit should it be suspected waste is not being placed in the correct bins.

3.3 Bin Store Area Design

The Bin store area design/location must include the following:

- A layout that allows access to all of the bins with adequate size to allow easy movement/transfer of the bins.
- Doors located in the allocated storage areas should be designed for easy access of larger bins sizes, hard waste, for durability and to blend in with the development.
- Space suitable for bin wash down is to be available in the development. If this is the bin store then the floor is to be graded to a waste outlet with a litter trap.
- If a bin wash is installed, a water tap and hose installed in or near the bin wash areas and correct drainage to sewer (never direct waste to storm water drains) should be designed in accordance with the relevant EPA Bunding Guidelines. Drains to the sewer to be located undercover to prevent rainwater infiltration.
- The bin store is an enclosed space and considered to be largely vermin proof.
- A waterproof power point in or near the bin store.
- Adequate mechanical or natural ventilation.
- Ensure adequate lighting is provided in accordance with National Construction Code (NCC) guidelines if to be accessed after hours.
- Space for a tug or bin lifter if required by the waste contractor(s) / facility management.
- Meter boxes should not be included in bin store areas.

3.4 Bin Store Area Access

- Manoeuvrability within the bin store area, with 1m minimum to walk between bins.
- There is to be no significant step at any threshold between the bin store area and the point of collection.

3.5 Bin Sizes

JJ Richards is the preferable private waste collection company for this development, which will utilise industrial size bins. Bins are available in the following sizes:

- 1 cubic metre
- 1.5 cubic metre
- 3 cubic metre
- 4.5 cubic metre





Standard bin colours (refer AS4123.7)					
Garbage (landfill)	Red				
Co-mingled recycling	Yellow				
Green organics	Light Green				
Glass	Purple				
Paper and cardboard	Light Blue				
E-waste	Light Grey				

^{*} NOTE: size may vary between Councils and contract suppliers

3.6 Waste Vehicle Requirements

- A Front Fork Loading Truck (HRV) will be required for the industrial size bins.
- The waste contractor will be responsible for retrieving, emptying and returning bins to/from the bin store at the time of collection.
- A private collection waste truck is required to enter site and back into to the assigned temporary parking space to collect the bins, exiting in a forward direction.
- Store management is responsible for ensuring the waste contactor has access to the site and bin store on the days of collection. If there is a security code or key required for access, the contractor should be provided with these so they may access the bin store on the specified collection days.

Vehicle	Typical size			
Rear mini loader	6.4m long x 2.35m wide truck (basement collections) – 2.2m head clearance			
Rear Loading	8.8m – 10m long x 2.6m wide truck – 4.0m head clearance (Medium Rigid Vehicles- MRV)			
Side loading automated arm	Sizes vary from MRV to HRV			
Front Fork Loading automated arm	10.4m – 12m long x 2.6m wide – 5.5m head clearance (Heavy Rigid Vehicles - HRV)			
Rear Hook Loading (compactors)	9.7m long x 2.6m wide – 5.5m head clearance			
NOTE: Larger vehicle may need to be assessed for clearances prior to entering the site.				

3.7 Collection Times

Collection times: Commercial waste - bin collection shall be in accordance with Council and EPA Noise Control Guidelines Publication 1254, which state:

- Collections occurring once a week are to be restricted to the hours 6:30 am 8 pm Monday to Saturday, or 9am – 8am Sundays and public holidays.
- Collections occurring more than once a week are to be restricted to the hours 7 am -8pm Monday to Saturday, and 9am – 8am Sunday and public holidays.

The WMP approved under this permit must be implemented and complied with at all times to the satisfaction of the Responsible Authority. No alterations to the WMP may occur without the written consent from the Responsible Authority.

3.8 Internal Waste Management

- General landfill garbage shall be placed in plastic bags before placement into bins
- Recycling materials are not to be bagged and are to be placed loosely into the recycling bins. (Items in plastic bags in recycling bins are not recycled).
 - o Paper if it can't be ripped, it can't be recycled due to the plastic coating.

3.9 Response to Increasing Waste

- A waste audit can be undertaken to understand the content of the waste bins. Audits provide feedback to clients of good or poor recycling practices. Images can be helpful to convey feedback.
- If garbage bins consistently overflow, then staff and cleaners are to be directed to educational material as to the appropriate streaming of waste, including food and other recyclables. (see Section 4 and Soft Plastic Recycling below).
- If recycling bins continue to overflow, staff and cleaners should be reminded to crush and flatten all cardboard boxes before placing these in the recycling bin(s). It may also be appropriate to obtain an additional recycling bin.
- The bin store area has spare space to accommodate additional bins if required.
- The last choice option is for more regular collections to occur.

3.10 Reducing Odour

Odour from waste primarily emanates from bin store areas. Control of odour must occur in the bin store area with the provision of suitable natural or mechanical ventilation. If installed the mechanical ventilation system for the bin storage area must not cause a public health nuisance (noise and odour generation) and comply with EPA requirements and in accordance with the ventilation requirements of the Building Code of Australia and AS 1668.2.

The bin store area and bins are to be monitored and cleaned on a regular basis to remove sources of smells.

3.11 Noise management

Minimising noise associated with waste movement and collections include:

- Locating bin stores and collection points at an appropriate distance from onsite occupants and adjoining residences;
- Collections occurring during the stipulated collection times restrict the hours of noise from collections.
- Collection vehicles should not break up bottles at the point of collection, only once off site.
 Compaction of waste should only be carried out whilst waste vehicles are on the move and off-site.

3.12Traffic Management

• Traffic management along Perricoota Rd should not be an issue with collection occurring within the property boundary.

3.13 Litter Spread

- Litter spread is to be managed by ensuring garbage and recycling bins are not overloaded, and lids are always closed.
- Litter spread is to be managed by the system of contractors collecting bins from within the property. As bins are not left outside overnight, the possibility of vandalism is removed.
- The private collection contractor's agreement should require their pickup of any waste that spills from the bins during collections.
- McDonald's National Litter Strategy addresses the litter issue by including a litter patrol, litter prevention and stakeholder communication. Further information can be found in Appendix 7.

3.14 Signage, Education & Safety

It will be the responsibility of the store management to ensure all staff, cleaners and occupants have all of the material available to them and that they adhere to the required practices regarding waste management, sustainability and promoting waste minimisation.

- All education material will be in accordance with Council requirements
- Ensure permanent "No Standing" and "No Entry" sign and line markings are visible in the car park area, indicating the parameters of the rubbish collection zone to ensure access for the collection vehicle.
- Directional signage should be installed to direct occupants and bin collectors to the bin storage areas.

• Instructional signage within the bin store is to indicate which bin is for garbage and which is for recyclables or other waste streams.



Figure 1. Simple, brightly coloured signs, such as those shown above, quickly communicate what items are acceptable for each bin.

A preliminary OHS risk assessment has been included to identify potential OHS issues,
however this risk assessment does not replace the need for the Owners Corporation and
collection contractors to complete their own OHS assessment for the bin collection process.
 See Appendix 5 for further detail.

4 Managing Waste Streams

4.1 Separating & Streaming Food Waste

Food waste, when buried in landfill waste is starved of air and rots and producing methane; 26 times more damaging than carbon dioxide. Diverting food waste from landfill is not only a really effective way to reduce greenhouse gas emissions, but also a regenerative solution, creating rich, healthy soil.

The Better Practice Guidelines stipulates diverting food from landfill waste. This can be achieved in a number of ways including on site composting and/or FOGO collections for single residents or via dedicated food waste collections in larger multi-unit developments.

4.1.1 Commercial Food waste

Commercial collection of separated food wastes is being offered by a number of waste collection Contractors.

- Commercial businesses with high volumes of food waste such as cafes and restaurants are recommended to stream out food scraps from landfill waste. An organics food collection service is recommended for this type of commercial development.
- Food waste collections should occur a minimum 2-3 times per week (depending on the temperature of the bins) to avoid a build-up of odour and unwanted mess.
- Consideration should also be given to end of trip / processing of this waste by the engaged
 waste contractor to ensure this waste stream is appropriately treated and does not end up
 in landfill.

Current contractors include:

- Sita 1.5m3, 3m3 & 4.5m3 bin options (via Cleanaway)
 http://www.sita.com.au/commercial-solutions/resource-recovery-recycling/organic-material/
- •
- Veolia using 1.5m3 bins only (front lift) https://www.veolia.com/anz/our-services/our-services/recycling/organics

Onsite Options for Organics Treatment

On site food and organic waste treatment/pre-processing systems can reduce the footprint area of a bin store by reducing the number of bins required, and can reduce waste collection frequency when food or organics waste can be diverted to these units.

These units reduce food scraps to 90% of their original volume in 24 hours, through heat and agitation, and the by-product is a compost material. These units take all kinds of food ie fruit, vegetables, meat, fish, eggshells so sorting is not an issue. These units prevent generation of the greenhouse gas methane (methane is 25 times more detrimental than carbon dioxide) which otherwise is generated when organic wastes decompose anaerobically in landfills. The suppliers usually can provide Green-house gas cost v benefit assessments of their units. These systems are increasingly being introduced around Melbourne.

- WasteMaster is an Australian technology which converts putrescible waste to a concentrated residue within 24 hours. https://www.greenecotec.com
- **Closed Loop Organics** provide CLO'ey bins of different capacity and rental servicing costs. More information available at: http://www.closedloop.com.au/domestic-composter
- Other systems such as PulpMaster, EcoGuardians (Gaia system) or Biobin generally provide systems that dehydrate or mash up food waste to reduce total volumes, but operate slightly differently to the above two systems.

4.2 Other Waste Streaming Details

4.2.1 Hard Waste Collection

- Murray River council permits two hard rubbish collections per household a year of 4 cubic meters.
- Store management are to arrange additional hard rubbish collections as required.
- Store management are to ensure no hard waste is left kerbside for longer than the week before an organised collection date.
- Hardwaste items can also be taken directly to the Council run local waste recovery centre.
- Local information regarding the disposal and recycling of common household items for each Council can be found at:
 https://www.sustainability.vic.gov.gu/You.and.vour.home/Waste

https://www.sustainability.vic.gov.au/You-and-your-home/Waste-and-recycling/Council-waste-and-recycling-services





- A private waste contractor can be engaged to collect all bulky hard waste and eWaste items at a frequency to maintain the storage space.
- In addition suppliers such as Ecycle http://www.ecyclesolutions.net.au will deliver whitegoods and either collect clean polystyrene from retailers or take polystyrene away after delivery.
- **TerraCycle** is a national initiative where you can look up where to deposit non-recyclable waste such as contact lenses, coffee capsules, mailing satchels, toothbrushes & tubes. http://www.terracyclemap.com
- Alternatively unwanted bulky items, clothes and other consumables can be donated to charities, sold on online or at second-hand local market places as is if in good condition. If repairs are required, seek out repair community centres for re-purposing. Search PlanetARK for a comprehensive listing to each council. https://recyclingnearyou.com.au/councils/

4.2.2 E-Waste Recycling

- Any item with a plug, battery or cord can be deposited at a designated e-waste drop-off
 point. Electronic waste includes old mobile phones, computers, audio devices, refrigerators
 and other white goods, hair dryers, TVs, heaters, and air-conditioners.
- A private commercial contractor must be engaged to collect these items.
- Other authorised electrical waste disposal locations can be found:
 - https://wanless.com.au/waste-services/soft-plastic-recycling/
 - https://www.veolia.com/anz/our-services/our-services/recycling-wasteservices/recycling/plastics/soft-plastics
 - o https://www.cleanaway.com.au/waste/clear-plastic-and-polystyrene/

4.2.3 Other Recyclables

- Council recycling hubs recycle
 - o batteries
 - o light globes
 - o printer cartridges
 - o clothes.
- In addition Officeworks provide recycling drop-off points for:
 - o printer cartridges
 - o old IT equipment
 - o mobile phones
 - o pens and markers
- For multi-dwelling and non residential tenancies with shared bin storage one container with drawers or a number of small stackable plastic crates with minimum footprint 500x500mm is to be supplied to collect recyclables such as:
 - o batteries
 - o light globes
 - o printer cartridges
 - o clothes.
- These items are to be recycled periodically as arranged by an interested tenant or the Owner's Corporation e.g. by the maintenance or gardening contractor.

4.2.4 Soft Plastic Recycling

- Eliminating or reducing the use of single-use plastics can greatly reduce waste volumes both in residential and commercial settings. This includes straws, plastic bags and plastic wraps. Many private waste contractors can commercially collect soft Plastic.
- Other commercial waste contractors may also be able to collect streamed soft plastics depending on your location.
- Coles and Woolworths both offer plastic bag and soft plastic recycling. Residents can place
 all plastics in one plastic bag and add it to the recycling bin at the supermarket for
 collection. Any location identified on the Redcycle website
 http://www.redcycle.net.au/where-to-redcycle/.
- NSW as yet is to set legislation to ban soft single use plastic but will in the future. There are a number of companies that already collect streamed soft plastics in NSW including:
 - https://wanless.com.au/waste-services/soft-plastic-recycling/
 - https://www.veolia.com/anz/our-services/our-services/recycling-wasteservices/recycling/plastics/soft-plastics
 - o https://www.cleanaway.com.au/waste/clear-plastic-and-polystyrene/

4.2.5 NSW Return & Earn

Bottles, cans and cartons make up a large proportion of the litter on our streets, beaches
and green spaces. Tackling the problem costs NSW millions of dollars every year. Return and
Earn is a way for us all to help solve the litter problem and be rewarded for our efforts. There
are many options for these containers to be deposited or collections. View the website for
more information: https://returnandearn.org.au

4.2.6 Hospitality Waste Reduction

Reducing takeaway food container waste - The website Trashless Takeaway
 <u>www.trashlesstakeaway.com.au</u> lists restaurants around Australia that allow you to bring
 your own container to pick up your takeaway food, enabling a reduction in use of
 recyclable or compostable (only in some commercial composters) food containers.

5 Supplementary information

5.1 Waste Links

City of Murray River Council Waste Directory:

• https://www.murrayriver.nsw.gov.au/Our-Services/Waste-and-recycling

Waste collection companies in NSW:

- Suez (incl Sita) www.suez.com.au/en-au Ph: 1300 651 116
- Transpacific-Cleanaway https://www.cleanaway.com.au, ph 13 13 39
- JJ Richards & Sons <u>www.jjrichards.com.au</u>
- Veolia https://www.veolia.com/anz/, Ph 132 955

5.2 Mechanical Tug and Bin Trolley Details

Where mechanical tugs are recommended, the following details will assist.

Suppliers include

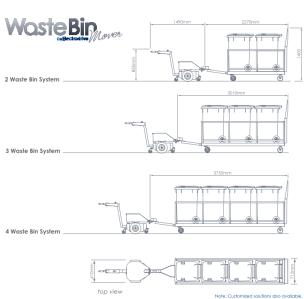
- www.electrodrive.com.au
- http://www.mastermover.com.au
- www.sitecraft.net.au
- http://www.hercules.com.au/index.php?tug2.

Two-wheel bins are usually loaded onto a trailer/dolly for transportation. Space is required for storage of the tug unit plus trailer. Tugs can be 1.5m ^{2 Waste Bin System long x 0.8m wide.} Trailers can vary in size – allow space larger than the bin footprint.



Sitecraft Logistec bin mover





Four-wheel bins can be towed directly by the tug and require less space as only the tug is required to be stored, not a trailer. Towing brackets and directional wheel locks are available from Sulo www.sulo.com.au and can readily be retrofitted to 660-1100L bins for towing. Towing brackets and wheel locks do not project outside of the bin footprint area.





Mechanical tug systems will usually cost in the range of \$10,000 - \$15,000, with trailer possibly extra.

Manual wheelie bin handling trolleys provide assistance with the manual handling of 120L to 360L bins. Various models are available with standard manual trolley as well as an electric boosted trolley to carry up to four 2-wheelie bins. They should be included in case of a longer bin movement distance or for the less abled people to safely move the bins if required.

Suppliers include

- https://www.materialshandling.com.au
- https://www.wheeliesafe.com.au/





5.3 Bin Lifters

Electro Hydraulic Bin-Lifters should be provided in each bin room to help staff safely to empty the internal 120L/240L bins into the main 1100L bins placed in the bin store.

Suppliers for Bin-Lifter are as follows:

- LiftMaster http://www.liftmastermh.com.au/
- WasteTech http://www.wastech.com.au/Bin-Lifters/bin-lifters.html
- SPACEPAC Industries Pty Ltd.
 http://www.spacepac.com.au/Brochures/Lifters/LiftMaster/Bin-Lifters_2pg_np.pdf
- SiteCraft handling/recycling-waste-management/wheelie-bin-lifters-bin-tippers/#



- Easylift
 http://www.easylift.com.au/a/Materials Handling Equipment/
 Wheelie Bin Lifters
- Active lifting equipment co. pty ltd. http://www.activelifting.com.au/MaterialsHandling/Binlifters/powered150.htm



5.4 Bottle Crushing

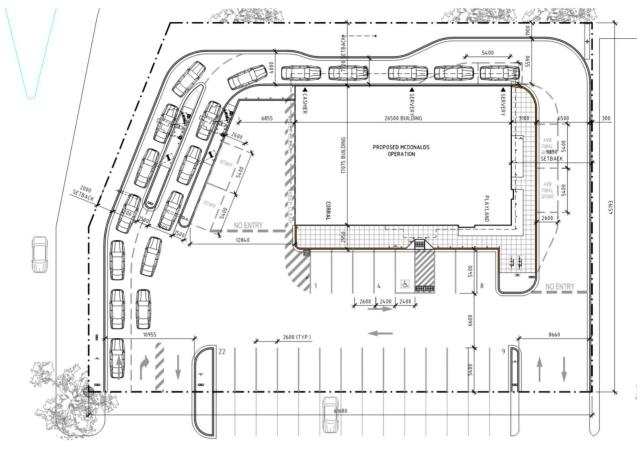
Onsite crushing of glass bottles via units such as the Bottlecycler www.bottlecycler.com is a
significant way to reduce waste volumes and also assist with glass recycling. Bottles without
contaminants other than remnant drink are loaded directly into the Bottlecycler and
crushed on the spot to reduce bottle volumes by about 80% (5:1 reduction). Broken glass
cullet can be sorted by colour off site after collection for recycling.

Appendix 1 - Existing Site Conditions





Appendix 2 - Proposed Works





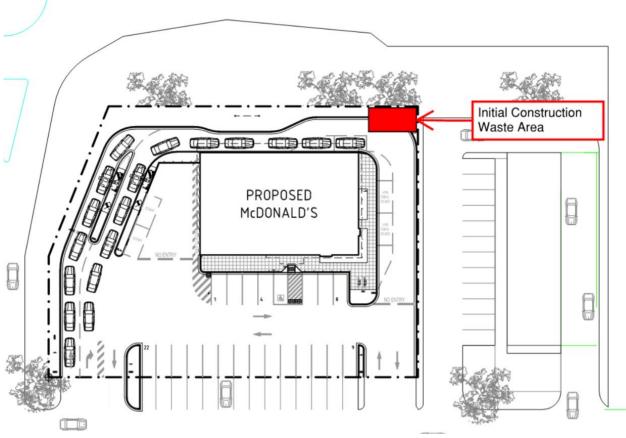






© Low Impact Development Consulting

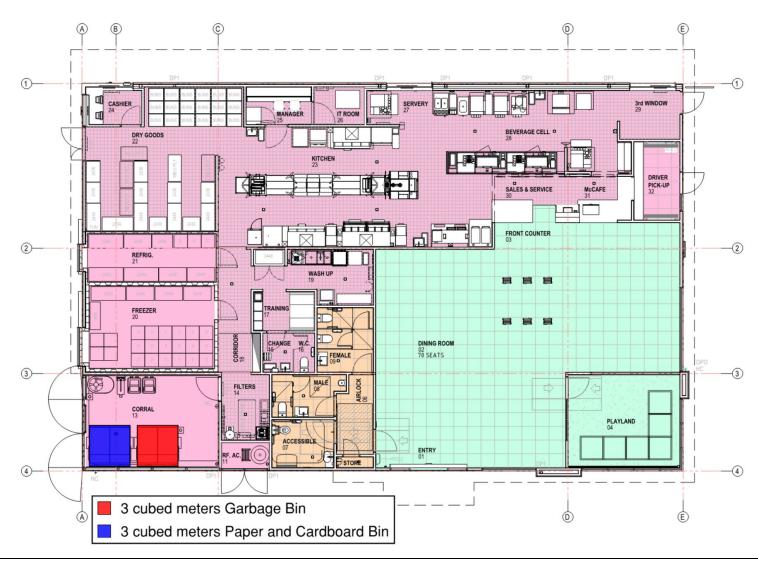
Appendix 3 - Construction Bin Locations



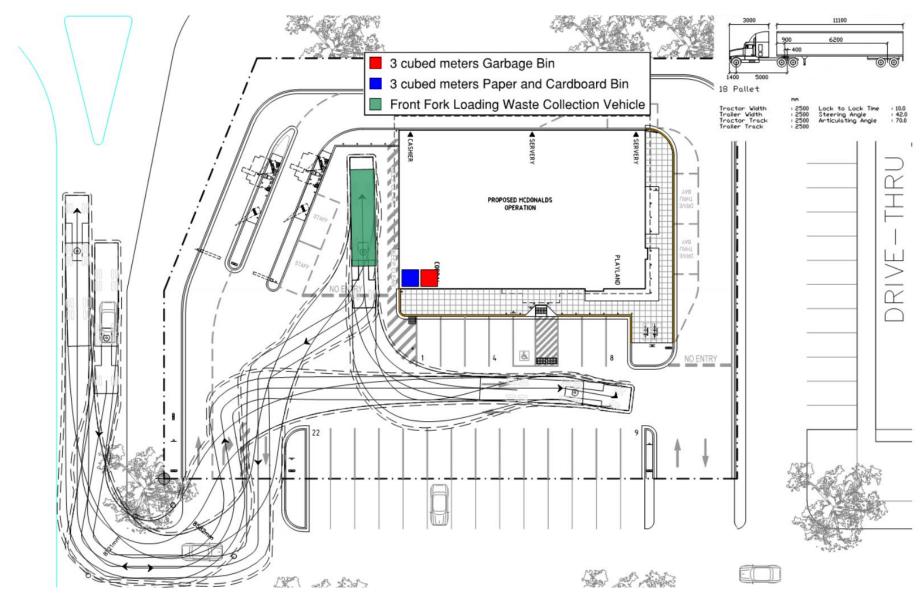
Construction Bin Store Location.

Appendix 4 - Operational Bin Collection Plan

5.5 Floor Plan: Proposed Bin Store Area



5.6 Truck Swept Path: Proposed Collection Plan



Appendix 5 - Preliminary Risk Review of Operational Waste Collection

Per industry practice detailed, specific risk assessments should be prepared by the individual contractors responsible for demolition, excavation, the construction of the structure, services, fitout and finishes phases. The risk assessments should take into account but not be limited to waste related activities such as below:

- Worker, pedestrian and traffic hazards created by movement of waste to waste bins and movement of waste bins and vehicles on and off site.
- Excavation risks
- Safe handling of hazardous and toxic waste materials if they are identified on the site, such as asbestos.

Class 1 Risk = Potential to cause death or	Class 2 Risk = Potential to cause injury requiring	Class 3 Risk = Potential to cause an injury
permanent injury.	medical attention.	treatable with first aid.

Activity	Steps involved in completing activity & risk	Risk level	Risk mitigating measures	Implementation responsibility
Moving of bins from bin store to collection space	Risk of manual handling injuries	1	Use of mechanical tug. Ensure the distance of travel is no more than 40m. The bin transfer grade should not exceed 1:14 The travel path is to be kept free of all obstacles including steps, kerbs, speed bumps, berms, sills or ramps. Ensure all access points have suitably wide doorways and circulation areas.	Building Designer / Owners Corporation
Vehicle comes on site for collection	Large vehicle entering site, and reversing before exiting site. Major risk is hitting young children, the elderly or unaware people, particularly when reversing,	1	Vehicle driver entering site is to survey the area for activity. If there is no activity near reversing location, driver to execute reverse move immediately before the situation can change. If there is activity, the driver should ensure the person/persons moving in the area are aware of the pending reversing action, and have time to stay away from the reversing zone or ensure children are away from the reversing zone. Reversing should be at very slow speed. There should be no/few children/elderly people in the carpark area.	Waste collection contractor / Owners Corporation

Activity	Steps involved in completing activity & risk	Risk level	Risk mitigating measures	Implementation responsibility
			Reversing buzzers to be applied to all trucks. A "No parking" and "No entry" sign effective at the times of collection to be installed in the visitor space of the carpark. This will allow the collection vehicle to reverse in and leave in a forward direction.	

Note this assessment is for consideration during the design phase of the project. It is <u>not</u> to replace a risk assessment / Safe Work Method Statement being completed by the contractor and persons undertaking the waste removal process.

Appendix 6 - Moama Waste Disposal Depot Fees

Environmental monitoring and inspection fee				Price o	n application
Commercial and Industrial Waste and/or Construction and Demolition Waste and/or Putrescible Waste (from within Murray River Council Boundaries) delivered by Commercial Contractors (Per Tonne) MINIMUM FEE \$30.00	\$160.15	\$151.82	\$15.18	\$167.00	4.28%
Commercial and Industrial Waste and/or Construction and Demolition Waste and/or Putrescible Waste from outside Murray River Council Boundaries delivered by Commercial Contractors (Per Tonne)	All waste type	s generated outsid	de Murray Rive		ndaries to be d on request.
Domestic Household Waste (per tonne) MINIMUM CHARGE \$5.00	\$0.00	\$136.36	\$13.64	\$150.00	∞
Green Waste (Per Tonne) MINIMUM CHARGE \$5.00	\$43.50	\$50.00	\$5.00	\$55.00	26.44%
Asbestos (Per Tonne) MINIMUM CHARGE \$150.00	\$365.90	\$339.09	\$33.91	\$373.00	1.94%
Concrete (Per Tonne)	\$48.70	\$45.45	\$4.55	\$50.00	2.67%
Mattresses (Per Unit)	\$20.00	\$18.18	\$1.82	\$20.00	0.00%
Unspecified Waste (per tonne)	\$362.45	\$336.36	\$33.64	\$370.00	2.08%
Car Body / Scrap Metal					No charge
Car / Motorbike Tyre – Clean (Per Unit)	\$10.30	\$10.00	\$1.00	\$11.00	6.80%
Small Truck Tyre – Clean (Per Unit)	\$13.60	\$12.73	\$1.27	\$14.00	2.94%
Truck Tyre – Clean (Per Unit)	\$18.35	\$17.27	\$1.73	\$19.00	3.54%
Super Single Tyre – Clean (Per Unit)	\$36.75	\$33.64	\$3.36	\$37.00	0.68%
Small Tractor Tyre - Clean (Up to 1.0m diameter) (Per Unit)	\$91.80	\$85.45	\$8.55	\$94.00	2.40%
Large Tractor Tyre – Clean (1.0 -1.5m diameter) (Per Unit)	\$151.15	\$140.00	\$14.00	\$154.00	1.89%
Earthmoving Tyre – Clean (Per Unit)	\$238.70	\$220.91	\$22.09	\$243.00	1.80%
Batteries / Oil (Domestic quantites only)					No charge
Clean Cover (Utilised for Cover)					No charge
Cover Material (Not Utilised for Clean Cover) (Per Tonne)	\$32.35	\$30.00	\$3.00	\$33.00	2.01%
E-Waste (Computer, Monitor, TC, etc)					No charge
Community Recycling Centre (CRC) Material					No charge
Domestic Recyclables					
Disposal of contaminated soil (where permitted by EPA) (Consultants report required)			\$	175.00 per ton	` '
Sale of Crushed Concrete / brick (p/t)	\$45.00	\$40.91	\$4.09	\$45.00	Fee: \$150.00 0.00%
Timber Waste (clean pellets & other clean wooden waste) (c/m)	\$15.00	\$14.55	\$1.45	\$16.00	6.67%
Sale of Woodchips (p/cm)	\$25.00	\$22.73	\$2.27	\$25.00	0.00%
Sale of Mulch (c/m)	\$15.00	\$13.64	\$1.36	\$15.00	0.00%
Contaminated Tyres (p/t)	\$355.00	\$329.09	\$32.91	\$362.00	1.97%
Whitegoods (require degassing)	\$21.80	\$20.00	\$2.00	\$22.00	0.92%
Trinogoodo (roquiro dogadoning)	ΨZ 1.00	Ψ20.00	Ψ2.00	Ψ22.00	0.52 /6

McDonald's Australia Limited



MOAMA NSW

Waste Management



Introduction

The aim of this strategy is to outline the proposed waste management procedures for implementation into the Moama restaurant. McDonald's Australia continues to lead the market in environmental practices, ranging from litter patrol on a local community level to participation in the National Greenhouse Challenge.

This document will identify the local waste management initiatives McDonald's Moama will implement in the construction works and operations of the proposed development.

Controlled copies of this strategy will be issued to key personnel managing the operations of the development and also to Council.





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Introduction

Waste Management

Litter Management

Waste Minimisation and Management

Packaging

Community Education

Waste Management Plan

Appendices

McDonald's Australia Environmental Management Program Summary Moama Waste Management Strategy – Roles and Responsibilities



In 2008, McDonald's Australia released their National Packaging Covenant Action Plan, which can be viewed on the McDonald's Australia website – www.McDonald's.com.au.

Key strategies within this action plan include:

- Litter Management
- · Waste Minimisation and Management
- Packaging

The following sections highlight the proposed waste management commitments, as recommended in McDonald's National Packaging Covenant Action Plan.



Litter Management

McDonald's recognises that we have the responsibility to reduce the amount of our packaging in the litter stream, and has therefore produced a National Litter Strategy, which addresses the litter issue with a consistent and systemised approach. The key focus of this strategy include litter patrol, litter prevention and stakeholder communication.

Some of the actions from McDonald's Litter Management Strategy to be applied at the Moama Operation include:

- Waste is collected daily by a private contractor (This is arranged by the operator once they take possession of the site).
- Develop a series of litter messages, logo and litter branding for use on and around the Moama site
- Identify a litter patrol area in consultation with Council, whereby crew can safely patrol and pick litter.
- Installation of litter traps in car park to minimise gross pollutants from entering the storm water drainage system.
- Produce litter patrol clothing consistent with the litter branding.
- Litter branding for all litter patrol bins.
- Branding signage for use in car park and drive thru.
- Tray mat messages communicating in store.
- Meeting with council to discuss the operations litter program.
- Crew and Management training on implementation of the operations litter program



McDonald's has been a major sponsor of Clean Up Australia Day since its inception, and intends to continue this support, which includes media advertising and crew volunteers for community involvement.



Waste Minimisation and Management

In recognition of the need for a strategy addressing waste within the framework of a restaurant's operations, McDonald's have produced a national Waste Minimisation and Management Plan. The key focus areas of this plan include Waste Disposal, Reporting and Training, and Education and Awareness.

Some of the actions from McDonald's Waste Minimisation and Management Plan which will be applied in the proposed Moama restaurant include:

- Cardboard carton recycling
- Used cooking oil recycling
- Use of McDonald's preferred waste supplier JJ Richards. Preferred suppliers are managed by McDonald's Australia to ensure compliance to company standards including:
 - Compliance with all relevant environmental legislation.
 - Completion of a quarterly business review to report on agreed key environmental performance indicators
 - Maintaining and reporting waste volumes on a store by store basis.
 - Provision of alternatives to landfill disposal of waste as they become available.
 - Notification of breaches in environmental legislation.
 - Assistance with ongoing efforts to reduce waste and minimize pollution.

Waste collection times will be discussed with the contractor and will depend on projected store volumes. All general waste and cardboard storage will be within the walls of the corral area.



Packaging

Packaging is one of McDonald's key focuses in relation to waste and litter reduction. McDonald's Purchasing Department continuously seeks alternatives to our current packaging including:

- Light weighting of raw products
- Reduced use of virgin materials
- Reduced sizing of packages
- Material review
- Reduction of in stock items through review of McDonald's menu

All McDonald's take away packaging contains anti litter logos and waste management messages.

Community Education

McDonald's participation and major sponsorship of Clean Up Australia Day contributes to communicating the importance of litter management in the community.





Waste Management Plan

Target Reduction of waste to landfill

Reduction of packaging in litter stream

Strategy Increase 'Reduce, Re-use, Recycle' initiatives and review waste

management practises.

Continuously strive to reduce litter within the environment.

Actions Operation to conduct daily litter patrols within community area.

Operation to conduct twice daily litter patrols of carpark.

Installation of litter traps within stormwater pits.

Participation in Clean Up Australia Day.

Cardboard and office paper recycling.

Used Cooking Oil recycling.

Use of only McDonald's approved environmental contractors.

McDonald's to request environmental action plans from suppliers.

Review of corporate packaging.

Use of electronic communication.



Appendices



Appendix A

McDonald's Australia Environmental Management Program Summary

Mission

To strive for the highest standards of environmental performance in our operations by pursuing sustainable and responsible business practices.

Program Objectives:

- To plan our approach to environmental issues
- To demonstrate continuous commitment to the environment and it's protection
- To complete an action plan for environment response and impact minimisation.
- To develop and implement a cost effective environmental program
- To develop and implement policies that promote an environmental conscience and responsibility.

Goals

Environmental Protection
Statutory Standard
Environmental Awareness
Information Management
Supplier Services



Part A – Strategies to Achieve Goals

Goals

Environment Protection	Statutory	Environment	Information	Supplier
	Standards	Awareness	Management	Services

Strategies

Natural Resources	Compliance	Training and Education	Information database	Supply Chain
Waste Reduction	Government Regulations	Internal Communications	Records Management	Best Practice
Water Conservation	Regulatory Impact Minimisation	Public Relations	Performance Management	Research and Development
Pollution Prevention		Strategic Alliances		Environmental Suppliers



Appendix B

McDonald's Moama Management Strategy Roles and Responsibilities

1. Litter Management

Action	Responsible	Target	Sign
Develop corporate litter program	McDonald's Australia	Program prior to store open	
Conduct daily litter patrols within McDonald's parameters. Discuss with Council	Operations Manager	Conducted daily after store open	
Conduct regular daily litter patrols of site car park	Operations Manager	Regular intervals throughout day	
Install litter trap in storm water pits	McDonald's Construction	Installation at store opening	
Install bins throughout car park to satisfaction of Council	McDonald's Construction	Installation at store opening	
Local marketing to include litter and waste reduction messages where possible	Operations Manager	Installation at store opening	
Car park bins to include litter or waste reduction messages	Operations Manager	Incorporation into local signage	
Participation in Clean Up Australia Day	Operations Manager	Annual participation	



Appendix B

McDonald's Moama Management Strategy Roles and Responsibilities

2. Waste Minimisation and Management

Action	Responsible	Target	Sign
Only McDonald's approved service providers used	Operations Manager	Program prior to store open	
Suppliers to submit environmental action plans	McDonald's Australia	Annual Reports	
Waste reduction messages placed in store	Operations Manager	Installation at store opening	
Implementation of plastics recycling system	McDonald's Australia	When system is available	
Cardboard/paper recycling	McDonald's Construction	Installation at store opening	
Local marketing to include litter and waste reduction messages where possible	Operations Manager	Installation at store opening	
Car park bins to include litter or waste reduction messages	Operations Manager	Incorporation into local signage	
Participation in Clean Up Australia Day	Operations Manager	Annual participation	



Appendix B

McDonald's Moama Management Strategy Roles and Responsibilities

3. Packaging

Action	Responsible	Target	Sign
Review corporate packaging so that new litter messages are incorporated into packaging	McDonald's Australia	Store open	



Demolition Stage 1

Controls for the Management and Minimisation of Waste

Materials on Site			Destinatio	n
		Re-u	use and Recycling	Disposal
Type of Material	Estimated Volume	On Site	Off Site	
Excavation material	N/A	N/A	Concrete, metal, timber and	
Green waste	10m3		brickwork to be recycled to MOAMA WASTE	
Bricks	N/A		MANAGEMENT	
Concrete	N/A		FACILITY - MURRAY RIVER	
Timber	N/A		COUNCIL - Centre Road, Moama	
Plasterboard	1		NSW	
Metals	1			
Other	1			



Section 2

Construction and Use

The site plans indicate the following information:

Section 2 (a) - Construction

- Demolition material to be removed to skip bin located on site.
- Temporary storage of materials on site.

Section 2 (b) - Design of Facilities

- Location of waste storage and recycling areas.
- Details of design of waste storage and recycling areas.
- Design details of garbage and recycling rooms are existing corral.
- Details of on-site waste management facilities.

Section 2 (c) Ongoing Management

- Location of waste storage and recycling areas.

NOTE:

Details sought in this section will be determined after appointment of building contractor. McDonald's acknowledges Council's desire to minimise waste. Council can be assured that it is normal practice to ensure that any appointed builder will undertake work in such a way that satisfies these objectives.



Construction Stage 2 (a)

Controls for the Management and Minimisation of Waste

Materials on Site		Destination		
		Re-u	ise and Recycling	Disposal
Type of Material	Estimated Volume	On Site	Off Site	
Excavation material	60 cu.m approx.	N/A	Concrete, metal, timber and brickwork	
Green waste	N/A		to be recycled to MOAMA WASTE	
Bricks	5 cu.m		MANAGEMENT	
Concrete	N/A		FACILITY - MURRAY RIVER	
Timber	2 cu.m		COUNCIL – Centre Road, Moama NSW	
Plasterboard	2 cu.m		Troud, Mountaine 11011	
Metals	2 cu.m			
Other				



Design of Facilities Stage 2 (b)

Controls for the Management and Minimisation of Waste

Type of Waste to be Generated	Expected Volume per week	Proposed On Site Storage and Treatment Facilities	Destination
General waste including food waste, paper, plastics – PP, PS, EPS, HDPE, LDPE, miscellaneous customer waste	3 m ³	Waste storage and recycling area with capacity for one industrial bin of 3m ³ capacity	Contractor identified upon appointment of Store Operator / Manager and following DA approval
Paper and Cardboard	2 m ³	Waste storage and recycling area with capacity for one industrial bin of 3m ³ capacity.	Contractor identified upon appointment of Store Operator / Manager and following DA approval
Used Cooking Oil	100 litres	Waste storage and recycling area. Heated bulk tank for storage of used oil for collection	Contractor identified upon appointment of Store Operator / Manager and following DA approval
Sanitary and disposable nappy waste		Container removal and replacement service - weekly services	Contractor identified upon appointment of Store Operator / Manager and following DA approval
Grease trap waste	100 litres	Grease trap – regular tanker removal - usually 4 weekly service	Contractor identified upon appointment of Store Operator / Manager and following DA approval



MACKENZIE DAVEY CONSULTING

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BUSH FIRE ASSESSMENT REPORT

Moama Fast-food Outlet

Boundary Road, Moama, NSW, 2731

Bush Fire Assessment Report

Prepared for Chris Sime via Chris Smith and Associates 17 December 2021 Ref : CMD 11.22 Version I.0



Cover photograph; West Moama showing the subject site at the centre and the line of new river crossing Google earth pro (2021)

EXECUTIVE SUMMARY

This report assesses the bushfire issues impacting on the proposed fast-food outlet at Boundary Road, Moama. It has been assessed under Chapter 8 of Planning for Bush Fire Protection (2019) (PBP 2019), as a National Construction Code Class 6 building. A number of recommendations are made below.

The land to 140m from the outlet has been assessed as a relatively low bushfire fuel environment with no significant downslopes. The construction standard has been assessed as:

Bushfire Attack Level: 12.5

The master plan for the site indicates that future development may see a childcare centre on the site. If this occurs it will need to comply with Chapter 6 of Planning for Bush Fire Protection (2019) – Special Fire Protection Purpose developments. A brief assessment of the childcare centre is provided in Appendix I to guide any future development of this nature.

A range of bushfire protection measures for the fast-food outlet are discussed in the report. To address these, the following recommendations should be adopted:

- 1) Maintain the separation distance to remnant vegetation.
- 2) Implement the access arrangements as shown in site masterplan Figure 3.
- 3) As part of its overall emergency plan, prior to occupation the fast-food outlet will need to prepare a Bush Fire Emergency

Management and Evacuation Plan consistent with the NSWRFS document: A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan. The plan should include planning for the early relocation of occupants.

- 4) To comply with the requirements of PBP (2019) the existing hydrants will need to be supplemented so that hydrant spacing, design and sizing comply with the relevant clauses of AS 2419.1:2005 Fire hydrant installations.
- 5) Gas and electricity connections to the development should not contribute to the risk of fire to the building and comply with the relevant Australian standard. If possible, electricity supply should be underground.
- 6) Ember proofing should follow the applicable recommendations set out in Sections 3 and 5 of AS3959 Construction of buildings in bushfire prone areas (2018) and any additional requirements set out in PBP (2019). Incorporating ember proofing into HVAC systems is to be achieved by enclosing or covering openings with a corrosion-resistant steel, bronze or aluminium mesh with a maximum aperture of 2mm.

Measures should be taken to ensure that HVAC systems can prevent or reduce smoke infiltration into the building in the event of a bushfire.

7) Provision should be made for the safe storage of any hazardous materials to prevent any increase in bushfire risk.

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Table I Version control

Information	Detail
Document Title:	Bush Fire Assessment Report Moama Fast-food
	Outlet
Mackenzie Davey	11/22
Consulting reference	
Other Reference:	
Version:	1.0
Previous	
Amendments	
Prepared by:	Chris Mackenzie Davey (BPAD – 53220)

I INTRODUCTION

1.1 Background

Chris Sime via Duncan Lowis of Chris Smith and Associates have engaged Mackenzie Davey Consulting to prepare a Bush Fire Assessment Report (BFAR) for a proposed fast-food outlet development in the town of Moama in southern NSW. This report examines the potential for bushfire to impact the development, assesses the measures that can be taken to address the threat, protecting life, property and the environment, enabling firefighting and hazard control activities.

Table 2 Development summary

Information	Detail	
Lot and DP	Lot DP 4695	
Street Address	I Boundary Road, Moama, NSW, 2731	
Local Government Area	Murray River Council	
Zoning	B2 Local centre	
Zoning of adjoining lands	SP2 Cemetery, R2 Low density residential	
	REI Public recreation	
Staging issues	Further development of the block is	
	anticipated and will be subject to future	
	reports	
Type of assessment	Bush Fire Assessment Report	
Fire weather area	Southern Riverina	
Fire Danger Index	80	
Predominant vegetation	Remnant vegetation, grassland and	
	managed land	
Slope	Upslope to 0 - 5° downslope	
Environmental constraints	None known	
Method of meeting	Acceptable solutions	
performance requirements		

Table 3 Abbreviations

Abbreviation	Full text	
APZ	Asset Protection Zone	
BAL	Bushfire Attack Level	
BFAR	Bush Fire Assessment Report	
BPMs	Bushfire Protection Measures	
DA	Development Application	
MRC	Murray River Council	
NASH	National Association of Steel Framed Housing	
NCC	National Construction Code	
NSWRFS	NSW Rural Fire Service	
PBP (2019)	Planning for Bushfire Protection (2019)	
SFPP	Special Fire Protection Purpose	

1.2 Objectives and scope

The objective of this report is to support the Development Application (DA) for the proposed fast-food outlet by:

- > Determining the bushfire threat
- > Assessing Bushfire Protection Measures

Section 8.3.1 of PBP (2019) states that under the building classification system within the National Construction Code (NCC), NCC Building Code of Australia (2019), restaurants are Class 6 buildings, The NCC does not provide for any bushfire specific performance requirements for this class of building. As such AS 3959 Building in Bushfire Prone Areas (2018) and the National Association of Steel Framed Housing, Steel Framed Construction in Bushfire Areas (2014), (NASH) are not considered as a Deemed to Satisfy provisions. However, compliance with AS 3959 and the NASH Standard must be considered when meeting the aims and objectives of the NSW Rural Fire Service (NSWRFS) document Planning for Bush Fire Protection (2019) (PBP 2019).

Whilst bushfire 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
- > to provide for the storage of hazardous materials away from the hazard wherever possible.

The general fire safety construction provisions of the NCC are taken as acceptable solutions however construction requirements for bush fire protection will need to be considered on a case-by-case basis.

Although this report is primarily concerned with supporting the DA for the fast-food outlet, the site master plan (Figure 3) indicates that a childcare centre may be included as part of the future development of the block. In PBP (2019) childcare centres are considered Special Fire Protection Purpose developments (SFPP) and are subject to a range of provisions. This report provides a brief assessment of the childcare centre based on the current proposed location of the centre in Appendix I. Should the centre go ahead a full assessment report will be required.

1.3 Stakeholders

Table 4 List of stakeholders

Stakeholder	Name	Contact
Developer	Chris Sime	0423 174 709
Chris Smith and	Duncan Lowis	03 5820 7728
Associates		
NSWRFS	Not known	02 8741 5555
Murray River Council	Not known	1300 087 004

1.4 Site location

The site is located west of the town of Moama 500m northeast of the Murray River. It is bounded by roads on all sides providing excellent access. To the north are public recreation areas and a motel, to the east is a new petrol station and supermarket development, to the south private housing blocks back onto forested wetlands along the river corridor, beyond and to the west is the Moama Cemetery. Further to the south and east of the site a new crossing of the Murray River is currently under construction linking the Cobb Highway in NSW to the Northern Highway in Victoria.



Figure I Regional context. Google earth pro (2021)

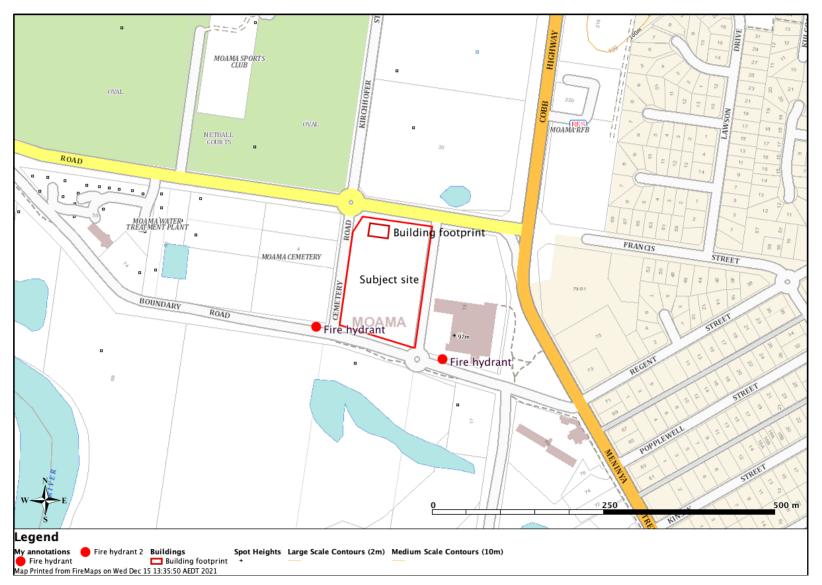


Figure 2 Local context. FPAA FireMaps (2021)



Figure 3 Draft site masterplan as at April 2021 showing the fast-food outlet, liquor store and childcare centre. The Latter two are not in the scope of this report. Idle Architecture Studio (2021)

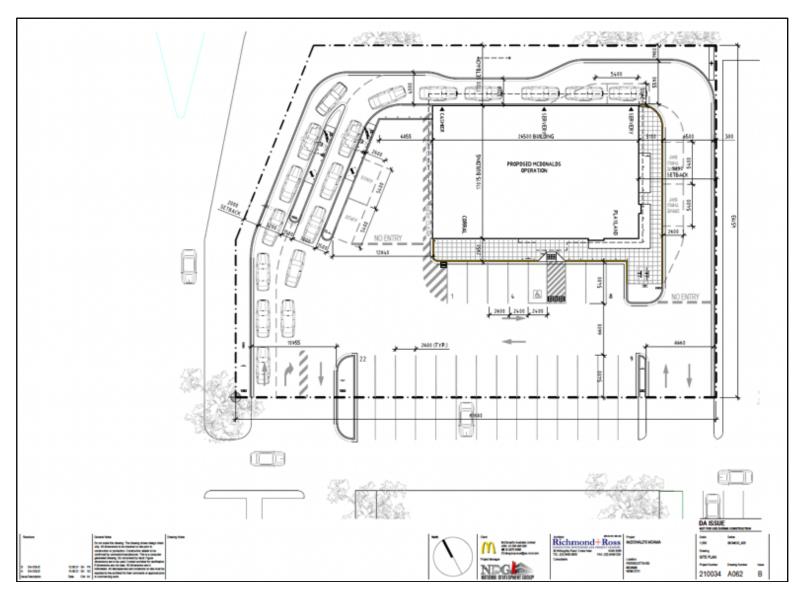


Figure 4 Detail site plan showing dimensions from the site boundary. Richmond and Ross Consulting Engineers (2021)



Figure 5 Photopoint locations, number indicates figure number in the text. FPAA FireMaps (2021)

1.5 Disclaimer

Despite the recommended measures discussed in this report it is important to understand that this will not guarantee that the development will survive every bushfire. Bushfire behaviour becomes increasingly unpredictable when fire weather conditions deteriorate and the Fire Danger Rating reaches severe and above. There is also a strong reliance on APZ management and other measures such as vegetation management and irrigation being carried out effectively over the life of the development.

Mackenzie Davey Consulting has prepared this report with all due diligence. The report contains information gained from desktop research, discussions with the client and field trip to the site.

2 SITE ASSESSMENT

2.1 Report Methodology

Table 5 Report methodology

Method	Tasks	Considerations
Desktop	Review online mapping	Online mapping and web
analysis	and other resources	resources PBP (2019)
Site visit	Site context	Test online mapping findings
	Assess bushfire threat	Vegetation classes
	Options for APZs	Site measurements
	Access roads and	Existing structures and
	infrastructure	infrastructure
Assessment	Assess the proposal	Does the proposal comply with
against PBP	against performance	PBP (2019)?
(2019)	criteria of PBP (2019)	
Report	Prepare and submit	Demonstrate compliance with
	report	Section 8 of PBP (2019)

2.2 Site description

The site is currently vacant apart from being used as a depot for the engineering works associated with the new river crossing. Ground works have commenced for the fast-food outlet. The site slopes gently from north to south and is currently sparsely vegetated apart from an area of remnant vegetation to the southeast. Surrounding the development block immediately to the north is managed grassland and a motel, while to the northwest is a sports ground. To the east there is a supermarket and service station with associated carparking. To the south there are large house blocks with managed gardens, behind these, there is forested wetland leading to the Murray River. To the west is the Moama Cemetery.

2.3 Bushfire environment

Table 6 Bushfire behaviour factors

Factor	Value
Fire Area	Southern Riverina
Forest Fire Danger Index	80
Vegetation summary	Forested wetland
Slope	0 – 5° downslope

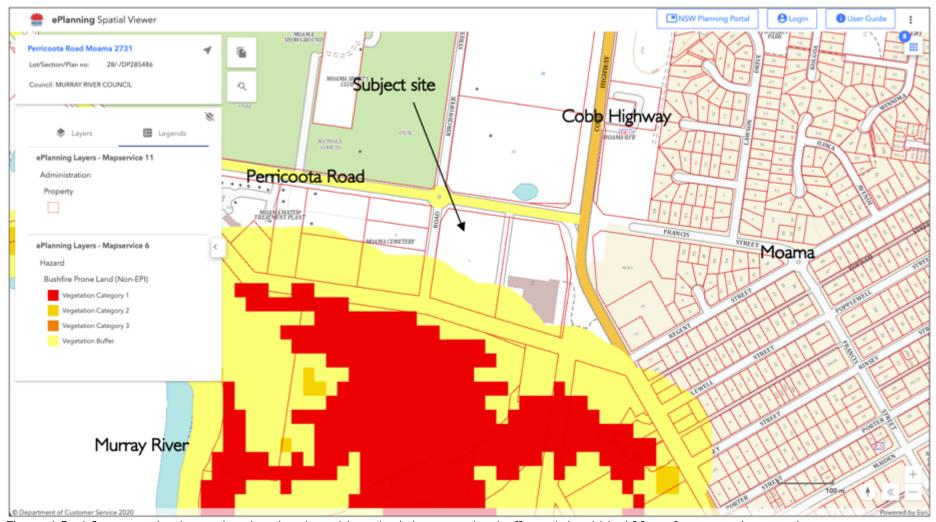


Figure 6 Bushfire prone land mapping showing the subject site is in vegetation buffer as it is within 100m of category 1 vegetation. FPAA FireMaps (2021)

2.4 Vegetation classification

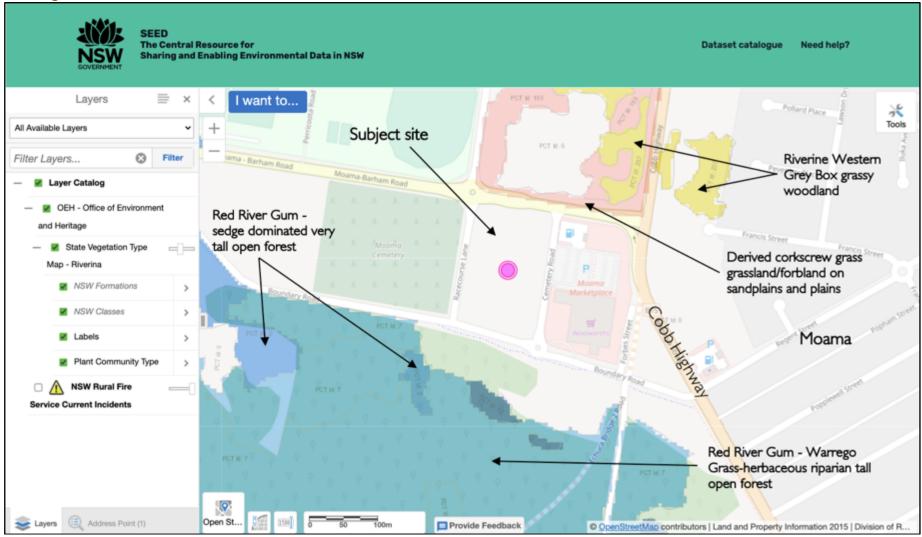


Figure 7 Summary of vegetation formations impacting on the subject site. NSW SEED (2015)

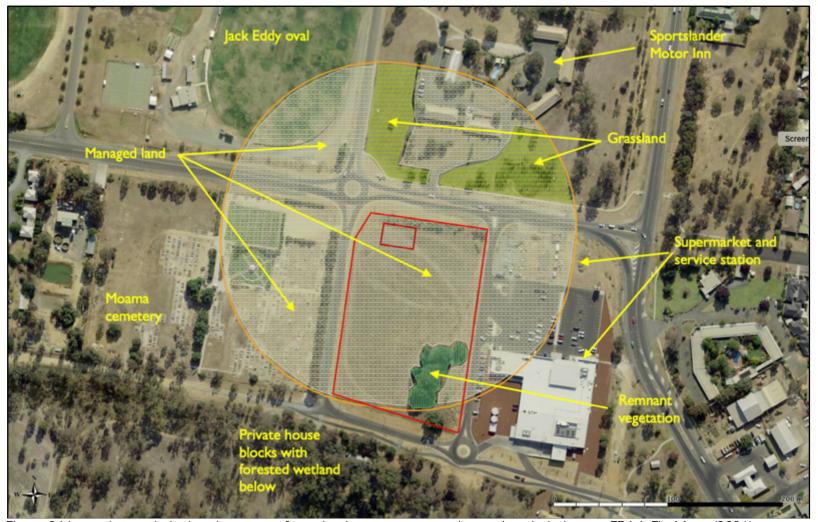


Figure 8 Vegetation analysis showing areas of grassland, remnant vegetation and excluded areas. FPAA FireMaps (2021)

Vegetation has been classified using Sharing and Enabling Environmental Data, NSW Government 2015 (SEED) mapping for Plant Community Types for the Riverina. It is assessed out to 140m from the building footprint. Site inspection and desktop research has revealed three classifications of vegetation present within 140m of the development. These are grassland, remnant vegetation and managed land.



Figure 9 Grassland to the north of the proposed development. Mackenzie Davey 2021

The grassland occupies an area north of Perricoota Road forming part of the grounds of the Sportslander Motor Inn. The grassland is currently maintained in a low fuel state but as it is identified as a native grassland Plant Community Type in the NSW SEED database and, taking a conservative approach, it is classified as grassland for the purposes of this assessment. There is an area of remnant vegetation to the eastern edge of the development site which will be retained. The rest of the area within 140m of the proposed fast-food outlet building footprint has been assessed as excluded as it is either vegetation that has low fuel levels or is non-vegetated. The block and surrounding land to 140m was in a well-maintained state at the time of the site visit.



Figure 10 Remnant vegetation on the eastern side of the development . Mackenzie Davey 2021



Figure 11 The Moama cemetery showing low fuel loads and the line of trees which form a windbreak on the western edge of Cemetery Road. Mackenzie Davey 2021

2.5 Slope analysis

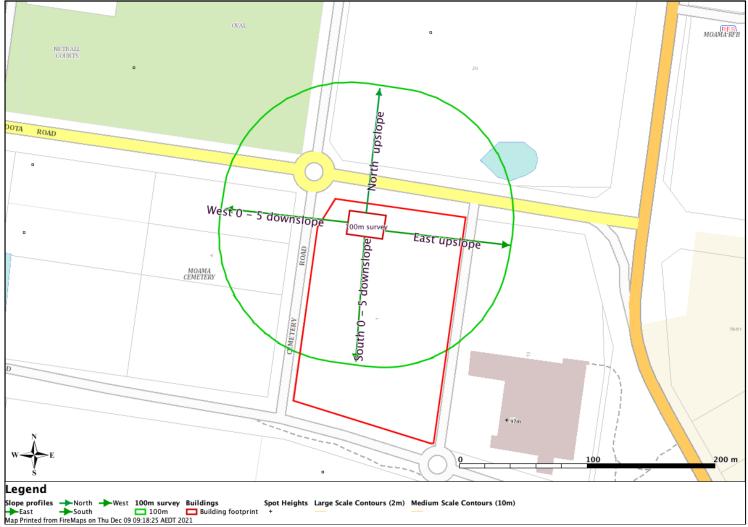


Figure 12 Slope analysis showing upslope to the north and east and 0-5 degrees downslope to the south and west FPAA FireMaps (2021)

The slopes were measured out to 100m from the building footprint using a TruPulse laser range finder. Further information was gathered from FPAA FireMaps contour plan and slope analysis tools on Google earth pro. The steepest slope identified was $0-5^{\circ}$ downslope to the south and west, all other points measured were flat or upslope.



Figure 13 Looking north from building footprint. Mackenzie Davey 2021



Figure 14 Looking east from building footprint upslope. Mackenzie Davey 2021



Figure 15 Looking south from building footprint $0-5^{\circ}$ downslope. Mackenzie Davey 2021



Figure 16 Looking west from building footprint $0-5^{\circ}$ downslope. Mackenzie Davey 2021

2.6 Environment, threatened species and Aboriginal artefacts

This report has not explored whether there are any environmental features, threatened species or Aboriginal objects or places within the surveyed site.

3 BUSH FIRE ASSESSMENT AND RECOMMENDATIONS

3.1 Construction standard

In PBP (2019) construction requirements for commercial buildings need to be considered on a case-by-case basis. The objectives below are to be applied in relation to access, water supply and services and in relation to emergency and evacuation planning. The land surrounding the development block provides a low fuel buffer for the site in all directions. The only significant vegetation on the block is the remnant vegetation on the eastern edge, elsewhere there is only strips and patches of exotic grass and weeds. Separation distances from the remnant vegetation should be maintained as at Table 7 below. If this is done the Bushfire Attack Level (BAL) rating for the will be:

Table 7 APZ calculations

Aspect	Effective slope	Predominant vegetation	Separation distance
North	Upslope	Excluded	n/a
East	Upslope	Remnant	20m
South	0 – 5° downslope	Excluded	n/a
West	0 – 5° downslope	Excluded	n/a

Recommendation 1:

Maintain the separation distance to remnant vegetation

3.2 Access and egress

Safe access needs to be provided to and from the public road system for firefighters providing property protection during a bushfire and for occupant egress for evacuation.

The site master plan, Figure 3 indicates that the main access points for the development will be via a through road running east-west across the site providing access onto both Cemetery Road to the west and the as yet unnamed road to the east that runs between Boundary Road and Perricoota Road. Both these roads will have access onto the wider road network. This arrangement will provide both access for emergency services providing property protection and to occupants evacuating.



17 Perricoota Road looking south down Cemetery Road. The development site is on the left. Mackenzie Davey 2021



Figure 18 Cemetery Road looking north. The development site is on the right. Mackenzie Davey 2021



Figure 19 Boundary Road looking east. The development site is on the left. Mackenzie Davey 2021



Figure 20 Unnamed Road to east of the development site looking north. The development site is on the left. Mackenzie Davey 2021

Recommendation 2:

Implement the access arrangements as shown in site masterplan Figure 3.

3.3 Emergency management arrangements

Provide suitable emergency and evacuation (and relocation) arrangements for occupants of the development.

Recommendation 3:

As part of its overall emergency plan, prior to occupation the fast-food outlet will need to prepare a Bush Fire Emergency Management and Evacuation Plan consistent with the NSWRFS document: A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan. The plan should include planning for the early relocation of occupants.

3.4 Siting and adequacy of firefighting water supplies

To provide adequate services of water for the protection of buildings during and after the passage of bush fire. There are currently two fire

hydrants located on the north side of Boundary Road, one to the west of Cemetery Road and one behind the new Woolworths supermarket to the east of the unnamed road.

Recommendation 4:

To comply with the requirements of PBP (2019) the existing hydrants will need to be supplemented so that hydrant spacing, design and sizing comply with the relevant clauses of AS 2419.1:2005 Fire hydrant installations.



Figure 21 Fire hydrant on Boundary Road see photopoints plan for location. Mackenzie Davey 2021



Figure 22 Fire hydrant on Boundary Road behind the Woolworths supermarket. See photopoints plan for location. Mackenzie Davey 2021

3.5 Location of gas and electricity connections

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.

Recommendation 5:

Gas and electricity connections to the development should not contribute to the risk of fire to the building and comply with the relevant Australian standard. If possible, electricity supply should be underground.

3.6 Ember proofing and smoke infiltration

The BAL 12.5 rating is largely concerned with ember proofing. Consideration must be given to preventing ember infiltration into the building. Similarly, measures should be taken to prevent smoke infiltration into the building in the event of a bushfire. In particular, attention should be given to Heating, Ventilation and Cooling systems (HVAC).

Recommendation 6:

1) Ember proofing should follow the applicable recommendations set out in Sections 3 and 5 of AS3959 Construction of buildings in bushfire prone areas (2018) and any additional requirements set out in PBP (2019). Incorporating ember proofing into HVAC systems is to be achieved by enclosing or covering openings with a corrosion-resistant steel, bronze or aluminium mesh with a maximum aperture of 2mm.

Measures should be taken to ensure that HVAC systems can prevent or reduce smoke infiltration into the building in the event of a bushfire.

3.7 Provision of storage for hazardous materials

Any hazardous materials that are required to be stored as part of the development should be away from the hazard wherever possible.

Recommendation 7:

Provision should be made for the safe storage of any hazardous materials to prevent any increase in bushfire risk.

CONCLUSION

This report documents the findings of a bush fire assessment on the proposed fast-food outlet at Boundary Road, Moama.

The NCC does not provide for any bushfire specific performance requirements for this class of building. However, compliance with AS 3959 and the NASH Standard must be considered when meeting the aims and objectives of PBP (2019).

The report has found that within the development block there is limited bushfire fuel and the lack of any steep downslope. Water for firefighting will need to be provided closer to the development than is currently available. Gas and electricity supplies will need to be provided in a way that does not increase the risk in the event of a bushfire. A Bush Fire Emergency Management and Evacuation Plan will need to be developed. Measures should be taken to prevent smoke and embers entering the restaurant in the event of a bushfire.

Although it does not form part of the current DA, the proposed childcare centre appearing in the masterplan for the site will need to comply with chapter 6 of PBP (2019). A brief overview of the centre is provided in Appendix I to illustrate the potential constraints.

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<u>AU&runWorkflow=AppendLayerCatalog&CatalogLayer=SEED_Catalog.243.</u> <u>NSW%20Formations,SEED_Catalog.243.NSW%20Classes,SEED_Catalog.243.</u> <u>3.Labels,SEED_Catalog.243.Plant%20Community%20Type, Sydney</u>

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Standards Australia, 205, AS 3959-2005 Fire hydrant installations, SAI Global, Melbourne.

APPENDIX

Appendix I Proposed Childcare Centre

As shown in the draft site masterplan, Figure 3 above, there is a proposal for a childcare centre to the south of the proposed fast-food outlet. In PBP (2019), childcare centres are considered SFPP developments and have a range of conditions attached. This report does not include a full assessment of the childcare centre as it is not part of the current DA. However, it was deemed prudent to provide a basic assessment to ensure that if the centre is developed, it will be capable of meeting the requirements of PBP (2019).

The nature of SFPP developments means that occupants may be more vulnerable to bush fire attack for one or more of the following reasons:

- > they may be less aware in relation to bush fire impacts
- > they may have reduced capacity to evaluate risk and respond adequately to the bush fire threat
- they may present operational difficulties for evacuation and or management
- > they may be more vulnerable to stress and anxiety arising from bush fire threat and smoke
- > there may be significant communication barriers
- > supervision during a bush fire may be difficult
- > they may be unfamiliar with the area

The specific objectives for SFPP developments are to:

- > minimise levels of radiant heat, localised smoke and ember attack through increased APZ building design and siting
- > provide an appropriate operational environment for emergency service personnel during firefighting and emergency management
- > ensure the capacity of existing infrastructure (such as roads and utilities) can accommodate the increase in demand during emergencies as a result of the development
- > ensure emergency evacuation procedures and management which provides for the special characteristics and needs of occupants

The key limiting factor for this site is provision of an adequate Asset Protection Zone to ensure that radiant heat levels no greater than $10kW/m^2$ at 1200K will be experienced on the building. Figure 21 demonstrates that in its current location the childcare centre would meet this standard albeit with little leeway due to the remnant vegetation on the east of the block (remnant vegetation is classified as rainforest in PBP (2019).

Table 8 APZ calculations for childcare centre

Aspect	Effective slope	Predominant vegetation	Separation distance	Distance to achieve <10kW/m2
North	Upslope	Grassland	97m	36
East	Upslope	Excluded	n/a	n/a
Southeast	Upslope	Remnant	39m	38
South	0 – 5° downslope	Forested wetlands	100	34
West	0 – 5° downslope	Excluded	n/a	n/a

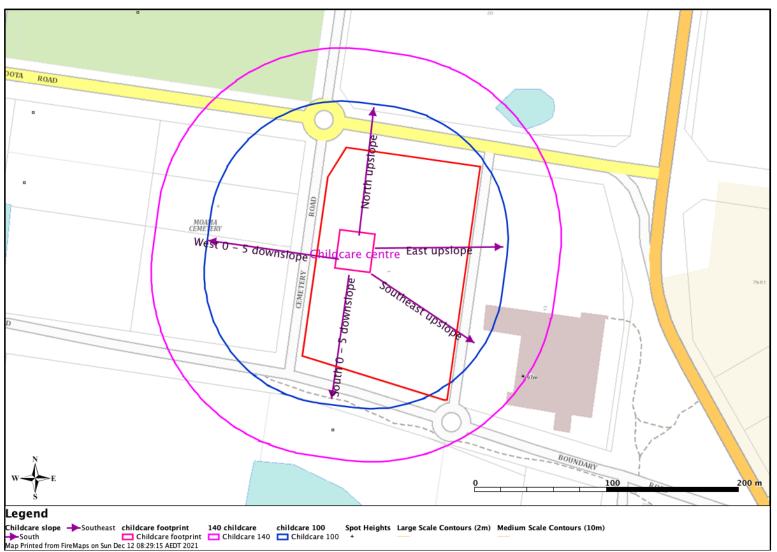


Figure 23 Slope analysis showing upslope to north, east and southeast and $0-5^{\circ}$ downslope to south and west. FPAA FireMaps (2021)



Figure 24 Vegetation analysis showing areas of grassland, remnant vegetation, forested wetland and excluded areas. FPAA FireMaps (2021)



- CIVIL ENGINEERS
- LAND SURVEYORS
- URBAN & REGIONAL PLANNERS
 PROJECT MANAGERS



Approved Company – ISO 9001 – Quality Management Systems

Stormwater Management Plan

For

Proposed Four (4) Lot Commercial Subdivision

Perricoota Road, Moama

March 2022

Our Ref: 21057

Level 1, 135 Fryers Street, Shepparton, Vic, 3630 Telephone (03) 5820 7700 Facsimile (03) 5822 4878

Document Ref: 21057 R SWMP 180322



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1 Introduction

1.1 Background

Chris Smith & Associates (CS&A) has been engaged by Lot 1 Perricoota Pty Ltd to prepare a stormwater management plan in the support of the proposed four lot subdivision located at 1 Boundary Road, Moama. The property currently zoned B2 – Local Centre, which is suitable for this type of development.



Figure 1: Existing Site

1.2 Aim of the Report

The purpose of this report is to provide a concept drainage solution for the site, including the pre development flows, how the flows for the proposed development are to be retained, measures to treat and enhance the flows leaving the site and how the site is impacted in larger rainfall events.



2 Existing Site Drainage

2.3 Existing Topography/Site Conditions

The existing 2.01Ha site is relatively clear site with a gentle slope towards the north-east boundary. The site is currently being used as a storage area/site office for the Moama bridge project. Prior to being used as a storage area/site office the site had a reasonable grass coverage. Refer to Appendix 1 for a copy of the existing conditions plan.

2.4 Existing Drainage Network

There are existing underground drainage assets adjacent to the property in Boundary Road and Cemetery Road, with the network draining from the Perricoota Road/Cemetery Road intersection down towards the river. The proposed outfall location for the site (legal point of discharge) is proposed as the existing stormwater pipe in Cemetery Road at the entrance to the site. It is proposed a new pit will be constructed over the existing network to service the proposed subdivision.

2.5 Allowable Discharge

The allowable discharge for the site has been calculated using the kinematic wave equation (overland flow) as there is no existing pipe connection to the underground stormwater connection. The allowable discharge for the site based on existing conditions is 79.3L/s, refer to appendix 2 for details.

3 Proposed Site Drainage

3.1 Stormwater Retention

Due to the discharge from the site been restricted to pre-development flow the proposed development will require a significant amount of onsite retention. As this is a commercial development the runoff coefficient from the site will be C=0.9, this will result in higher runoff flows from the site.

It is proposed that the 5% AEP (20-year ARI) will be retained onsite, giving consideration to the allowable discharge. The required storage has been calculated using a retention spreadsheet as detailed in Appendix 3. Storage required to be retained onsite is 546.37m³.

The required storage to be provided onsite is to be apportioned between each of the lots based on their total area. A summary of the total storage required for each site is detailed in Table 1.



Table 1: Summary of required storage for each lot

Lot No.	Lot Size (m2)	Required Storage (m3)								
1	2,662	72.36								
2	1,610	43.76								
3	1,129	30.69								
4	14,700	399.57								
Total	20,101	546.37								

The proposed storage solution for each of the individual lots is subject to development of each lot. Generally, the storage solution will be a combination of rainwater tanks, oversized pipes and pavement storage. The final solution would be subject to detailed design calculations and ultimately Council approval.

3.2 Minor Flow System

The minor drainage system onsite will be designed for the 20% AEP; however, pipes are to be oversized to accommodate for onsite retention. The minor drainage system will convey the water to the legal point of discharge being the existing pit at the entrance to the property.

The extent of the minor pipe network is shown on the concept drainage plan in Appendix 3.

3.3 Major Flow System

As the proposed development is a brownfield site it is anticipated that storage onsite for the 1% AEP will not be required. It is proposed the flows from the 1% AEP will be conveyed away from proposed buildings and fuel supply infrastructure to the surrounding road networks via overland flows paths. Design levels to achieve this would be subject to detailed design and ultimately Council approval.

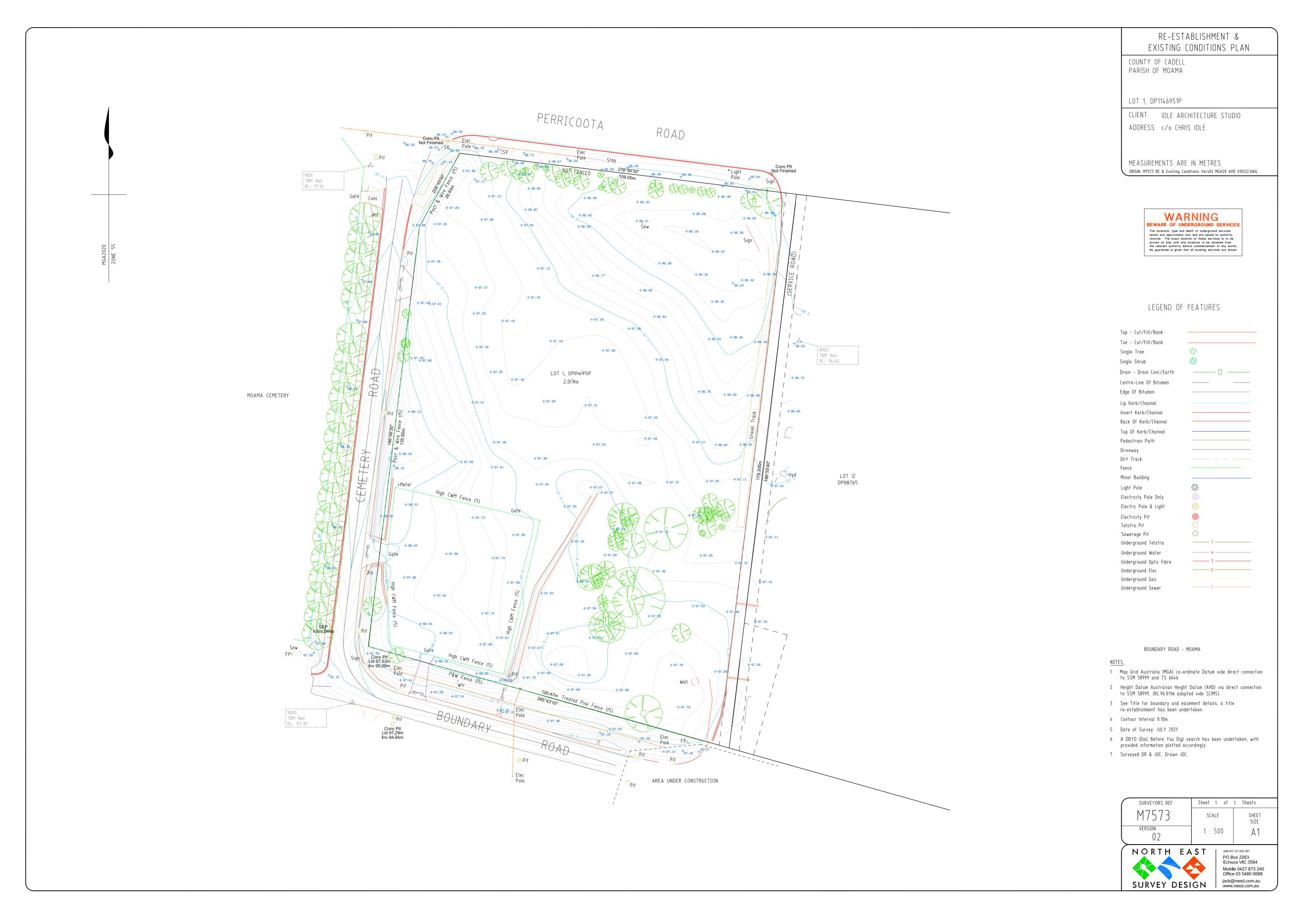
4 Water Quality Improvement

In order to provide Water Sensitive Urban Design measures for the site we have prepared a treatment train using MUSIC. The proposed treatment train for each lot provide a rainwater tank to be utilised for onsite detention as well as re-use and then finally a gross pollutant trap for the discharge prior to entering Council's drainage system. Details and results of the music model are attached in Appendix 4.



5 Appendices

5.1 Appendix 1: Existing Conditions Plan (By Others)





1	& ASS(OCIATES
	5.2	Appendix 2: Kinematic Wave Equation

Project Lot 1 Perricoota

Job No. 21057

Date March 2022

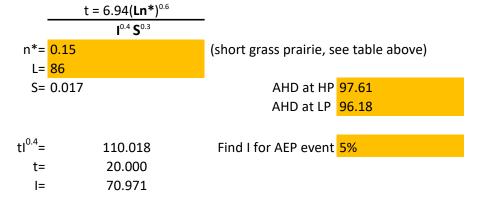
CALCULATION TO DETERMINE EXISTING RUNOFF RATE

The Kinematic Wave Equation

t=6.94 (L.n*) ° 6 / I ° 4 S ° 3
where t is overland flow time (minutes)
L is flow path length (m)
n* is a surface roughness or retardance coefficient
I is rainfall intensity (mm/h)
and S is slope (m/m)

Surface Roughness or Retardance Factors

	Roughness
Surface Type	Coefficient n*
Concrete or Ashphalt	0.010 - 0.013
Bare Sand	0.010 - 0.016
Graveled Surface	0.012 - 0.030
Bare Clay-Loam Soil (eroded)	0.012 - 0.033
Sparse Vegetation	0.053 - 0.130
Short Grass Prairie	0.100 - 0.200
Lawns	0.170 - 0.480



Predevelopment Runoff Rate

	A- Site Area=	2.01	На
C-runoff coefficient (existing) =		0.2	
Q=	CIA	_	
-	3600	•	
Q=	0.079	m3	
Q=	79.3	L/s being the allowab	le discharge from the site



5.3	Appendix 3: 5% AEP Retention Calculations

SUMMARY OF RETENTION CALCULATIONS

Client : LOT 1 PERRICOOTA

Project : PROPOSED SUBDIVISION

Ref. No. : 21057

Temporal Rainfall Pattern data for A.R.I. >30 years. Catchment area. Volumetric runoff coefficient. 0.90 Design AEP Diameter of outfall discharge pipe. 300 mm Hydraulic gradient of pipe. 254 1 in Pipe roughness coefficient 'k'. 0.15 mm Discharge rate. 79.3 l/sec

Duration		30min			60min			120min			180min			360min			720min			1440min		*Adopted	Cumi	lative	
Intensity		53.4	mm/hr		33.1	mm/hr		19.7	mm/hr		14.5	mm/hr		8.55	mm/hr		5.16	mm/hr		3.19	mm/hr	Cumulative	Runoff	Outflow	
Interval min.	%	Equivalent Intensity mm/hr.	Cumulative Equivalent Intensity mm/hr.	%	Equivalent Intensity mm/hr.	Cumulative Equivalent Intensity mm/hr.	%	Equivalent Intensity mm/hr.	Cumulative Equivalent Intensity mm/hr.	%	Equivalent Intensity mm/hr.	Cumulative Equivalent Intensity mm/hr.	%	Equivalent Intensity mm/hr.	Cumulative Equivalent Intensity mm/hr.	%	Equivalent Intensity mm/hr.	Cumulative Equivalent Intensity mm/hr.	%	Equivalent Intensity mm/hr.	Cumulative Equivalent Intensity mm/hr.	Equivalent Intensity mm/hr	CIA*(dt) /360 m ³	79.3 l/s	Excess m ³
0 60 120 180 240 300 360 420 480 540 600 660 720 780 840 900 960 1020 1080 1140 1260 1320 1380 1440				100	33.1	33.1	78.4 21.6	30.8896 8.5104	30.8896 39.4	65.4 22.9 11.7	28.449 9.9615 5.0895	28.449 38.4105 43.5	27.5	18.4167 14.1075 7.5411 5.5404 3.4884 2.2059	18.4167 32.5242 40.0653 45.6057 49.0941 51.3	28.6 8 8.9 5.4	17.70912 4.9536 5.51088 3.34368 5.07744 4.0248 2.72448 2.53872 1.67184 1.548	11.70288 29.412 34.3656 39.87648 43.22016 48.2976 52.3224 55.04688 57.5856 59.25744 60.80544 61.92		17.45568 10.79496 5.28264 3.90456 3.13896 4.9764 3.36864 1.45464 2.60304	7.34976 24.80544 35.6004 40.88304 44.7876 47.92656 52.90296 56.2716 57.72624 60.32928 62.47296 64.08072 65.99472 68.904 70.0524 71.35392 72.11952 72.732 73.80384 74.646 75.33504 75.87096 76.1772 76.56	39.4 43.5 45.6057 49.0941 51.3 52.90296 56.2716 57.72624 60.32928 62.47296 64.08072 65.99472 68.904 70.0524 71.35392 72.11952 72.732 73.80384 74.646 75.33504 75.87096 76.1772	1362.811 1372.506 1378.046	570.7603 856.1404 1141.521 1426.901 1712.281 1997.661 2283.041 2568.421 2853.801 3139.181 3424.562 3709.942 3995.322 4280.702 4566.082 4851.462 5136.842 5422.222 5707.603 5992.983 6278.363 6563.743	313.3989 141.9857 -69.2254 -316.513 -538.788 -784.264 -1040.65 -1265.09 -1524.15 -1762.44 -2009.05 -2265.34 -2516.1 -2748.85 -3013.45 -3275.29 -3546.82 -3821.12 -4087.11 -4357.26 -4630.17 -4905.86 -5185.7 -5464.15

For 5 % AEP

Maximum Retardation for no outflow condition =

Maximum Retardation for given outflow =

Outflow 300 mm dia. @ 1 in 254

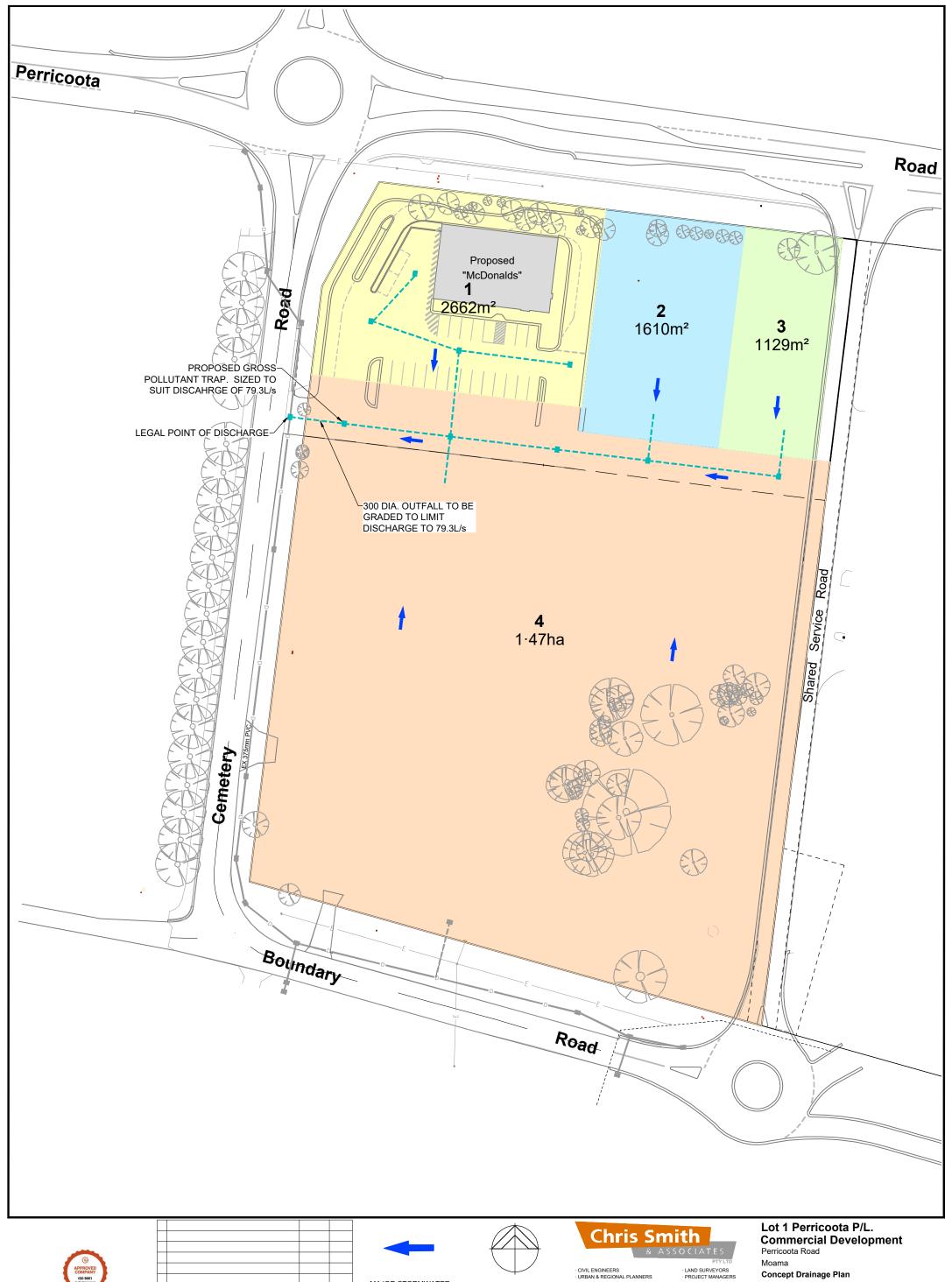
2092.65 m³ 546.37 m³ * Used for plotting of Unit Area Envelope.

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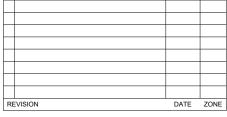
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5.4 Appendix 4: Concept Drainage Plan









OVERLAND FLOW PATH





 CIVIL ENGINEERS
 URBAN & REGIONAL PLANNERS
 PROJECT
 LEVEL 1/135 FRYERS STREET, SHEPPARTON, VIC. 3630
 PH: (03) 5820 7700
 FAX: (03) 5822 4878
 www. www.csmith.com.au Designed Tom Kerrins

February 2022 Tyler Sharman February 2022 Drawn Checked Tom Kerrins February 2022

Concept Drainage Plan Catchment Plan

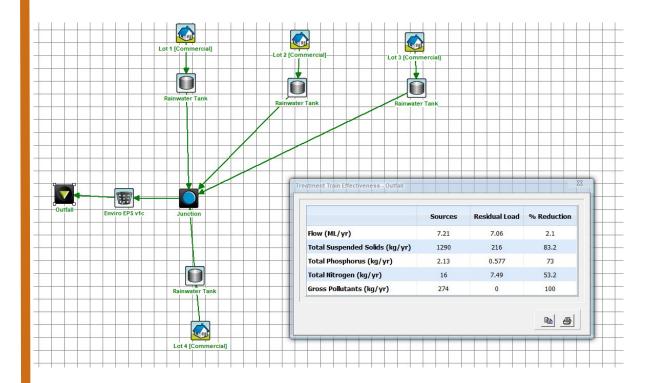
Drawing No. 21057-CD01 Sheet No. 1 of 1 © Chris Smith & Associates ABN 14 627 882 064

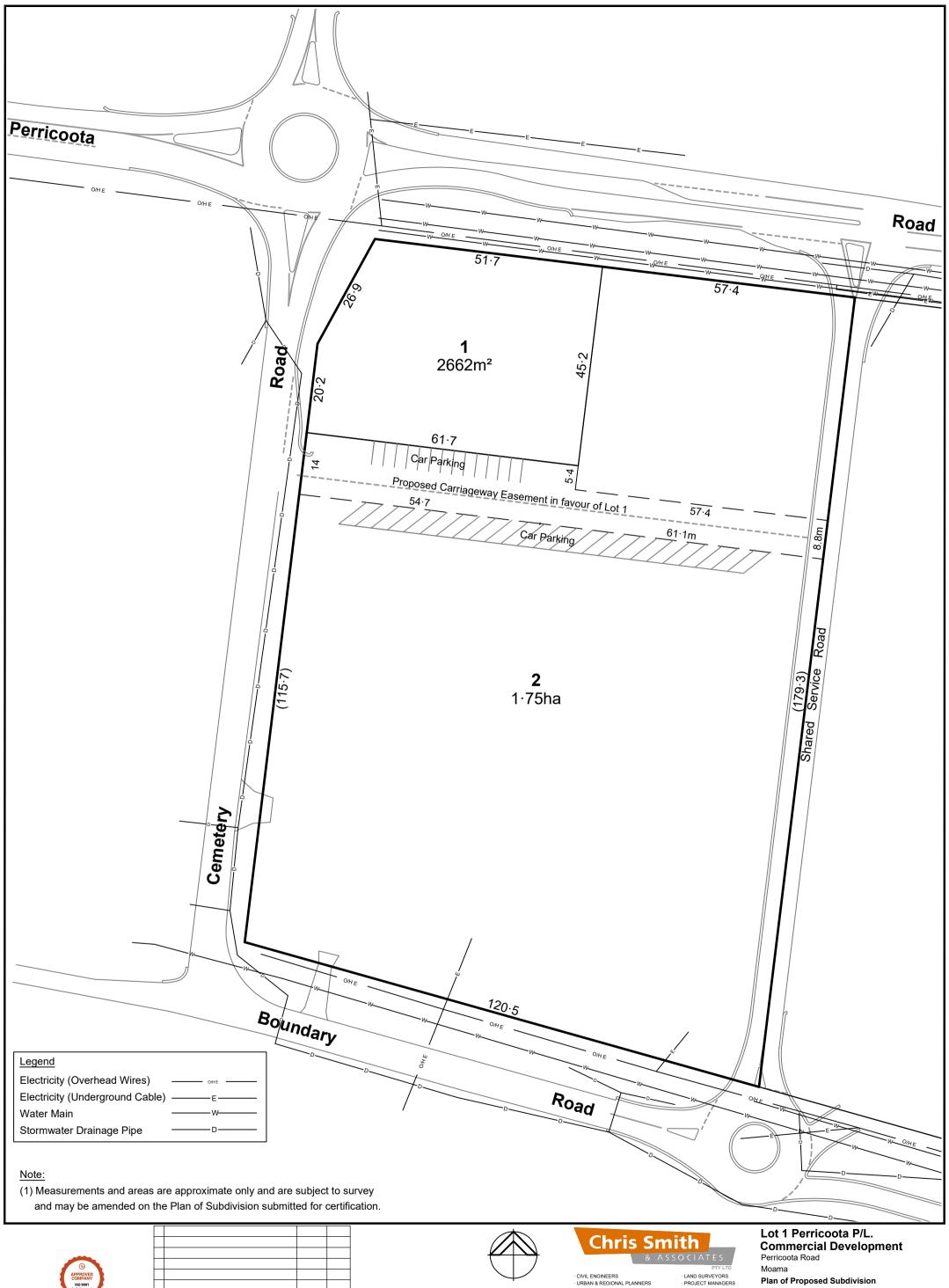
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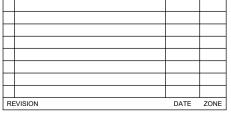


5.5 Appendix 5: MUSIC Results











Designed 9th September, 2021 Drawn Col Rogers Checked Duncan Lowis Approved

- Services Plan Drawing No. 21057/03

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