



## **Metro Outer Joint Development Assessment Panel Agenda**

**Meeting Date and Time:** Friday, 22 October 2021; 9:30am  
**Meeting Number:** MOJDAP/133  
**Meeting Venue:** Electronic Means

**To connect to the meeting via your computer - <https://zoom.us/j/96673268291>**

**To connect to the meeting via teleconference dial the following phone number -  
08 7150 1149**

**Insert Meeting ID followed by the hash (#) key when prompted - 966 7326 8291**

*This DAP meeting will be conducted by electronic means (Zoom) open to the public rather than requiring attendance in person.*

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## **Attendance**

### **DAP Members**

Mr Ian Birch (Presiding Member)  
Ms Sheryl Chaffer (Deputy Presiding Member)  
Mr John Syme (A/Third Specialist Member)  
Cr Lorna Buchan (Local Government Member, City of Rockingham)  
Cr Mark Jones (Local Government Member, City of Rockingham)

### **Officers in attendance**

Mr David Banovic (City of Rockingham)  
Mr David Waller (City of Rockingham)

### **Minute Secretary**

Ms Megan Ventris (DAP Secretariat)  
Ms Adele McMahon (DAP Secretariat)

### **Applicants and Submitters**

Mr Paul Kotsoglo (Planning Solutions)  
Mr Josh Watson (Planning Solutions)  
Mr Nathan Maas (Planning Solutions)

### **Members of the Public / Media**

Nil.

## **1. Opening of Meeting, Welcome and Acknowledgement**

The Presiding Member declares the meeting open and acknowledges the traditional owners and pay respects to Elders past and present of the land on which the meeting is being held.

This meeting is being conducted by electronic means (Zoom) open to the public. Members are reminded to announce their name and title prior to speaking.

## **2. Apologies**

Mr Jason Hick (Third Specialist Member)  
Mayor Deb Hamblin (Local Government Member, City of Rockingham)

## **3. Members on Leave of Absence**

Nil.

## **4. Noting of Minutes**

Signed minutes of previous meetings are available on the [DAP website](#).





## 5. Declarations of Due Consideration

Any member who is not familiar with the substance of any report or other information provided for consideration at the DAP meeting must declare that fact before the meeting considers the matter.

## 6. Disclosure of Interests

Nil.

## 7. Deputations and Presentations

- 7.1** Mr Paul Kotsoglo (Planning Solutions) presenting in support of the recommendation for the application at Item 8.1. The presentation will address support for the development and officer recommendation, with a request for minor amendments to conditions.

The City of Rockingham may be provided with the opportunity to respond to questions of the panel, as invited by the Presiding Member.

## 8. Form 1 – Responsible Authority Reports – DAP Applications

### 8.1 Lot 1 (364) Baldivis Road, Baldivis

Development Description:	Proposed Fast Food Outlet
Applicant:	Planning Solutions Pty Ltd
Owner:	MGP Baldivis Pty Ltd
Responsible Authority:	City of Rockingham
DAP File No:	DAP/21/02069

## 9. Form 2 – Responsible Authority Reports – DAP Amendment or Cancellation of Approval

Nil.

## 10. State Administrative Tribunal Applications and Supreme Court Appeals

Current SAT Applications				
File No. & SAT DR No.	LG Name	Property Location	Application Description	Date Lodged
DAP/19/01708 DR 138/2020	City of Kwinana	Lot 108 Kwinana Beach Road, Kwinana	Proposed Bulk Liquid Storage for GrainCorp Liquid Terminals	01/07/2020
DAP/01729 DR 176/2020	City of Kalamunda	Lot 130 (74) Warlingham Drive, Lesmurdie	Aged Residential Care Facility	28/8/2020
DAP/20/01764 DR 204/2020	City of Swan	Lot 780 (46) Gaston Road, Bullsbrook	Proposed Stock Feed Grain Mill	8/09/2020



Current SAT Applications				
File No. & SAT DR No.	LG Name	Property Location	Application Description	Date Lodged
DAP/20/01829 DR 001/2021	City of Swan	Lot 1 (42) Dale Road & Lot 4 (43) Yukich Close, Middle Swan	Aged care and community purpose	08/01/2021
DAP/210/01926 DR144/2021	City of Armadale	Lot 60 Centre Road, Camillo	Proposed 45 Grouped Dwellings	09/07/2021

## 11. General Business

In accordance with Section 7.3 of the DAP Standing Orders 2020 only the Presiding Member may publicly comment on the operations or determinations of a DAP and other DAP members should not be approached to make comment.

## 12. Meeting Closure



## Presentation Request Form

[Regulation 40\(3\)](#) and [DAP Standing Orders 2020](#) cl. 3.5

**Must be submitted at least 72 hours (3 ordinary days) before the meeting**

### Presentation Request Guidelines

Persons interested in presenting to a DAP must first consider whether their concern has been adequately addressed in the responsible authority report or other submissions. Your request will be determined by the Presiding Member based on individual merit and likely contribution to assist the DAP's consideration and determination of the application.

Presentations are not to exceed **5 minutes**. It is important to note that the presentation content will be **published on the DAP website** as part of the meeting agenda.

Please complete a separate form for each presenter and submit to [daps@dplh.wa.gov.au](mailto:daps@dplh.wa.gov.au)

### Presenter Details

Name	Paul Kotsoglo
Company (if applicable)	Planning Solutions
Please identify if you have any special requirements:	<b>YES</b> <input type="checkbox"/> <b>NO</b> <input checked="" type="checkbox"/> If yes, please state any accessibility or special requirements: <a href="#">Click or tap here to enter text.</a>

### Meeting Details

DAP Name	Metro Outer
Meeting Date	22 October 2021
DAP Application Number	DAP//21/02069
Property Location	Lot 1 (364) Baldivis Road, Baldivis
Agenda Item Number	8.1

### Presentation Details

I have read the contents of the report contained in the Agenda and note that my presentation content will be published as part of the Agenda:	<b>YES</b> <input checked="" type="checkbox"/>
Is the presentation in support of or against the <u>report recommendation</u> ? ( <i>contained within the Agenda</i> )	<b>SUPPORT</b> <input checked="" type="checkbox"/> <b>AGAINST</b> <input type="checkbox"/>
Is the presentation in support of or against the <u>proposed development</u> ?	<b>SUPPORT</b> <input checked="" type="checkbox"/> <b>AGAINST</b> <input type="checkbox"/>
Will the presentation require power-point facilities?	<b>YES</b> <input type="checkbox"/> <b>NO</b> <input checked="" type="checkbox"/> <b>If yes, please attach</b>



### **Presentation Content\***

These details may be circulated to the local government and applicant if deemed necessary by the Presiding Member. Handouts or power points will not be accepted on the day.

Brief sentence summary for inclusion on the Agenda	<i>The presentation will address:</i> Support for the development and officer recommendation, with a request for minor amendments to conditions.
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In accordance with Clause 3.5.2 of the [DAP Standing Orders](#), your presentation request must also be accompanied with a written document detailing the content of your presentation.

*Please attach detailed content of presentation or provide below:*

Please refer to attached presentation summary

# Presentation Summary

<b>To:</b>	Metro Outer JDAP	<b>From:</b>	Paul Kotsoglo
<b>Attention:</b>	Mr Ian Birch, Presiding Member	<b>Job No:</b>	7597
<b>Copy to:</b>	DAP Secretariat	<b>Date:</b>	1919 October 2021
<b>Subject:</b>	DAP Meeting Number: MOJDAP/133 – Agenda Item 8.1 Lots 1 (364) Baldivis Road, Baldivis Proposed Fast Food Outlet		

Planning Solutions acts on behalf of McDonald's Australia Limited, the proponent of the proposed McDonald's restaurant within the north eastern portion (**development area**) of Lot 1 (364) Baldivis Road, Baldivis (**subject site**). We are pleased to receive the officer recommendation for **approval**, and wish to express our support for the officer recommendation.

We do however request the following modifications to the proposed conditions:

- **Modification to Condition 5** – Additional clarity around the landscaping requirement.
- **Deletion of Condition 11** – Directional signage to be retained.
- **Modification to Condition 12** – Removal of restriction on service vehicles.
- **Deletion of Condition 14** – Unrestricted timing on service vehicles.

Refer to **Attachment 1** for a detailed breakdown of requested modifications to conditions. Justification for the recommended amendments to the proposed conditions are provided in the summary below.

## OVERVIEW AND MERITS OF THE PROPOSAL

The proposal seeks approval for the development of a modern and site-responsive Fast Food Outlet on the north eastern portion of the subject site. The development has been designed in collaboration with the City and is consistent with the intent of the site under the local planning framework.

The development will provide additional convenience and amenity to the growing North Baldivis community and is appropriately situated at the corner of Baldivis Road and Fifty Road. Situated within the emerging local centre, the development has been designed in a contemporary nature, whilst being responsive to the character of the area. This is achieved with extensive landscaping, building form, materiality, and setbacks. The proposed outlet will provide additional economic and employment opportunities for the area and has been demonstrated to be satisfactory from an environmental noise and transport engineering perspective.

## LANDSCAPING

Whilst we support the broader intent of Condition No. 5, including the proposed provision of additional trees within the development, it is respectfully requested that the condition be modified as to provide additional clarity in respect to the retention of existing trees for the following reasons:

- The proposed development does not seek to retain the trees outlined by the City's officers within the RAR. The removal of the specific requirement on the condition to retain 'existing' trees and shrubs removes the uncertainty in respect to which existing trees on the subject site are to be retained.
- The location of the proposed pylon sign is in accordance with the approved Lot 1 Fifty Road Local Development Plan (**LDP**). The retention of the existing trees adjacent to the truncation will render the proposed signage redundant as it will reduce the visibility of the signs from the surrounding road network.
- The proposed amendment to the condition will provide the necessary certainty and clarity to ensure the landscaping plan is prepared with a clear set of parameters. The modified wording will not undermine the overall landscaping for the site as the landscaping design is in excess of the landscaping requirements required in accordance with the planning framework.

## DIRECTIONAL SIGNAGE

Condition 11 seeks to remove the direction signs guiding vehicles from the entrance points of the local centre to the McDonald's restaurant. The RAR outlines the proposed directional signage should not be supported as they are outside of the development area and contribute to the overall proliferation of signage on site. The two directional signs are integral for the successful operation of the McDonald's restaurant and should be supported for the following reasons:

- The two directional signs are situated within the parent lot which will ultimately comprise the North Baldivis local centre which is still the subject of this development application and capable of approval.
- The development requires access from outside the development area, in accordance with the provisions of the LDP. As such, it is considered entirely necessary to provide directional signs to guide drivers from the entrance point along the internal driveway network to the McDonald's restaurant. These signs perform an important traffic safety and guidance function.
- The emerging local centre is proposed to comprise a service station and a variety of other commercial buildings in addition to the proposed fast food outlet. The proposed directional signage helps ensure internal manoeuvrability within the centre is satisfactory, and will not impact the functionality of the other future uses within the centre.
- The signage size is not excessive and when considered in the context of the overall site, will not contribute to the proliferation of signage on the commercial lot and in the context of the area. The proposed directional signage is consistent with McDonald's corporate branding and is consistent with signage and vehicle way finding that is implemented on sites throughout Australia.

As such, it is considered that the directional signage is entirely appropriate for the proposed development, and **proposed Condition 11 warrants removal accordingly.**

## SERVICE VEHICLES

Conditions 12 and 14 of the RAR seek to limit access and movement of service and waste vehicles to during the day period only and outside of peak hour periods. The restrictions will impact the operations of the proposed restaurant and are considered unnecessary and warrant removal for the following reasons:

- The development has been designed in accordance with the requirements of the *Environmental Protection (Noise) Regulations 1997*, (**Noise Regulations**) with the Environmental Noise Assessment (**ENA**) submitted as part of the development application package supporting unrestricted access and movement of service vehicles during night time hours.
- In accordance with the Noise Regulations, waste pick up is restricted in accordance with the hours outlined within Condition 12. This restriction does not extend to the service vehicles. The manoeuvrability of service vehicles has been proven to operate satisfactorily in accordance with the ENA outside of these restricted hours. Therefore, the condition should be modified to allow for greater flexibility in loading within Condition 12.
- The proposed access and movement of service and waste vehicles is supported by a Transport Impact Assessment (**TIA**), which concludes that the proposed arrangements are satisfactory. This includes ingress and egress to the site, internal manoeuvrability within the broader centre, as well as the impact to the surrounding road network.
- The development proposes a dedicated loading bay, which is in accordance with McDonald's development standards. McDonald's successfully operates their outlets nationally, including the use of the delivery bay during peak periods, in the unlikely event loading is required during that time. It is not McDonald's standard to have servicing of the facility during peak times. However, from time to time urgent deliveries are required. A restriction on deliveries could therefore impact the ability to receive goods and successfully operate the facility.
- The development is situated within an emerging local centre, and is not in close proximity to sensitive land uses. As such, the restriction of access and movement of service and waste vehicles on environmental noise grounds is not justified when acoustic modelling confirms service vehicles can have unrestricted access to the site.

Accordingly, it is respectfully requested that Condition 14 be removed, and Condition 12 be amended as outlined in Attachment 1.

## SUMMARY

In summary, the proposed development is generally consistent with the relevant planning framework, demonstrates an entirely appropriate form of development (and land use) for the subject site.

We respectfully request the application for development approval be considered on its merits and the Metro Outer JDAP adopt the recommendation provided in the RAR, subject to the minor **proposed wording changes of conditions 5 and 12, as well as the deletion of conditions 11 and 14.** Thank you for your time and consideration. I would be pleased to answer any questions from the JDAP members at the meeting on 22 October 2021.

Yours faithfully

pp   
\_\_\_\_\_  
**PAUL KOTSOGLO**  
**MANAGING DIRECTOR**

## Attachment 1 - Schedule of proposed modified conditions

Condition	Proposed modification to condition	Justification
5	<p><i>A revised Landscaping Plan must be prepared and include the following detail, to the satisfaction of the City, prior to applying for a Building Permit:</i></p> <ul style="list-style-type: none"> <li><i>(i) The Location, number and type of <del>existing and</del> proposed trees and shrubs (including street trees, shade trees within the car parking areas, indicating calculations for the landscaping area;</i></li> <li><i>(ii) Any lawns to be established and areas to be mulched;</i></li> <li><i>(iii) Any natural areas/trees to be retained;</i></li> <li><i>(iv) Those areas to be reticulated or irrigated as part of a strategy for internal/external areas;</i></li> <li><i>(v) Irrigation plans for all planted areas including the adjoining verge areas;</i></li> <li><i>(vi) Proposed upgrading to landscaping, paving and reticulation of the street setback area and all verge areas, including ongoing maintenance;</i></li> <li><i>(vii) Install five (5) additional trees along the Baldivis Road boundary, two (2) trees within the carpark planted nibs and one (1) additional tree along Fifty Road boundary. All trees are to be a minimum of 200Ltr.</i></li> </ul> <p><i>The landscaping (including all verge landscaping) must be completed prior to the occupation of the development by the operator or landowner, and must be maintained at all times to the satisfaction of the City of Rockingham.</i></p>	<p>We request Condition 5 be <b>modified</b> for the following reasons:</p> <ul style="list-style-type: none"> <li>The proposed development does not seek to retain the trees outlined by the City's officers within the RAR. The removal of the specific requirement on the condition to retain 'existing' trees and shrubs removes the uncertainty in respect to which existing trees on the subject site are to be retained.</li> <li>The location of the proposed pylon sign is in accordance with the approved Lot 1 Fifty Road Local Development Plan (LDP). The retention of the existing trees adjacent to the truncation will render the proposed signage redundant as it will reduce the visibility of the signs from the surrounding road network.</li> <li>The proposed amendment to the condition will provide the necessary certainty and clarity to ensure the landscaping plan is prepared with a clear set of parameters. The modified wording will not undermine the overall landscaping for the site as the landscaping design is in excess of the landscaping requirements required in accordance with the planning framework.</li> </ul>
11	<p><del>The proposed Directional Signage outside the development boundaries of the Fast Food Outlet site is excluded from this Development Approval.</del></p>	<p>We respectfully request Condition 11 be <b>deleted</b> for the following reasons:</p> <ul style="list-style-type: none"> <li>The two directional signs are situated within the parent lot which will ultimately comprise the North Baldivis local centre which is still the subject of this development application and capable of approval.</li> <li>The development requires access from outside the development area, in accordance with the provisions of the LDP. As such, it is considered entirely necessary to provide directional signs to guide drivers from the entrance point along the internal driveway network to the McDonald's restaurant. These signs perform an important traffic safety and guidance function.</li> <li>The emerging local centre is proposed to comprise a service station and a variety of other commercial buildings in addition to the proposed fast food outlet. The proposed directional signage helps ensure internal manoeuvrability within the centre is satisfactory, and will not impact the functionality of the other future uses within the centre.</li> <li>The signage size is not excessive and when considered in the context of the overall site, will not contribute to the proliferation of signage on the commercial lot and in the context of the area. The proposed directional signage is consistent with McDonald's corporate branding and is consistent with signage and vehicle way finding that is implemented on sites throughout Australia.</li> </ul>



Condition	Proposed modification to condition	Justification
12	<del>Access to service/Waste vehicles or Operation of forklifts</del> must be restricted to the hours of 7:00am and 7:00pm Monday to Saturday and 9:00am to 7:00pm Sunday and public holidays, for the duration of the development.	<p>We request Condition 12 be <b>modified</b> and Condition 14 be removed for the following reasons:</p> <ul style="list-style-type: none"> <li>The development has been designed in accordance with the requirements of the Environmental Protection (Noise) Regulations 1997, (Noise Regulations) with the Environmental Noise Assessment (ENA) submitted as part of the development application package supporting unrestricted access and movement of service vehicles during night time hours.</li> <li>In accordance with the Noise Regulations, waste pick up is restricted in accordance with the hours outlined within Condition 12. This restriction does not extend to the service vehicles. The manoeuvrability of service vehicles has been proven to operate satisfactorily in accordance with the ENA outside of these restricted hours. Therefore, the condition should be modified to allow for greater flexibility in loading within Condition 12.</li> <li>The proposed access and movement of service and waste vehicles is supported by a Transport Impact Assessment (TIA), which concludes that the proposed arrangements are satisfactory. This includes ingress and egress to the site, internal manoeuvrability within the broader centre, as well as the impact to the surrounding road network.</li> <li>The development proposes a dedicated loading bay, which is in accordance with McDonald's development standards. McDonald's successfully operates their outlets nationally, including the use of the delivery bay during peak periods, in the unlikely event loading is required during that time. It is not McDonald's standard to have servicing of the facility during peak times. However, from time to time urgent deliveries are required. A restriction on deliveries could therefore impact the ability to receive goods and successfully operate the facility.</li> <li>The development is situated within an emerging local centre, and is not in close proximity to sensitive land uses. As such, the restriction of access and movement of service and waste vehicles on environmental noise grounds is not justified when acoustic modelling confirms service vehicles can have unrestricted access to the site.</li> </ul>
14	<del>All service vehicle movements shall occur outside the morning (7.00am-9.00am) and afternoon peak (16.00pm-18.00pm) hour periods to minimise traffic safety risk.</del>	

# LOT 1 (No.364) BALDIVIS ROAD, BALDIVIS – PROPOSED FAST FOOD OUTLET

## Form 1 – Responsible Authority Report (Regulation 12)

<b>DAP Name:</b>	Metro Outer Joint Development Assessment Panel	
<b>Local Government Area:</b>	City of Rockingham	
<b>Applicant:</b>	Planning Solutions Pty Ltd	
<b>Owner:</b>	MGP Baldivis Pty Ltd	
<b>Value of Development:</b>	\$2.023 million <input type="checkbox"/> Mandatory (Regulation 5) <input checked="" type="checkbox"/> Opt In (Regulation 6)	
<b>Responsible Authority:</b>	City of Rockingham	
<b>Authorising Officer:</b>	Mr Bob Jeans, Director Planning and Development Services	
<b>LG Reference:</b>	DD020.2021.00000230.001	
<b>DAP File No:</b>	DAP/21/02069	
<b>Application Received Date:</b>	1 September 2021	
<b>Report Due Date:</b>	19 October 2021	
<b>Application Statutory Process Timeframe:</b>	54 days	
<b>Attachment(s):</b>	1. Development Plans 2. Development Application 3. Structure Plan - Advertised Commercial Concept Plan 4. Lot 1 Fifty Road Structure Plan Map 5. Subdivision Plan 6. Local Development Plan	
<b>Is the Responsible Authority Recommendation the same as the Officer Recommendation?</b>	<input checked="" type="checkbox"/> Yes	Complete Responsible Authority Recommendation section
	<input type="checkbox"/> No	Complete Responsible Authority and Officer Recommendation sections

### Responsible Authority Recommendation

That the Metro Outer Joint Development Assessment Panel resolves to:

**Approve** DAP Application reference DAP/21/02069 and accompanying plans as contained within Attachment 1:

- Site Plan, Drawing No.DA02;
- Site Signage Plans; Drawing No.DA03;
- Landscaping Plan; Drawing No.DA04;
- Floor Plan; Drawing No.DA05;
- Roof Plan; Drawing No.DA06;
- Elevations; Drawing No.DA07 and DA08;
- Signage Details Drawing No.DA10 and DA11; and
- Feature Survey Plans; Drawing No.001 and 012;

in accordance with Clause 68 of the Planning and Development (Local Planning Schemes) Regulations 2015 and the provisions of clause 68(2)(b) of the deemed provisions of the City of Rockingham Town Planning Scheme No.2, subject to the following conditions as follows:

## Conditions

1. This decision constitutes Development Approval only and is valid for a period of four years from the date of approval (this is inclusive of the additional two years available under 'Clause 78H Notice of Exemption from planning requirements during State of Emergency' issued by the Minister for Planning on 8 April 2020). If the subject development is not substantially commenced within the specified period, the approval shall lapse and be of no further effect.
2. A Dust, Noise and Vibration Management Plan is to be submitted and approved by the City of Rockingham prior to the commencement of works.
3. Prior to applying for a Building Permit, a Stormwater Management Plan must be prepared by a suitably qualified engineering showing how stormwater will be contained on-site and those plans must be submitted to the City of Rockingham for its approval. All stormwater generated by the development must be managed in accordance with Planning Policy 3.4.3 - Urban Water Management to the satisfaction of the City of Rockingham. The approved plans must be implemented, and all works must be maintained for the duration of the development.
4. All service areas and service related hardware, including air-conditioning units, being suitably located from public views and/or screened, the details of which are to be provided to the City of Rockingham's satisfaction prior to applying for a Building Permit.
5. A revised Landscaping Plan must be prepared and include the following detail, to the satisfaction of the City, prior to applying for a Building Permit:
  - (i) The Location, number and type of existing and proposed trees and shrubs (including street trees, shade trees within the car parking areas, indicating calculations for the landscaping area;
  - (ii) Any lawns to be established and areas to be mulched;
  - (iii) Any natural areas/trees to be retained;
  - (iv) Those areas to be reticulated or irrigated as part of a strategy for internal/external areas;
  - (v) Irrigation plans for all planted areas including the adjoining verge areas;
  - (vi) Proposed upgrading to landscaping, paving and reticulation of the street setback area and all verge areas, including ongoing maintenance;
  - (vii) Install five (5) additional trees along the Baldivis Road boundary, two (2) trees within the carpark planted nibs and one (1) additional tree along Fifty Road boundary. All trees are to be a minimum of 200Ltr.

The landscaping (including all verge landscaping) must be completed prior to the occupation of the development by the operator or landowner, and must be maintained at all times to the satisfaction of the City of Rockingham.

6. Prior to applying for a Building Permit, a Waste Management Plan must be prepared and include the following detail to the satisfaction of the City of Rockingham:
  - (i) the location of bin storage areas and bin collection areas;
  - (ii) the number, volume and type of bins, and the type of waste to be placed in the bins;
  - (iii) management of the bins and the bin storage areas, including cleaning, rotation and moving bins to and from the bin collection areas; and
  - (iv) frequency of bin collections.

All works must be carried out in accordance with the Waste Management Plan and maintained at all times, for the duration of development.

7. Prior to the occupation of the development, a Final Acoustic Assessment must be prepared and provided to the City of Rockingham which demonstrates to City's satisfaction, that the completed development complies with the *Environmental Protection (Noise) Regulations 1997*.

The Final Acoustic Assessment must include the following information:

- (i) noise sources compared with the assigned noise levels as stated in the *Environmental Protection (Noise) Regulations 1997*, when the noise is received at the nearest "noise sensitive premises" and surrounding residential area;
  - (ii) tonality, modulation and impulsiveness of noise sources; and
  - (iii) confirmation of the implementation of noise attenuation measures. Any further works must be carried out in accordance with the Acoustic Report and implemented as such for the duration of the development.
8. Earthworks over the site associated with the development must be stabilised to prevent sand or dust blowing off the site, and appropriate measures shall be implemented within the time and the manner directed by the City of Rockingham in the event that sand or dust is blown from the site.
9. The proposed Pylon Sign must be modified to a maximum height of 9.0m.
10. The proposed Banner Signage is excluded from this Development Approval.
11. The proposed Directional Signage outside the development boundaries of the Fast Food Outlet site is excluded from this Development Approval.
12. Access to service/waste vehicles or operation of forklifts must be restricted to the hours of 7:00am and 7:00pm Monday to Saturday and 9:00am to 7:00pm Sunday and public holidays, for the duration of the development.
13. All odours and emissions must be controlled as not to create a nuisance, to the satisfaction of the City of Rockingham.
14. All service vehicle movements shall occur outside the morning (7.00am-9.00am) and afternoon peak (16.00pm-18.00pm) hour periods to minimise traffic safety risk.

15. Prior to the occupation of the development, a final illumination report must be prepared which demonstrates to the satisfaction of the City of Rockingham, that the completed development complies with the requirements of Australian Standard AS 4282—1997, Control of the obtrusive effects of outdoor lighting. All illuminated signage shall have boxing or casing constructed of incombustible materials. The signage shall not comprise of flashing, pulsating, chasing or running lights and shall not have such intensity as to cause annoyance to the public or illuminate beyond the extend of the lot boundaries.
16. Existing retained street trees adjacent to the development site must be protected throughout the course of the project in accordance with Australian Standard AS 4970-2009 protection of trees on Development Sites, unless further approval has been obtained.
17. Four (4) bicycle parking spaces must be designed in accordance with AS2890.3-1993, *Parking facilities, Part 3: Bicycle parking facilities*, and located within the development to the satisfaction of the City of Rockingham, prior to commencement of development.

The bicycle parking spaces must be constructed prior to occupation of the development.

18. The car parking areas must:
  - (i) provide a minimum of 26 car parking spaces;
  - (ii) be designed, constructed, sealed, kerbed, drained and marked in accordance with User Class 3 of Australian/New Zealand Standard AS/NZS 2890.1:2004, *Parking facilities, Part 1: Off-street car parking* unless otherwise specified by this approval, prior to applying for a Building Permit (kerb ramping to be located outside the shared area for the universal bay);
  - (iii) provide car parking spaces dedicated to people with disabilities, which are designed, constructed, sealed, kerbed, drained and marked in accordance with Australian/New Zealand Standard AS/NZS 2890.6:2009, *Parking facilities, Part 6: Off-street parking for people with disabilities* and which are linked to the main entrance of the development by a continuous accessible path of travel designed and constructed in accordance with Australian Standard AS 1428.1—2009, *Design for access and mobility, Part 1: General Requirements for access—New building work*;
  - (iv) be constructed, sealed, kerbed, drained and marked prior to the development being occupied and maintained thereafter; and
  - (v) comply with the above requirements for the duration of the development.
19. The proposed development must be kept neat and tidy, and free of rubbish at all times for the duration of the development.

#### Advice Notes

1. A separate approval from the City of Rockingham's Health Services is required under the Food Act 2008 and Food Safety Standards. This is required prior to lodgement of an application for a Building Permit. The Applicant should liaise with the City of Rockingham's Health Services in this regard.

2. A Sign Permit must be obtained for any advertising associated with the development, including signage painted on the building; the Applicant should liaise with the City's Building Services in this regard.
3. All works in the road reserve, including construction of a crossover or footpath and any other works to the road carriageway must be to the specifications of the City of Rockingham. The Applicant should liaise with the City of Rockingham's Land and Development Infrastructure Services in this regard.
4. The development must comply with the Environmental Protection (Noise) Regulations 1997; contact the City of Rockingham's Health Services in this regard.
5. In relation to Condition 2, dust management is to be in accordance with the Department of Environment and Conservation Guideline: A guideline for managing the impacts of dust and associated contaminants from land development sites, contaminated sites remediation and other related activities.
6. In relation to Condition 3, a Stormwater Management Plan (SMP) is to reflect the overarching Local Water Management Strategy, that being:
  - (i) Treatment of the first 15mm of rainfall runoff from trafficable areas. Note that the proposed carpark elevations provided on the Site Plan indicate that treatment of the first 15mm utilizing Water Sensitive Urban Design elements is not proposed. This will need to be rectified in the SMP.
  - (ii) Retention and infiltration of all events up to the critical 10% AEP (1:10) storm event within the development boundary.
  - (iii) Provision of an overflow route towards the future adjacent Public Open Space, for events greater than the 10% AEP.
7. In relation to Condition 14, the swept path analysis suggests that the movement for service vehicles within the site would be encroaching into the opposing traffic lane as well as incorporating reversing movements which increases traffic safety risk and would impact upon traffic flow within the car parking areas.

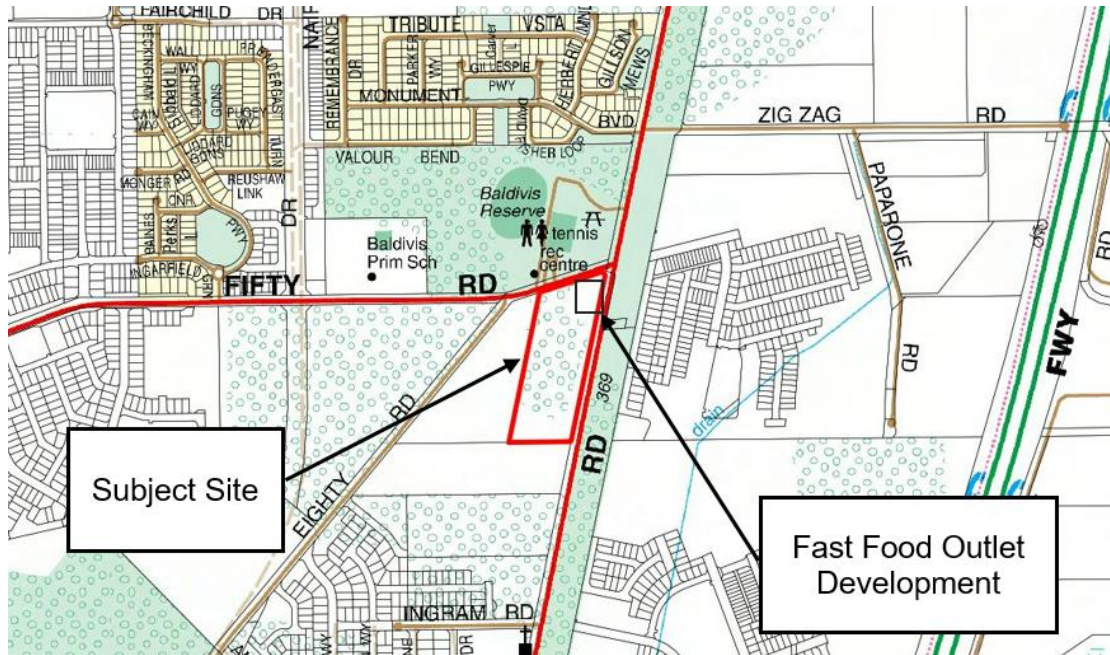
## **Background:**

### Site Context

The subject site is approximately 4.04 hectares and currently contains a Single Dwelling.

The subject site is bounded by Fifty Road to the north, rural properties to the west, a poultry farm to the south and Baldivis Road to the east. The property to the west and further on the opposite side of Eighty Road are zoned for future urban development.

Directly to the north, on the opposite side of Fifty Road, is Baldivis Reserve which includes a small oval, tennis courts, recreation centre and bushland. Approximately 250m to the north-west of the opposite side of Fifty Road is the Baldivis Primary School.



1. Location Plan



2. Aerial Photograph of the Subject Site



## Planning Proposals

The following outlines the recent planning proposals on this site.

### *Structure Plan*

The City received a Structure Plan (SP) proposal over the site in October 2018, which planned for residential development at a density of Residential 'R25' (average lot size of 350m<sup>2</sup>), a Public Open Space contribution and access arrangements.

A Commercial zone was also proposed in the most north-eastern corner of the site at the Baldivis Road and Fifty Road intersection, with the following indicative land uses contemplated (subject to separate Development Approval/s, Attachment 3):

- Shop;
- Service Station;
- Liquor Store - Small; and
- Fast Food Outlet.

In July 2020, following consideration of the submissions received and the City's assessment of the proposal, Council resolved to recommend that the SP be approved subject to various modifications including *"The proposed commercial site be zoned Special Use on the Local Structure Plan Map"*.

In order to ensure potential impacts on other planned Commercial Centres is limited, the City recommended that the proposed 'Commercial zone' be modified to a 'Special Use zone' with conditions that limit retail floor area and prohibit non-compatible land uses, details of which are discussed below within the Planning Assessment section of this Report.

In December 2020, the Western Australian Planning Commission (WAPC) formally reviewed the SP and decided to request various modifications, in accordance with recommendations made by the City.

Subsequently, in April 2021, WAPC resolved to approve the modified SP (Attachment 4).

### *Subdivision Application*

In April 2021, the WAPC also granted Subdivision Approval over the Special Use zone for four freehold (green title) lots. Condition 21 of the Subdivision Approval required a Local Development Plan (LDP) to be prepared and approved in accordance with the Subdivision Plan (Attachment 5).

### *Development Application and Local Development Plan*

In January 2021, a LDP for the Special Use zone was submitted to the City for consideration along with a concurrent Development Application for a Liquor Store - Small on future Lot 2 and Service Station on Lot 3.

Following consideration of submissions (public and Government agencies inclusive of Department of Health and Department of Water and Environmental Regulation) received on both proposals and the City's assessment, the City approved the LDP (Attachment 6) in May 2021 and subsequently the Development Application in August 2021.

No Development Applications have been submitted to the City for consideration on future Lot 4.



## Subject Development Application

In September 2021, a Development Assessment Panel (DAP) Application was lodged by the Applicant for a Fast Food Outlet, on the north-eastern portion of the Special Use zone.

The area of land subject to this application is future Lot 1 (refer to Attachments 5 and 6) with a total area of 3563m<sup>2</sup>, and a portion of future Lots 2 and 3 which includes a vehicle access easement connecting Baldivis Road to an internal subdivision road linked to Fifty Road.

For clarity, future Lot 1 is referred to throughout this Report as the 'development site', whilst the Special Use zone is referred to as the 'Local Commercial Centre'.

### **Details: outline of development application**

Region Scheme	Metropolitan Region Scheme
Region Scheme - Zone/Reserve	Urban
Local Planning Scheme	Town Planning Scheme No.2
Local Planning Scheme - Zone/Reserve	Development
Structure Plan	Lot 1 Fifty Road Structure Plan
Structure Plan Land Use Designation	Special Use
Use Class and permissibility:	Fast Food Outlet - Permissible 'P' use
Lot Size:	4.0432ha
Existing Land Use:	Vacant land
State Heritage Register	No
Local Heritage	<input checked="" type="checkbox"/> N/A <input type="checkbox"/> Heritage List <input type="checkbox"/> Heritage Area
Design Review	<input checked="" type="checkbox"/> N/A <input type="checkbox"/> Local Design Review Panel <input type="checkbox"/> State Design Review Panel <input type="checkbox"/> Other
Bushfire Prone Area	Yes
Swan River Trust Area	No

### **Proposal:**

This application seeks Development Approval for the use and development of a drive-through Fast Food Outlet, associated signage, parking, landscaping and access on a portion of the Local Commercial Centre site.

Specifically, the development provides for:

- A single storey building comprising a Net Lettable Area (NLA) of 270m<sup>2</sup>;
- An enclosed plant and servicing area within the western portion of the building and adjacent shared loading bay for service vehicles;
- A dual-lane drive-through and pick-up window with canopy and drive-through screen on the northern elevation of the building;

- Various signage including a prominent 12.0m high Pylon Sign adjacent to the Baldivis Road and Fifty Road intersection;
- 26 car parking bays, including one accessible parking bay adjacent to the building entrance;
- Two drive-through waiting bays plus car stacking capacity for 14 cars within the drive-through facility;
- Bicycle parking racks;
- Landscaping along the frontages and within the subject site, including a mix of soft landscaping beds and shade trees; and
- An internal footpath network which is proposed to link the building entrance with the existing pedestrian footpath from Baldivis Road and remaining planned Centre to the south.

The development is proposed to operate 24 hours per day, seven days a week and will accommodate 10 to 15 staff at any one time.

The development will be accessible by a planned vehicle access point for the Local Commercial Centre, being a (southern) left-in/right-in crossover with a left-turn/right-turn slip lane in both directions on Baldivis Road, a separate (northern) left-out only crossover on Baldivis Road, and a full movement crossover to the planned internal subdivision road to the western boundary of the Centre connecting to Fifty Road.

Deliveries and waste collection will be undertaken within the loading bay located to the west of the building. The service vehicles and waste collection trucks will enter the site from Baldivis Road, circulate the internal Local Commercial Centre site's car park to the development and access the loading bay in a reverse movement. Subsequently, vehicles will leave the loading bay and return onto Baldivis Road in a forward gear.

The following Reports and Plans accompanied the DAP Application:

- Planning Report;
- Traffic Impact Assessment;
- Bushfire Management Plan;
- Environmental Noise Assessment; and
- Development Plans and Perspectives.

## **Legislation and Policy:**

### Legislation

- Planning and Development Act 2005
- Metropolitan Region Scheme
- Town Planning Scheme No.2
- Planning and Development (Local Planning Scheme) Regulations 2015
- Environmental Protection (Noise) Regulations 1997

### State Government Policies

- State Planning Policy 3.7 - Planning in Bushfire Prone Areas
- State Planning Policy 7.0 - Design of the Built Environment

### Structure Plans/Activity Centre Plans/Local Development Plans

- Lot 1 Fifty Road Structure Plan
- Lot 1 Fifty Road Local Development Plan (Special Use zone)

### Local Policies

- Planning Policy 3.3.1 - Control of Advertisements
- Planning Policy 3.3.9 - Fast Food Outlets
- Planning Policy 3.3.14 - Bicycle Parking and End of Trip Facilities
- Planning Policy 3.4.3 - Urban Water Management

### **Consultation:**

#### Public Consultation

Pursuant to Clause 64(1)(c) of the Deemed Provisions of Town Planning Scheme No.2, the local government has the discretion to advertise, or not to advertise an application seeking Development Approval.

As the proposed development is consistent with the adopted SP and is generally consistent with the approved LDP which established the development control provisions over the site, advertising is not considered to be necessary for this commercial proposal.

#### Referrals/consultation with Government/Service Agencies

Not applicable

#### Design Review Panel Advice

Not applicable

#### Swan Valley Planning

Not applicable

### **Planning Assessment:**

The proposal has been assessed against all the relevant legislative requirements of the Scheme, State and Local Planning Policies, Structure Plan (SP) and Local Development Plan (LDP), as outlined in the Legislation and Policy section of this report.

The following matters have been identified as key considerations for the determination of this application:

- Structure Plan;
- Landscape Quality;
- Signage;
- Parking;
- Vehicular Access;
- Stormwater;
- Noise; and
- Site Plan Layout.

These matters are discussed below.

### Structure Plan

Clause 27 of Schedule 2 of the Deemed Provisions states that a decision-maker for an application for Development Approval in an area that is covered by a Structure Plan (SP) is to have due regard to, but is not bound by, the SP when deciding the application.

As detailed in the Background section of this Report, the Local Commercial Centre is covered by the SP which was approved by the WAPC in April 2021.

The following SP requirements/conditions apply to this proposal:

- All uses as listed in accordance with the Commercial zone of Table No.1 - Zoning Table of the Council's Town Planning Scheme, with the exception of the following, which shall not be permitted: Liquor Store - Large, Tavern and Warehouse/Storage;
- A total shop/retail NLA area of 1,300m<sup>2</sup> of land use activities included in the Planning Land Use Category 5 'shop/retail' as defined by WAPC Perth and Peel land use and Employment Survey (as amended) applies;
- One full movement access point from Baldivis Road and one full movement access point from an internal subdivision road to the western boundary of the Local Commercial Centre connecting to Fifty Road; and
- Development is to occur in accordance with an approved LDP.

In regard to the above provisions:

- A Fast Food Outlet land use is Permitted;
- The approved shop/retail NLA for the Local Commercial Centre inclusive of the proposal equates to approximately 742m<sup>2</sup>. Future development on Lot 4 will not be compromised; and
- Vehicle access arrangements along Baldivis Road for the Local Commercial Centre were carried across into the LDP. A LDP has been approved over the land. Vehicular access is discussed further below.

Accordingly, the proposal satisfies the relevant requirements of the SP.

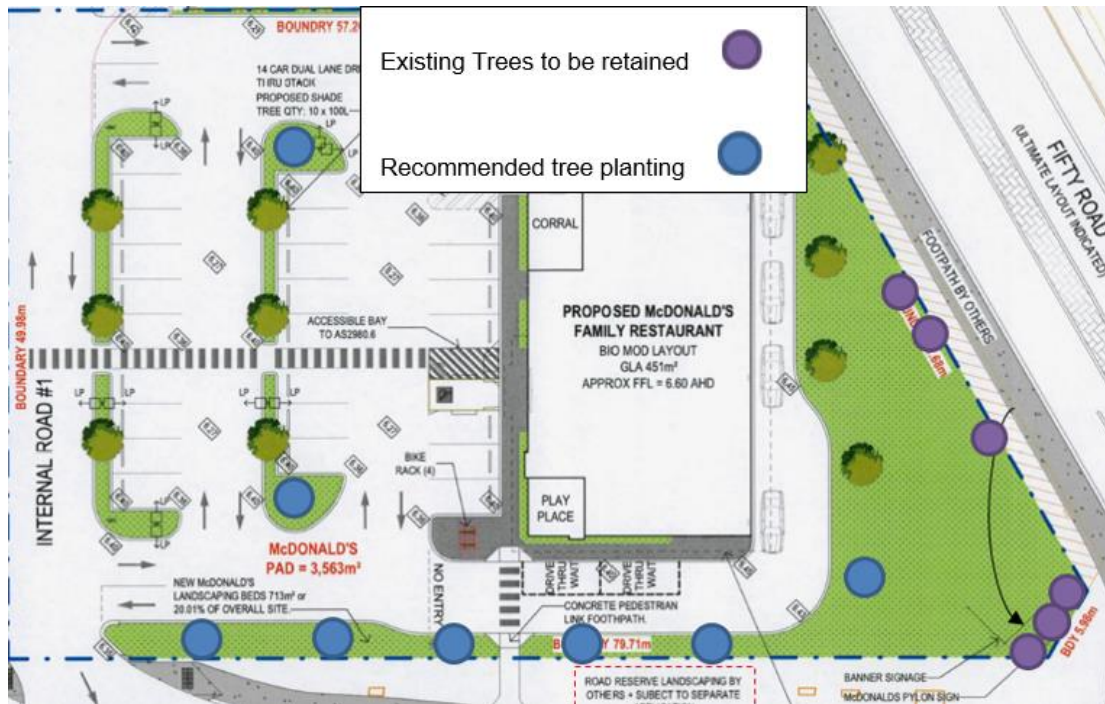
### Landscape Quality

The City considers that the proposal does not satisfy Principle 2 - Landscape Quality of State Planning Policy 7.0 - Design of the Built Environment.

The City's comments against this principle is discussed below.

Design Principle	City Comment
Principle 2 - Landscape Quality Good design recognises that together landscape and buildings operate as an integrated and sustainable	<i>Development Site</i> Development provides for a large landscaping area, however, minimal trees are proposed to be planted throughout the development site, and therefore, it is recommended additional tree planting be included. The approximate location

<p>system, within a broader ecological context.</p>	<p>of additional trees recommended for planting are identified on Figure 3 below, to provide additional shade, visual softening and blending.</p> <p>The City's recommended tree size (200ltr) ensures the trees are significantly smaller in relation to the signage and are spaced out at approximately 10m apart. The recommended tree size and spacing ensures there is no unreasonable impact upon marketing or sightlines.</p> <p>The trees on the boundary of Fifty Road (not identified on the plans) and trees on the truncation of Baldivis Road and Fifty Road intersection (also not identified on the plans) should be retained.</p> <p><i>Road Reserve</i> Verge landscape improvements are not included as part of this application.</p> <p>The Applicant's Plans for the section of verge fronting the development site note "<i>landscaping by others + subject to separate application</i>". This appears to be contingent of Condition 23 of the Subdivision Approval which requires a Landscape Management Plan to be prepared and submitted to the City of Rockingham for the Local Commercial Centre. Given the condition does not specify management obligations, the City recommends a Landscaping Condition which clarifies the on-going maintenance responsibilities for duration of development.</p> <p><i>Overall</i> The City is of the view that the development should as far as practical tie the development into its surrounds, being a treed environment near the Tramway Reserve and Baldivis Reserve. Any replacement trees as part of the subdivision and development works are also expected to be provided within the public realm or on-site as per the recommended plan below.</p>
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3. Additional Trees Recommended for Planting and Retention

### Signage

The application includes the location of proposed signage on submitted plans 'DA1' and 'DA3'. The application includes eleven (11) wall signs, five (5) directional signs, four (4) illuminated signs, one (1) banner sign with two panels and one (1) pylon sign. A Signage Strategy was submitted in support of the application.

The relevant objectives of PP3.3.1 are to:

- “(a) Ensure that advertisements are appropriate for their location;
- (b) Minimise the proliferation of advertisements;
- (c) Ensure that advertisements do not adversely impact on traffic circulation and management, or pedestrian safety;
- (d) Protect the amenity of residential areas, townscape areas and areas of environmental significance; and
- (h) Ensure advertisements are generally erected on land where the advertised business, sale of goods or service is being carried out;”

The following “advertisements shall not be permitted provision” is of relevance:

- “(c) Advertisements located on land not owned or leased by the advertiser unless where otherwise specified in this Planning Policy;”

The majority of the signs, excluding the pylon sign and the banner pole signs, are considered to be generally consistent with the objectives of PP3.3.1. The standalone directional signage (in two locations) outside of the development site boundaries are also of concern and are not permitted by the Policy.

*\*Note: the Applicant had verbally agreed to reduce the height of the Pylon Sign to 9.0m and also remove the Banner Sign which is detailed further below, however, as Revised*

*Plans had not been submitted to address these matters, the City finalised its assessment and Report on information which was originally submitted.\**

The following table provides an assessment of the pylon sign under which PP3.3.1 discretion is sought:

<b>A Pylon Sign must not:</b>	<b>Officer Comment</b>
Be located within 1.8m of a boundary.	The proposed setback from the bulk of the Pylon Sign is 0.47m. The pole is setback 0.62m in lieu of 1.8m from the boundary.
Be situated within 6.0m of any other sign of the same lot.	The sign is within 6.0m of proposed banner signage.
Have a height exceeding 6.0m, unless it can be demonstrated to the Council that a greater height is warranted and it complies with the objectives of this Planning Policy. In any event, a Pylon Sign shall not exceed 9.0m in height.	A total height of 12m above natural ground level is proposed.
Have a face area exceeding more than 3.5m width or height.	The face width is 4.34m and the height is 4.75m.
Have a face area of more than 4m <sup>2</sup> on each side (single tenancy) or 13m <sup>2</sup> on each side (multiple tenancy).	The face area based on the length and width is 20.62m <sup>2</sup> . The shape of the sign occupies 13.76m <sup>2</sup> . If the inside of the 'M' is not included the area of the sign is 9.66m <sup>2</sup> .

#### *Pylon Sign*

There are no comparable pylon signs in the locality, however, it is noted that the approved pylon signage for the Service Station development on the planned southern lot includes 9.0m high pylon signage. The proposed pylon sign is situated at a prominent corner intersection, clearly visible on approach at a height double the Fast Food Outlet building. The proposed 12.0m height of the pylon sign is not supported. There are no traffic related concerns with respect to the setback of the pylon sign from the intersection, thus the reduced setback is supported by the City.

The City considers that the sign also does not satisfy Principle 3 - Built Form and Scale of State Planning Policy 7.0 - Design of the Built Environment.



### Banner Sign

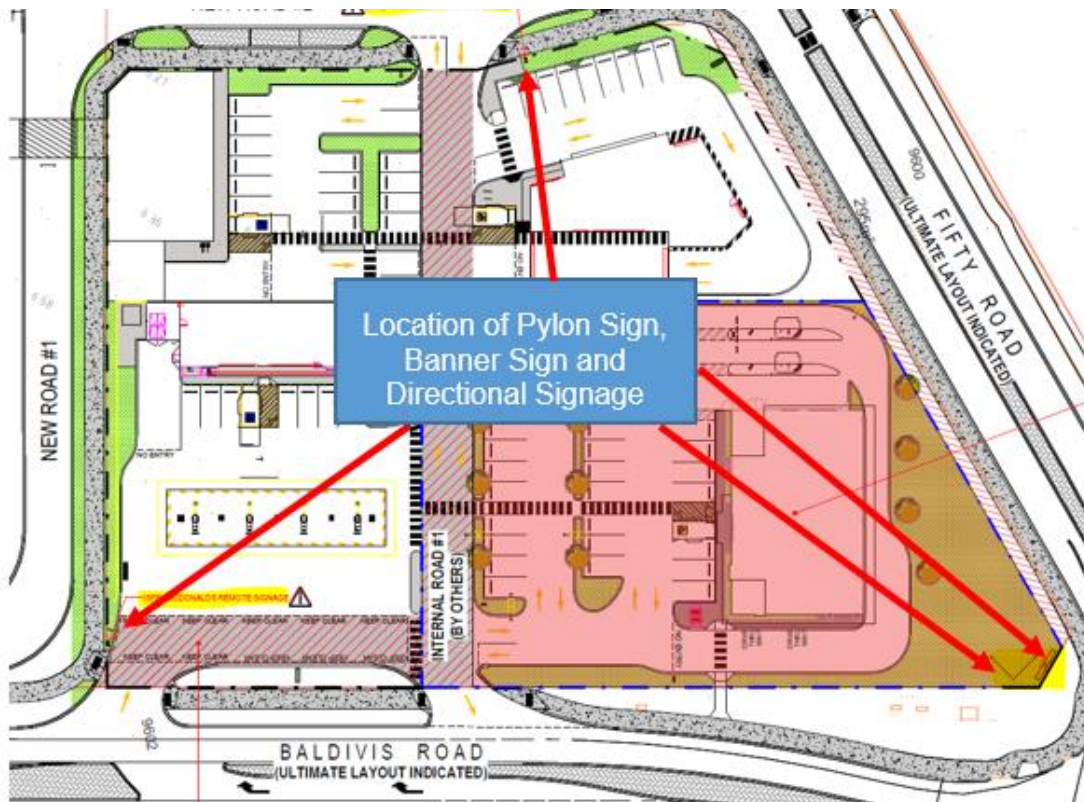
PP3.3.1 defines banner pole signs as:

*“promotional banner erected on an approved banner pole displaying information about sporting, cultural, community, recreation and tourist events/activities which may acknowledge sponsor involvement in the promotion of such events/activities”.*

Information pertaining to what is included on the banner signage has not been included in the application. The only reference is made on the plans which states *“McDonalds Banner fixed with eyebolts.”* The Applicant subsequently verbally confirmed that the banner signage was purely intended for promotion of fast food outlet products. The City does not consider a Fast Food Outlet to be a sporting, cultural, community or recreational and tourist activity/event and as such this form of advertising is not supported by the City.

### Directional Signage

There are five (5) directional signs which are considered too many. Two (2) of these signs are located outside the development site (i.e. one on future Service Station site adjacent to the southern boundary and one on the future Liquor Store - Small site adjacent to the western boundary of the Local Commercial Centre). The City considers that these advertising signs should be removed to limit over-proliferation of signage.



### 4. Signage Plan Variations



## Parking

The City's Town Planning Scheme No.2 (TPS2) requires the provision of on-site parking for vehicles for development on Commercial zoned land in accordance with the provisions of Clause 4.15 and Table No.2. The table below provides an assessment of the proposal against the relevant car parking requirements of TPS2.

Use	Rate	Required	Provided
Fast Food Outlet	1 bay per 11m <sup>2</sup> NLA (including outdoor eating areas)	28 (308m <sup>2</sup> NLA)	26
* Note: As per the requirements of Local Planning Policy 3.3.9 Fast Food Outlets, the number of on-site bays can be reduced where a drive through facility is proposed.			

The proposed development provides a total of 26 on-site car parking spaces, which does not satisfy the car parking requirements of Clause 4.15 of TPS2.

Notwithstanding this two (2) bay shortfall, pursuant to Clause 4.3 of Planning Policy 3.3.9 - Fast Food Outlets, up to a maximum of 50% of the drive-through queue lane can be utilised for the car parking allocation. The drive-through facility associated with the Fast Food Outlet accommodates for queuing of up to 14 cars. Therefore, the number of parking bays required on-site can be reduced to 21, thus resulting in an on-site surplus of five (5) bays.

## Vehicular Access

The LDP requires vehicular access to be provided as shown on the plan i.e. one full movement access point from Baldivis Road and one full movement access point form an internal subdivision road to the western boundary of the Local Commercial Centre connecting to Fifty Road.

The development is proposed to be accessible by a planned vehicle access point for the Local Commercial Centre, being a (southern) left-in/right-in crossover with a left-turn/right-turn slip lane in both directions on Baldivis Road, a separate (northern) Left-out only crossover on Baldivis Road, and a full movement crossover to the planned internal subdivision road to the western boundary of the Local Commercial Centre connecting to Fifty Road.

The intended access arrangements along Baldivis Road are consistent with prior Development Approval for the adjoining Liquor Store - Small and Service Station development which was/is supported by the City. The new access arrangements along Baldivis Road provide for greater level of legibility, convenience and safety though the Local Commercial Centre.

## Stormwater

A Stormwater Management Plan (SMP) was not submitted as part of the Development Application, nor is there any mention regarding management principles in the application.

As per Planning Policy 3.4.3 - Urban Water Management, a SMP is required to support a Development Application. Whilst the Urban Water Management Plan is yet to be approved to support the subdivision of the Local Commercial Centre, the on-site stormwater management requirements for a commercial area are expected to be consistent with the overarching Local Water Management Strategy. A SMP will be

required at the detailed design stage to reflect the engineering plans for the subdivision and landscape plan for this development.

### Noise

The potential noise impacts resulting from the proposed development has been assessed against the Environmental Protection (Noise) Regulations 1997 (the Noise Regulations). Compliance with the assigned noise levels has been demonstrated for all time periods for the surrounding land uses, however, this is predicated on the basis that the Service Station development is constructed.

Further noise mitigation measures may be necessary in the event this development is constructed and is ready for operation in advance of the Service Station development. In order to manage the potential noise implications in such event, a precautionary condition is recommended that requires a final acoustic assessment to be prepared and is provided to the City of Rockingham which demonstrates to the City's satisfaction, that the completed development complies with the Noise Regulations.

The recommended condition may be satisfied alternatively without the need for the Applicant to submit a final acoustic assessment, if the Service Station has substantially commenced development.

### Site Plan Layout

There are some concerns regarding the Site Plan layout which are unresolved, including inconsistency with engineering plans for the subdivision works and concerns regarding internal vehicular circulation, however, these matters can be managed through clarification and appropriate conditions of Development Approval and are discussed below.

### *Engineering*

The submitted plans for the Development Application include an Overall Site Plan which does not match the latest engineering base plans for Baldivis Road and New Road No.2 (e.g. left turn slip lane). In this regard, it is recommended that the Overall Site Plan be excluded from the approved drawings for this application. This plan is further not required, as the City does not support the proposed directional signage outside the development site.

### *Light Pole*

Given the level of detail the proposed light pole located adjacent to the internal road No.1 appears to restrict the movement of commercial vehicles, specifically fuel tankers for the Service Station development. The City is uncertain of the height of the light pole, but notes the light head does intrude into the internal road.

### *Kerb Ramp*

The City does not support the proposed kerb ramp being located within the shared area of the universal bay. The kerb ramp is required to be redesigned to ensure it is located outside of the shared area.

### **Conclusion:**

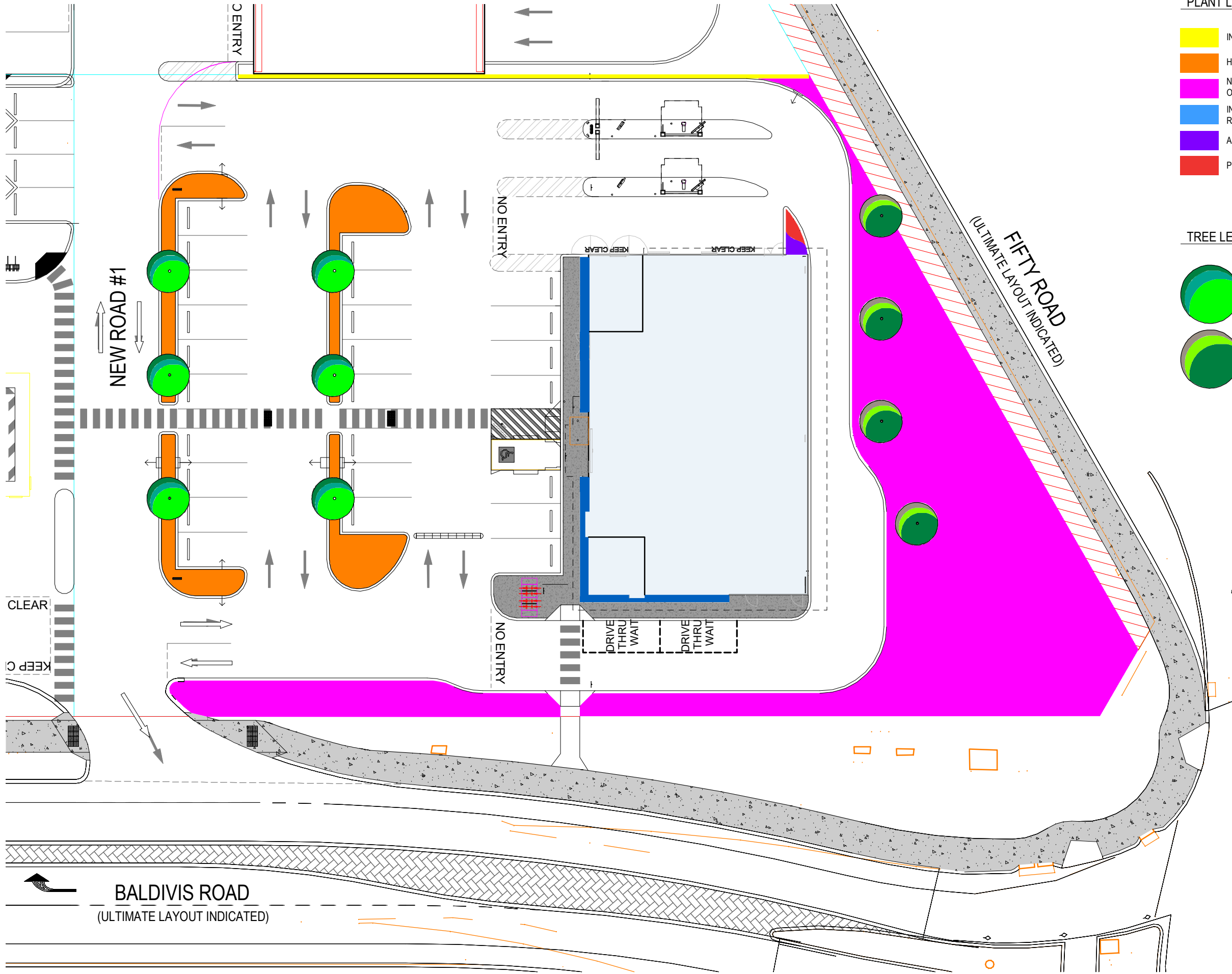
The proposed development is an approved land use within the Local Commercial Centre under TPS2. Subject to appropriate conditions in order to address the City's concerns pertaining to landscaping and signage, the proposed development is considered to be compliant with TPS2, SP, LDP and Policy requirements.

It is therefore recommended that the application for a Fast Food Outlet be conditionally approved.









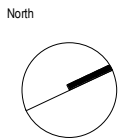
PLANT LEGEND

- INDIAN HAWTHORN FORMED AS HEDGE
- HIBBERTIA SNAKE VINE
- NATIVE MIX - WESTRINGIA, HIBBERTIA SNAKE VINE, OLEARIA, ANIGOZANTHUS, SCAEVOLA
- INDIAN HAWTHORN FORMED AS HEDGE + RADERMACHERA "SUMMERSCENT"
- AGAVE - MASS PLANTING
- PITTOSPORUM MISS MUFFET

TREE LEGEND

- EUCALYPTUS TORQUATA
- EUCALYPTUS FORRESTIANA

Revisions		General Notes		Drawing Notes
Issue	Description	Date	Chk Int	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/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 millimeters. All discrepancies and omissions on site must be reported to the architect for their comments or approval prior to commencing work.



Client  
**McDonald's Australia Limited**  
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Project Manager  
**NDG**  
NATIONAL DEVELOPMENT GROUP

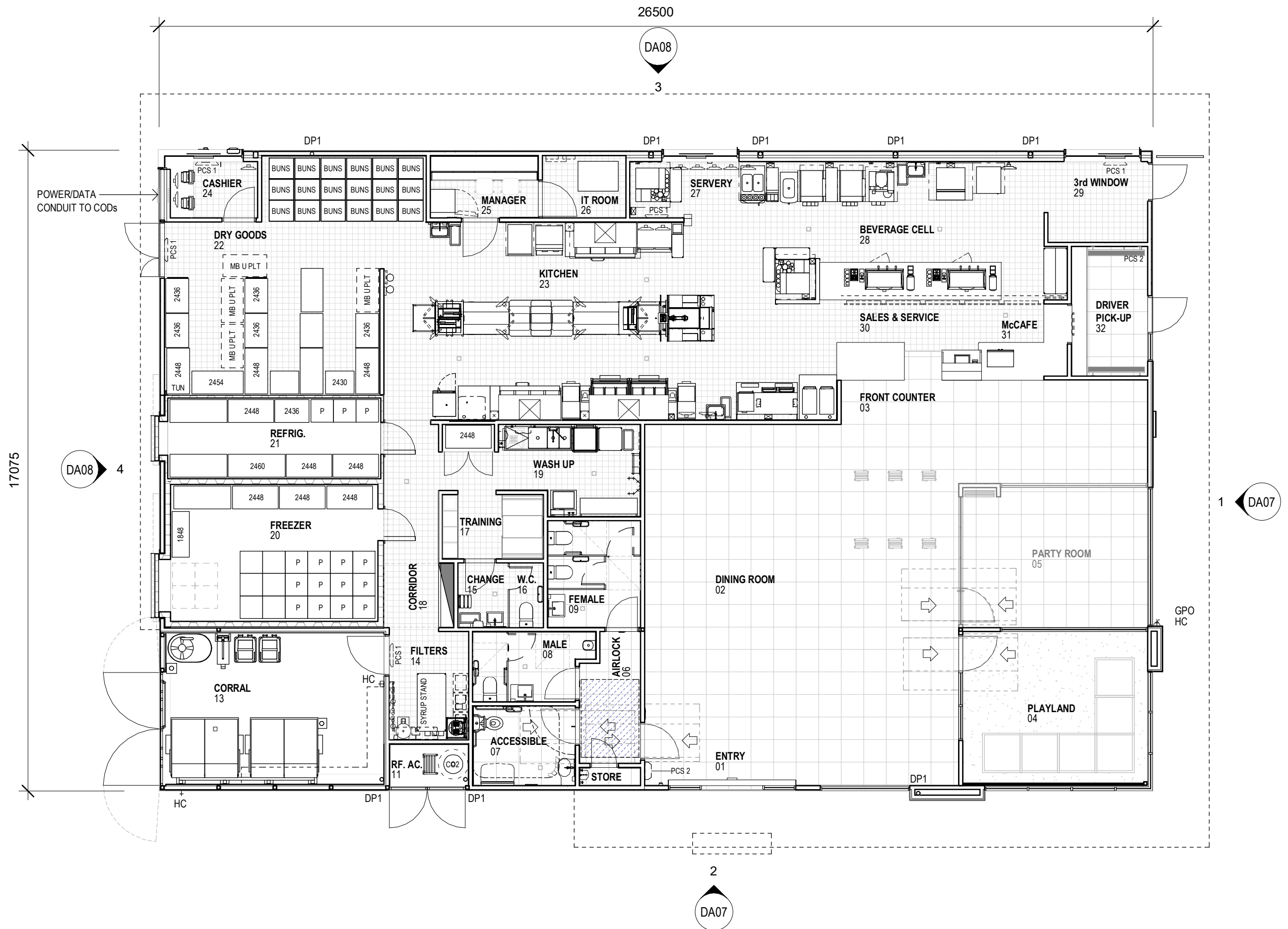
Architect  
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Hindley and Associates Pty Ltd  
Building Designers  
Unit 4/166 Stirling Highway  
Nedlands WA 6009  
PO Box 199 Nedlands WA 6909  
08 9386 6699  
www.hindley.com.au

Project  
**MCDONALD'S FAMILY RESTAURANT NORTH BALDIVIS**

Location  
LOT 1 No. 364 BALDIVIS ROAD  
& FIFTY ROAD  
BALDIVIS, WA

DEVELOPMENT APPLICATION

Scale 1:300 @ A3	Series BIO_MOD
Drawing <b>PROPOSED LANDSCAPING PLAN</b>	
Project Number <b>0743</b>	Drawing Number <b>DA04</b>
Issue	



Revisions	General Notes	Drawing Notes
<div> <div> <div>Issue</div> <div>Description</div> </div> <div> <div>Date</div> <div>Chk</div> <div>Int</div> </div> </div>	<p>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/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 millimeters. All discrepancies and omissions on site must be reported to the architect for their comments or approval prior to commencing work.</p>	

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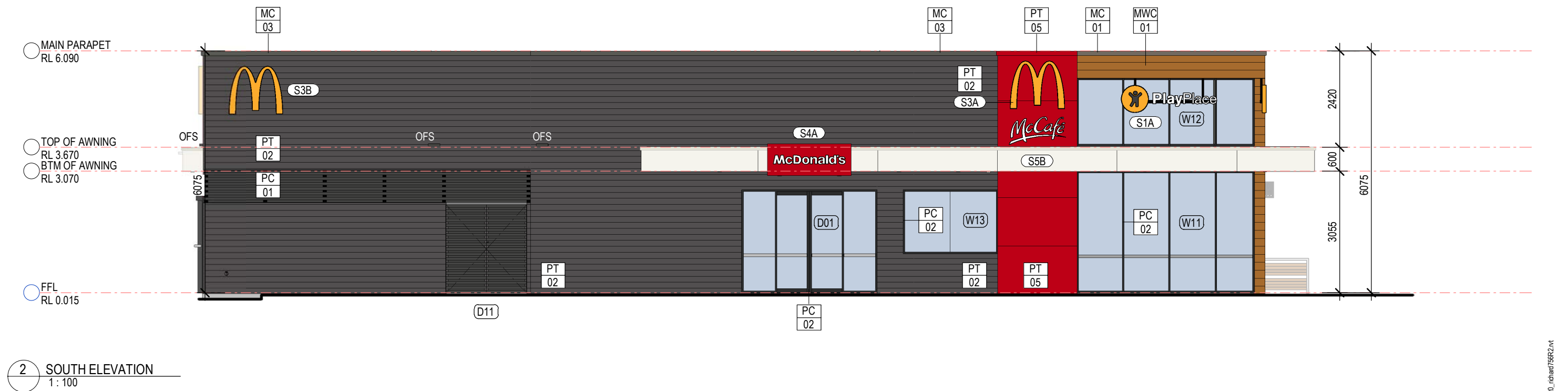
Project  
**McDONALDS FAMILY RESTAURANT NORTH BALDIVIS**

Location  
 LOT 1 No. 364 BALDIVIS ROAD  
 & FIFTY ROAD  
 BALDIVIS, WA

DEVELOPMENT APPLICATION			
Scale 1:100 @ A3	Series BIO_MOD		
Drawing <b>FLOORPLAN</b>			
Project Number <b>0743</b>	Drawing Number <b>DA05</b>	Issue -	







Revisions				General Notes	Drawing Notes
				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/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 millimeters. All discrepancies and omissions on site must be reported to the architect for their comments or approval prior to commencing work.	
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Project

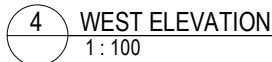
**MCDONALDS FAMILY RESTAURANT NORTH BALDIVIS**

Location

LOT 1 No. 364 BALDIVIS ROAD  
& FIFTY ROAD  
BALDIVIS, WA

DEVELOPMENT APPLICATION			
Scale 1:100 @ A3	Series BIO_MOD		
Drawing <b>FRONT &amp; SIDE BUILDING ELEVATIONS</b>			
Project Number 0743	Drawing Number DA07	Issue -	



IssueDescription

Date Chk In

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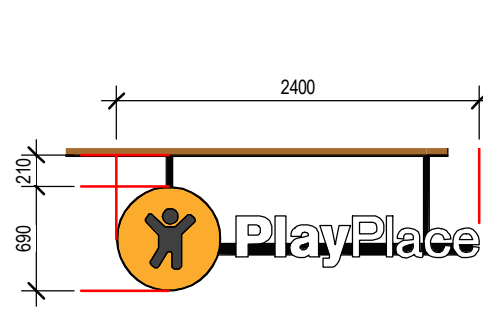
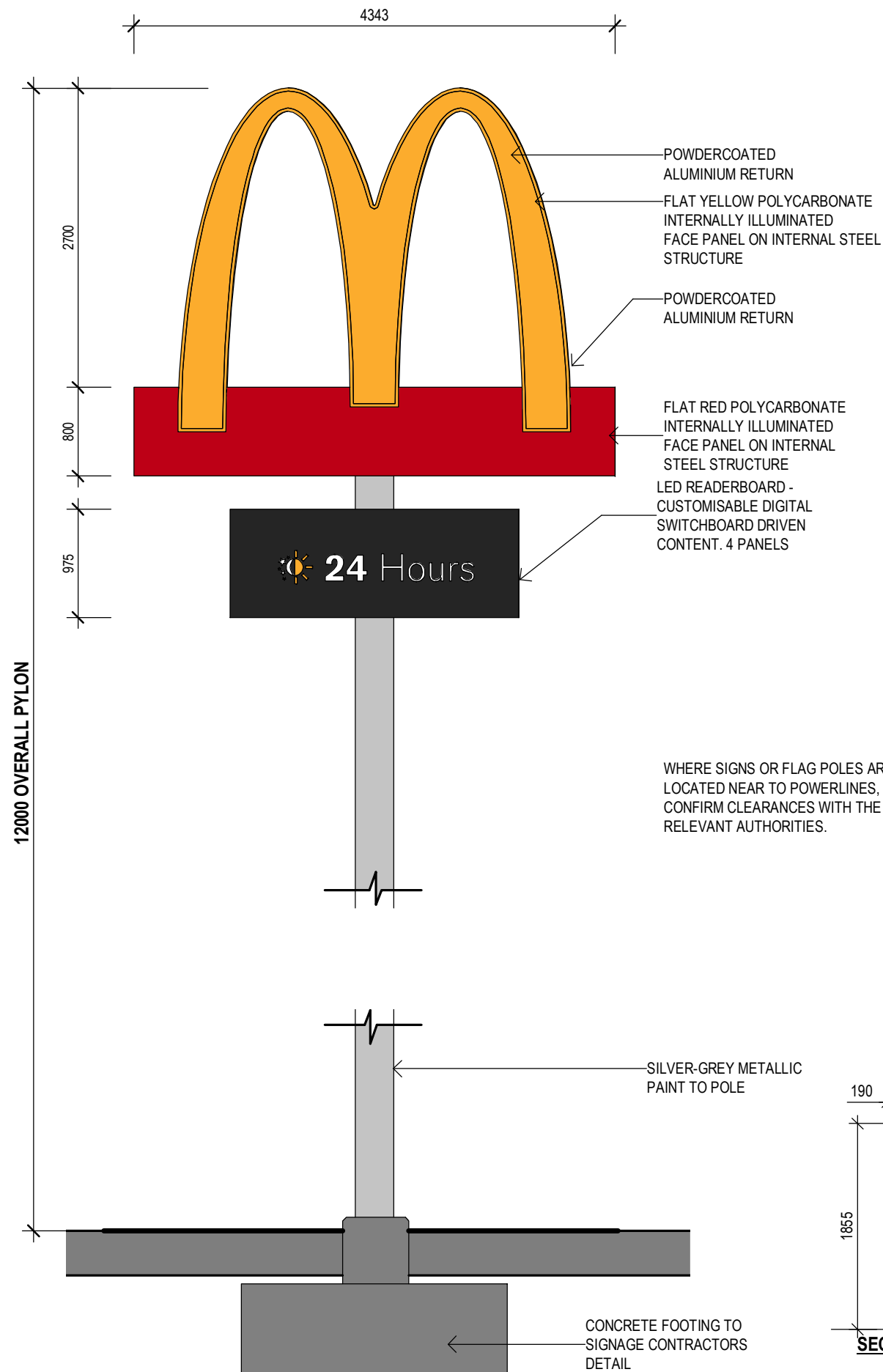


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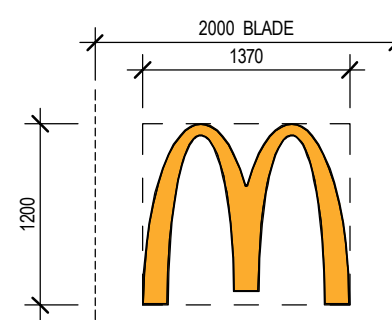
Location  
LOT 1 No. 364 BALDIVIS ROAD  
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BALDIVIS, WA

ELEVATIONS		
Project Number	Drawing Number	Issue
0743	DA08	-

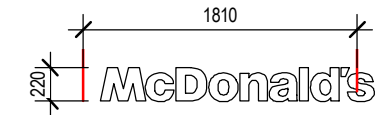
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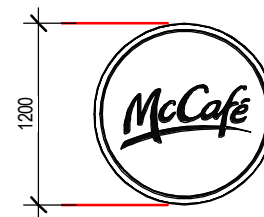
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YELLOW LOGO WITH INDIVIDUAL POLYCARBONATE LETTERING FIXED TO FRAME. INTERNALLY ILLUMINATED. WHITE LETTERS.



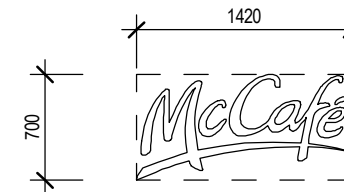
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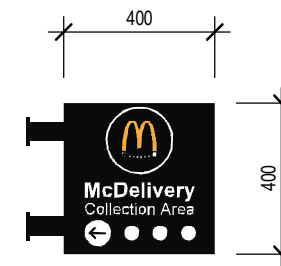
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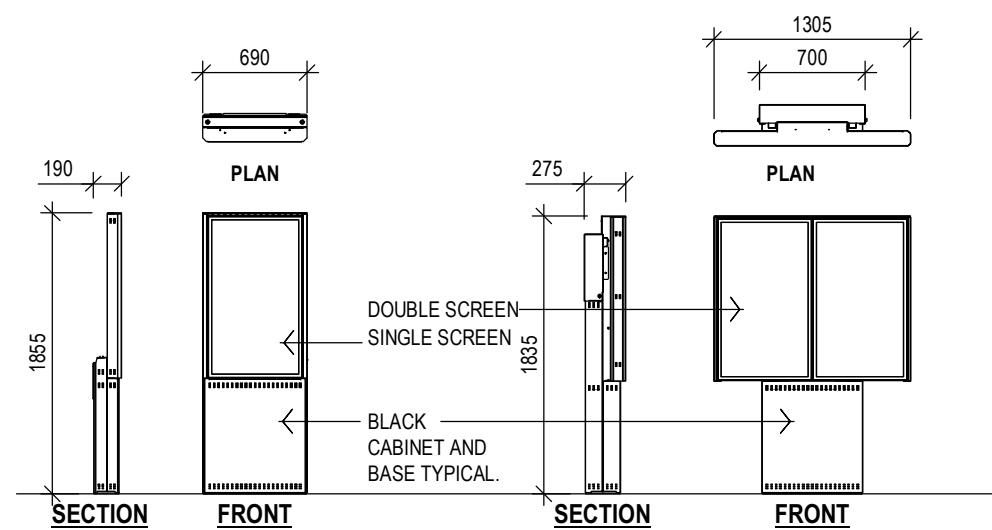
**S5A WALL SIGN**  
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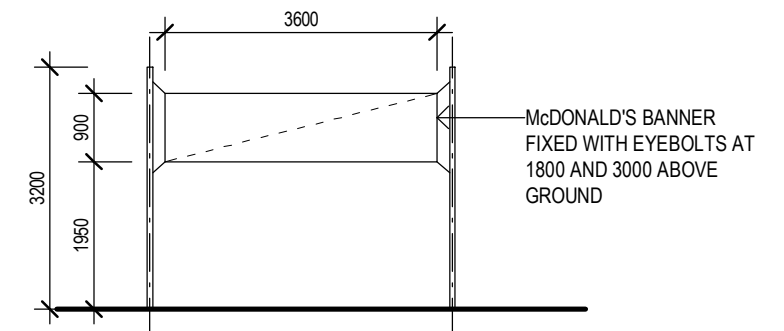
**S5B BLADE SIGN**  
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INDIVIDUAL HALO ILLUMINATED REVERSE PAN FABRICATED ALUMINIUM CHANNEL LETTERS. BRUSHED ALUMINIUM FINISH.



**S15 WALL SIGN**  
1 : 20  
FABRICATED METAL SIGN. OPAL FACES WITH BLACK VINYL GRAPHICS. LED ILLUMINATION.



**S7 DIGITAL MENUBOARDS**  
1 : 50



**S13 BANNER SIGN**  
1 : 100

**S14 12m PYLON**  
1 : 50

Revisions	General Notes	Drawing Notes
IssueDescription	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/manufacture. 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 millimeters. All discrepancies and omissions on site must be reported to the architect for their comments or approval prior to commencing work.	
Date	Chk Int	

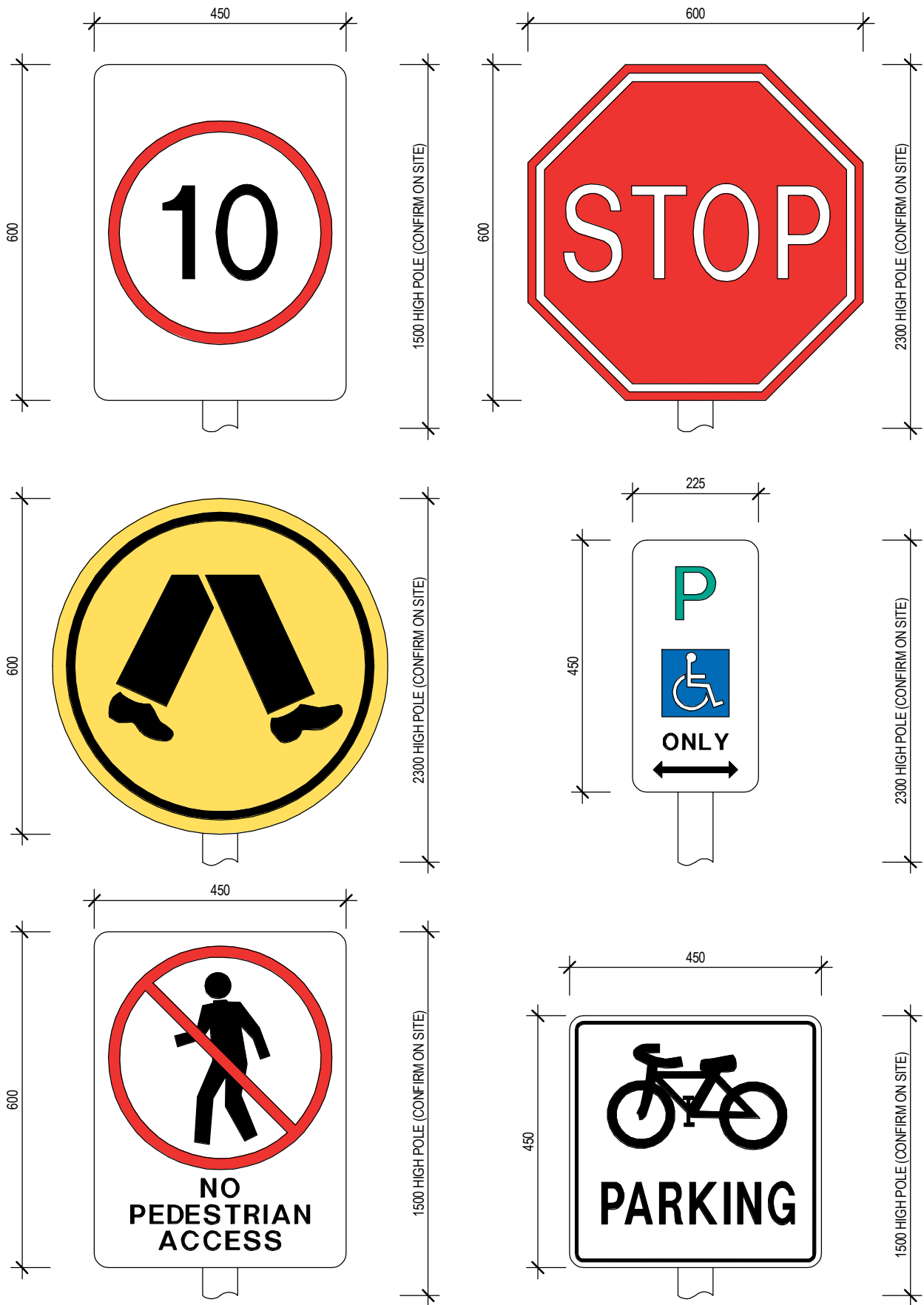


Project  
**McDONALD'S FAMILY RESTAURANT NORTH BALDIVIS**

Location  
LOT 1 No. 364 BALDIVIS ROAD & FIFTY ROAD  
BALDIVIS, WA

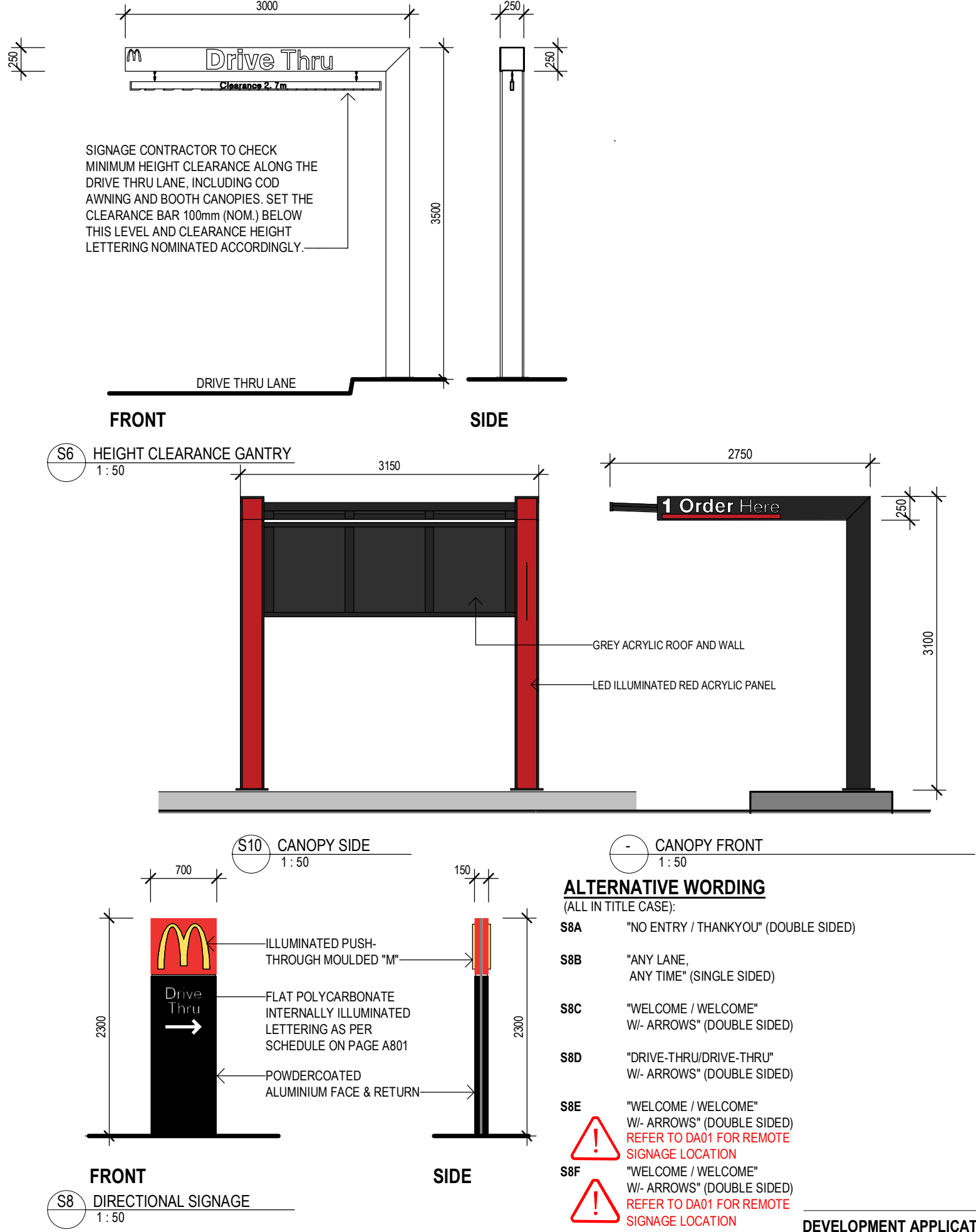
## DEVELOPMENT APPLICATION

Scale	Series	
As indicated @ A3	BIO_MOD	
Drawing		
<b>SIGNAGE DETAILS</b>		
Project Number	Drawing Number	Issue
0743	DA10	



DEPENDING ON LOCATION WITHIN SITE, S9 SIGNAGE SHOULD BE SET A MINIMUM OF 2m ABOVE TOP OF KERB TO PREVENT OBSTRUCTION TO OCCASIONAL PEDESTRIANS, OR TO REDUCE INTERFERENCE FROM PARKED VEHICLES. IF THIS DOESN'T APPLY, SIGNAGE HEIGHTS SHALL BE SET AS NOTED.

**S9 CAR PARK SIGNAGE**  
1 : 10



Revisions	General Notes	Drawing Notes
IssueDescription	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/manufacture. 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 millimeters. All discrepancies and omissions on site must be reported to the architect for their comments or approval prior to commencing work.	
Date	Chk Int	

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**Project**

**McDONALD'S FAMILY RESTAURANT NORTH BALDIVIS**

**Location**

LOT 1 No. 364 BALDIVIS ROAD & FIFTY ROAD  
BALDIVIS, WA

**Scale**

As indicated @ A3

**Series**

BIO\_MOD

**SIGNAGE DETAILS**

Project Number 0743  
Drawing Number DA11  
Issue





Revisions	General Notes	Drawing Notes
IssueDescription	<p>Date</p> <p>Chk Int</p> <p>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/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 millimeters. All discrepancies and omissions on site must be reported to the architect for their comments or approval prior to commencing work.</p>	

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**McDONALD'S FAMILY RESTAURANT NORTH BALDIVIS**

Location

LOT 1 No. 364 BALDIVIS ROAD  
& FIFTY ROAD  
BALDIVIS, WA

#### DEVELOPMENT APPLICATION

Scale @ A3	Series BIO_MOD
Drawing <b>3D PERSPECTIVES</b>	
Project Number <b>0743</b>	Drawing Number <b>DA12</b>
Issue	





Revisions	General Notes	Drawing Notes
IssueDescription	<div>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/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 millimeters. All discrepancies and omissions on site must be reported to the architect for their comments or approval prior to commencing work.</div> <div>DateChk Int</div>	



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Project

McDONALD'S FAMILY  
RESTAURANT NORTH BALDIVIS

Location

LOT 1 No. 364 BALDIVIS ROAD  
& FIFTY ROAD  
BALDIVIS, WA

Scale

@ A3

Series

BIO\_MOD

Drawing

3D PERSPECTIVES

Project Number

0743

Drawing Number

DA13

Issue





Revisions

Issue/Description

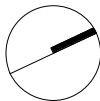
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Date Chk Int

Drawing Notes

North



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Project

**MCDONALD'S FAMILY  
RESTAURANT NORTH BALDIVIS**

Location  
LOT 1 No. 364 BALDIVIS ROAD  
& FIFTY ROAD  
BALDIVIS, WA

DEVELOPMENT APPLICATION

Scale @ A3 Series BIO\_MOD

Drawing **3D PERSPECTIVES**

Project Number Drawing Number Issue  
**0743 DA14**







ROAD FEATURES		COMMUNICATION		SEWER		GROUND FEATURES		ROAD FEATURES		STRUCTURE		GROUND FEATURE		ELECTRICAL		UNDERGROUND SERVICES	
	Traffic Junction Box		Telstra Pit		Sewer Vent		Natural Surface		Edge Of Bitumen		Bridge		Major Contour				
	Traffic Signals - 1 Aspect		Telstra Pillar		Sewer Line Marker		Aerial Survey Marker		Road Shoulder		Abutment		Minor Contour		Variable Message Sign		
	Traffic Signals - 2 Aspect		Telstra Marker		Sewer Inspection Shaft		Tree Details - Canopy & Trunk		Edge Of Unsealed Road		Columns		Bank Bottom		Electrical Structure String		
	Traffic Signals - 3 Aspect		Telstra Pole		Sewer Inspection Opening		Tree 0.1m-0.3m Trunk Diameter		On Road		Piers		Bank Top		Overhead Powerlines - Null Height	<div>UNDERGROUND SERVICES - DIRECT MEASUREMENT - CLASS A</div>	
	Traffic Signals - 4 Aspect		Telephone Booth		Sewer Manhole		Tree 0.3m-0.5m Trunk Diameter		Centre Of Road		Underpass		Line Of Levels		Overhead Powerlines - True Height		Underground Amcom/Vocus Cable
	Pedestrian Signals		Emergency Phone		Rail Traffic Signals		Tree 0.5m-1.0m Trunk Diameter		Kerb Top		Ramp		Levee Top		High Tension Power Lines - Null Height		Underground Drainage Pipe
	Sign On One Pole		Antenna		Rail Traffic Control Box		Tree > 1.0m Trunk Diameter		Kerb Bottom		Steps/Stairs		Levee Bottom		High Tension Power Lines - True Height		Underground Gas Line
	Sign Multiple Poles		Telstra Elevated Joint		Rail Cable Pit		Bush		Cattle Grid		Edge Of Concrete		Rock Outcrop				Underground MRWA Power
	Overhead Sign		Cable Marker (Optus)		Rail Telephone Box		Die Back Area - Marker		Centre Of Driveway		Bus Shelter		Ridge Line		Unidentified Service Pit		Underground NBN Comms
	Traffic Controller Box		Telstra Tower		Rail Cable Marker		Nesting Tree		Edge Of Driveway		Memorial		Borrow Pit		Telstra Cable		Underground TPG/Pipe Networks
	Finger Sign		Communication Manhole		Rail SLK Post		Tree Trunk / Stump		Pedestrian Ramp		Ruin		Earthworks Area		Amcom Cable		Underground Optus Fibre_Optic
	Traffic Earth Pit		Water Meter		Manhole - Rail Cable		Grass Tree		Pedestrian Crosswalk		Building / Structure		Ground Subsidence		Water Pipe		Underground Optus Copper
	Police Traffic Camera		Water Stop Valve		Deck Level		Star Iron Picket		Track		Awning		Rock Pitching		Gas Line		Underground Rail Services
	Guide Post		Hydrant (Ground Level)		Floor Level		Trig Point		Parking Bay		Shed				Drainage Pipe		Underground Sewer Pipe
	Km Marker		Hydrant (Pillar)		Column Centre		SSM		Line Markings 1m Line & 1m Gap		Verandah		Tree Line/Canopy		Drainage Culvert		Underground Telstra Copper
	Traffic Count		Water Bore		Clothes Hoist		Bench Mark		Line Markings 1m Line & 3m Gap		Window		Bush Line		Floodway		Underground Unknown Service
			Stand Pipe		Air Conditioner		Photo Point		Line Markings 3m Line & 9m Gap		Roof Gutter Line		Hedge		Drain		Underground Telstra Optic_Fibre
			Reticulation Sprinkler		Marker Unk/Undefined		Cadastral Peg/Post		Lane Marking (9m*3m GAP)		Roof Ridge Line		Garden Bed		Edge Of Drain		Optus Optic_Fibre - Surface Location
			Reticulation Control Valve		Undefined Manhole		Reference Peg		Lane Markings - Audible		Top Of Wall		Lawn Area		Waters Edge		Optus Copper - Surface Location
			Well		Control Of Access Sign		Alignment Control		Shared Pathway - Guide Line 900mm*300mm GAP		Brick Wall		Vineyard		Swamp		Rail Services - Surface Location
			Water Main Marker		Count Station		Spring Head Nail		Footpath/Shared Path - Give Way 200mm*200mm GAP		Concrete Wall		Nursery		Dam		Sewer Pipe - Surface Location
			Water Tap		Advertising Sign		Spike		Giveaway/Hold/Turn Lines 600mm*600mm GAP		Livestock Grid		Market Garden		Edge Of Creek/Water		Telstra Copper - Surface Location
			Flushing Point		Windmill		TBM		Double Barrier Line		Swimming Pool		Recreational Area		Centre Of Channel		Unknown Service - Surface Location
			Air Valve		Stock Trough		Arrow Straight		Overtaking Lane Left		Tank Perimeter		Trunk Circumference Circle		Wet Area		Telstra Optic_Fibre - Surface Location
			Peizometer		Litter Bin		Arrow Straight/Left		Overtaking Lane Right		Mine Shaft		Waterways Cross Section				Water Pipe - Surface Location
			Hydrant Booster Box		Mail Box		Arrow Straight/Right		Single Solid Line		Mine Workings				Flood Level Line		Reticulation - Surface Location
			Gas Marker		Parking Meter		Arrow Left		Arrow Straight		Koppa Logging Fence				Waterways Cross Section		Located Point Using Indirect Measure
			Gas Valve		Bus Stop		Arrow Right		Lane Marking (9m*3m GAP)		Fence/Gate		Vegetation				
			Gas Test Valve		Ticket Machine		Arrow 3 Ways		Shared Pathway - Guide Line 900mm*300mm GAP		MNG Precal/Re Established		Tree Line/Canopy		Sewer Pressure Main		
			Gas Test Pit		Borehole		Arrow Right & Left		Footpath/Shared Path - Give Way 200mm*200mm GAP		(SCDB) - State Cadastral Data Base		Bush Line		Sewer Pipe		
			Gas Manhole		Flag Pole		Arrow U-Turn		Giveaway/Hold/Turn Lines 600mm*600mm GAP		Cadastre By Others		Hedge		Railway Platform		
			Invert Level		Bollard		Arrow Merge		Double Barrier Line				Lawn Area		On Rail		
			Overt Level		Fuel Bowser		Painted Lettering On Seal		Overtaking Lane Left		Boundary Line		Vineyard		Rail Boom Gate		
			Water Line		Underground Filler		Painted Bicycle Traffic Signal Detector		Overtaking Lane Right		Footpath		Plantation		Rail Underground Cable		
			Flood Level Indicator		Diesel Tank		Guardrail - W Beam		Single Solid Line		Gas Cylinder/Tank		Orchard		Dual Gauge Rail		
			Storm Water Grate		Oil Main Marker		Guardrail - Thrie		Arrow Straight		Bike Rack		Nursery		Narrow Gauge Rail		
			Drainage Gully		Security Post		Barrier Concrete		Arrow Straight/Left		Bench Seating		Market Garden		Cross Section - Rail		
			Drainage Manhole		Tank		Barrier Steel Rope		Arrow Straight/Right		Handrail		Recreational Area		Standard Gauge Rail		
			Drainage Headwall				Barrier - Single Rail		Arrow Left				Trunk Circumference Circle		Rail U/G Cable		
							Barrier - Double Rail		Arrow Right				Tree-line Face Of Trunks				
							Barrier - Triple Rail		Arrow Right & Left								
							Bridge Barrier - (All Types)		Arrow Merge								
							Bridge Expansion Joints		Painted Lettering On Seal								
							Bridge - Outside Of Deck		Painted Bicycle Traffic Signal Detector								
							Soffit String		Guardrail - W Beam								

E	Underground Services Updated	SAH	11/02/2020	TKI
D	Cadastrre Added	SAH	17/11/2019	DRD
C	Underground NBN Fibre Added	SAH	12/03/2018	TKI
B	Feature Codes Revised	SAH	22/08/2017	DKK
A	Initial Issue	SAH	30/06/2016	SAH
Rev.	Description	Drawn	Date	Checked

SCALE 1:1000 @ A3

0 25 50

ALL DISTANCES ARE IN METRES

For a true to scale reproduction of this plan, plot it to A3 with the Paging Scaling set to None.

The boundaries shown on this plan were not re-established as part of this survey, therefore this plan does not guarantee their accuracy. Existing easements, encumbrance or interest are not depicted and a title search is recommended to obtain this information. Re-establishment of the cadastral boundaries is recommended for any proposed works on or near existing boundaries.

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CLIENT:

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Project Mngr:	MNG	Datum:	LOCAL
95465 - DOC-012 - E			

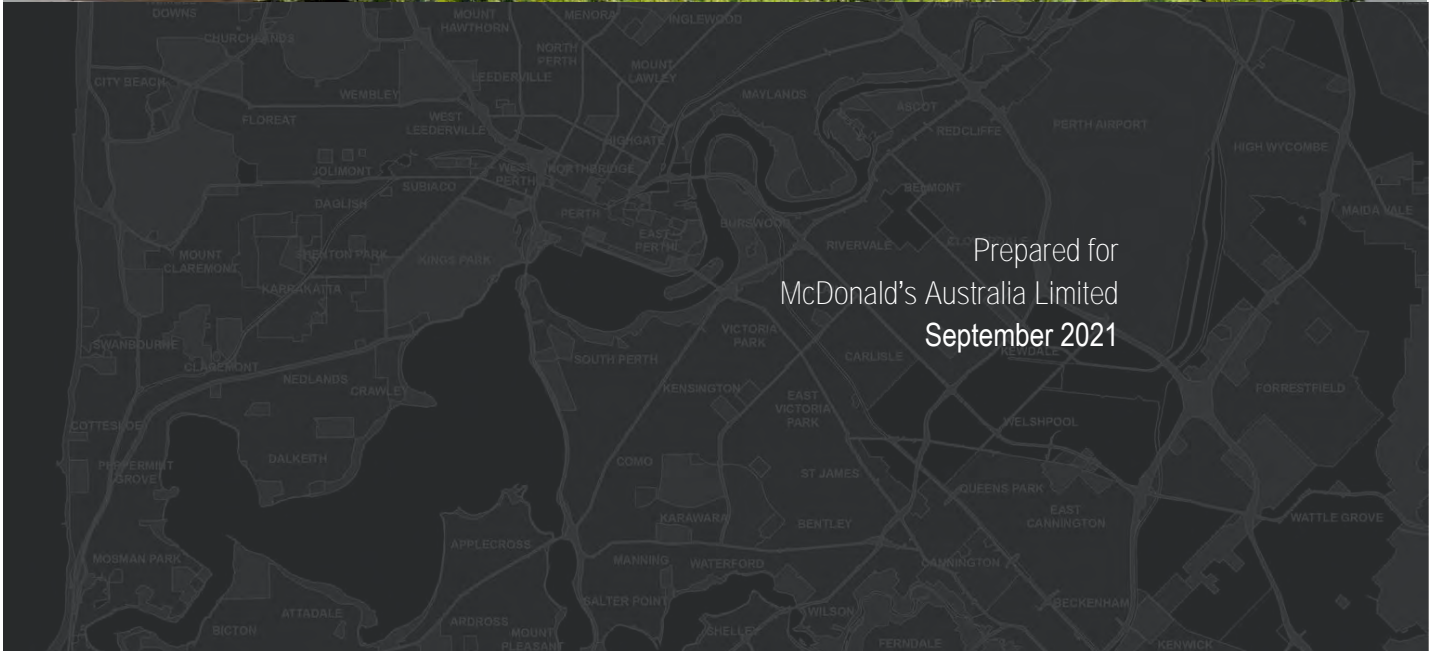


# Development Application Report

Proposed Fast Food Outlet  
Lot 1 (364) Baldvis Road, Baldvis



Prepared for  
McDonald's Australia Limited  
September 2021



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Job number	7597	
Client	McDonald's Australia Limited	
Prepared by	Planning Solutions	
Consultant Team	Town Planning	Planning Solutions
	Designer	Hindley and Associates
	Traffic	Transcore
	Acoustic	Lloyd George Acoustics

## Document Control

Revision number	File name	Document date
Rev 0	210901 7597 DA Report - McDonald's Baldivis North	1 September 2021

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Appendix 2:	Development Plans and Elevations
Appendix 3:	Traffic Impact Assessment
Appendix 4:	Environmental Noise Assessment
Appendix 5:	Local Structure Plan Bushfire Management Plan

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# 1 Preliminary

## 1.1 Introduction

Planning Solutions acts on behalf of McDonald's Australia Limited, the proponent of the proposed development at Lot 1 (364) Baldivis Road, Baldivis (**subject site**). Planning Solutions has prepared the following report in support of an Application for Development Approval for the development of a drive through McDonald's Fast Food Outlet on the north eastern portion of the subject site (**development area**).

This report will discuss various matters pertinent to the proposal, including:

- Background.
- Site details.
- Proposed development.
- Statutory planning framework.

This application seeks development approval for the use and development of a drive through McDonald's fast food outlet and associated parking, landscaping, signage, and access. The proposed development is situated within the north eastern portion of the future local centre, and will provide an additional convenience service to the surrounding locality.

The proposed McDonald's is suitably located along Baldivis Road within the growing Baldivis North locality. The design of the proposed development is contemporary in nature, with the layout, form, and scale complementary to the merging commercial and residential uses in the area whilst being responsive to existing adjoining land uses and site conditions. The development is also consistent with McDonald's corporate branding and design implemented within new sites across Australia.

Accordingly, Planning Solutions requests the Metro Outer Joint Development Assessment Panel (**JDAP**) consider the application on its merits, and approve the development.

## 1.2 Background

### 1.2.1 Pre-lodgement engagement

Preliminary engagement and consultation has occurred with the City of Rockingham (**City**) since project inception, including a meeting with officers of the City on 22 June 2021. A number of key planning matters were discussed, including the development site's characteristics and various aspects of the development proposal.

The general outcome of the above engagement was as follows:

- No 'in-principle' objections to the suitability of the proposed McDonald's development from the City, including proposed site layout, built form and access arrangements.
- An Environmental Noise Assessment and Transport Impacts Assessment will be required to support the proposed development.
- The existing bushfire management plan and obligations for bushfire under the Local Development Plan confirms no further bushfire reporting is required at the development application stage for this development application.

The City's feedback and required consultant input was used to inform finalisation of the development application.

## 2 Site Details

### 2.1 Land Description

Refer to **Table 1** below for a description of the subject site.

Table 1 – Lot details

Lot	Diagram	Volume	Folio	Registered Proprietor	Area (ha)
1	29589	2129	899	MGP Baldivis Pty Ltd	4.04

The development area (north eastern portion of the subject site) comprises an area of 3,563m<sup>2</sup>.

Refer **Appendix 1** for a copy of the Certificate of Title and Diagram.

### 2.2 Location

#### 2.2.1 Regional Context

The subject site is located within the emerging suburb of Baldivis, within the municipality of the City of Rockingham (City). The subject site is located approximately 40km south of the Perth city centre, approximately 8.5km south east of the Rockingham city centre, and 2.8km north of the Baldivis town centre.

The subject site is situated on the corner of Baldivis Road and Fifty Road. Baldivis Road connects the subject site to the Baldivis town centre, as well as to Safety Bay Road, linking the subject site to the Kwinana Freeway and Rockingham city centre. The Warnbro Railway Station is situated approximately 5.4km south east of the subject site.

#### 2.2.2 Local Context, Land Use, and Topography

The development site is situated within the future Baldivis North local centre, which will ultimately comprise a convenience store, a drive through liquor store, potentially a small-scale family restaurant, and the proposed drive through fast food outlet. Currently, the subject site is predominately vacant with a single detached residential dwelling and remnant bushland.

Broadly, the subject site is surrounded by emerging low/medium density residential dwellings, as well as a variety of remnant rural, commercial, and civic uses. The site is bound by Fifty Road to the north, Eighty Road to the west, a rural residential property to the south, and Baldivis Road to the east. The Baldivis Playgroup and Baldivis Recreation Centre are situated on the opposite side of Fifty Road.

The subject site accessible, with Transperth bus services (routes 568) located along Fifty Road, approximately 300 metres west of the development site. Off-street pedestrian paths are provided adjacent to Baldivis Road. Additional paths will be constructed with the upgrading of adjacent roads, as part of subdivision works in the area.

The development site contains some remanent vegetation. The development site is generally flat.

Refer to **Figure 1**, aerial photograph and **Photographs 1-9**, depicting the subject site, development site and surrounds below.





Figure 1: Aerial photograph and local context (source: NearMap).





Photograph 1: The development site facing south, as viewed from the north (on Fifty Road).



Photograph 2: The eastern interface of the development site, as viewed from along Baldvis Road (facing north).



Photograph 3: The development site, as viewed from the Baldvis Road/Fifty Road/Arden Avenue roundabout to the north east (facing south west).





Photograph 4: The northern interface of the development site, as viewed along Fifty Road (facing west).



Photograph 5: The eastern interface of the development site, as viewed from Baldvis Road/Fifty Road/Arden Avenue roundabout to the north east (facing south).



Photograph 6: The development site, as viewed from Baldvis Road/Fifty Road/Arden Avenue roundabout (facing south west).





Photograph 7: The development site, as viewed from Baldivis Road to the east, (facing west).



Photograph 8: The adjoining property north of the development site, as viewed from the south.



Photograph 9: The existing infrastructure adjacent to the development site, on Baldivis Road (facing north) to the development site and to Wanneroo Road (facing west).

## 3 Proposed Development

This application seeks approval for the development and use of a McDonald's Drive Through Food Outlet (**fast food outlet**) and associated parking, access, landscaping, and signage on the north eastern portion of the subject site.

The development has been designed in a site responsive and contextual manner, being sympathetic to existing site conditions as well as the emerging contemporary commercial and residential character of the area. The fast food outlet maximises its exposure to Baldivis Road, improving the streetscape through passive surveillance, attractive landscaping, as well as built form response, and will provide activity generation for the future local centre.

The proposed development will provide a valuable service to the local community and patrons travelling along the surrounding road network. The proposed development is suitably located within the future local centre and will provide additional convenience services and employment opportunities to the growing Baldivis community.

### 3.1 Site Layout and Built Form

The proposed McDonald's fast food outlet will provide for the preparation, sale and serving of food and beverages to customers, for consumption either on or off the premises.

Specifically, the proposed development comprises:

- A McDonald's family restaurant building situated within the northern portion of the development area, comprising a gross leasable area of 451m<sup>2</sup>.
- An enclosed plant and servicing area within the western portion of the building, with an adjacent shared 4.5m wide loading bay for service vehicles.
- A dual-lane drive-through facility with ordering menus and speaker boxes to the west of the building.
- A single lane drive-through and pick-up window with canopy and drive-through screen on the northern elevation of the building.
- Various signage associated with McDonald's corporate imagery and branding.
- 26 car parking bays for customers and staff, including one accessible parking bay adjacent to the restaurant entrance.
- Two drive-through waiting bays plus car stacking capacity for 14 standard vehicles within the drive-through facility.
- Four bicycle racks located on the eastern side of the restaurant.
- Landscaping along the frontages and within the subject site, including a mix of soft landscaping beds and shade trees.
- An internal footpath network which is proposed to link the building entrance with the existing pedestrian footpath from Baldivis Road and future local centre to the south.

The proposed fast-food outlet is located on the north portion of the development site, with a minimum setback of 10.9m from Baldivis Road, a minimum of 8.1m from Fifty Road, 14.1m from the western boundary (internalised boundary) and 40.1m from the southern boundary (also internalised within the subject site).

The development has been designed in a site responsive manner, with active frontages towards Baldivis Road and internally to the local centre. The site is visible and accessible to passing motorists along Baldivis Road, and patrons of the future local centre. The fast-food outlet is also designed to link to the future pedestrian path network on the adjoining roads, as well as within the centre.



The proposed restaurant building employs a range of architectural design features, resulting in an appropriate built form outcome. These features include:

- Articulation in the built form, including the double height glazed 'Play Place' corner statement.
- Building entrances and substantial glazing to the eastern and southern façades to allow for access and a direct line of sight between the restaurant building, car parking area, and streetscape.
- Integrated signage which is sympathetic to the scale, layout and design of the overall building.

The drive through facility is situated at the rear of the building, along the western and northern boundaries of the development site. The plant and servicing area is located at the western aspect of the building. The plant and servicing corral is enclosed within the building and is accessed adjacent to the drive through lane, which allows for the access and temporary stopping of service vehicles.

Refer to **Appendix 2** for the development plans, and **Figure 2** below for a render of the proposed restaurant.



Figure 2: Perspective of proposed McDonald's North Baldivis restaurant – north-eastern elevation.

### 3.2 Parking, Access, and Traffic Management

The development site will be accessed by future vehicle access points for the Lot 1 local centre site, being a (southern) left-in/right-in crossover with a right-turn slip lane on Baldivis Road, a (northern) left-out only crossover on Baldivis Road, and a full movement crossover to the future internal subdivision road to the western boundary of the subject site connecting to Fifty Road.

This arrangement enables a functional and efficient traffic flow through the development area and subject site as a whole, and enables ease of movement for vehicles returning to the road network. The movement network will be clearly articulated to drivers through line markings and directional signage.

The proposed development is supported by a Transport Impact Assessment prepared by traffic engineers, Transcore (refer **Appendix 3**). The assessment confirms the proposal is satisfactory from a traffic and access perspective, and that there will be an insignificant impact on the surrounding road network.

Key findings of the TIA are as follows:

- A conservative estimate of 50% passing trade was applied to the traffic assessment for the McDonald's development. Approximately 2,154 daily trips are estimated as a result of the proposed development. This equates to a net additional traffic generation estimate of 189 and 149 vehicles per hour during weekday AM and PM peak hours respectively. This level of traffic would not have an adverse impact on the surrounding road network.
- Swept path analysis confirms that the proposed entry and egress arrangements, service area and development site layout will operate in a safe and efficient manner.
- The Baldivis Road/Fifty Road/Arden Avenue intersection would retain its current LoS A operating levels satisfactory during both the post-development scenario. The intersection records a future LoS B operating levels during the 10-year post-development scenario. Importantly, queue backs from the intersection would not impact the operation of either Baldivis Road crossover or the Fifty Road/Access Road intersection.
- During peak periods, queuing from the drive-through facility will be contained within the development site and the drive-through lanes, with no impact on surrounding roads.

### 3.3 Operation and Amenity Management

The McDonald's Drive Through Fast Food Outlet will operate 24 hours per day, seven days a week, and will accommodate 10 to 15 staff at any one time. 24-hour operation is proposed for all new McDonald's restaurants in proximity to major roads, and is designed to cater to the needs of the locality and the travelling public at all times of the day.

Deliveries and waste collection will be undertaken in the loading bay located north of the building. The service vehicles and waste collection trucks will enter the site from Baldivis Road, circulate the internal shopping centre car park to the development site, and access the loading bay in reverse gear. Service vehicles will leave the loading bay and return to Baldivis Road in forward gear.

Service vehicles and waste collection trucks will access the site outside the peak operating times of the business, resulting in minimal traffic conflicts between customers, employees and service vehicles. The site will be serviced by 12.5m rigid trucks. Turn path analysis confirms satisfactory vehicle movements within the development site for this size truck.

Refer to **Appendix 3** for the Transport Impact Assessment and to **Appendix 4** for the Environmental Noise Assessment.

### 3.4 Landscaping

A total of 770m<sup>2</sup> of landscaping area is provided, equating to 21.6% of the development site area. This landscaping is concentrated along the Fifty Road frontage, entrances to the building and along the development site boundaries adjacent to the vehicle drive through.

The development will also provide a total of 10 shade trees (*Eucalyptus Torquata* and *Eucalyptus Forrestiana*), 4 of which are concentrated along the northern boundary. Six trees are also proposed in the carpark area of the site, to provide shade to the area. Substantial landscaping is provided, and is concentrated in areas which will provide the greatest amenity benefit.

Refer to **Appendix 2** for the site landscaping plan, contained within the development plans.

### 3.5 Signage

The proposal incorporates advertising signage on the premises as part of the overall development. Specifically, the proposed signage comprises:

Table 2 – Proposed Signage

Signage Type	Description	Size	Label on plans
Wall sign	5 x wall and blade "M" logo signs 1 x "McDonald's" entry fascia sign 2 x "PlayPlace" signs 1 x "McCafe" wall button sign 1 x "McCafe" wall blade sign 1 x "McDelivery" blade wall sign	1.37m x 1.2m 1.8 x 0.22m 2.4m x 0.69m 1.2m high 1.49m x 0.7m 0.4m x 0.4m	S3A, S3B, S3C, S3D, S3E S4A S1A, S1B S5A S5B S15
Illuminated sign	2 x Single digital menu board at drive-through entrance and ordering point. 2 x Double digital menu board at drive-through entrance and ordering point.	1.86m x 0.69m x 0.19m 1.84m x 1.3m x 0.27m	S7C and S7D S7A and S7B
Banner sign	1 x Banner sign	3.2m x 3.6m	S13A S13B
Pylon sign	1 x "McDonalds" sign	12m x 4.34m	S14

The proposal incorporates a mix of illuminated and non-illuminated signage. The proposal incorporates high quality advertising sign panels that complement the architectural style and design of the building. The signage is consistent with McDonald's corporate branding implemented on all new and refurbished sites across Australia.

Refer to **Appendix 2** for a copy of the development plans which depict the proposed signage.

## 4 Statutory Planning Framework

### 4.1 Metropolitan Region Scheme

The subject site is zoned Urban under the provisions of the Metropolitan Region Scheme (MRS). The proposed development is entirely consistent with the intent of the MRS.

### 4.2 State Planning Policies

#### 4.2.1 State Planning Policy 3.7 Planning in Bushfire Prone Areas

The subject site is within an area identified as 'bushfire prone' under the Department of Fire and Emergency Services (DFES) bushfire-prone mapping system. The relevant provisions and requirements of *State Planning Policy 3.7 – Planning in Bushfire Prone Areas* (SPP3.7) therefore apply to the proposal.

A Bushfire Management Plan (BMP) was prepared in support of the approved Lot 1 Baldivis Road Structure Plan on the wider subject site. The BMP undertaken to support the development demonstrates that the relevant requirements of SPP3.7 have been satisfied. Refer **Appendix 5**.

In summary, the BMP confirms that the development site predominately has a BAL rating of BAL12.5, with a small portion rated BAL-19. As such, further reporting is not required.

#### 4.2.2 State Planning Policy 7.0 - Design of the Built Environment

*State Planning Policy 7.0 – Design of the Built Environment* (SPP7.0) addresses the importance of design quality, and sets out the principles, processes and considerations which apply to the design of the built environment in Western Australia, across all levels of planning and development.

SPP7.0 establishes a set of ten (10) 'Design Principles', providing a consistent framework to guide the design, review and decision-making process for planning proposals. An assessment of the proposed development against the 10 Design Principles of SPP7.0 is provided in **Table 3** below.

Table 3: SPP7.0 Design Principles Statement

SPP7 DESIGN PRINCIPLE	DESIGN RESPONSE
<b>1. Context and character</b> <i>Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.</i>	<p>The proposed development has been designed in a contemporary manner, consistent with the emerging commercial and residential uses of the growing locality. Substantial landscaping is provided to soften the development, and future centre to the remnant rural character of the area.</p> <p>The development is located at the intersection of two major local roads, with the built form response designed to address these frontages. This also includes an appropriate landscaping buffer to the Fifty Road frontage as to not impact the existing bushland and sensitive land uses on the opposite side of the road.</p>

SPP7 DESIGN PRINCIPLE	DESIGN RESPONSE
<p><b>2. Landscape quality</b> <i>Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.</i></p>	<p>The development proposes 770m<sup>2</sup> of landscaping, being 21.6% of the development area. This comprises 10 shade trees, with substantial landscaping provided throughout the site. The landscaping is concentrated in areas which will provide the greatest amenity benefit.</p> <p>The landscaping is proposed within the internal carparking area, as well as to both the Baldivis Road and Fifty Road frontages. The setback area landscaping helps soften the centre to surrounding residential and rural uses, ensuring the development integrates into the locality.</p>
<p><b>3. Built form and scale</b> <i>Good design provides development with massing and height that is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.</i></p>	<p>The proposed form and scale has been designed in a manner sympathetic to its streetscape response as well as surrounding existing and future development. The proposed building has a maximum building height of 6.1m, and is adequately setback from all frontages.</p> <p>It is noted that there are no residential properties directly or immediately overlooking the proposed development. Notwithstanding, the scale of the proposed facility is appropriately designed for the future intent of the site, and does not adversely impact any of the residential or commercial properties within the area.</p>
<p><b>4. Functionality and build quality</b> <i>Good design meets the needs of users efficiently and effectively, balancing functional requirements to deliver optimum benefit and performing well over the full life-cycle.</i></p>	<p>The proposed development has been designed to be highly functional and accessible, catering for a wide variety of customers, staff and other visitors. A pallet of robust materials and finishes will not only have aesthetic value but will also age well over the life-span of the development. The proposed materials and finishes are used on all McDonald's developments and are proven to perform well over the life-cycle of the facility.</p>
<p><b>5. Sustainability</b> <i>Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.</i></p>	<p>In terms of social and economic impact, the proposed McDonald's facility is likely to result in net benefits as it will activate a currently vacant portion of the subject site, allow the establishment of a business, and create employment opportunities.</p> <p>All gardens will be irrigated and planted with water wise plants and existing landscaping retained where possible.</p>
<p><b>6. Amenity</b> <i>Good design optimises internal and external amenity for occupants, visitors and neighbours, contributing to living and working environments that are comfortable and productive.</i></p>	<p>The provision of amenity for customers, nearby residents, visitors and staff have been central to the design of the McDonald's facility.</p> <p>Customer amenity has been enhanced through the provision of an internal play area, easy pedestrian access, accessible at-grade vehicle parking, and high-quality landscaping.</p> <p>Neighbour amenity has been preserved through the use of appropriate setbacks, a sympathetic scale of built form, screening of back of house areas, and the use of landscaping to screen and soften the boundary interfaces.</p>
<p><b>7. Legibility</b> <i>Good design results in buildings and places that are legible, with clear connections and memorable elements to help people find their way around.</i></p>	<p>The proposed McDonald's provides a clear and legible vehicle access route to the site and pedestrian path connections. Logical and clearly defined pedestrian paths/crossings throughout the car parking area ensure ease of movement and navigation throughout the site.</p>



SPP7 DESIGN PRINCIPLE	DESIGN RESPONSE
<b>8. Safety</b> Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.	The proposed McDonald's will maximise surveillance opportunities within the development site and the surrounding streetscape, due to the 24-hour operation of the facility. Integrated lighting and CCTV will be provided to improve the level of safety and assurance to the customers and staff.
<b>9. Community</b> Good design responds to local community needs as well as the wider social context, providing buildings and spaces that support a diverse range of people and facilitate social interaction.	The proposed development of the iconic McDonald's brand will contribute towards the profile of the North Baldivis area as well as providing additional employment opportunities for residents in the locality.
<b>10. Aesthetics</b> Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses.	The proposed development has been designed by Hindley and Associates Pty Ltd in conjunction with McDonald's design team, the result is an attractive, highly accessible and inviting McDonald's facility, incorporating a variety of materials/finishes and landscaping treatments.

The proposed development suitably responds to the SPP7.0 design principles and warrants approval accordingly.

### 4.3 Matters to be Considered

Clause 67 Deemed Provisions of the *Planning and Development (Local Planning Schemes) Regulations 2015* (Regulations) details the matters to be considered in determining a development application. The provisions of the Regulations applicable to the proposal are addressed in **Table 4** below.

Table 4 – Matters to be considered

Matter to be considered	Provided
(a) <i>the aims and provisions of this Scheme and any other local planning scheme operating within the Scheme area;</i>	The aims and provisions of TPS2 are considered and addressed throughout this report. Refer <b>section 4.4</b> of this report.
(b) <i>the requirements of orderly and proper planning including any proposed local planning scheme or amendment to this Scheme that has been advertised under the Planning and Development (Local Planning Schemes) Regulations 2015 or any other proposed planning instrument that the local government is seriously considering adopting or approving;</i>	There are no known scheme amendments that would affect the assessment of this application.
(c) <i>any approved State planning policy</i>	Refer <b>section 4.2</b> of this report for an assessment against relevant State Planning Policies.
(g) <i>any local planning policy for the Scheme area;</i>	Refer to <b>section 4.5</b> of this report for an assessment against the City's relevant Local Planning Policies.
(h) <i>any structure plan or local development plan that relates to the development;</i>	Refer <b>sections 4.5 – 4.7</b> of this report for consideration of relevant structure plans.
(i) <i>the effect of the proposal on the cultural heritage significance of the area in which the development is located;</i>	The subject site is not included on the City's Register of Places of Cultural Heritage Significance.

Matter to be considered	Provided
(m) <i>the compatibility of the development with its setting including the relationship of the development to development on adjoining land or on other land in the locality including, but not limited to, the likely effect of the height, bulk, scale, orientation and appearance of the development;</i>	A strong emphasis has been placed on the design of the proposed Fast Food Outlet. The scale, height, orientation, and appearance of the development is responsive to the existing and emerging character of the locality.
(n) <i>the amenity of the locality including the following —</i> (i) <i>environmental impacts of the development;</i> (ii) <i>the character of the locality;</i> (iii) <i>social impacts of the development;</i>	<p>The proposed development responds to the intended commercial character of the centre, as well as the existing rural character of the locality. This is achieved through the use of various façade treatments, materials, and textures. The proposed development also provides substantial landscaping areas, in excess of what is required by the City's planning framework.</p> <p>The proposal will positively contribute to the locality, through the creation of jobs to support the growing Baldivis community. A safe pedestrian environment will be promoted, and any potentially anti-social impacts will be managed by McDonald's standard procedures, which include:</p> <ul style="list-style-type: none"> <li>• McDonald's train all managers and crew in how to handle difficult customers and all store employees must undertake relevant training.</li> <li>• Incidences of crime occurring from patrons of the fast food outlet will be immediately reported to the correct authority.</li> </ul>
(p) <i>whether adequate provision has been made for the landscaping of the land to which the application relates and whether any trees or other vegetation on the land should be preserved;</i>	A landscaping plan is provided in <b>Appendix 2</b> which demonstrates high quality landscaping will be provided throughout the development site. The area of landscaping is substantially higher than the minimum required under the local planning framework.
(s) <i>the adequacy of —</i> (i) <i>the proposed means of access to and egress from the site; and</i> (ii) <i>arrangements for the loading, unloading, manoeuvring and parking of vehicles;</i>	<p>Access to the proposed McDonald's development site will be provided via the future access system for the Lot 1 local centre site.</p> <p>A TIA has been prepared, demonstrating the proposed development is suitable from a traffic and access point of view – refer to <b>Appendix 3</b>.</p> <p>The service and refuse area are appropriately located within the development, screened from public view.</p>
(t) <i>the amount of traffic likely to be generated by the development, particularly in relation to the capacity of the road system in the locality and the probable effect on traffic flow and safety;</i>	A TIA has been prepared, demonstrating the proposed development is satisfactory from a traffic and access point of view – refer to <b>Appendix 3</b> .

Matter to be considered	Provided
<p>(u) <i>the availability and adequacy for the development of the following —</i></p> <ul style="list-style-type: none"> <li>(i) <i>public transport services;</i></li> <li>(ii) <i>public utility services;</i></li> <li>(iii) <i>storage, management and collection of waste;</i></li> <li>(iv) <i>access for pedestrians and cyclists (including end of trip storage, toilet and shower facilities);</i></li> <li>(v) <i>access by older people and people with disability;</i></li> </ul>	<p>Availability of transport options near the subject site is considered in the TIA prepared for the proposed development – refer <b>Appendix 3</b>. A Transperth bus stop is located on Fifty Road, west of the development site.</p> <p>Storage, management and collection of waste will occur within the corral and adjacent to the entrance of the drive through facility. Additional details of waste management can be provided at the detailed design stage if required.</p> <p>A universally accessible car parking space and toilet are to be provided for the proposed development. Furthermore, four bicycle parking bays are provided as part of the application.</p>
<p>(v) <i>the potential loss of any community service or benefit resulting from the development other than potential loss that may result from economic competition between new and existing businesses;</i></p>	<p>The proposed development will not result in the loss of community service. On the contrary, the proposed development of the iconic McDonald's brand will contribute towards the profile of the future local centre.</p>
<p>(x) <i>the impact of the development on the community as a whole notwithstanding the impact of the development on particular individuals;</i></p>	<p>It is noted the proposed development will provide additional employment opportunities for residents in the locality. The traffic report accompanying this development application demonstrates that the proposed McDonald's development will operate in an efficient manner and without adverse impacts on the amenity of surrounding uses.</p> <p>In this respect, there is a positive social outcome resulting from this development.</p>

Having regard to **Table 4** above, it is considered that the proposed development meets the relevant requirements of the Regulations and warrants approval accordingly.

## 4.4 City of Rockingham Town Planning Scheme No. 2

The City of Rockingham's (City) Town Planning Scheme No.2 (TPS2) applies to the development site. The provisions of TPS2 are supplemented by the Deemed Provisions in Schedule 2 of the **Planning and Development (Local Planning Schemes) Regulations 2015**. Where a deemed provision is inconsistent with a provision of TPS2, the deemed provision prevails.

### 4.4.1 Zoning

The development site is zoned 'Development' under TPS2, refer **Figure 3**. The site is also located within 'Development Area No. 22' (DA22) on the TPS2 Map.

Pursuant to clause 4.2.2 of TPS2, the purposes of the 'Development' zone are:

- (a) *To identify areas requiring comprehensive planning prior to subdivision and development.*
- (b) *To coordinate subdivision, land use and development in areas requiring comprehensive planning.*

Pursuant to Clause 4.2, Schedule A, and Schedule 8 of TPS2, zoning, land use permissibility, and development standards are to be in accordance with an approved structure plan. The Baldivis North District Structure Plan and Lot 1 Fifty Road Structure Plan (**structure plan**) are applicable to the subject site.

The structure plan identifies the subject site as being zoned 'Special Use', with a requirement for the preparation of a Local Development Plan.

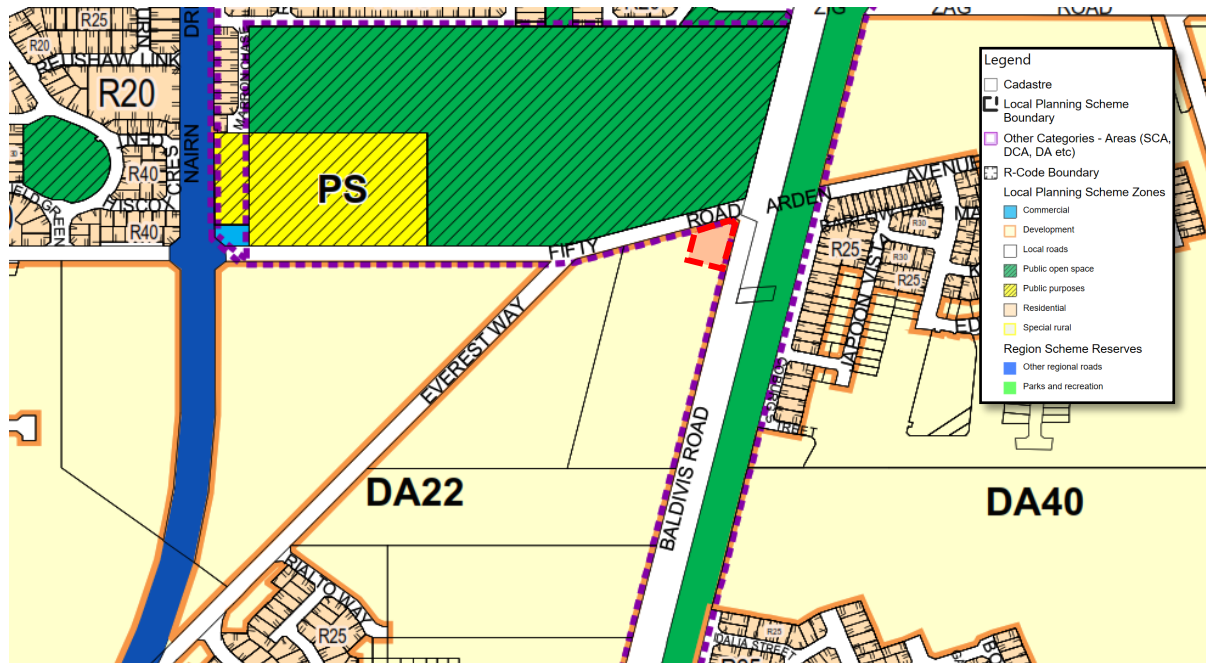


Figure 3: Zoning map under TPS2 (development site in red).

#### 4.4.2 Land Use and Permissibility

Pursuant to the Schedule 1 of TPS2, the proposed development is best classed as 'Fast Food Outlet', defined as:

*fast food outlet: means premises with a facility for drive-through service, used for the preparation, sale and serving of food to customers in a form ready to be eaten –*

- (a) *Without further preparation; and*
- (b) *Primarily off the premises.*

Pursuant to **Table 1 - Zoning Table** of TPS2, land use permissibility for all land uses within the 'Development' zone is stated as:

***Subject to Clause 27 of the deemed provisions, use class permissibility shall be determined in accordance with the provisions of the relevant Structure Plan.***

Clause 27(1) of the deemed provisions provides that a Structure Plan is not binding. Accordingly, TPS2 does not prescribe land use permissibility on the subject site, and the proposed uses (and in fact any uses) are capable of approval on the subject site having due regard to the provisions of the Structure Plan.

Notwithstanding, pursuant to Clause 4.1 of the structure plan, land use permissibility is to be in accordance with the Commercial zone of TPS2. Pursuant to Table 1 of TPS2, a 'Fast Food Outlet' is a 'D' (discretionary) use within the Commercial zone, meaning the use is not permitted unless the decision maker has exercised their discretion and granted approval for the development. It is considered that the proposed use is entirely appropriate and suitable for development on the development site for the following reasons:

1. The proposed development is suitably located within an emerging local centre and is adjacent to a variety of future completely commercial uses. The structure plan identifies the development area for the use of a fast food outlet.
2. The proposed McDonald's will provide additional commercial services to the surrounding locality as well as additional employment opportunities for the local community.
3. The design of the proposed development is contemporary in nature with the layout, form and scale complementary to adjoining land uses and site conditions.
4. The proposal is appropriately located along Baldvis Road and is supported by a Traffic Impact Assessment which demonstrates it is satisfactory from a traffic and access point of view.

For the reasons outlined above, it is considered the proposed Fast Food Outlet is entirely compatible land use on the subject site and should be approved accordingly.

#### 4.4.3 Development Requirements

Pursuant to Clause 4.2, Schedule A, and Schedule 8 of TPS2, general development standards are to be in accordance with an approved structure plan. Refer **sections 4.5 – 4.7** below.

Notwithstanding, clause 4.15 and Table 2 of TPS2 sets out the relevant requirements for car parking. Refer **Table 5** below for an assessment against the car parking requirements of TPS2.

**Table 5: Car parking assessment**

Use	Requirement	Particular	Required	Provided
Fast Food Outlet	1 bay per 11m <sup>2</sup> NLA (including outdoor eating areas).	451m <sup>2</sup>	41 bays	41 bays.
<b>TOTAL BAYS REQUIRED / PROVIDED (surplus / shortfall (+/-))</b>			<b>41</b>	<b>41</b>

Pursuant to **Table 5** above, the proposed parking rate is compliant with the requirements of TPS2 and warrant approval accordingly.

### 4.5 Baldivis North District Structure Plan

The Baldivis North District Structure Plan (**BNDSP**) provides high-level zoning and movement network intents, as well as broad requirements for the development of the Baldivis north locality. The BNDSP identifies the subject site as urban. No further development standards are prescribed.

Whilst not identified as a local or neighbourhood centre within the BNDSP, it is noted that the Lot 1 Fifty Road Structure Plans provides specific zoning and development requirements for the subject site. Refer **section 4.6** below.

### 4.6 Lot 1 Fifty Road Structure Plan

The Lot 1 Fifty Road Structure Plan (**structure plan**) provides the zoning intent and broad development requirements specifically for the subject site. Pursuant to the structure plan map, the development area is identified as a Special Use zone, for the development of a local centre. The draft commercial concept plan, contained with Appendix 13, identifies the development area for the use of a fast-food outlet. The proposed development has been designed in accordance with the layout, orientation, and form prescribed by the concept plan.

Additionally, clause 5 requires development to be in accordance with an approved Local Development Plan (**LDP**). Refer to **section 4.7** below for an assessment against the LDP applicable to the development area.

### 4.7 Lot 1 Fifty Road Local Development Plan

The Lot 1 Fifty Road Local Development Plan (**LDP**) provides the relevant development and design standards applicable to the development area.

An assessment of the proposed development against the relevant provisions of the LDP is provided in **Table 6** below.

**Table 6: Assessment against the provisions of the LDP**

Provision	Proposed	Complies
<b>Built Form</b>		



Provision	Proposed	Complies
1. Orientation of development shall address streets and internal areas as shown in this LDP through: • appropriate building articulation; • buildings must present their main entrance as shown in the LDP primary orientation or be clearly defined and visible from the public realm; • variation in materials/colours/textures; and • provision of windows with glazing.	The proposed building footprint, including setbacks and orientation has been designed in accordance with the proposed building location within the LDP. Additionally, the proposed materiality, articulation, and openings have been designed to adequately address all frontages, in particular to the southern and eastern elevations.	✓
2. Delivery, storage and loading areas are to be located and screened to minimise the visual impact from public streets.	The proposed storage area is integrated into the south western portion of the building.	✓
3. Street elevations shall be designed to create visual interest through building form, articulation of walls and openings, architectural features, texture and colour.	All walls are articulated with painted congregated panels and glazing. Additional articulation is provided with awnings, signage, and feature concrete blades.	✓
4. Blank walls visible from the street and residential lots shall be treated through the use of architectural features, materials/painting/textures/artwork to provide variation and interest to the built form.	The majority of the building will be glazed with any blank portion appropriately articulated, as discussed above.	✓
5. The maximum building height shall be the equivalent of two storey development.	The proposed building has a maximum height of 6.1m.	✓
<b>Landscaping</b>		
8. A minimum of 10% of the site area should be provided as landscaping. This may include areas providing shade trees and landscaping in car parking areas.	The development proposes 770m <sup>2</sup> of landscaping, being 21.6% of the development area.	✓
9. Landscaping should be provided to screen service, loading and storage areas where practical.	Landscaping is provided adjacent to the loading bay.	✓
10. Shade trees for car parking areas shall be provided at a minimum rate of 1 tree per 8 car bays.	41 car parking spaces are proposed, requiring a total of 6 trees. A total of 10 shade trees are proposed.	✓
<b>Pedestrian Access</b>		
11. Internally within the LDP, the development shall provide for visual continuity of the pedestrian network to aid pedestrian legibility as shown in this LDP. Legibility and functionality of pedestrian links are to be reinforced using any one or combination of treatments, including painted pavement, texture difference, raised pavement, line markings or similar.	The proposed internal pedestrian network is in accordance with the indicative network provided within the LDP. This includes a continuous crosswalk from the entrance to the fast food outlet south towards the remainder of the local centre. A second crosswalk connects the building to the path along Baldivis Road.	✓
<b>Noise Management</b>		
15. A Development Application shall be accompanied by an Acoustic Assessment prepared by a suitably qualified acoustic consultant that outlines strategies to mitigate and manage the potential impacts of noise from delivery vehicles and activities on surrounding sensitive land use. This includes the provision of an acoustic masonry wall with a minimum height of 1.8m is to be provided as shown in this LDP.	An Environmental Noise Assessment (ENA) was prepared to support the application and is provided within <b>Appendix 5</b> . As detailed within the ENA, the noise impacts resulting from the proposed development have been assessed as compliant with the <b>Environmental Protection (Noise) Regulations 1997</b> for all time periods. As such, it is considered that no further noise mitigation measures are necessary. Collection of waste is required to occur between 7:00am and 7:00pm Monday to Saturday.	✓

Provision	Proposed	Complies
<b>Bushfire Management</b>		
17. The land subject to this LDP is within a bushfire prone area, as designated by the Department of Fire and Emergency Services. The lots in this LDP are subject to a Bushfire Management Plan and require a Bushfire Attack Level Assessment and certification prior to construction, in accordance with Australian Standard 3959.	<p>A Bushfire Management Plan (BMP) was prepared to support the approved Structure Plan and Local Development Plan applicable to the subject site and is still relevant. No updates to the BMP are required.</p> <p>A Bushfire Attack Level Assessment will be completed prior to construction.</p>	✓

As provided in Table 6 above, the proposed development is compliant with the provisions of the LDP and warrants approval accordingly.

## 4.8 Local Planning Policies

### 4.8.1 Planning Policy 3.1.2 Local Commercial Strategy

The City's *Planning Policy 3.1.2 Local Commercial Strategy* (PP3.1.2) establishes the objectives, principles, and key strategies for retailing and commercial development in the City.

PP3.1.2 contains objectives for commercial centres within the City including:

*Promote Neighbourhood Centres, Local Centres and corner shops as performing a vital role in providing day to day convenience shopping for the neighbourhood as well as an important focus for neighbourhood services and community facilities*

The proposed development will provide additional convenience and amenity to existing and future local residents.

The subject site is located in Precinct 4 – Baldivis, but is not identified as a local centre under the policy. Notwithstanding, PP3.1.2 has been addressed through the LDP approval process, and has created site specific development requirements for the proposal, having regard to the policy.

The proposal is therefore considered acceptable under PP3.1.2.

### 4.8.2 Planning Policy 3.3.1 Control of Advertisements

Planning Policy 3.3.1 – Control of Advertisements (PP3.3.1) provides the development standards pertaining to the erection of signage within the City. An assessment against the relevant provisions of LPP3.3.1 is provided in Table 7 below.

Table 7: Planning assessment against the relevant provisions of PP3.3.1

Requirement	Comment	Complies
<p><b>4.3.1 Signs on Buildings</b></p> <p><i>Means an advertisement that is attached or otherwise displayed on a building, and would include the following types of advertisements:-</i></p> <ul style="list-style-type: none"> <li>Wall Panels (horizontal and vertical)</li> <li>Roof Signs</li> <li>Verandah or Awning Signs</li> <li>Signs under Verandahs or Awnings</li> </ul>	<p>The following signs on buildings are proposed:</p> <ul style="list-style-type: none"> <li>Five 1.37x1.2m wall and blade 'M' logo signs. These signs are located on all building frontages.</li> <li>One 1.8x0.22m McDonald's entry fascia sign, situated on the southern frontage, above the entrance.</li> <li>Two 2.4mx0.69m 'Playspace' signs, located on the southern and eastern frontages.</li> <li>One 1.2m high 'McCafé' wall button sign, situated on the southern elevation.</li> </ul>	<p><b>Acceptable</b></p> <p>Refer assessment below</p>

Requirement	Comment	Complies
<ul style="list-style-type: none"> <li><i>Signs Painted on Building.</i></li> </ul>	<ul style="list-style-type: none"> <li>One 1.49x0.7m 'McCafé' wall blade sign, situated on the eastern elevation.</li> <li>One 0.4x0.4m McDelivery wall sign.</li> </ul>	
<b>Assessment against applicable policy objectives</b> The proposed signs on buildings have been assessed against the applicable policy provisions as follows:		
(a) <i>Ensure that advertisements are appropriate for their location;</i>	The proposed signs on buildings are located in a future local centre and are intended to advertise the businesses and services located there. The advertisements are consistent with the expectations of commercial branding and signage and considered acceptable in the context of the site.	
(b) <i>Minimise the proliferation of advertisements;</i>	The proposed signage has been designed to integrate into the architecture of the building and is minimal in nature. Additionally, no sign significantly protrudes the building.	
(c) <i>Ensure that advertisements do not adversely impact on traffic circulation and management, or pedestrian safety;</i>	All signs are simple advertisements that display the outlet. They do not present any visual distraction to vehicles, do not project into pedestrian movement areas or obstruct vehicle sight lines.	
(d) <i>Protect the amenity of residential areas, townscape areas and areas of environmental significance;</i>	The proposed signage is well integrated into the architectural features of the building, employing a range of styles, and contrasting with a range of complementary colours and materials, including high quality facades finishes. The proposed development is a high amenity commercial development and the proposed signage reflects this.	
(e) <i>Ensure advertisements are generally erected on land where the advertised business, sale of goods or service is being carried out; and</i>	All of the proposed signs are located on the buildings where the advertised business and services are being undertaken.	
<b>4.3.2 Pylon Signs (summary of provisions)</b> <ul style="list-style-type: none"> <li>Located within 1.8m of a boundary.</li> <li>Located more than 6.0 from any other sign on the same lot.</li> <li>Not project over street, walkway or any other public area by more than 1.0m.</li> <li>Maximum height of 6.0m, unless it complies with objectives of policy, no height can be considered over 9.0m.</li> <li>Zero clearance or minimum of 2.7m.</li> <li>Face dimensions not to exceed 3.5m in width or height.</li> </ul>	<p>A single 4.3x12m pylon sign is proposed for the development. The sign is proposed to be located on the north east corner of the site, at the intersection of Baldivis Road and Fifty Road.</p> <p>The sign is within 0.5m of the boundary, located more than 6m from any other signage on the lot (currently, none), not project over and street or path, and has a clearance greater than 2.7m.</p> <p>The 12m height is considered acceptable, refer assessment against the policy objectives above.</p> <p>The proposed face dimension exceeds the maximum 3.5m with a maximum width of 4.3m for the red portion of the 'M' logo face. This is considered acceptable however, as it proportionally relates the remainder of the sign. Overall, the sign is minimal with the remainder of the sign within all required dimensions.</p>	Discretionary
<i>Only one (1) pylon sign shall be permitted on a lot with a single tenancy. For lots with two or more tenancies, only one (1) pylon sign will be generally permitted unless the site is large and has more than one street frontage, in which case one pylon sign per street frontage may be permitted.</i>	One pylon sign is proposed.	✓

Requirement	Comment	Complies
<i>A Pylon Sign shall be located wholly within the boundaries of the lot from which the product(s) or service(s) to which it relates is sited.</i>	The proposed pylon sign is located wholly within the subject site.	✓

As demonstrated in **Table 7** above, the proposed signage is consistent with the objectives of PP3.3.9 and warrants approval accordingly.

#### 4.8.3 Planning Policy 3.3.9 Fast Food Outlets

Planning Policy 3.3.9 – Fast Food Outlets (**PP3.3.9**) provides additional development standards relating to the development of fast food outlets within the City. An assessment against the relevant provisions of LPP3.3.9 is provided in **Table 8** below.

Table 8: Planning assessment against the relevant provisions of PP3.3.9

Requirement	Comment	Complies
<p><u>Clause 4.1</u> The preferred locations for Fast Food Outlets are within approved Neighbourhood and District Town Centre zones and within the City Centre Zones specified under Clause 2(a) of this Policy.</p>	The proposed development is situated within the emerging Baldivis north local centre. The development is consistent with the planning framework for the subject site, including the LDP which intends the development of a fast food outlet on the development area.	✓
<p><u>Clause 4.2</u> In its consideration of proposals to establish Fast Food Outlets, the Council will seek to reduce the impact of the use on the amenity of the locality (particularly adjacent to residential areas), through the following measures:- (a) The location of signage, parking, drive-through facility, bin storage areas and service vehicle access; (b) The control of trading hours, noise, lighting (light spill), cooking odours and wind blown litter; (c) The provision of suitable setbacks and landscaping buffers.</p> <p>In the interests of traffic safety, the Council will seek to minimise disruption to traffic flows (especially at peak hours), minimise spontaneous impulse driving behaviour and limit pedestrian/vehicle conflict.</p> <p>The Council has not specified a minimum lot area for Fast Food Outlets as it considers that such a requirement may vary dependent upon location and access or whether the facility is free standing or shares a common site. Accordingly, each proposal will be considered on its merits.</p>	<p>The proposed development is situated on the corner of Baldivis Road and Fifty Road, and is predominantly surrounded by remnant bushland and rural uses.</p> <p>The proposed development has been designed to mitigate any potential impact, with the overall built form, including boundary setbacks being adequately designed to minimise any impact on the surrounding locality. This is also achieved with a substantial amount of landscaping to all street frontages.</p> <p>An Environmental Noise Assessment and Traffic Impact Assessment were prepared and confirms that the proposed development is satisfactory from an amenity and transport perspective, respectively.</p>	✓

Requirement	Comment	Complies
<p><u>Clause 4.3</u> An application for Development Approval shall make provision for carparking bays in accordance with the requirements of Clause 4.15 and Table Nos.2, 3 and 4 of TPS2.</p> <p>Where a drive-through facility is to be provided, the on-site queue accessway shall be sufficient to accommodate a minimum of 10 cars (measured from the pick-up point). This accessway must not obstruct access to car parking spaces and not extend onto the external roadway.</p> <p>The carparking bays accommodated within the drive-through facility (on-site queue accessway) can be included in the carparking allocation require for a Fast Food Outlet, up to a maximum of 50% of the Scheme carparking requirement.</p> <p>Consistent with Main Street design principles, drive-through facilities will generally not be supported in the Primary Centre City Centre, Primary Centre Waterfront Village and Primary Centre Urban Village zones and within the Main Street locations of the District Town Centre Zones and Neighbourhood Centres.</p>	<p>Refer <b>section 4.4.2</b> of this report for an assessment against the City's parking standards.</p> <p>The development proposes a wrap around drive through lane with 14 queue bays.</p>	✓
<p><u>Clause 4.5</u> Any proposed advertising sign must accord with the deemed provisions and Planning Policy No.3.3.1 – Control of Advertisements.</p>	<p>Noted. Refer <b>section 4.8.2</b> of this report for an assessment against the City's signage development standards.</p>	✓
<p><u>Clause 4.6</u> Applications for Development Approval including the upgrading of existing Fast Food Outlets will be required to provide for bicycle parking and end-of-trip facilities in accordance with Planning Policy No.3.3.14 – Bicycle Parking and End-of-Trip Facilities.</p>	<p>Refer <b>section 4.8.4</b> of this report for an assessment against the City's bike parking standards.</p>	✓

As demonstrated in **Table 8** above, the proposed development is compliant with the provisions of PP3.3.9 and warrants approval accordingly.



#### 4.8.4 Planning Policy 3.3.14 Bicycle Parking and End-of-Trip Facilities

Planning Policy 3.3.14 – Bicycle Parking and End-of-Trips Facilities (**PP3.3.14**) sets the requirements for the provision of bicycle parking and end-of-trip facilities in the City.

The proposed development proposes 80 dining room seats, with a maximum of 10-15 employees at any one time. Accordingly, pursuant to Table 1 of PP3.3.14, the minimum number of short-term bays is 1.6, and a minimum of 1.5 long term bays. 4 bays are proposed.

It is noted that whilst the policy requires both short and long term bays, only short term bays have been provided. This is considered acceptable as the long-term bays pertain to number of employees only. The development relates to the establishment of a McDonalds restaurant only. As per the requirement, it is not considered to generate a significant number of trips requiring long term parking. It is considered reasonable that an employee can utilise the proposed short term bicycle parking.

The proposed parking is located in a highly visible location, ensure adequate protection. Notwithstanding, if required, proposed internal storage areas can be utilised by employees to store their bike.

The proposed development meets the provisions of LPP3.3.14 and warrants approval accordingly.

## 5 Conclusion

This application seeks approval for the use and development of a 24-hour drive through McDonald's fast food outlet and associated parking, landscaping, signage, and access on the development site. The proposed development will provide additional commercial services to the future local centre and growing surrounding locality.

In summary, the proposed development is largely compliant with the relevant aspects of the planning framework and warrants approval for the following reasons:

- The proposed facilities will provide additional convenience and amenity to the growing community and patrons travelling along Baldivis Road.
- The proposed development aligns with the intent of the Local Development Plan – demonstrating the suitability / appropriateness of the development on the subject site.
- The proposed development has been designed in a contemporary manner, in accordance with the emerging character of the locality, whilst being site responsive and sympathetic to its exiting rural surrounds. This is achieved through the built form, materiality, as well as substantial landscaping provided.
- The technical reporting prepared in support of the development confirms the proposal is acceptable from a traffic impact and bushfire perspective, respectively.

Having regard for the above, the proposal demonstrates the suitability of the proposed development on the subject site. Accordingly, we respectfully request the Metro Outer JDAP grant approval to the proposed development.

# Appendix 1

## Certificate of Title and Diagram

WESTERN



AUSTRALIA

REGISTER NUMBER

**1/D29589**DUPLICATE  
EDITION**2**

DATE DUPLICATE ISSUED

**28/1/2004**VOLUME  
**2129**FOLIO  
**899**

# RECORD OF CERTIFICATE OF TITLE

## UNDER THE TRANSFER OF LAND ACT 1893

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

*BG Roberts*  
REGISTRAR OF TITLES



### LAND DESCRIPTION:

LOT 1 ON DIAGRAM 29589

### REGISTERED PROPRIETOR: (FIRST SCHEDULE)

MGP BALDIVIS PTY LTD OF 65 KARINGA ROAD MADORA BAY WA 6210

(T O657582 ) REGISTERED 2/3/2021

### LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS: (SECOND SCHEDULE)

1. \*O657583 MORTGAGE TO GULVIN INVESTMENTS PTY LTD OF 65 KARINGA ROAD MADORA BAY WA 6210 REGISTERED 2/3/2021.
2. \*O657591 CAVEAT BY EDWARD GEORGE CULLIVER LODGED 2/3/2021.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.  
\* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.  
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

### STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

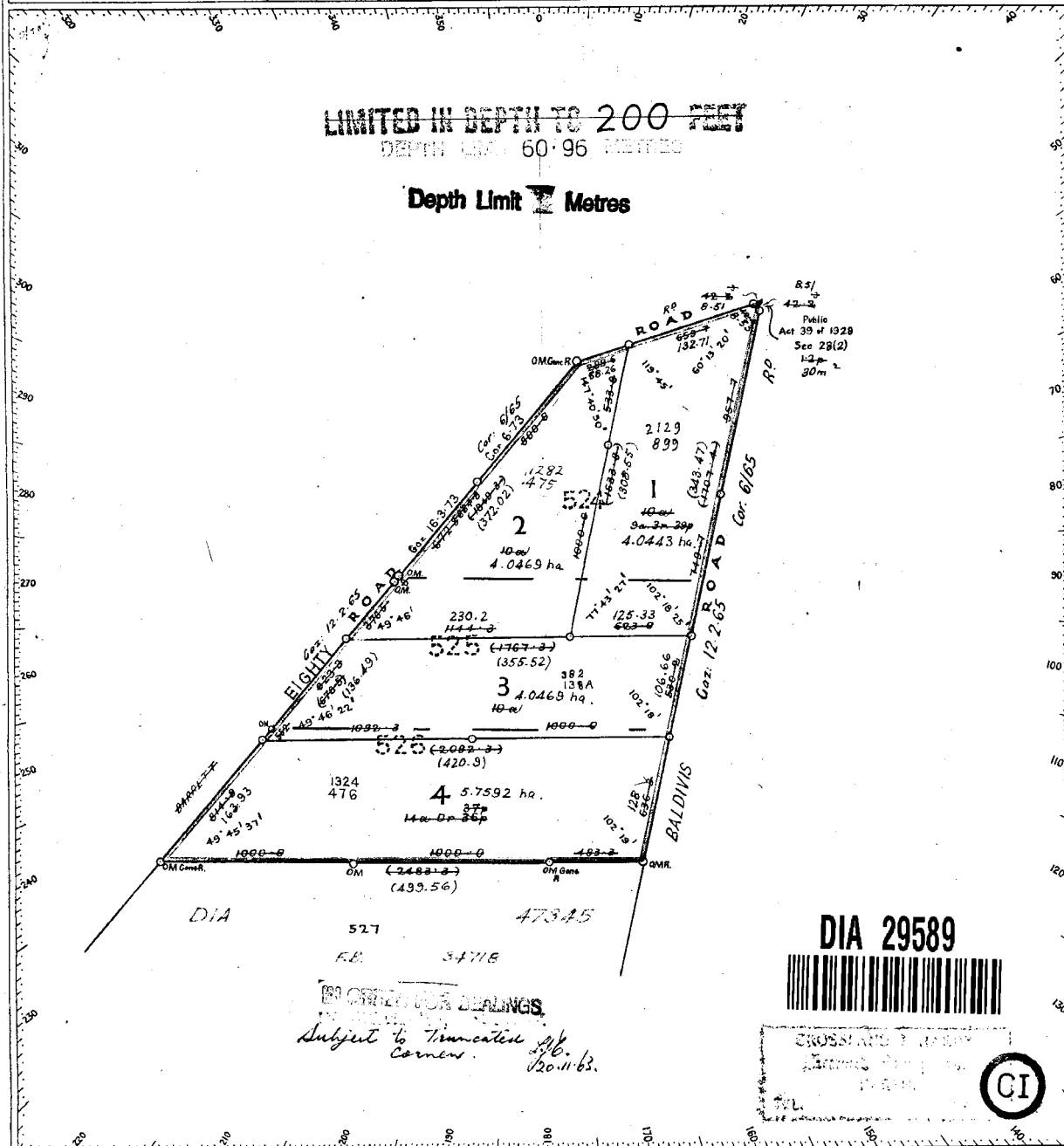
SKETCH OF LAND: 2129-899 (1/D29589)  
PREVIOUS TITLE: 1282-474  
PROPERTY STREET ADDRESS: 364 BALDIVIS RD, BALDIVIS.  
LOCAL GOVERNMENT AUTHORITY: CITY OF ROCKINGHAM

NOTE 1: DUPLICATE CERTIFICATE OF TITLE NOT ISSUED AS REQUESTED BY DEALING N584314

Town or District.	Number of Lot or Location.	Field Book.	Scale	Certificate in which Land is Vested.	Area
PEEL ESTATE	Lots 524, 525, 526.	22151	6 1: 4752 Chains to one inch	Vol. 1245. Fol. 892. Now 1252 174	A. R. P. 44 0 36 Green 1-2 Brown 44 0 37 Total

LIMITED IN DEPTH TO 200 FEET  
DEPTH LIA. 60.96 METRES

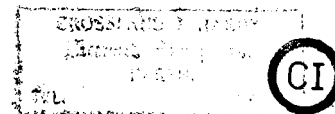
Depth Limit Metres



DIA 29589



IN ORDER FOR DEEDINGS.  
Subject to Truncated  
Corners. 12.11.63.



<b>CERTIFICATE</b> I hereby certify that this survey was performed by me personally (or under my own personal supervision, inspection and field check) in strict accordance with the Licensed Surveyors (Guidance of Surveyors) Regulations, 1961. Date 10. Sept. 1963 W. T. Meharry Licensed Surveyor.		21259 Approved by Town Planning Board TOWN PLANNING DEPARTMENT FILE 21259 DRG. No. 11 SEP 1963. Date 11/9/63	
Approved W. T. MEHARRY Inspector of Plans and Surveys Date 8.4.64	On Plan Diagram Index Plan 8311 PEEL 5000 05.10	Registered 11/9/63	Diagram No. <b>29589</b>



### INSTRUCTIONS

1. If insufficient space in any section, Additional Sheet, Form B1 should be used with appropriate headings. The boxed sections should only contain the words "see page..."
2. Additional Sheets shall be numbered consecutively and bound to this document by staples along the left margin prior to execution by the parties.
3. No alteration should be made by erasure. The words rejected should be scored through and those substituted typed or written above them, the alteration being initialled by the persons signing this document and their witnesses.

### NOTES

1. **DESCRIPTION OF LAND**  
Lot and Diagram/Plan/Strata /Survey-Strata plan number or Location name and number to be stated.  
Extent - Whole, part or balance of the land comprised in the Certificate of Title to be stated.  
The Volume and Folio or Crown Lease number, to be stated. If this document relates to only part of the land comprised in the Certificate of Title further narrative or graphic description may be necessary.
2. **CAVEATOR**  
State full name of the Caveator.
3. State the address, or a number for a facsimile machine in Australia for service of notice on the Caveator.
4. **REGISTERED PROPRIETOR**  
State full name and address of the Registered Proprietor/Registered Proprietors as shown on Certificate of Title or Crown Lease and any address/addresses to which future notices can be sent.
5. Specify the Estate or Interest claimed.
6. Specify the grounds on which claim is made.
7. State whether "Absolutely" or "Unless such Instrument be expressed to be subject to the Caveator's claim", or "until after notice of any intended registration or registered dealing to the Caveator at the address for service of notice".
8. **CAVEATOR'S OR AGENTS EXECUTION**  
A separate attestation is required for every person signing this document. Each signature should be separately witnessed by an Adult Person. The full name, address and occupation of the witness must be stated. Execution by a corporation or body corporate must be in accordance with the Corporation Act.



OFFICE USE ONLY

0657591 C

02 Mar 2021 08:30:00 Perth



### CAVEAT

LODGED BY JNC Legal

ADDRESS Suite 7, 99-101 Francis Street, Northbridge WA 6003

PHONE No. (08) 9381 5355

FAX No. (08) 9380 4559

REFERENCE No. 2020/264

ISSUING BOX No.

PREPARED BY JNC LEGAL

ADDRESS SUITE 7, 99 - 101 FRANCIS STREET, NORTHBRIDGE

PHONE No. 9381 5355

FAX No. 9380 4559

REFERENCE No. 2021/293

INSTRUCT IF ANY DOCUMENTS ARE TO ISSUE TO OTHER THAN LODGING PARTY

4/4

TITLES, LEASES, DECLARATIONS ETC LODGED HERewith

1. <u>NOT</u>	Received Items No.s
2. <u>Deed of Assignment</u>	
3. <u>Deed of variation &amp; agreement</u>	Receiving Clerk
4. <u>option</u>	
5. _____	
6. _____	

Lodged pursuant to the provisions of the TRANSFER OF LAND ACT 1893 as amended on the day and time shown above and particulars entered in the Register.

**CAVEAT**

DESCRIPTION OF LAND (Note 1)

Lot 1 on Diagram 29589

EXTENT

Whole

VOLUME

2129

FOLIO

899

CAVEATOR (Note 2)

EDWARD GEORGE CULLIVER

ADDRESS OR FACSIMILE MACHINE NUMBER FOR SERVICE OF NOTICE ON CAVEATOR (Note 3)

364 BALDIVIS ROAD, BALDIVIS

REGISTERED PROPRIETOR (Note 4)

EDWARD GEORGE CULLIVER OF 364 BALDIVIS ROAD, BALDIVIS

ESTATE OR INTEREST BEING CLAIMED (Note 5)

AS BENEFICIAL OWNER OF PART OF THE LAND UNDER A DEED

The CAVEATOR claims an estate or interest as specified herein of the estate or interest of the abovenamed REGISTERED PROPRIETOR in the land above described BY VIRTUE OF (Note 6)

ANNEXURE B, CLAUSE 14, OF THE OPTION TO PURCHASE LAND DATED 30 MAY 2019 AS ASSIGNED BY A NOTICE OF ASSIGNMENT DATED 17 JANUARY 2020 AND AMENDED BY A DEED OF VARIATION AND AGREEMENT DATED 2020 BETWEEN THE CAVEATOR AND REGISTERED PROPRIETOR


And FORBIDS the registration of any instrument affecting the estate or interest (Note 7)

UNLESS SUCH INSTRUMENT BE EXPRESSED TO BE SUBJECT TO THE CAVEATOR'S CLAIM

Dated this 25<sup>th</sup> day of February Year 2021

CAVEATOR OR AGENT SIGN HERE (Note 8)

Signed

In the  
presence of  
Timothy Wei Sheng  
Suite 7 99-101 Francis St  
Northbridge WA  
legal practitioner

**Document Notes:**

IMPORTANT: THIS PAGE FORMS PART OF DOCUMENT [O657591] AND MAY CONTAIN REFERENCES TO AMENDMENTS OR CORRECTIONS TO THE DOCUMENT

---

23/3/2021 11:29:53

COVID-19 Time clock amended. See timestamp within case

---

13/4/2021 09:48:21

As per letter dated 6 April attached the date of the deed of assignment in Note 6 is to be amended from 17 January 2020 to 29 November 2019, the Registered Proprietor to be amended to MGP Baldivis Pty Ltd and it is confirmed that the claim of the caveat is over the whole of the land.

Our Ref: JC:TO:2021/293

26 February 2021

Landgate  
P.O Box 2222  
MIDLAND WA 6936

**ATTN: Registrar of Titles**

Dear Sir/Madam

EV001660175 VOI



**VERIFICATION OF IDENTITY  
EDWARD GEORGE CULLIVER**

I, Timothy Oo, Legal Practitioner, of JNC Legal Pty Ltd, Suite 7, 99-101 Francis Street, Northbridge, act as the solicitor for Edward George Culliver of 364 Baldivis Road, Baldivis in relation to the Caveat registration of Lot 1 on Diagram 29589 being the whole of the land in Certificate of Title Volume 2129 Folio 899 and located at 364 Baldivis Road, Baldivis, Western Australia (Land), where my client is the Caveator.

I identified my clients on 25 February 2021 at Suite 7, 99-101 Francis Street, Northbridge, Western Australia.

I have taken all reasonable steps to verify the identity of my clients.

I reasonably believe that my clients have been identified.

I reasonably believe that my clients have the authority to deal with the interest in the Land that is the subject of the transfer of land.

Yours sincerely

Timothy Oo  
Legal Practitioner





# Requisition Notice

Section 192 of the Transfer of Land Act

Your Ref: 364 BALDIVIS ROAD 2129-899  
Our Ref: O657581  
Enquiries: Sophie Burge  
Telephone: 92737373  
Facsimile: 92737633

30 March 2021

BARNES & GATTI LEGAL  
UNIT 1, 8 PAKENHAM STREET  
FREMANTLE, WA 6160

Facsimile: 08 9433 4533  
Email:  
Delivered by: Mail

Dear Sir/Madam

## Requisition Notice

Registration of the document(s) referenced cannot be affected until all requisitions listed below are complied with and the fee payable is received. A time limit of **21 days** applies from the date stated above after which all documents may be rejected.

It is generally not necessary to attend Landgate in person to make corrections to requisitioned documents however, if an appointment is necessary, please contact Landgate using the contact details above.

Doc. No	Description	Req. Fee
O657591	1. The date of the the Deed of assignment appears it should be 29-11-2019 - not 17-1-2020 - Please clarify. 2. It appears the claim of the Caveat may be only over Part of the land and not the whole of Lot 1. Please clarify. 3. The Registered Proprietor panel is incorrect as preceding Transfer O657582 transferred the land into the name of MGP Baldivis Pty Ltd.	89.10

Requisition Sub Total \$ 89.10  
Additional Fee \$ 0  
TOTAL FEE Payable \$ 89.10

Sincerely,



BRUCE ROBERTS  
REGISTRAR OF TITLES

### Requisitions may be attended to by:

1. Directly using the contact details provided above.
2. The lodging of evidence (by hand) at Landgate's Perth Business Office, QBE Building, 200 St. Georges Terrace, Perth.
3. Post to Landgate, Registrations, P O Box 2222, Midland WA 6936.
4. **For further information regarding this requisition notice please liaise with the Contact Person as shown above and/or refer to Landgate's Land Titles Registration Policy and Procedure Guides.**

Correspondence by representatives of parties to documents **must state** the capacity in which they act and confirm that they are duly authorised to do so. Amendment by letter is at the discretion of the Registrar of Titles. Unless these requisitions are complied with, the documents will be rejected. Documents may be withdrawn from registration, a withdrawal fee is applicable per document. Registration fees returnable in full or in part will be set-off against requisition and withdrawal fees. See payment options on page 2.

\*Proof of payment to be provided at time requisition satisfied by copy of receipted assessment .

## PAYMENT OPTIONS

**BY CREDIT CARD:** Any credit card payments to be made to our customer services team on 92737373

**IN PERSON:** Landgate, 1 Midland Square, Midland.  
or  
Perth Branch Office, QBE Building,  
200 St Georges Terrace, Perth.

**BY POST:** PO Box 2222, Midland WA 6936 or DX 88  
(Cheques or money orders to be made payable to Landgate.)

**BY FAX:** 92737633

**DEALING NO:** 0657581

**CONTACT PERSON:** Sophie Burge

**YOUR REFERENCE:** 364 BALDIVIS ROAD 2129-899

---

**COMPLETE THIS SECTION IF PAYING BY EBIS ACCOUNT (BY FAX)**

EBIS Account Number

--	--	--	--

--	--	--	--

Western Australian Land Information  
Authority Office Use Only

Order No: \_\_\_\_\_

**EBIS Company Name:** .....

**Amount:**      **Fax Requisition Fee \$**\_\_\_\_\_      **Additional Fees \$**\_\_\_\_\_      **Total \$**\_\_\_\_\_

**I hereby authorise the Western Australian Land Information  
Authority to debit the above EBIS account:**

.....  
(Signature of person authorising payment)

**Name of person authorising payment:**

.....  
(Please Print Name)

**Contact Phone No:**

.....



# Requisition Notice

Section 192 of the Transfer of Land Act

Your Ref: 364 BALDIVIS ROAD 2129-899  
Our Ref: O657581  
Enquiries: Sophie Burge  
Telephone: 92737373  
Facsimile: 92737633

13 April 2021

BARNES & GATTI LEGAL  
UNIT 1, 8 PAKENHAM STREET  
FREMANTLE, WA 6160

Delivered by: Mail

Dear Sir/Madam

## Requisition Notice – Final Notice

It has been identified that you have a requisition notice due to expire in the next **7 days**.

Registration of the document(s) referenced in the original requisition notice cannot be affected until all requisitions referenced are complied with any fees payable.

If it is not possible to satisfy the requisitions within 7 days from the date of this notice please withdraw the dealing from registration, otherwise it may be rejected pursuant to section 192 of the Transfer of land Act 1893 without any further notice to you.

Please ignore this final notice if you have complied with the requisitions and any fee payable within the last few days.

Sincerely,

BRUCE ROBERTS  
REGISTRAR OF TITLES

Western Australian Land Information Authority ABN 86 574 793 858  
1 Midland Square, Midland, Western Australia 6056  
Postal Address: PO Box 2222, Midland, Western Australia 6936  
Telephone +61 (0)8 9273 7373 TTY +61 (0)8 9273 7571 [landgate.wa.gov.au](http://landgate.wa.gov.au)

# Requisition Notice

Section 192 of the Transfer of Land Act

Your Ref: 364 BALDIVIS ROAD 2129-899  
Our Ref: O657581  
Enquiries: Sophie Burge  
Telephone: 92737373  
Facsimile: 92737633

30 March 2021

BARNES & GATTI LEGAL  
UNIT 1, 8 PAKENHAM STREET  
FREMANTLE, WA 6160

Facsimile: 08 9433 4533  
Email:  
Delivered by: Mail

Dear Sir/Madam

## Requisition Notice

Registration of the document(s) referenced cannot be affected until all requisitions listed below are complied with and the fee payable is received. A time limit of **21 days** applies from the date stated above after which all documents may be rejected.

It is generally not necessary to attend Landgate in person to make corrections to requisitioned documents however, if an appointment is necessary, please contact Landgate using the contact details above.

Doc. No	Description	Req. Fee
O657591	1. The date of the the Deed of assignment appears it should be 29-11-2019 - not 17-1-2020 - Please clarify.  2. It appears the claim of the Caveat may be only over Part of the land and not the whole of Lot 1. Please clarify.  3. The Registered Proprietor panel is incorrect as preceding Transfer O657582 transferred the land into the name of MGP Baldivis Pty Ltd.	89.10

Requisition Sub Total \$ 89.10  
Additional Fee \$ 0  
TOTAL FEE Payable \$ 89.10

Sincerely,



BRUCE ROBERTS  
REGISTRAR OF TITLES

### Requisitions may be attended to by:

1. Directly using the contact details provided above.
2. The lodging of evidence (by hand) at Landgate's Perth Business Office, QBE Building, 200 St. Georges Terrace, Perth.
3. Post to Landgate, Registrations, P O Box 2222, Midland WA 6936.
4. **For further information regarding this requisition notice please liaise with the Contact Person as shown above and/or refer to Landgate's Land Titles Registration Policy and Procedure Guides.**

Correspondence by representatives of parties to documents **must state** the capacity in which they act and confirm that they are duly authorised to do so. Amendment by letter is at the discretion of the Registrar of Titles. Unless these requisitions are complied with, the documents will be rejected. Documents may be withdrawn from registration, a withdrawal fee is applicable per document. Registration fees returnable in full or in part will be set-off against requisition and withdrawal fees. See payment options on page 2.

\*Proof of payment to be provided at time requisition satisfied by copy of receipted assessment .

## PAYMENT OPTIONS

**BY CREDIT CARD:** Any credit card payments to be made to our customer services team on 92737373

**IN PERSON:** Landgate, 1 Midland Square, Midland.  
or  
Perth Branch Office, QBE Building,  
200 St Georges Terrace, Perth.

**BY POST:** PO Box 2222, Midland WA 6936 or DX 88  
(Cheques or money orders to be made payable to Landgate.)

**BY FAX:** 92737633

**DEALING NO:** 0657581

**CONTACT PERSON:** Sophie Burge

**YOUR REFERENCE:** 364 BALDIVIS ROAD 2129-899

---

**COMPLETE THIS SECTION IF PAYING BY EBIS ACCOUNT (BY FAX)**

EBIS Account Number

--	--	--	--

--	--	--	--

Western Australian Land Information  
Authority Office Use Only

Order No: \_\_\_\_\_

**EBIS Company Name:** .....

**Amount:**      **Fax Requisition Fee \$**\_\_\_\_\_      **Additional Fees \$**\_\_\_\_\_      **Total \$**\_\_\_\_\_

**I hereby authorise the Western Australian Land Information  
Authority to debit the above EBIS account:**

.....  
(Signature of person authorising payment)

**Name of person authorising payment:**

.....  
(Please Print Name)

**Contact Phone No:**

.....



Your Ref: O657581  
Our Ref: JC:TO:2021/293

6 April 2021

Landgate  
200 St Georges Terrace  
PERTH WA 6000

**ATTN: SOPHIE BURGE**

By Email: [sophie.burge@landgate.wa.gov.au](mailto:sophie.burge@landgate.wa.gov.au)

Dear Sophie

**CAVEAT 364 BALDIVIS ROAD, BALDIVIS: REQUISITION NOTICE**

We refer to your Requisition Notice dated 30 March 2021.

We authorise the following changes to Form C1:

1. The date of the Deed of Assignment be amended from 17 January 2020 to 29 November 2019; and
2. The Registered Proprietor be amended to MGP Baldivis Pty Ltd.

We also confirm that the claim of the caveat is over the whole of the land.

Yours sincerely

  
Joseph Cianfrini  
Director

Liability Limited by a scheme approved under Professional Standards Legislation.



14 April 2021

MGP BALDIVIS PTY LTD  
65 KARINGA RD  
MADORA BAY, WA 6210

Dear Sir/Madam

I advise that a caveat has been lodged against the Certificate of Title for your land. Your land ownership details are described in the schedule overleaf.

Some details of the Caveat including a copy of part of the "Estate or interest claimed" section are shown in the schedule overleaf.

A caveat is a statutory notice lodged against the Certificate of Title for the land evidencing a claim to an interest in that land. The claim is made by a person who is not the registered owner of the land. The person claiming the interest in the land is known as the caveator.

The existence of a caveat on the title does not allow the caveator to deal with the land, however the caveat may prevent the registration of any change to the title for the land until notice of that change has been given to the caveator.

The caveat will remain on the title until it is withdrawn by the caveator or action is taken for its removal.

A complete copy of the caveat may be obtained (on payment of the prescribed fee) at [www.landgate.wa.gov.au](http://www.landgate.wa.gov.au). If you wish to seek further information regarding the caveat, Landgate may be contacted on +61 (0)8 9273 7373 or by email to [customerservice@landgate.wa.gov.au](mailto:customerservice@landgate.wa.gov.au). Please be aware that legal advice cannot be provided. Customers requiring any legal advice must seek their own independent legal advice.

Finally, please note that, due to the numbers of caveats lodged daily at the Western Australian Land Information Authority (Landgate), the Registrar of Titles is personally not able to assist you with caveat enquiries.

Sincerely,

BRUCE ROBERTS  
REGISTRAR OF TITLES

Western Australian Land Information Authority ABN 86 574 793 858  
1 Midland Square, Midland, Western Australia 6056  
Postal Address: PO Box 2222, Midland, Western Australia 6936  
Telephone +61 (0)8 9273 7373 TTY +61 (0)8 9273 7571 [landgate.wa.gov.au](http://landgate.wa.gov.au)

### THE SCHEDULE

Caveat No:	O657591
Caveator:	EDWARD GEORGE CULLIVER
Nature of Claim:	UNLESS THE INSTRUMENT IS EXPRESSED TO BE SUBJECT TO THE CAVEATOR'S CLAIM
Affected Titles:	2129-899
Affected Documents:	
Estate/Interest Claimed:	AS BENEFICIAL OWNER OF PART OF THE LAND UNDER A DEED

Western Australian Land Information Authority ABN 86 574 793 858  
1 Midland Square, Midland, Western Australia 6056  
Postal Address: PO Box 2222, Midland, Western Australia 6936  
Telephone +61 (0)8 9273 7373 TTY +61 (0)8 9273 7571 [landgate.wa.gov.au](http://landgate.wa.gov.au)

## Appendix 2

# Development Plans and Elevations

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ROAD FEATURES	COMMUNICATION	SEWER	GROUND FEATURES	ROAD FEATURES	STRUCTURE	GROUND FEATURE	ELECTRICAL	UNDERGROUND SERVICES
Traffic Junction Box	Telstra Pit	Sewer Vent	Natural Surface	Edge Of Bitumen	Bridge	Major Contour		
Traffic Signals - 1 Aspect	Telstra Pillar	Sewer Line Marker	Aerial Survey Marker	Road Shoulder	Abutment	Minor Contour	Variable Message Sign	
Traffic Signals - 2 Aspect	Telstra Marker	Sewer Inspection Shaft	VEGETATION	Edge Of Unsealed Road	Columns	Bank Bottom	Electrical Structure String	
Traffic Signals - 3 Aspect	Telstra Pole	Sewer Inspection Opening	Tree Details - Canopy & Trunk	On Road	Piers	Bank Top	Overhead Powerlines - Null Height	
Traffic Signals - 4 Aspect	Telephone Booth	Sewer Manhole	Tree 0.1m-0.3m Trunk Diameter	Centre Of Road	Underpass	Line Of Levels	Overhead Powerlines - True Height	
Pedestrian Signals	Emergency Phone	RAIL	Tree 0.3m-0.5m Trunk Diameter	Kerb Top	Ramp	Levee Top	High Tension Power Lines - Null Height	
Sign On One Pole	Antenna	Rail Traffic Signals	Tree 0.5m-1.0m Trunk Diameter	Kerb Bottom	Steps/Stairs	Levee Bottom	High Tension Power Lines - True Height	
Sign Multiple Poles	Telstra Elevated Joint	Rail Traffic Control Box	Tree > 1.0m Trunk Diameter	Cattle Grid	Edge Of Concrete	Rock Outcrop		
Overhead Sign	Cable Marker (Optus)	Rail Telephone Box	Bush	Centre Of Driveway	Bus Shelter	Ridge Line	COMMUNICATION	
Traffic Controller Box	Telstra Tower	Rail Cable Pit	Die Back Area - Marker	Edge Of Driveway	Memorial	Borrow Pit	Unidentified Service Pit	
Finger Sign	Communication Manhole	Rail Cable Marker	Nesting Tree	Pedestrian Ramp	Ruin	Earthworks Area	Amcom Cable	
Traffic Earth Pit	WATER	Rail SLK Post	Tree Trunk / Stump	Pedestrian Crosswalk	Building / Structure	Ground Subsidence	WATER	
Police Traffic Camera	Water Meter	Manhole - Rail Cable	Grass Tree	Track	Awning	Rock Pitching	GAS	
Guide Post	Water Stop Valve			Parking Bay	Shed		DRAINAGE	
Km Marker	Hydrant (Ground Level)	STRUCTURE	SURVEY CONTROL	Line Markings 1m Line & 1m Gap	Verandah	VEGETATION	Drainage Pipe	
Traffic Count	Hydrant (Pillar)	Deck Level	Star Iron Picket	Line Markings 1m Line & 3m Gap	Door Opening	Tree Line/Canopy	Drainage Culvert	
ELECTRICAL	Water Bore	Floor Level	Trig Point	Line Markings 3m Line & 9m Gap	Window	Bush Line	Floodway	
Earth Pit	Reticulation Sprinkler	Column Centre	SSM	Lane Marking (9m*3m GAP)	Roof Gutter Line	Hedge	Drain	
Electrical Pillar	Reticulation Control Valve	Clothes Hoist	Bench Mark	Lane Markings - Audible	Roof Ridge Line	Garden Bed	Edge Of Drain	
Electrical Dome	Well	Air Conditioner	Photo Point	Shared Pathway - Guide Line 900mm*300mm GAP	Top Of Wall	Lawn Area	Sump	
Light Pole - Directional	Water Main Marker	Marker Unk/Undefined	Cadastral Peg/Post	Footpath/Shared Path - Give Way 200mm*200mm GAP	Brick Wall	Vineyard	Waters Edge	
Power Pole	Water Tap	Undefined Manhole	Reference Peg	Giveaway/Hold/Turn Lines 600mm*600mm GAP	Concrete Wall	Plantation	Swamp	
Transformer Single Pole	Flushing Point	Control Of Access Sign	Alignment Control	Double Barrier Line	Livestock Grid	Orchard	Dam	
Stay Pole	Air Valve	Count Station	Spring Head Nail	Overtaking Lane Left	GENERAL	Nursery	Edge Of Creek/Water	
Steel Wire Anchor	Peizometer	Advertising Sign	Spike	Overtaking Lane Right	Swimming Pool	Market Garden	Centre Of Channel	
High Mast Lighting	Hydrant Booster Box	Windmill	TBM	Single Solid Line	Tank Perimeter	Recreational Area	Wet Area	
Electrical Cable Marker	GAS	Stock Trough	Peg Placed / Found	Arrow Straight	Mine Shaft	Trunk Circumference Circle	Flood Level Line	
MRWA Cable Marker	Gas Marker	Litter Bin		Arrow Straight/Left	Mine Workings		Waterways Cross Section	
MRWA Electrical Cable Box	Gas Valve	Mail Box		Arrow Left	Koppa Logging Fence			
Electrical Cable Pit/Box	Gas Test Valve	Parking Meter		Arrow Right	Fence/Gate	CADASTRAL	SEWER	
MRWA Distribution Board	LPG Tank	Bus Stop		Arrow 3 Ways	Wall	MNG Precal/Re Established	RAIL	
High Tension Power Pole	Gas Test Pit	Ticket Machine		Arrow Right & Left	Top Of Barrier / Wall etc	(SCDB) - State Cadastral Data Base	Sewer Pressure Main	
Electrical Supply Pole	Gas Manhole	Borehole		Arrow U-Turn	Retaining Wall	Cadastre By Others	Sewer Pipe	
Ground Floodlight	DRAINAGE	Flag Pole		Arrow Merge	Boundary Line		Railway Platform	
MRWA Electrical Manhole	Invert Level	Bollard		Painted Lettering On Seal	Footpath		On Rail	
Meter Box	Overt Level	Fuel Bowser		Painted Bicycle Traffic Signal Detector	Gas Cylinder/Tank		Rail Boom Gate	
Power Meter Box	Flood Level	Underground Filler		Guardrail - W Beam	Brick Paving		Rail Underground Cable	
Electrical Transformer	Water Line	Diesel Tank		Guardrail - Thrie	Bike Rack		Dual Gauge Rail	
MRWA Light Pole	Flood Level Indicator	Oil Main Marker		Barrier Concrete	Bench Seating		Narrow Gauge Rail	
MRWA Multiple Light Pole	Storm Water Grate	Security Post		Barrier Steel Rope	Handrail		Cross Setion - Rail	
	Drainage Gully	Tank		Barrier - Single Rail			Standard Gauge Rail	
	Drainage Manhole			Barrier - Double Rail			Rail U/G Cable	
	Drainage Headwall			Barrier Triple Rail				
				Bridge Barrier - (All Types)				
				Bridge Expansion Joints				
				Bridge - Outside Of Deck				
				Soffit String				

E	Underground Services Updated	SAH	11/02/2020	TKI
D	Cadastrre Added	SAH	17/11/2019	DRD
C	Underground NBN Fibre Added	SAH	12/03/2018	TKI
B	Feature Codes Revised	SAH	22/08/2017	DKK
A	Initial Issue	SAH	30/06/2016	SAH
Rev.	Description	Drawn	Date	Checked

SCALE 1:1000 @ A3

0 25 50

ALL DISTANCES ARE IN METRES

For a true to scale reproduction of this plan, plot it to A3 with the Paging Scaling set to None.

The boundaries shown on this plan were not re-established as part of this survey, therefore this plan does not guarantee their accuracy. Existing easements, encumbrance or interest are not depicted and a title search is recommended to obtain this information. Re-establishment of the cadastral boundaries is recommended for any proposed works on or near existing boundaries.

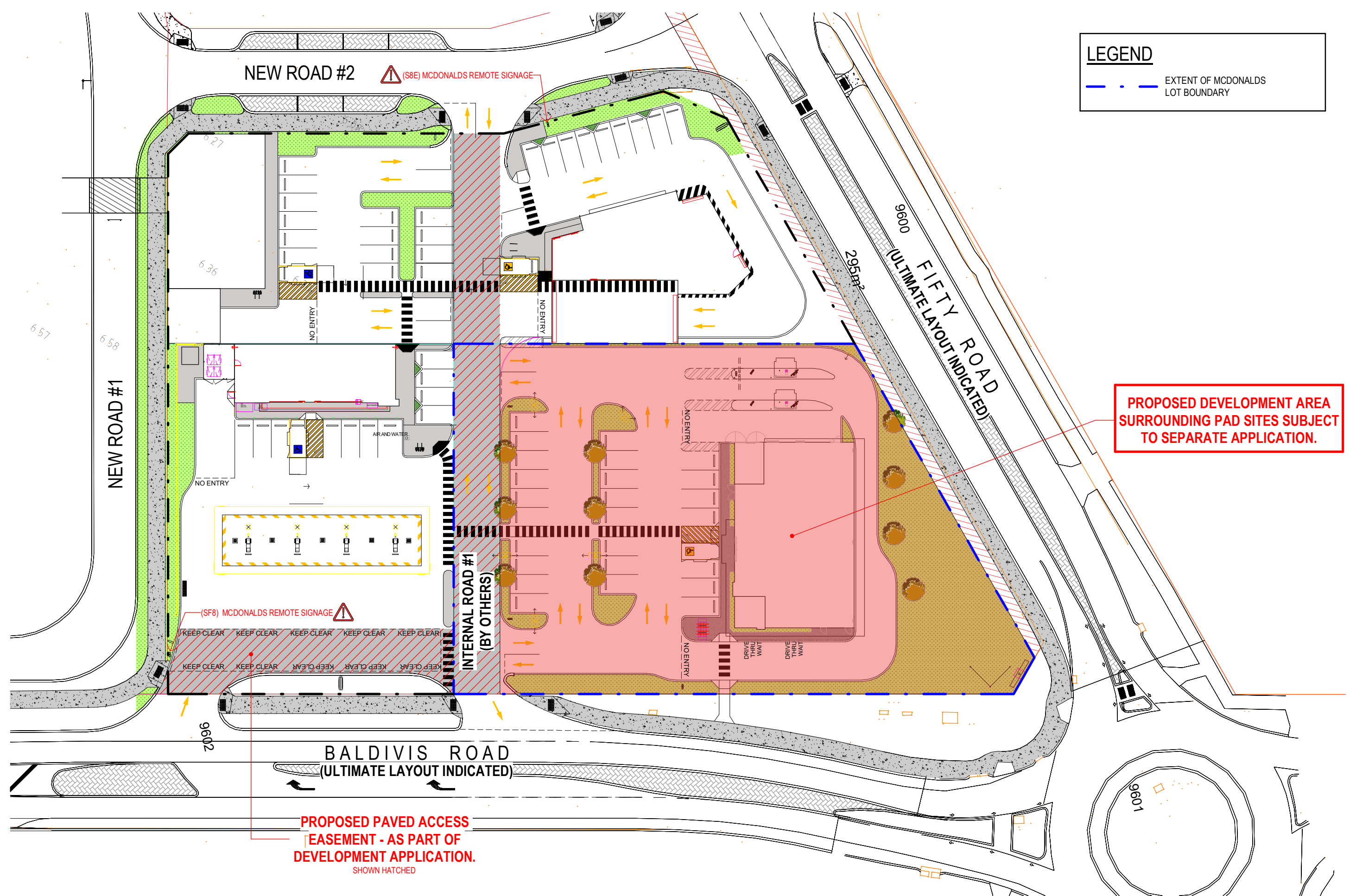
**McMULLEN NOLAN GROUP**  
Level 1, 2 Sabre Crescent  
Jandakot, W.A. 6164  
PO Box 3526, Success  
W.A. 6964, Australia  
Offices in: Broome, Bunbury, Kununurra, Newman, Port Hedland

Tel: (08) 6436 1599  
Fax: (08) 6436 1500  
info@mngsurvey.com.au  
www.mngsurvey.com.au  
ABN 90 009 363 311

CLIENT:

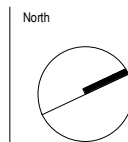
N/A

Project Mngr:	MNG	Datum:	LOCAL
95465 - DOC-012 - E			



Revisions		General Notes	
Issue/Description	Date	Chk	Int
		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/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 millimeters. All discrepancies and omissions on site must be reported to the architect for their comments or approval prior to commencing work.	

Drawing Notes



Client  
**McDonald's Australia Limited**  
ABN: 43 006 496 928  
02 9875 6666  
devgroup-aust@au.mcd.com

Project Manager  
**NDG**  
NATIONAL DEVELOPMENT GROUP

Architect  
**IAA**  
Hindley and Associates Pty Ltd  
Building Designers  
Unit 4/166 Stirling Highway  
Nedlands WA 6009  
PO Box 199 Nedlands WA 6909  
08 9386 6699  
www.hindley.com.au

Project  
**McDONALD'S FAMILY RESTAURANT NORTH BALDIVIS**

Location  
LOT 1 No. 364 BALDIVIS ROAD  
& FIFTY ROAD  
BALDIVIS, WA

## DEVELOPMENT APPLICATION

Scale 1:500 @ A3	Series BIO_MOD
Drawing <b>OVERALL SITE PLAN</b>	
Project Number <b>0743</b>	Drawing Number <b>DA01</b>
Issue	



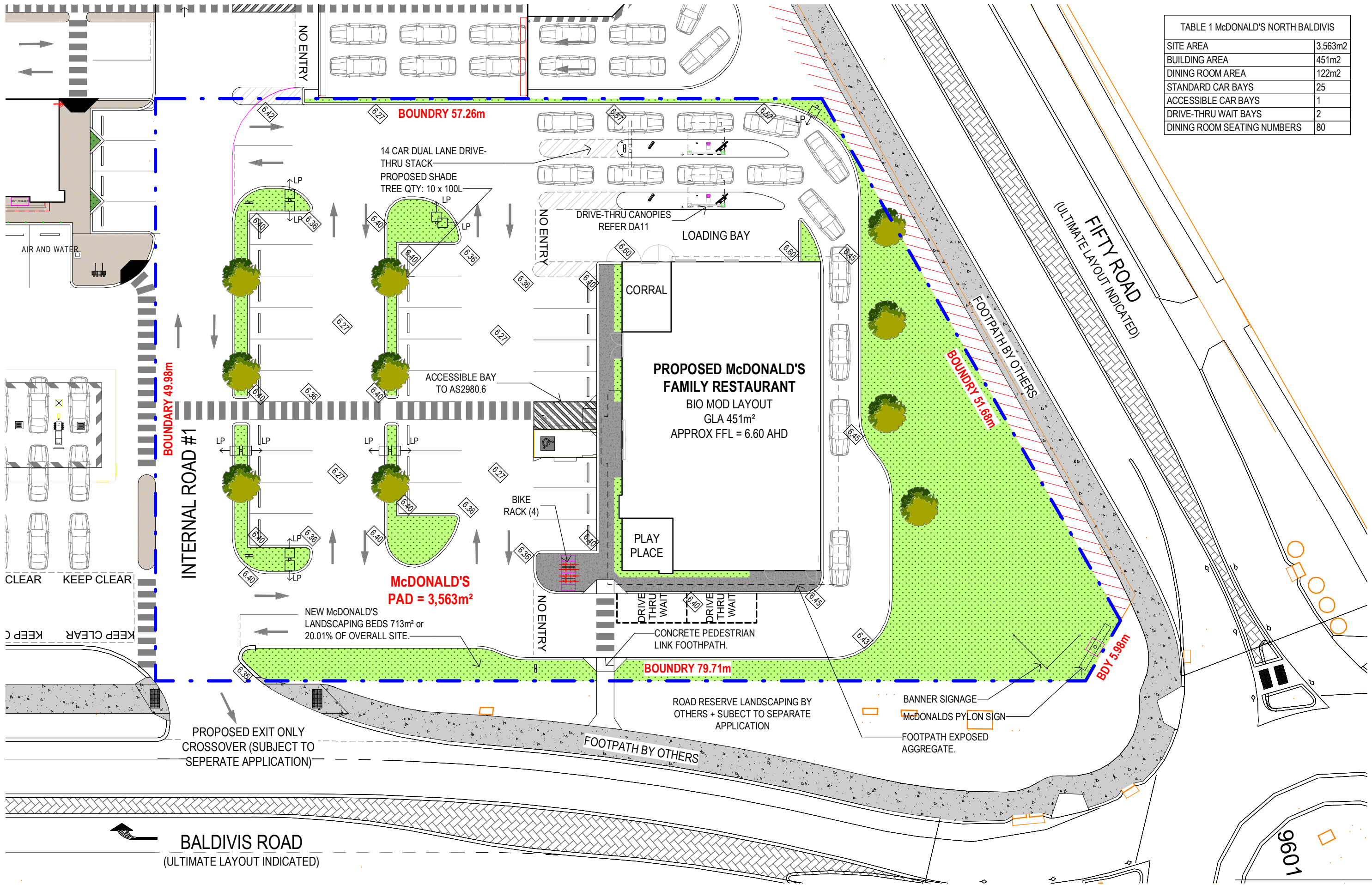


TABLE 1 McDONALD'S NORTH BALDIVIS	
SITE AREA	3.563m2
BUILDING AREA	451m2
DINING ROOM AREA	122m2
STANDARD CAR BAYS	25
ACCESSIBLE CAR BAYS	1
DRIVE-THRU WAIT BAYS	2
DINING ROOM SEATING NUMBERS	80

#### Revisions

Issue/Description	Date	Chk	Int

#### General Notes

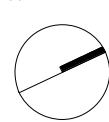
Do not scale this drawing. The drawing shows design intent only. All dimensions to be checked on site prior to construction or production. Construction details to be confirmed by contractor/manufacture. This is a computer generated drawing. Do not amend by hand. Figure dimensions are to be used. Contact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

#### Drawing Notes

##### LEGEND:

□ → LIGHT POLE. INDICATIVE LOCATIONS AND SUBJECT TO CHANGE

#### North



#### Client

**McDonald's Australia Limited**  
 ABN: 43 006 496 928  
 02 9875 6666  
 devgroup-aust@au.mcd.com

**Project Manager**  
**NDG**  
**NATIONAL DEVELOPMENT GROUP**

#### Architect

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 PO Box 199 Nedlands WA 6909  
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#### Project

**McDONALD'S FAMILY RESTAURANT NORTH BALDIVIS**

**Location**  
 LOT 1 No. 364 BALDIVIS ROAD  
 & FIFTY ROAD  
 BALDIVIS, WA

#### DEVELOPMENT APPLICATION

Scale 1:300 @ A3	Series BIO_MOD
Drawing <b>SITE PLAN</b>	
Project Number <b>0743</b>	Drawing Number <b>DA02</b>
Issue	



ILLUMINATED SIGNAGE:	
TAG.	DESCRIPTION
S1A S1B	WALL SIGN 2.40x0.69m HIGH "PLAYPLACE" LOGO.
S3A S3B S3C S3D S3E	WALL + BLADE SIGN 1.37m X 1.2m "M" LOGO
S4A	ENTRY FASCIA SIGN 1.9m x 0.23m WORDING "McDONALDS"
S5A	WALL BUTTON SIGN 1.20Ø WORDING "McCAFE"
S5B	WALL BLADE SIGN 1.42m x 0.7m WORDING "McCAFE"
S6A S6B	HEIGHT CLEARANCE GANTRY
S7A S7B	DIGITAL MENUBOARDS (DOUBLE SIZE)
S7C S7D	DIGITAL PRESELL MENUBOARDS (SINGLE SIZE)
S8A S8B S8C S8D S8E S8F	DIRECTIONAL SIGNAGE 0.7 x 2.3m HIGH DOUBLE SIDED WORDING VARIES . REFER TO DA11 REFER ALSO DA01 FOR REMOTE SIGNAGE.
S14	PYLON SIGN . REFER TO DA10 FOR HEIGHT.
S15	WALL BLADE SIGN . 0.4 x 0.4m WORDING "McDELIVERY"

NON ILLUMINATED SIGNAGE:	
TAG.	DESCRIPTION
S9A S9B S9C	SINGLE SIDED " NO PEDESTRIAN ACCESS"
S9D	ACCESSIBLE PARKING BAY
S9E	DOUBLE SIDED : BIKE RACK
S9F S9G	SINGLE SIDED : 10KM/HR
S13A S13B	BANNER SIGN

Revisions	
Issue/Description	Date

General Notes	
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/manufacture. 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 millimeters. All discrepancies and omissions on site must be reported to the architect for their comments or approval prior to commencing work.	

Drawing Notes	

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Project

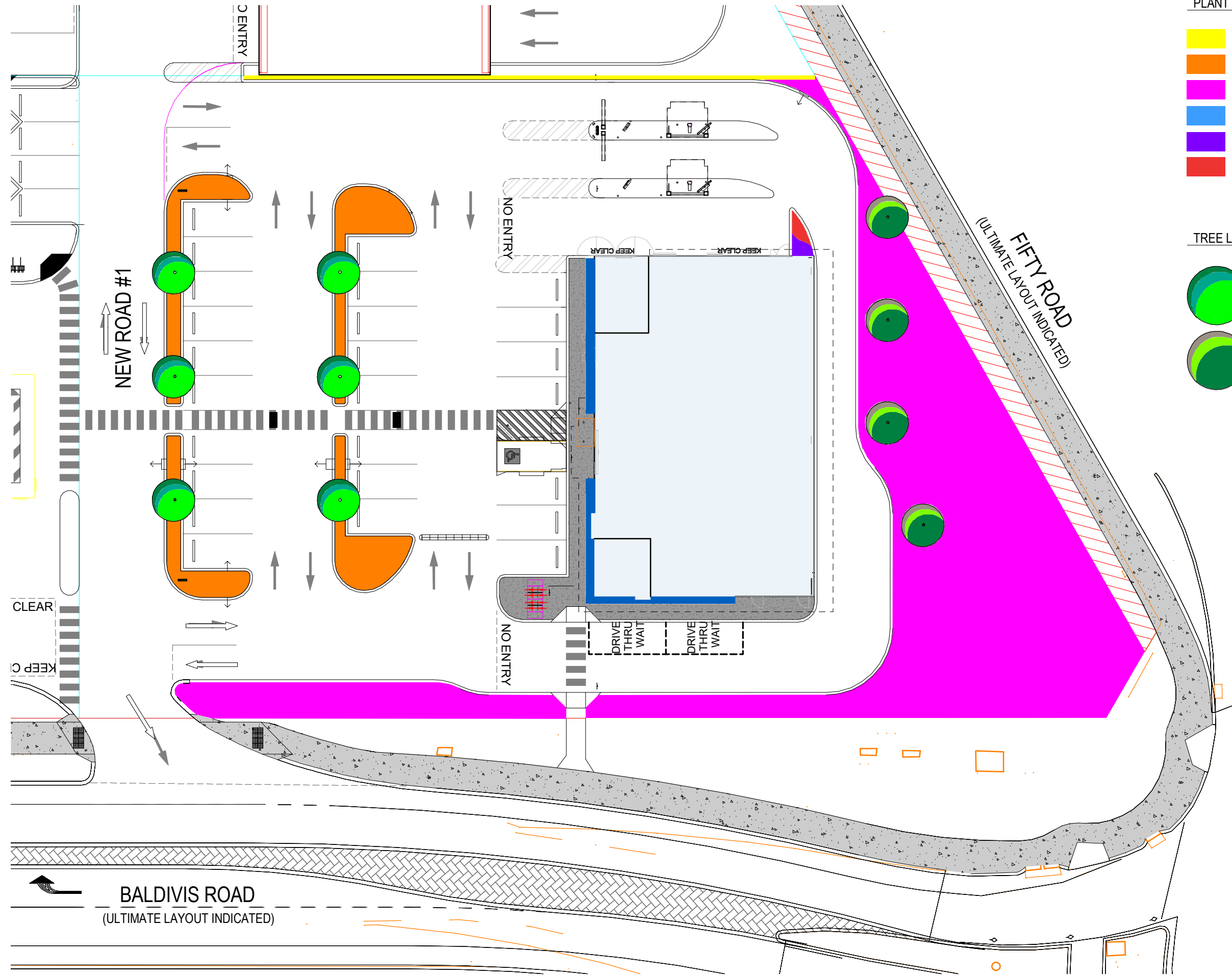
**McDONALD'S FAMILY RESTAURANT NORTH BALDIVIS**

Location

LOT 1 No. 364 BALDIVIS ROAD  
& FIFTY ROAD  
BALDIVIS, WA

DEVELOPMENT APPLICATION	
Scale 1:300 @ A3	Series BIO_MOD
Drawing <b>SITE SIGNAGE PLAN</b>	
Project Number <b>0743</b>	Drawing Number <b>DA03</b>
Issue	





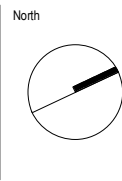
PLANT LEGEND

- INDIAN HAWTHORN FORMED AS HEDGE
- HIBBERTIA SNAKE VINE
- NATIVE MIX - WESTRINGIA, HIBBERTIA SNAKE VINE, OLEARIA, ANIGOZANTHUS, SCAEVOLA
- INDIAN HAWTHORN FORMED AS HEDGE + RADERMACHERA "SUMMERSCENT"
- AGAVE - MASS PLANTING
- PITTOSPORUM MISS MUFFET

TREE LEGEND

- EUCALYPTUS TORQUATA
- EUCALYPTUS FORRESTIANA

Revisions		General Notes		Drawing Notes
Issue	Description	Date	Chk Int	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/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 millimeters. All discrepancies and omissions on site must be reported to the architect for their comments or approval prior to commencing work.



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Project  
**MCDONALD'S FAMILY RESTAURANT NORTH BALDIVIS**

Location  
LOT 1 No. 364 BALDIVIS ROAD  
& FIFTY ROAD  
BALDIVIS, WA

DEVELOPMENT APPLICATION

Scale 1:300 @ A3	Series BIO_MOD
Drawing <b>PROPOSED LANDSCAPING PLAN</b>	
Project Number <b>0743</b>	Drawing Number <b>DA04</b>
Issue	

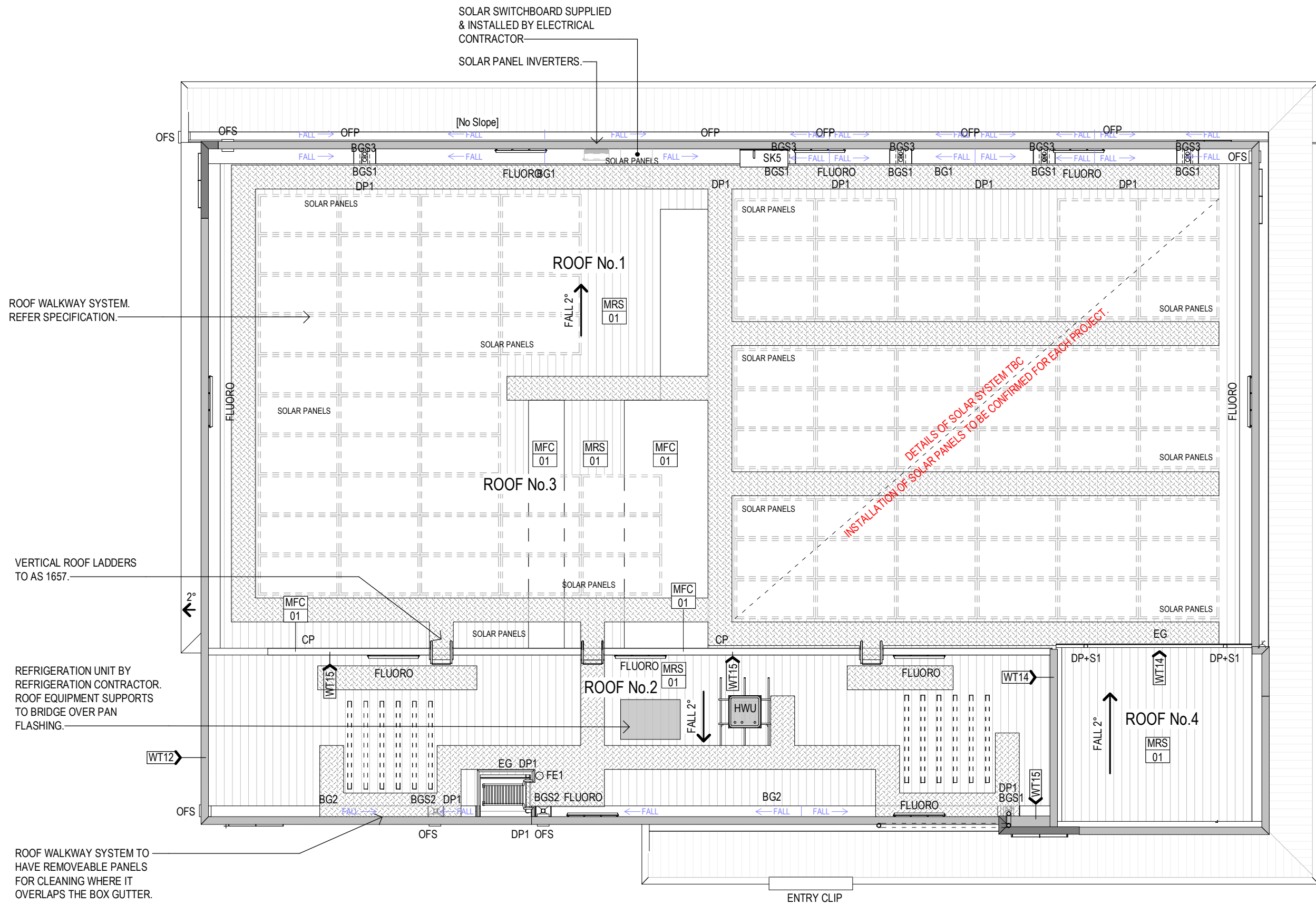


Project  
**MCDONALDS FAMILY  
RESTAURANT NORTH BALDIVIS**

Location  
LOT 1 No. 364 BALDIVIS ROAD  
& FIFTY ROAD  
BALDIVIS, WA

Scale 1: 100 @ A3	Series BIO_MOD	
Drawing <b>FLOORPLAN</b>		
Project Number <b>0743</b>	Drawing Number <b>DA05</b>	Issue <b>-</b>





Revisions	General Notes	Drawing Notes
<div> <div> <div></div> <div></div> </div> <div> <div>Issue</div> <div>Description</div> </div> </div>	<div> <div>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/manufacture. 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 millimeters. All discrepancies and omissions on site must be reported to the architect for their comments or approval prior to commencing work.</div> </div>	<div> <div></div> </div>

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Project

McDONALDS FAMILY RESTAURANT NORTH BALDIVIS

Location

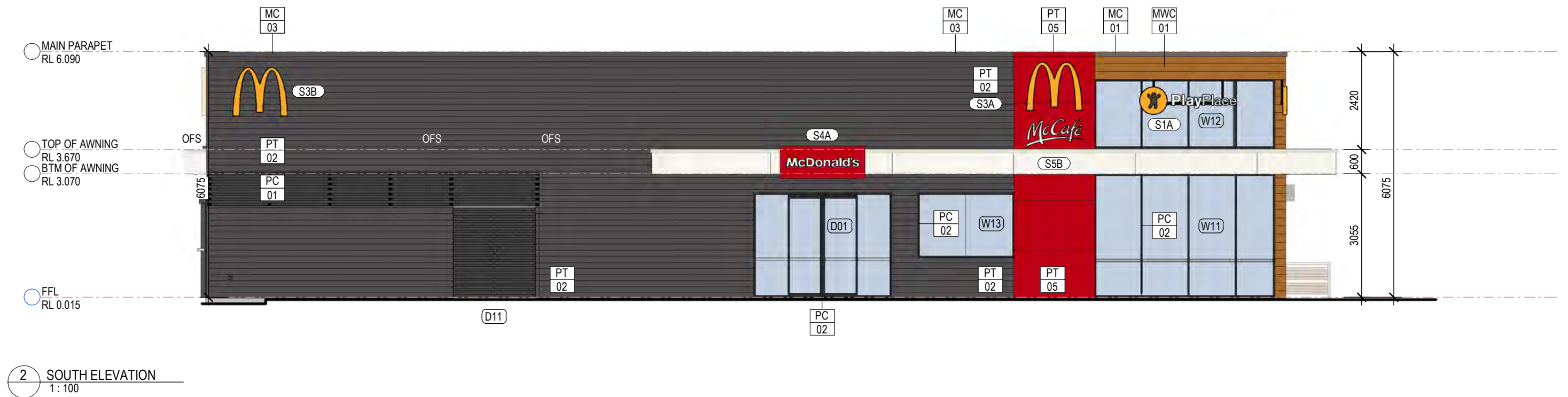
LOT 1 No. 364 BALDIVIS ROAD

& FIFTY ROAD

BALDIVIS, WA

## DEVELOPMENT APPLICATION

Scale 1:100 @ A3	Series BIO_MOD
Drawing <b>ROOF PLAN</b>	
Project Number <b>0743</b>	Drawing Number <b>DA06</b>
	Issue <b>-</b>



Revisions	General Notes	Drawing Notes
<div>IssueDescription</div> <div>Date</div> <div>Chk Int</div>	<p>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/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 millimeters. All discrepancies and omissions on site must be reported to the architect for their comments or approval prior to commencing work.</p>	

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Project  
McDONALDS FAMILY  
RESTAURANT NORTH BALDIVIS

Location  
LOT 1 No. 364 BALDIVIS ROAD  
& FIFTY ROAD  
BALDIVIS, WA

## DEVELOPMENT APPLICATION

Scale  
1:100 @ A3

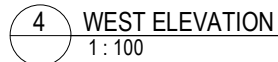
Series  
BIO\_MOD

Drawing  
FRONT & SIDE BUILDING  
ELEVATIONS

Project Number  
0743

Drawing Number  
DA07

Issue  
-

IssueDescription

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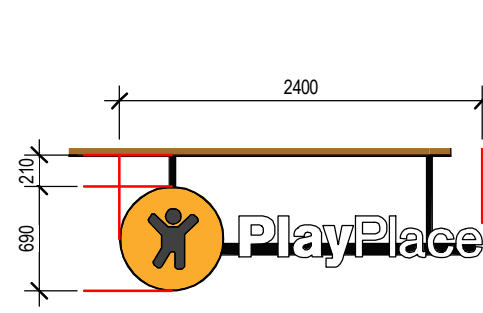
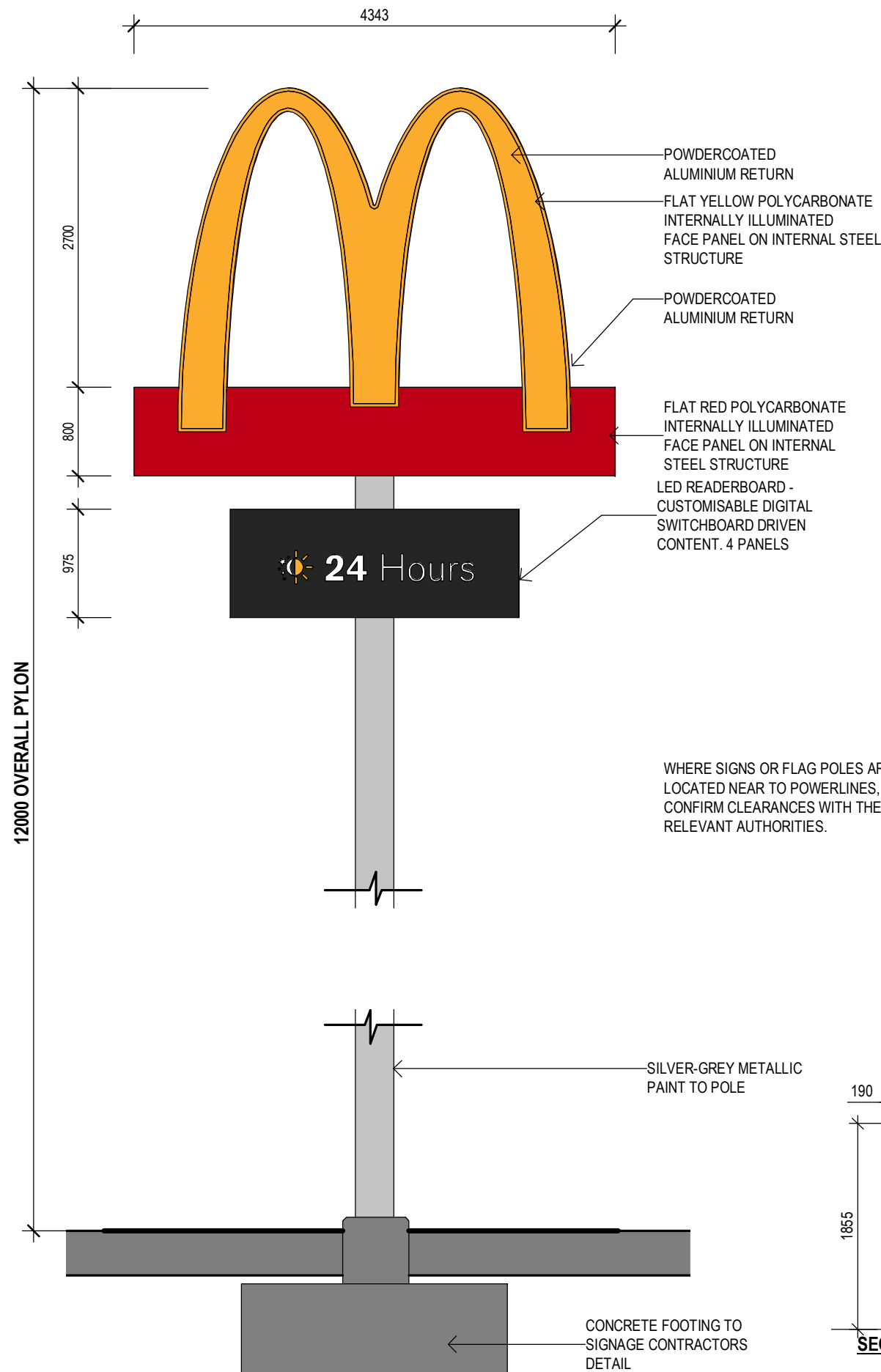
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Location  
LOT 1 No. 364 BALDIVIS ROAD  
& FIFTY ROAD  
BALDIVIS, WA

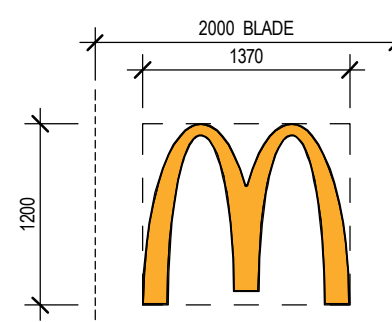
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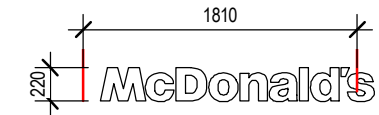




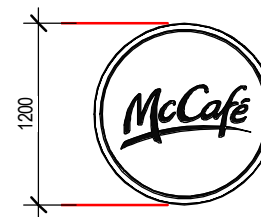
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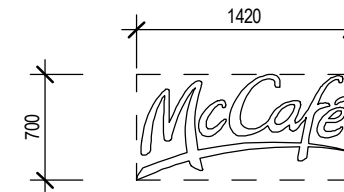
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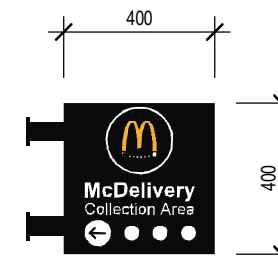
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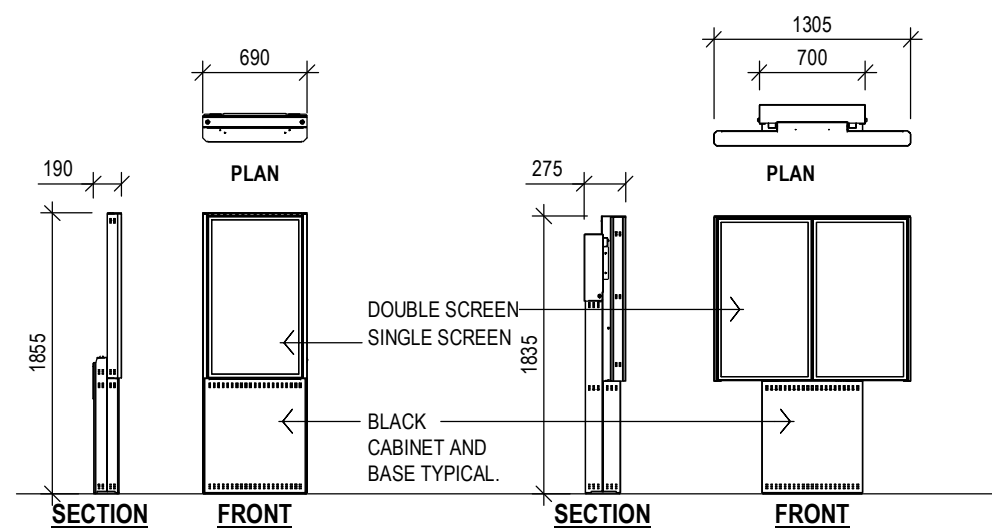
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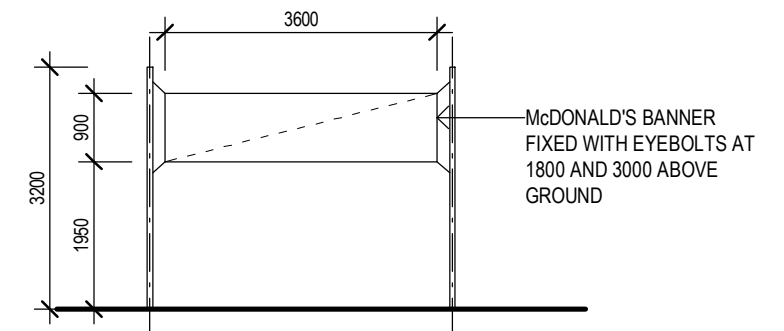
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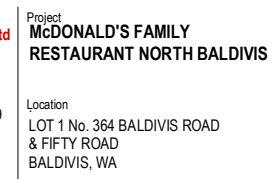
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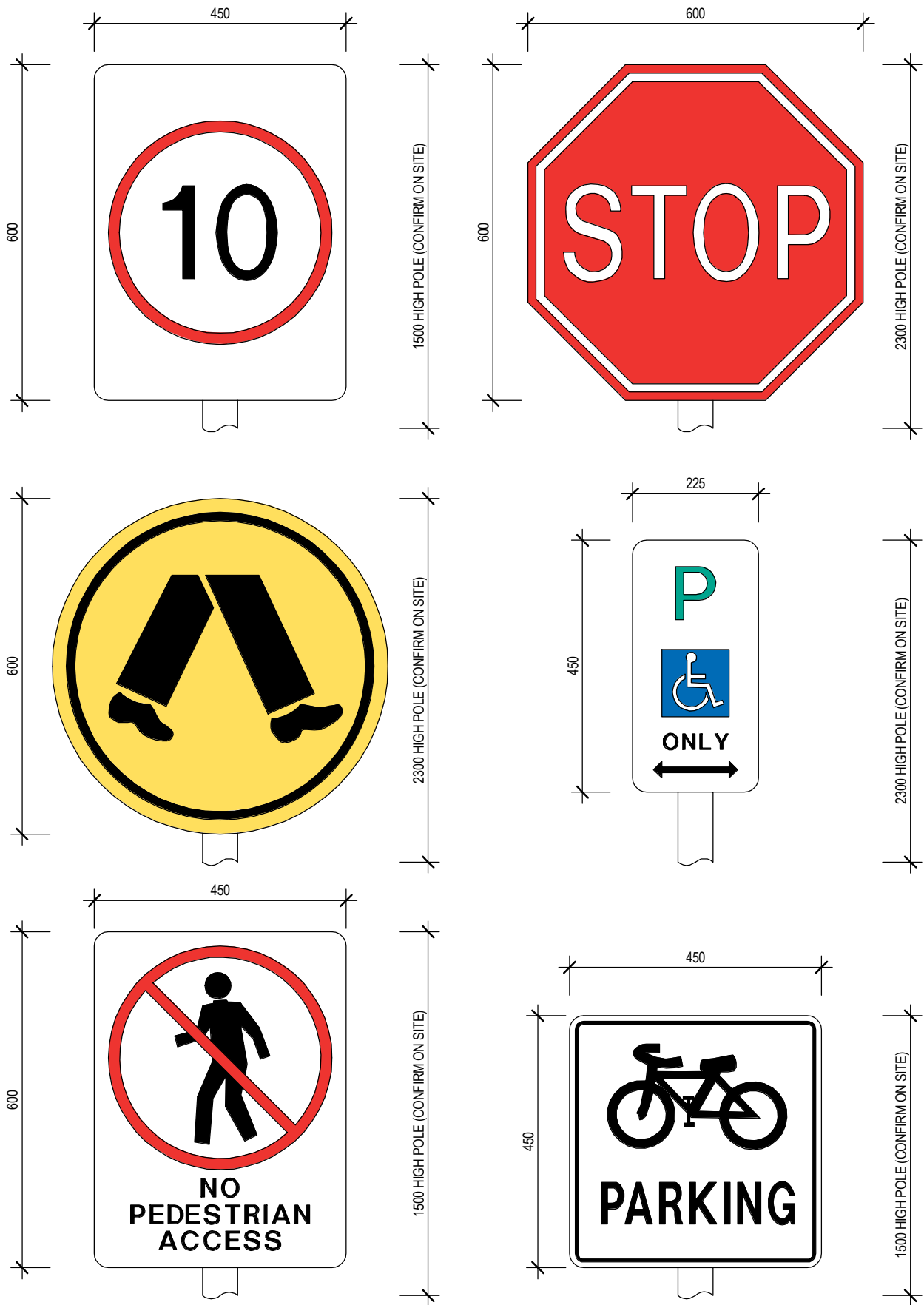
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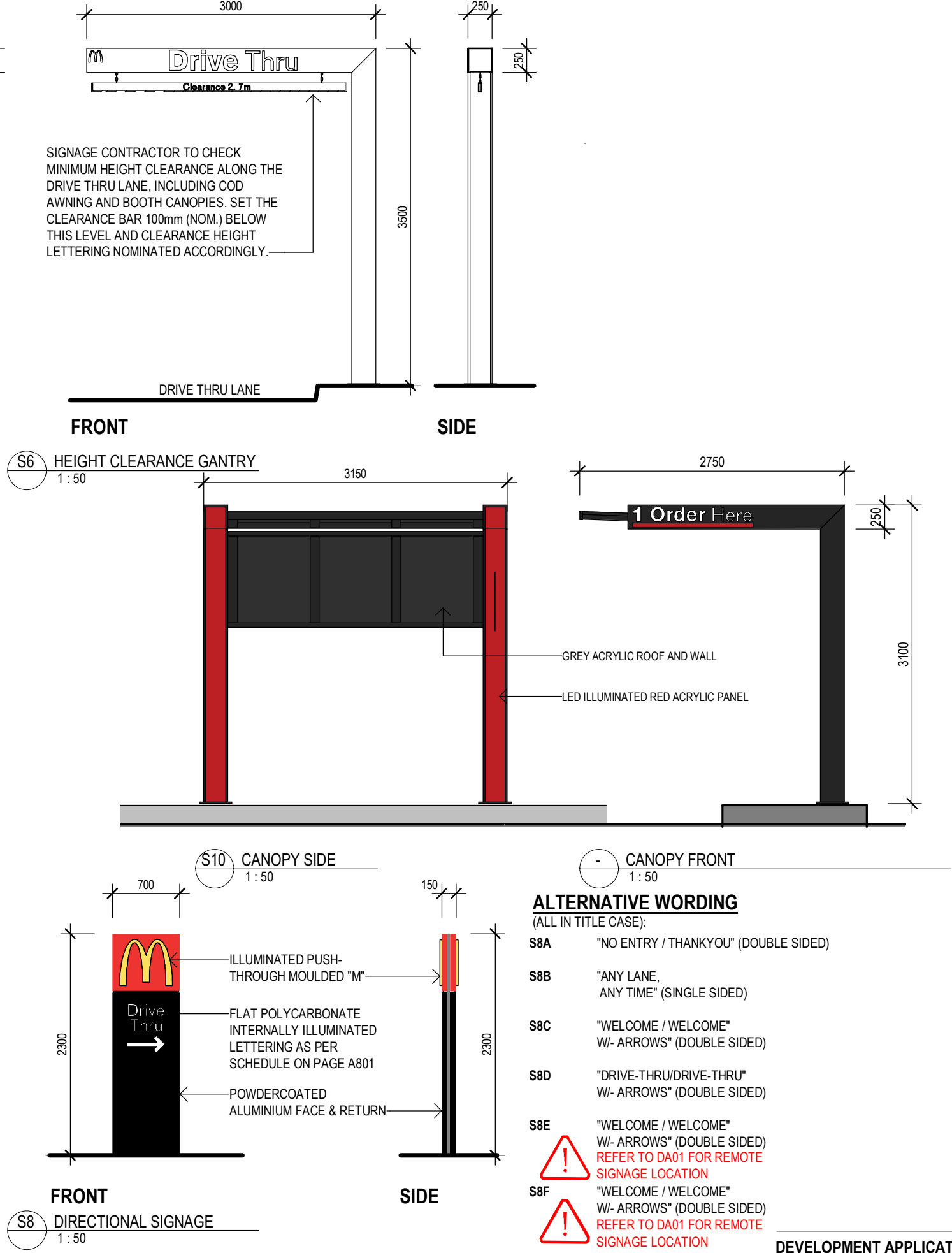
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DEPENDING ON LOCATION WITHIN SITE, S9 SIGNAGE SHOULD BE SET A MINIMUM OF 2m ABOVE TOP OF KERB TO PREVENT OBSTRUCTION TO OCCASIONAL PEDESTRIANS, OR TO REDUCE INTERFERENCE FROM PARKED VEHICLES. IF THIS DOESN'T APPLY, SIGNAGE HEIGHTS SHALL BE SET AS NOTED.

**S9 CAR PARK SIGNAGE**  
1 : 10



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Date	Chk Int	

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**Project**

**McDONALD'S FAMILY RESTAURANT NORTH BALDIVIS**

**Location**

LOT 1 No. 364 BALDIVIS ROAD  
& FIFTY ROAD  
BALDIVIS, WA

**Scale**

As indicated @ A3

**Series**

BIO\_MOD

**SIGNAGE DETAILS**

Project Number  
**0743**

Drawing Number  
**DA11**

Issue





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Project

McDONALD'S FAMILY  
RESTAURANT NORTH BALDIVIS

Location

LOT 1 No. 364 BALDIVIS ROAD  
& FIFTY ROAD  
BALDIVIS, WA

DEVELOPMENT APPLICATION

Scale @ A3	Series BIO_MOD
Drawing 3D PERSPECTIVES	
Project Number 0743	Drawing Number DA12
Issue	





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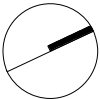
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Drawing Notes

North



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Project  
**MCDONALD'S FAMILY RESTAURANT NORTH BALDIVIS**

Location  
LOT 1 No. 364 BALDIVIS ROAD  
& FIFTY ROAD  
BALDIVIS, WA

DEVELOPMENT APPLICATION

Scale @ A3	Series BIO_MOD
Drawing <b>3D PERSPECTIVES</b>	
Project Number <b>0743</b>	Drawing Number <b>DA14</b>
Issue	



## Appendix 3

# Traffic Impact Assessment

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# **Proposed McDonald's Restaurant Lot 1 (HN 364) Baldivis Road, Baldivis**

## **Transport Impact Assessment**

**PREPARED FOR:  
McDonalds Australia**

**July 2021**

## Document history and status

Author	Revision	Approved by	Date approved	Revision type
Vladimir Baltic	r01	B Bordbar	30/06/2021	Draft
Vladimir Baltic	r01a	B Bordbar	21/07/2021	Final

**File name:** t21.153.vb.r01a.docx

**Author:** Vladimir Baltic

**Project manager:** Behnam Bordbar

**Client:** McDonalds Australia

**Project:** Lot 1 (HN 364) Baldivis Road, Baldivis

**Document revision:** r01a

**Project number:** t21.153

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## 1.0 Summary

---

This Transport Impact Assessment (TIA) report has been prepared with respect to the proposed McDonald's Family restaurant at Lot 1 (HN 364) Baldivis Road in Baldivis, City of Rockingham. The Lot 1 is located at the south western corner of the roundabout intersection of Baldivis Road and Fifty Road.

The development proposal includes construction of a new fast-food restaurant with a dual-lane drive-thru facility at one of the four pad sites within the subject site. The subject site forms part of the proposed retail/commercial centre at Lot 1, which also contemplates a new service station, liquor store and potentially a small-scale family restaurant at the subject site. The other three pad sites or any other land uses within the subject site are not part of this application.

As part of the development proposal a two-point access system is proposed to serve the retail/commercial centre on Lot 1 with an access directly off Baldivis Road at the east side and a crossover on the future internal subdivision road at the west side of the site intersecting with Fifty Road.

In accordance with the WAPC document "*Transport Impact Assessment Guidelines for Developments, Volume 4 – Individual Developments (2016)*" a Transport Impact Assessment is required for developments that are likely to generate high volumes of traffic and, therefore, would have a high overall impact on the surrounding land uses and transport networks.

The aim of this Transport Impact Assessment (TIA) is to estimate the traffic which will be generated by the development and establish the resultant traffic pattern on the surrounding road network. This assessment will include the capacity analysis of the proposed access point on Baldivis Road and the adjacent roundabout intersection of Baldivis Road/Fifty Road/Arden Avenue.

During the preparation of this report Transcore sourced information from the other relevant projects previously worked on in cooperation with the City of Rockingham officers.

## 2.0 Introduction

This TIA has been prepared by Transcore on behalf of McDonalds Australia with regards to the proposed McDonald's restaurant at Lot 1 (HN 364) Baldvis Road in Baldvis, City of Rockingham.

The subject site (pad site - approximately 3,563m<sup>2</sup>) occupies space at the north-east corner of Lot 1 and immediately to the southwest of the existing Baldvis Road/Fifty Road/Arden Avenue roundabout intersection as shown in **Figure 1**. The subject site is presently vacant.

The key issues that will be addressed in this report include the traffic generation of the proposed development, capacity analysis of the existing Baldvis Road/Fifty Road/Arden Avenue intersection, capacity analysis of the Lot 1 access on Baldvis Road and the future Fifty Road/Subdivision Road intersection as well as the assessment of the internal site circulation system for service vehicles.



**Figure 1: Location of the subject site**

The location of the subject site within the *Metropolitan Region Scheme* context is illustrated in **Figure 2**. Review of the *Metropolitan Regional Scheme* also confirms that both Baldvis Road and Fifty Road are local roads, as shown in **Figure 2**.



The subject site is zoned as “Urban” in the MRS. The MRS map also identifies the alignment of the future “Other Regional Road” Nairn Drive which is planned to extend further south of Fifty Road.

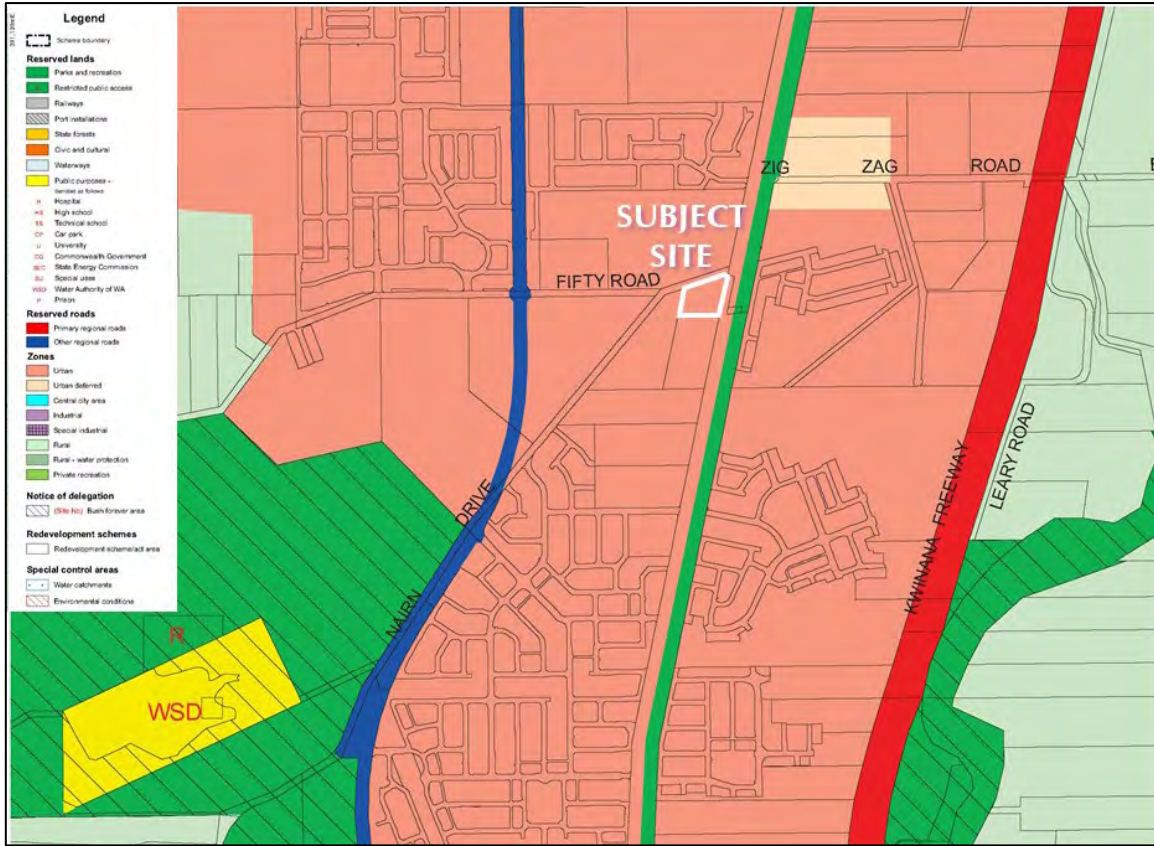


Figure 2. Site location within Metropolitan Region Scheme



### 3.0 Development Proposal

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The northernmost end of Lot 1 is earmarked for a retail/commercial centre planned to accommodate four retail/commercial tenancies, once fully developed. However, the focus of this assessment is the pad site at the north-east corner of Lot 1 which is proposed to be developed into a McDonald's restaurant with a drive-through facility.

An access easement is also proposed through Lot 1 site to provide a link between Baldivis Road at the east side and the future subdivision road at the west side and to provide a direct and convenient access to all four future tenancies.




The development proposal is for a McDonald's restaurant with a dual-lane drive through facility. The drive-through lanes merge into a single lane incorporating a cashier and servery facility. The proposed McDonald's building floor area is approximately 425m<sup>2</sup> GFA.

The proposed McDonald's restaurant will provide a total of 26 car parking bays (including one ARCOD bay) for the use of customers and staff. Two additional waiting bays are also provided near the exit from the drive-through facility.

The drive-through facility entails a combined stacking length sufficient to accommodate at least 14 standard vehicles.

A loading bay is proposed at the northwest side, located between the restaurant building and the drive-through facility. Refer **Appendix A** for more details.

The proposed McDonald's restaurant relies on the future access system for the retail/commercial centre on Lot 1. Specifically, the access system proposed to (indirectly) serve the restaurant comprises the following elements:

-  A (southern) left-in/right-in crossover with a right-turn slip lane on Baldivis Road;
-  A (northern) left-out only crossover on Baldivis Road; and,
-  A full-movement crossover on the future internal subdivision road to the west connecting to Fifty Road.

It has been advised that medium size rigid service vehicle of 12.5m in length would be used for deliveries to the restaurant while waste collection will be undertaken using 8.8m long front loader trucks. The swept path assessments of the 12.5m rigid service vehicle, as a larger of the two vehicles, was undertaken to assess the suitability of the site to accommodate such vehicles and are presented in **Appendix B**.

For the purpose of the traffic assessment, it is assumed that the proposed McDonald's restaurant would be completed and fully operational by the end of 2023.

## 4.0 Existing Situation

---

The Lot 1 is located approximately 39km south of the Perth CBD and approximately 9km southeast of Rockingham town centre. It is situated at the southwest corner of the existing Baldvis Road/Fifty Road/Arden Avenue roundabout intersection. Adjacent land uses on the north side of Fifty Road include the Baldvis Hall and playing fields within the Baldvis Nature Reserve and a primary school. New residential subdivision (Greenlea LSP) is being developed immediately east of Baldvis Road and south of the poultry farm (One Tree Estate). Currently, the subject site is vacant.

### 4.1 Existing Road Network

**Baldvis Road**, in the vicinity of subject site is constructed as a single carriageway, two-lane, rural road providing north south access through Baldvis for connections to the Kwinana Freeway at Mundijong Road, Safety Bay Road and Karnup Road. Baldvis Road has a 70km/h speed limit between Safety Bay Road and the subject site. The speed limit changes to 80km/h about 500m north of the subject site.

Baldvis Road south of Ingram Road has been upgraded to a boulevard-style road, with two 1.5m cycle lanes, two 3.5m traffic lanes and a 2.0m painted median with raised traffic islands.

The Main Roads WA *Perth Metropolitan Area – Functional Road Hierarchy* classifies Baldvis Road as a *Regional Distributor* road. It is under the care and control of City of Rockingham.

**Fifty Road** provides an east-west connection from Baldvis Road west to Mandurah Road and is classified as a *Local Distributor* road in the Main Roads WA *Perth Metropolitan Area – Functional Road Hierarchy*.

Fifty Road is a single carriageway, unkerbed two-lane rural road in the vicinity of the subject site but has been upgraded to a kerbed two-lane boulevard-style road adjacent to the existing North Baldvis subdivision. Along this section it is a kerbed two-lane road with a 1.5m painted median adjacent to the primary school with embayed parking for the primary school on the northern side.

Fifty Road operates under a 60km/h speed limit regime but a 40km/h school zone (7.30-9:00AM and 2.30-4:00PM on school days) applies adjacent to the local primary school.

Immediately northeast of the site, Baldvis Road, Fifty Road and Arden Avenue form a four-way, single-lane roundabout intersection.

## 4.2 Existing Traffic Volumes on Roads

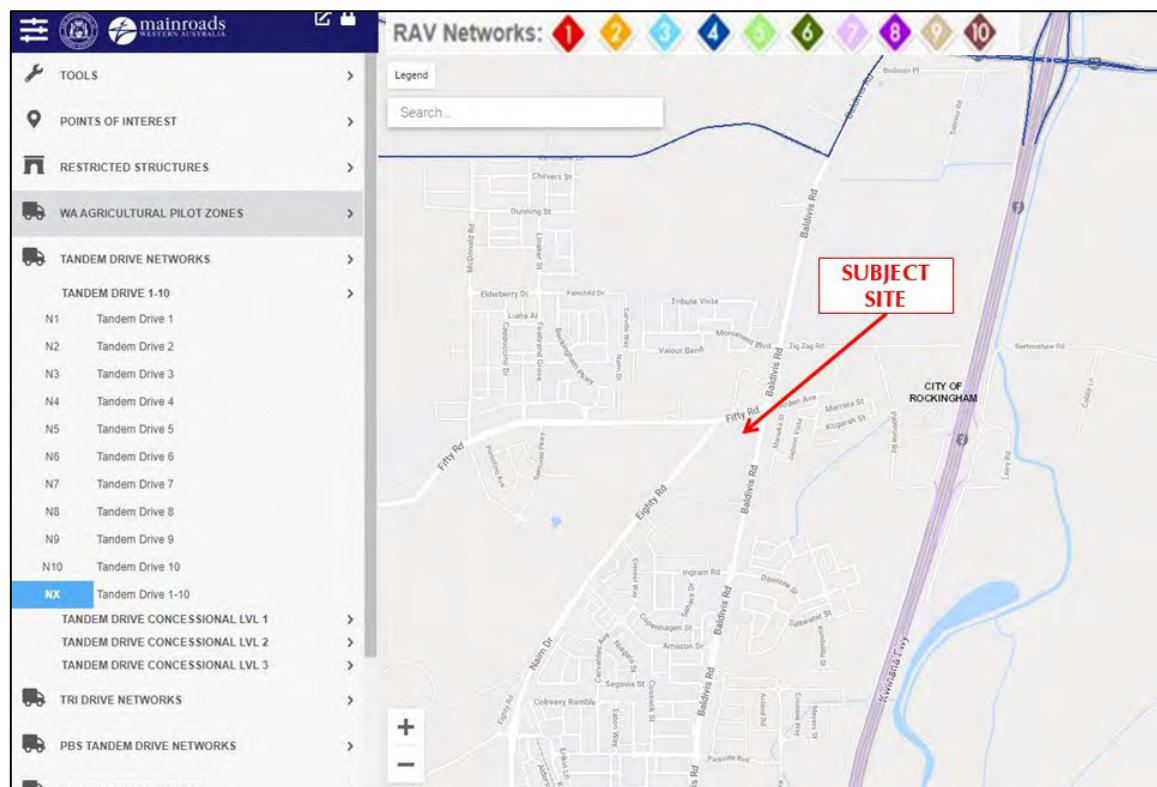
Based on Transcore's October 2019 daily traffic counts (south of Fifty Road), Baldvis Road carried about 6,800vpd on a regular weekday with peaks recorded between 8:00-9:00AM and 3:00-4:00PM.

Based on Transcore's October 2019 daily traffic counts (west of Baldvis Road), Fifty Road carried about 4,730vpd on a regular weekday with peaks recorded between 8:00-9:00AM and 3:00-4:00PM. A copy of the October 2019 traffic count results is appended in **Appendix E**.

## 4.3 Heavy Vehicles

Restricted Access Vehicle (RAV) Network routes are designated for access by large heavy vehicle combinations, which is managed by Main Roads WA. All roads surrounding the subject site including Baldvis Road (adjacent to the site) and Fifty Road are classified as RAV Network 1 as shown **Figure 3**.

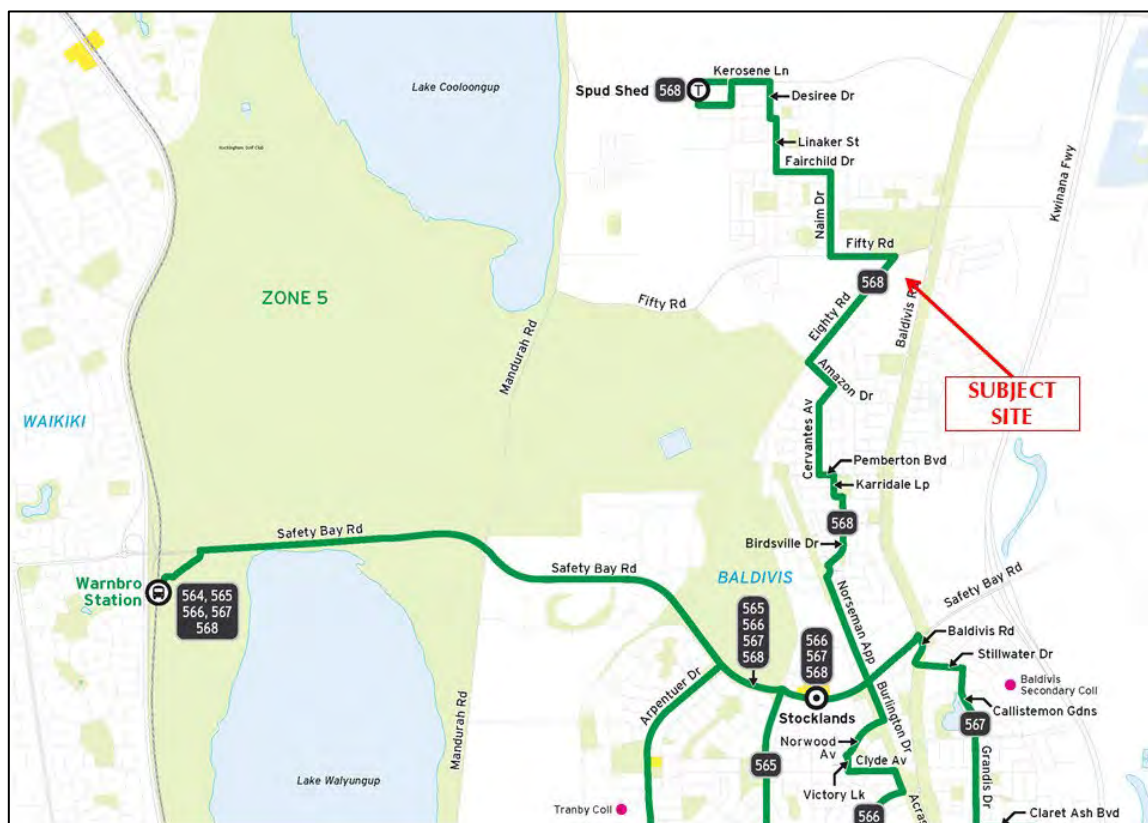
The RAV 1 Network classification permits operation of semi-trailers of up to 19m and short B-Doubles of up to 20m on these roads.



**Figure 3. Existing heavy vehicle road network classification (RAV)**

## 4.4 Public Transport Access

At present, the subject locality has limited access to public transport services. The closest existing bus route to the subject site is bus route No. 568 from Warnbro Train Station, which currently travels along Eighty Road and turning into Fifty Road before terminating at Sierra Parade/McDonald Road. However, a route deviation to Baldivis Primary School is available in morning and afternoon times during school days. The regular bus service 568 route is illustrated in **Figure 4**.



**Figure 4: Existing bus routes (source: Transperth)**

## 4.5 Pedestrian and Cyclist Facilities

In the vicinity of the subject site Fifty Road entails a 2.0m shared path along the northern side and adjacent to the primary school. The 2.0m wide path on the eastern side of Eighty Road transitions into a sealed shoulder south of Fifty Road to Rialto Way.

A 3.0m wide path is in place along the eastern side of Baldivis (set back some 50m) south of Arden Avenue and is coupled with a 2.0m wide path on the western side, south of Ingram Road.

The Department of Transport's Perth Bike Map series (see **Figure 5**) shows that Baldivis Road, Eighty Road and Fifty Road were all considered a "good road riding environment". That map does not show all the shared paths mentioned above,



which have been constructed as part of recent subdivisional development in this area.

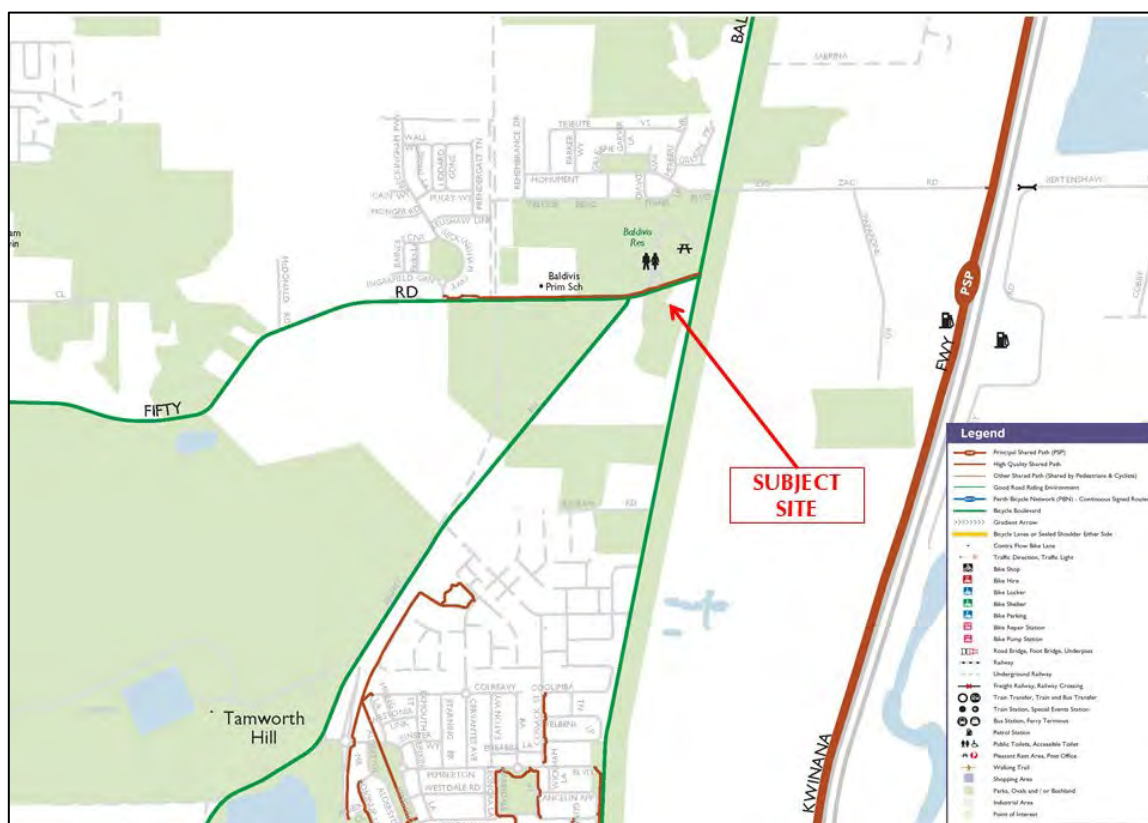


Figure 5: Bike map (source: Transperth)

## 4.6 Crash Data

Information available on Main Roads WA website provides crash statistics for Baldy Road/Fifty Road/Arden Avenue intersection during the five-year period ending in December 2020.

The crash records indicate that Baldy Road/Fifty Road/Arden Avenue intersection recorded a total of two road crashes with zero casualties and fatalities in the last five-year period, representing a drop of 50% in crashes compared to the 2015-2019 period. All crashes recorded were rear ends (one) and right-angle (one) types. More details on the crash records are provided in **Table 1**.

**Table 1. Crash history for the Baldy Road/Fifty Road/Arden Avenue intersection**

Intersection				Total Crashes	Casualty
Baldy Road/Fifty Road/Arden Avenue				2	0
Right Angle	Rear End	Pedestrian	Cycle	Wet	Night
1	1	0	N/A	1	0

## 5.0 Changes to Surrounding Transport Networks

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Long-term road network planning for this part of the Metropolitan Region includes the future extension of Nairn Drive as the main north-south District Distributor road through Baldivis and Karnup.

The alignment of this planned *Other Regional Road* (also referred to as a “*Blue Road*”) in the Metropolitan Region Scheme (MRS) is shown in **Figure 2**. This will include a four-way intersection at Amazon Drive and a four-way intersection at Fifty Road.

## **6.0 Integration with Surrounding Area**

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The proposed development is consistent with the current zoning for the subject site. It is of a commercial/retail character and is expected to address the existing and future demand for this type of services along Baldivis Road and Fifty Road and specifically within this locality.

## 7.0 Traffic Assessment

### 7.1 Assessment Period

A review of the existing traffic counts for the surrounding road network and other available information suggests that the combination of the traffic expected to be generated by the subject development and the peak road network traffic periods is likely to result in the greatest demand on the road network during the typical weekday morning and afternoon peak hours between 8:00-9:00AM and 3:00 - 4:00PM. As such, trip generation is estimated and traffic analysis is undertaken for these periods. This period of assessment is also in line with WAPC Transport Assessment Guidelines.

It is assumed that the proposed development would be fully constructed and activated by the end of 2023. As such, 2023 assessment is undertaken for the post-development scenario.

In line with the requirements of the document *“Transport Impact Assessment Guidelines for Developments, Volume 4 – Individual Developments (2016)”* additional assessment is undertaken for a (near) 10-year post-development time horizon (i.e., 2031 in this particular case).

### 7.2 Trip Generation and Distribution

Traffic generation rates for the proposed development were sourced from the *Institute of Transportation Engineers – Trip Generation Manual 10<sup>th</sup> Edition* (ITE). Refer **Table 2** for details on applied trip rates for this land use.

**Table 2: Applied trip generation rates for the proposed development**

Land use	Size	Units	Source	Trip rate per unit		
				Daily	AM	PM
Fast-Food Restaurant + Drive Thru	425	m <sup>2</sup>	ITE 10 <sup>th</sup>	506.74	43.24	35.15

Due to the proposed land use mix within Lot 1 retail/commercial centre incidences of multi-purpose trips<sup>1</sup> (i.e., cross-trade) are anticipated between the proposed uses. A moderate cross-trade factor of 10% would be applicable once Lot 1 centre is developed. However, for the purpose of this assessment (assessment of the restaurant only) discount is not applied.

Accordingly, it is estimated that the proposed development would generate approximately **2,154** total daily trips (both inbound and outbound) with

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<sup>1</sup> Multi-purpose trips are incidences where more than one shop/outlet are visited within the development (also referred to as “cross-trade”)



approximately **183** and **149** trips (inbound and outbound) during a weekday road network AM and PM peak hours, respectively.

The directional split of inbound and outbound trips for the proposed development is assumed to be 51/49 and 52/48 during the AM and PM weekday peak periods for in line with the *Institute of Transportation Engineers – Trip Generation Manual 10<sup>th</sup> Edition* (ITE) recommendations.

Trips associated with the proposed development also comprise a significant portion of passing-trade trips (and diverted trips) which are trips already present on the road network. Passing trade factors of 50% were applied in line with the *ITE Trip Generation Handbook*.

It is therefore estimated that the proposed development would generate approximately **1,077** additional daily trips with additional **91** and **74** AM and PM peak hour trips on the road network, respectively.

With respect to the assumed distribution and assignment of the development-generated traffic consideration was given to the location of the site (adjacent to a major district-level route), the overwhelmingly passing trade nature of the development and the access and egress routes to and from the site.

Accordingly, the assumed directional traffic distribution is as follows:

- ✚ Approximately 5% of the traffic generated from the development would travel to/from Arden Avenue east direction;
- ✚ Approximately 50% of the traffic generated from the development would travel to/from Fifty Road west and Eighty Road southwest direction;
- ✚ Approximately 20% of the traffic generated from the development would travel to/from Baldivis Road north direction; and,  
Approximately 25% of the traffic generated from the development would travel to/from Baldivis Road south direction.

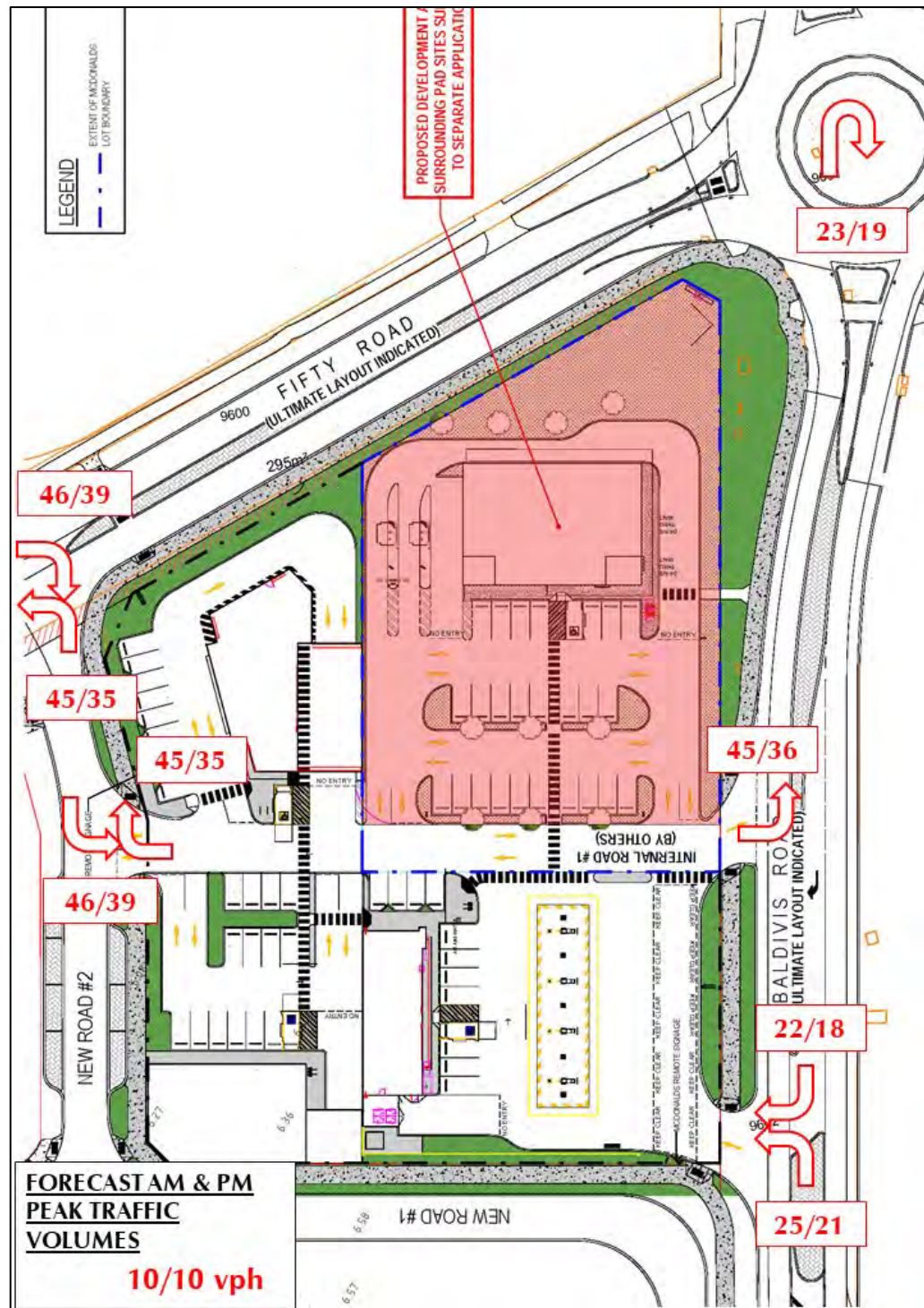
Accordingly, the directional distribution of both morning and afternoon peak hour trips is provided in tabular form in **Table 3**.

**Table 3: Applied directional distribution of peak hour trips**

Direction	Directional distribution	AM Peak (vph)		PM Peak (vph)	
		IN	OUT	IN	OUT
<b>North</b>	20%	18	18	15	14
<b>West</b>	50%	46	45	39	35
<b>East</b>	5%	4	4	3	3
<b>South</b>	25%	25	23	21	19
<b>Total</b>	<b>100%</b>	<b>93</b>	<b>90</b>	<b>78</b>	<b>71</b>

### 7.3 Traffic Flows

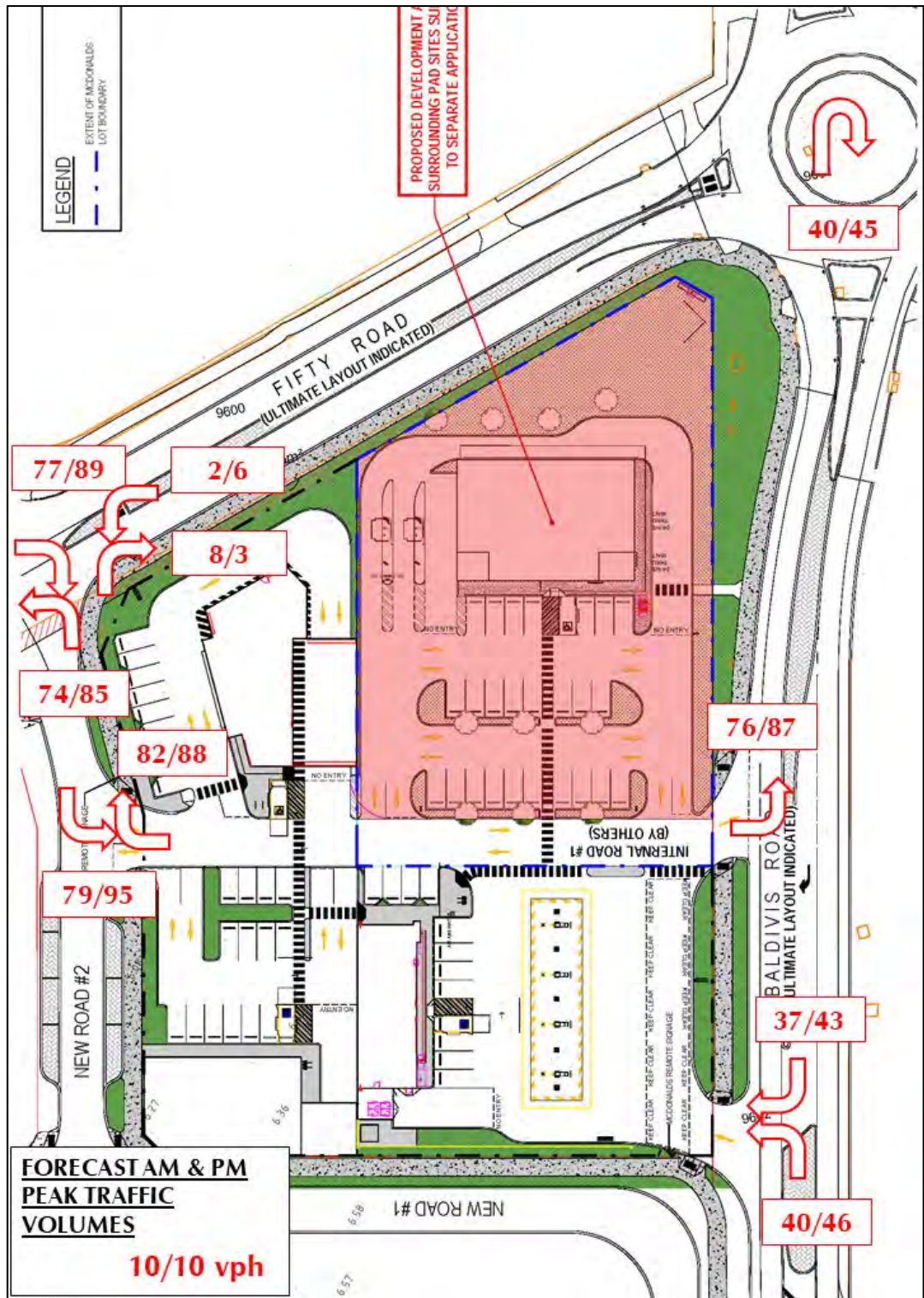
The traffic movements expected to be generated by the proposed development in 2023 scenario have been manually assigned on the adjacent road network in line with the directional distribution assumptions outlined in the previous section. The resulting year 2023 traffic movements generated by this development, during typical AM and PM weekday peak hour traffic volumes, are shown in **Figure 6**.



**Figure 6: Estimated traffic flows from the proposed McDonalds restaurant – Weekday AM & PM peak traffic (Year 2023)**



Similarly, but for the purpose of 2031 scenario assessment, the anticipated AM and PM peak trips through the site's accesses generated by the fully developed LSP on remainder of Lot 1, including the balance of the subject site are shown in **Figure 7**. These traffic volumes have been sourced from the Transport Impact Assessment report prepared by Transcore for Lot 1 Fifty Road LSP.



**Figure 7: Estimated traffic flows from the fully-developed Lot 1 retail centre (combined) – Weekday AM & PM peak traffic (Year 2031)**

For the purpose of this assessment the relevant AM and PM weekday peak hour traffic movements at the intersection of Baldvis Road/Fifty Road/Arden Avenue were sourced from Transcore's surveys undertaken on 25<sup>th</sup> June 2021 (Friday) and illustrated in **Figure 8**.



**Figure 8. Morning and afternoon peak hour traffic flows at the intersection of Baldvis Road/Fifty Road/Arden Avenue (June 2021 survey)**

#### ***7.4 Analysis of Local Intersections & Development's Crossovers***

The assessment of the Baldvis Road/Fifty Road/Arden Avenue roundabout was undertaken for the existing, post-development (year 2023) and 10-year horizon (2031 year) scenarios. For the purpose of 2031 year assessment, it is assumed that the retail/commercial complex on Lot 1 is fully-developed as is the future SESP2 (i.e., Spires Estate) structure plan area and the recently approved Greenlea LSP to the immediate east, in order to secure a robust and conservative analysis. The peak hour traffic generated by Greenlea LSP through the Baldvis Road/Fifty Road/Arden Avenue roundabout were sourced from the Lots 129 & 302 Zig Zag Road, Baldvis structure plan traffic report.

The Fifty Road/Access Road intersection was assessed for the 2023 and 2031 scenarios and was modelled as a simple full-movement T-intersection.



The site's future left-in/right-in crossover on Baldivis Road was also assessed for 2023 and 2031 stages. The left-out crossover was not specifically modelled as no capacity issues are anticipated at this egress point.

For the purpose of this assessment background traffic growth rate of 2% p.a. (cumulative 4%) was applied for the post-development stage and again for 2031 scenario (i.e., cumulative 20% growth between 2023 and 2031).

Capacity analysis of the Baldivis Road/Fifty Road/Arden Avenue and Fifty Road/Access Road intersections including Baldivis Road crossover was undertaken for year 2023 and 2031 using the SIDRA NETWORK computer software package. SIDRA is an intersection modelling tool commonly used by traffic engineers for all types of intersections. SIDRA outputs are presented in the form of Degree of Saturation, Level of Service, Average Delay and 95% Queue. These characteristics are defined as follows:

- ✚ Degree of Saturation is the ratio of the arrival traffic flow to the capacity of the approach during the same period. The Degree of Saturation ranges from close to zero for infrequent traffic flow up to one for saturated flow or capacity.
- ✚ Level of Service is the qualitative measure describing operational conditions within a traffic stream and the perception by motorists and/or passengers. In general, there are 6 levels of service, designated from A to F, with Level of Service A representing the best operating condition (i.e. free flow) and Level of Service F the worst (i.e. forced or breakdown flow).
- ✚ Average Delay is the average of all travel time delays for vehicles through the intersection.
- ✚ 95% Queue is the queue length below which 95% of all observed queue lengths fall.

The results of the SIDRA NETWORK analysis are provided in **Appendix C** of this report along with the modelled road network layout.

### **Baldivis Road/Fifty Road/Arden Avenue roundabout**

The SIDRA analysis indicates that this roundabout currently operates satisfactorily and with overall LoS A during both peak periods. The roundabout operates at about 33% and 49% capacity at present. Refer **Table 5** and **Table 6** for more details.

The addition of development traffic and background growth on adjacent roads at 2023 will not have an adverse impact on the operation of this roundabout as overall LoS A remains unchanged. The roundabout at this stage operates at 37% and 54% capacity. Refer **Table 7** and **Table 8** for more details.

Similarly, with the allowance for full retail/commercial centre and structure plan area development, including the impact from the Greenlea LSP, the roundabout records overall LoS B during both peak hour periods for the 10-year post-development stage (year 2031) with capacity levels now at 65% and 92%. Importantly, the queue backs from the intersection would not impact on the operation of either Fifty Road/Access

Road intersection nor Baldvis Road crossover. Refer **Table 9** and **Table 10** for more details.

### **Fifty Road/Main Subdivision Access Road intersection**

This intersection is modelled as a simple, full-movement, priority-controlled T-intersection, with the subdivision access road terminating on the southern approach to Fifty Road.

The SIDRA analysis for post-development stage (year 2023) indicates that this intersection will operate satisfactorily during both AM and PM peak weekday period with an overall LoS A and at 16% and 17% capacity levels. Refer **Table 11** and **Table 12** for more details.

The year 2031 assessment shows similar operational conditions (LoS A and 22% and 21% capacity levels). Refer **Table 13** and **Table 14** for more details.

The result of the SIDRA capacity analysis suggests that no turning pockets or slip-lanes would be required on Fifty Road to facilitate good operational conditions at this intersection.

In addition to the SIDRA capacity assessment an intersection turn treatment assessment in accordance with the AUSTROADS *“Guide to Road Design – Part 4: Intersections and Crossings – General (2017)”* and Main Roads WA *“Supplement to AUSTROADS Guide to Road Design – Part 4”* documents was undertaken for the Fifty Road/Access Road intersection. Accordingly, Transcore has undertaken this assessment using referenced guidelines and calculation tool developed by Main Roads WA to ascertain the requirements for auxiliary turn treatments at the Fifty Road/Access Road intersection for the year 2031 and for the full development of Lot 1 LSP plan including the retail/commercial centre.

The review of intersection turn treatment warrants and the relevant Main Roads WA calculation tool provided in these documents confirmed that provision of auxiliary right-turn treatment (AUR) and basic left-turn treatment (BAL) may be required based on the anticipated 2031 through and turn volumes during the peak hour periods. The BAL treatment involves a widened shoulder while the AUL treatment involves provision of a localised widening to accommodate a short passing lane.

In accordance with the Main Roads WA *“Supplement to AUSTROADS Guide to Road Design – Part 4”*, for a road operating under a 60km speed limit (i.e., Fifty Road) a passing lane of 75m would be required in this case. The available spacing between the adjacent Fifty Road/Eighty Road intersection and the proposed Fifty Road/Access Road intersection is only about 80m, thereby rendering the implementation of AUR treatment unfeasible and impractical. Furthermore, such facility would directly restrict the operation and format of the existing crossovers on the opposite side of Fifty Road.

Accordingly, the proposed simple T-intersection layout of Fifty Road/Access Road intersections is considered suitable and sufficient to accommodate the anticipated future development traffic volumes without undermining its operation.

The outcome of the intersection warrants assessments for the weekday AM and PM peaks is presented in **Appendix D**.

### **Baldivis Road crossover**

This crossover is modelled as a full-movement crossover with a right-turn pocket on Baldivis Road southbound approach.

The SIDRA analysis indicates that this crossover will operate satisfactorily during both AM and PM peak weekday periods with an overall LoS A and no excessive queuing or delays, or any practical impact on Baldivis Road traffic flows in both 2023 and 2031 scenario. Refer **Table 15** to **Table 18** for more details.

The same intersection turn treatment analysis was undertaken for the proposed Baldivis Road crossover as with Fifty Road access intersection previously. It should be noted however, that, as stated in AUSTROADS and Main Roads WA guidelines this type of assessment is intended for intersections or intersections and crossovers on Main Roads WA owned roads only.

Application of turn treatment warrant analysis in line with the relevant AUSTROADS and Main Roads WA documents for Baldivis Road crossover indicates that a channelised right-turn treatment (CHR) and auxiliary left-turn treatment (AUL) would be required at this crossover based on the anticipated 2031 traffic volumes should such analysis be applicable. A right-turn channelised turn facility is already proposed as part of the Baldivis Road crossover design while no left-turn slip lane is proposed as it is not considered to be necessary and confirmed by the results of SIDRA analysis. The outcome of the intersection warrants assessments for the weekday AM and PM peaks is presented in **Appendix D**.

## ***7.5 Impact on Surrounding Roads***

A significant portion of the developments' traffic will already be present on the road network as the proposed land use rely on passing trade for its operation. It is estimated that about 50% of total daily traffic will be passing trade and/or diverted trips in the post-development stage. The proposed new development is therefore estimated to generate about 1,080 new (non-passing trade) daily trips on the local road network.

The estimation of the traffic impact on adjacent roads is presented in the following table (refer **Table 4**).

**Table 4. Traffic impact on surrounding roads**

Road	Daily traffic volumes (vpd)			Increase (%)
	Current	Additional	Total	
Fifty Rd (W of Baldivis Rd)	4,730	540	5,270	11.4%
Baldivis Rd (N of Fifty Rd)	6,800	220	7,020	3.2%
Baldivis Rd (S of site)	6,800	270	7,070	4.0%
Arden Av (E of Baldivis Rd)	550	60	610	10.1%

The traffic impact on Fifty Road is within the desirable capacity threshold of a *Local Distributor* road (maximum desirable threshold of up to 7,000vpd). The planned upgrade of the existing single-carriageway road standard to a boulevard-style cross section similar to that adjacent to the existing North Baldivis subdivision, west of Eighty Road will provide favourable operational conditions in the future.

The level of traffic increase of around 3.2% and 4.0% on Baldivis Road north and south of site is considered moderate and acceptable considering the current classification, function and the future cross section of the road.

The anticipated level of traffic increase on Arden Avenue is considered to be moderate and well within the road capacity.

## ***7.6 Impact on Neighbouring Areas***

Considering the location of the subject site, its accessibility via major regional road, significant passing trade component, the traffic generated by the proposed development is not expected to significantly affect the surrounding areas.

## ***7.7 Traffic Noise and Vibration***

Due to the location of the proposed development and with respect to the surrounding land uses traffic noise and vibration are relevant only to the residential areas directly fronting major local and regional roads including the residential cell immediately south of the subject development which in this case is limited.

It generally requires a doubling of traffic volumes on a road to produce a perceptible 3dB(A) increase in road noise. The proposed development will not increase traffic volumes or noise on surrounding roads anywhere near this level.

## ***7.8 Drive-Through Analysis***

The restaurant is designed to include a dual-lane drive-through facility with two Customer Order Booths. This facility merges into a single lane for payment and order pickup.



The proposed drive-through facility provides six car stacking capacity within the drive through facility (downstream of the COBs) with stacking space for two cars at each COB (total of 14 car stacking capacity within the drive through). In addition, two waiting bays are also located at the exit point from the drive-through with the option to bypass these bays for customers not needing to wait for their orders.

Based on the peak hour trip generation of the restaurant the weekday morning peak hour is expected to be the more pronounced business activity period. It is further estimated that, allowing for walk-in trade dispensation of 5%, and a 60/40 drive-through/park'n'sit ratio typical for such type of restaurants, it is estimated that there could be around 52 drive-through transactions/customers/cars during the weekday morning peak hour period.

According to the advice from the operator, the average order-taking cycle is estimated at approximately 45 seconds, translating into a service rate of 80 vehicles per hour (maximum capacity of the single COB drive through system). However, in order to provide for a robust assessment, it is assumed that the order-taking cycle would average 1min equating 60 vehicle per hour service rate capacity. It is assumed that two COBs will be in operation during the peak periods, giving a theoretical order taking service rate of 120 vehicles per hour. It is also assumed that cars would enter the COB with the shortest queue, therefore over the peak hour the transactions at each COB would be more or less evenly split.

A queue length analysis was undertaken to assess the provision of storage for vehicles within the drive through lanes. For this purpose, an M/M/1 queuing model was adopted for each COB. The M/M/1 is a single-server queue model that can be used to approximate simple systems.

The queuing model adopts the following assumptions:

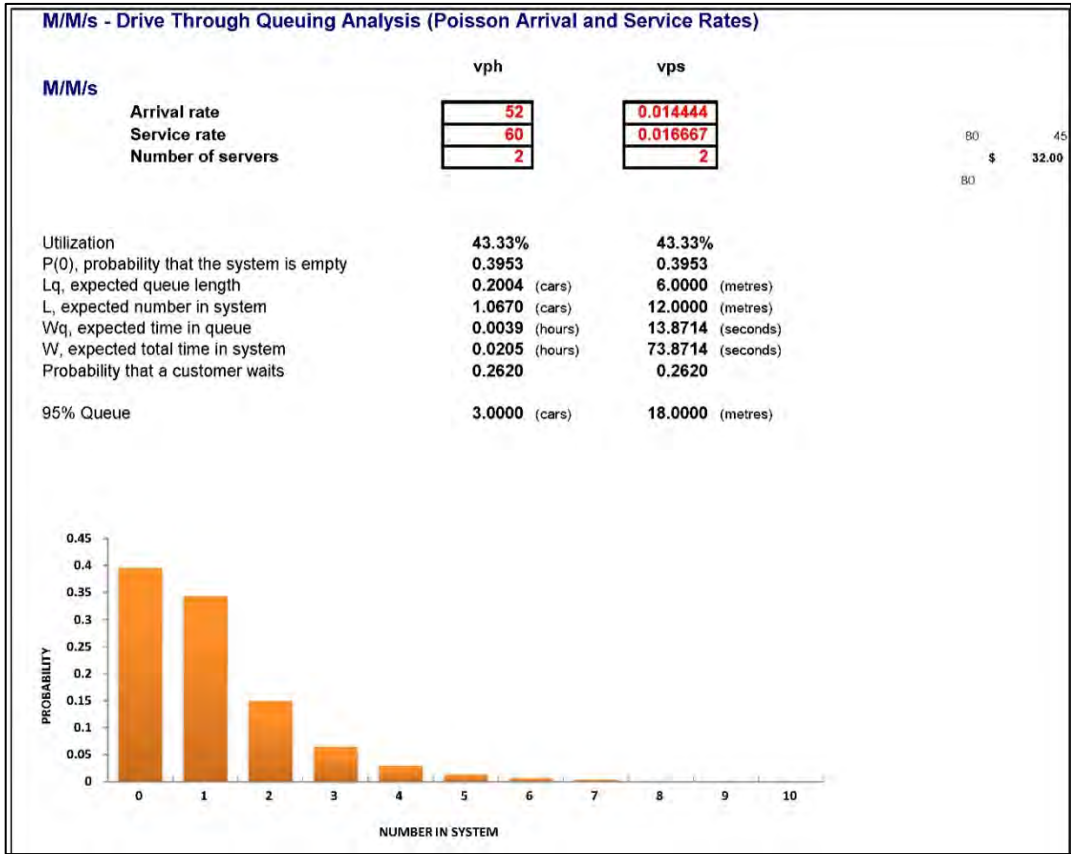
- ✚ Vehicles arrive randomly following Poisson's probability distribution;
- ✚ Service time is exponentially distributed;
- ✚ There is one server per queue, i.e., there are two queues, one for each COB, instead of a single queue being served by two COBs;
- ✚ The capacity of the queue in which arriving users wait before being served is infinite (for the purposes of identifying queue space requirements);
- ✚ The population of users (i.e., the pool of users) available to join the system is infinite; and,
- ✚ The queue is serviced on a first come, first served basis.

In summary, peak hour queuing analysis of the drive through system established the following for each COB:

- ✚ There is zero queuing 39% of the time;
- ✚ The expected number of vehicles in the system is two;
- ✚ The expected time in the queue is 14 seconds; and,
- ✚ The 95th percentile queue is maximum two vehicles at busier COB.

The queue length usually adopted for robust analysis is the 95th percentile queue. This queue length will not be exceeded 95% of the time.

Based on the queue estimation model, it is concluded that under typical peak conditions the queue backing from each COB will be accommodated within the site with no impact on other internal driveways and surrounding road network. The results of the queuing analysis are detailed in **Figure 9**.



**Figure 9. Peak restaurant drive-through weekday morning hour queuing analysis**

## 8.0 Parking

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A total of 26 parking bays (inclusive of one ACROD bay) are proposed for the restaurant with additional 14 spaces/bays accommodated within the drive-through facility.

It is Transcore's understanding that the car parking requirement for the proposed development is in line with the relevant requirement as stipulated in town planning schemes and other relevant parking policies.

A total of four bike racks for patrons arriving to the site by bicycles are provided adjacent to the restaurant building.

## 9.0 Public Transport Access

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Details of the available public transport services in this locality are provided in section 4.4 of the report. At present, only limited public transport service is available to serve the development via deviation of route No. 568 operates. This bus service links subject site with Warnbro Station providing opportunities to transfer to Mandurah train line.



## **10.0 Pedestrian and Cyclist Access**

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Details of the pedestrian and cyclist facilities in this locality are provided in section 4.5 of the report.

## 11.0 Conclusions

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This TIA has been prepared with respect to the proposed McDonald's Family restaurant at Lot 1 (HN 364) Baldivis Road in Baldivis, City of Rockingham. The subject site is located on the south-western corner of the existing Baldivis Road/Fifty Road/Arden Avenue roundabout intersection.

The development proposal is for a McDonald's restaurant with a dual-lane drive through facility and associated on-site car park.

The proposed restaurant relies on the future access system for the retail/commercial centre on Lot 1 which comprises a two-point access system with accesses on Baldivis Road at the east side of the site and the future internal subdivision road at the west.

The proposed development is expected to generate approximately **2,154** total daily trips (both inbound and outbound) with approximately **183** and **149** trips (inbound and outbound) during a weekday road network AM and PM peak hours, respectively. However, due to the type of the proposed development a significant portion of development-generated traffic will be from passing trade, i.e., traffic already present in the road network. This component is expected to form approximately 50% of total development-generated traffic.

The assessment undertaken in this report indicates that the traffic from this development will not have an adverse impact on the surrounding road network which has the capacity to accommodate this additional traffic.

The traffic assessment undertaken in this report further indicates that the existing Baldivis Road/Fifty Road/Arden Avenue and the future intersection of Fifty Road/internal road will have sufficient capacity to accommodate the anticipated traffic from the proposed development in the post-development stage and 10-year post-development stage. No capacity issues are anticipated for the proposed Baldivis Road crossover either.

Therefore, the traffic-related issue should not form an impediment to the approval of the proposed development.

# Appendix A

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## SITE PLAN





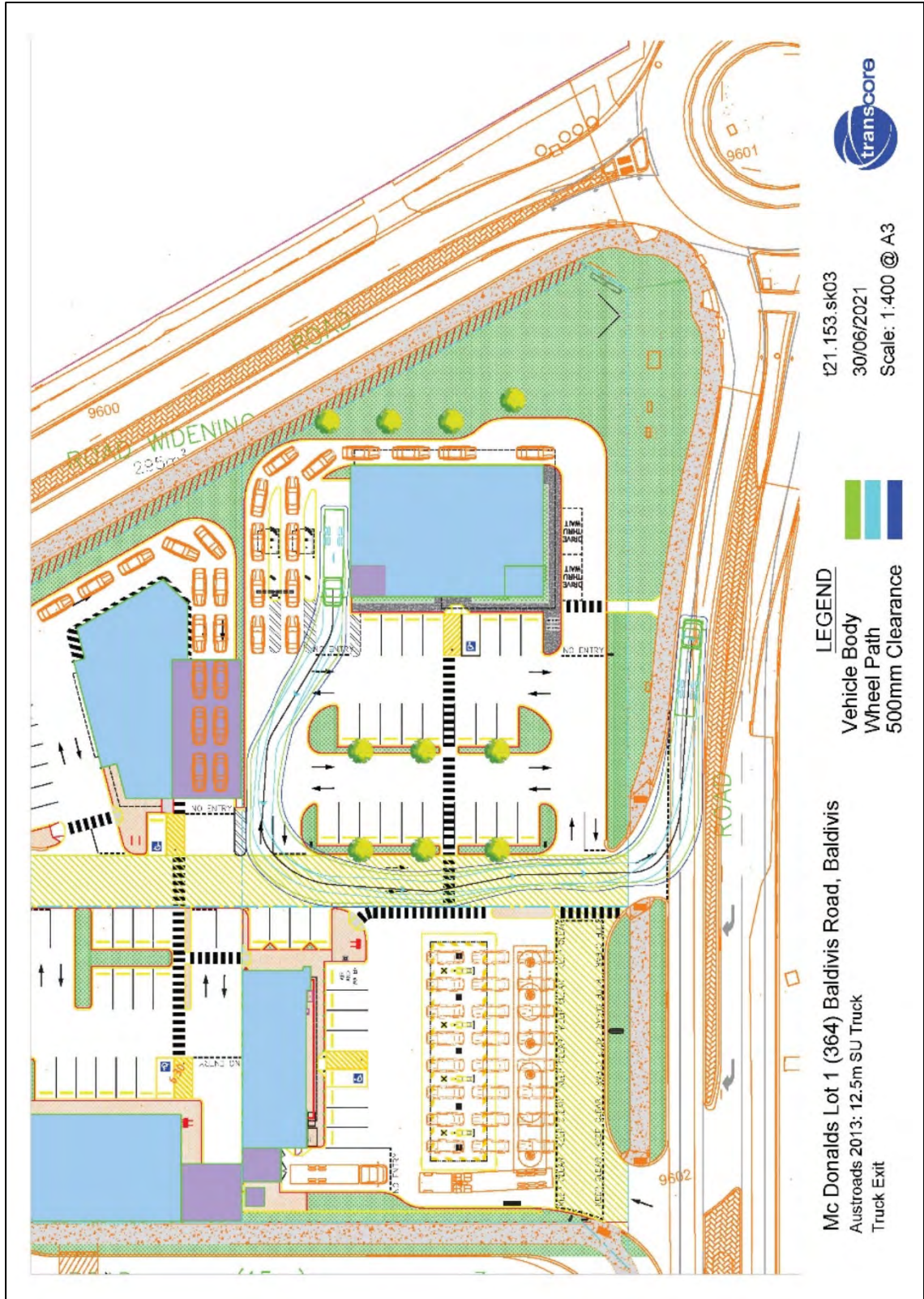
# **Appendix B**

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## **TURN PATH PLANS**





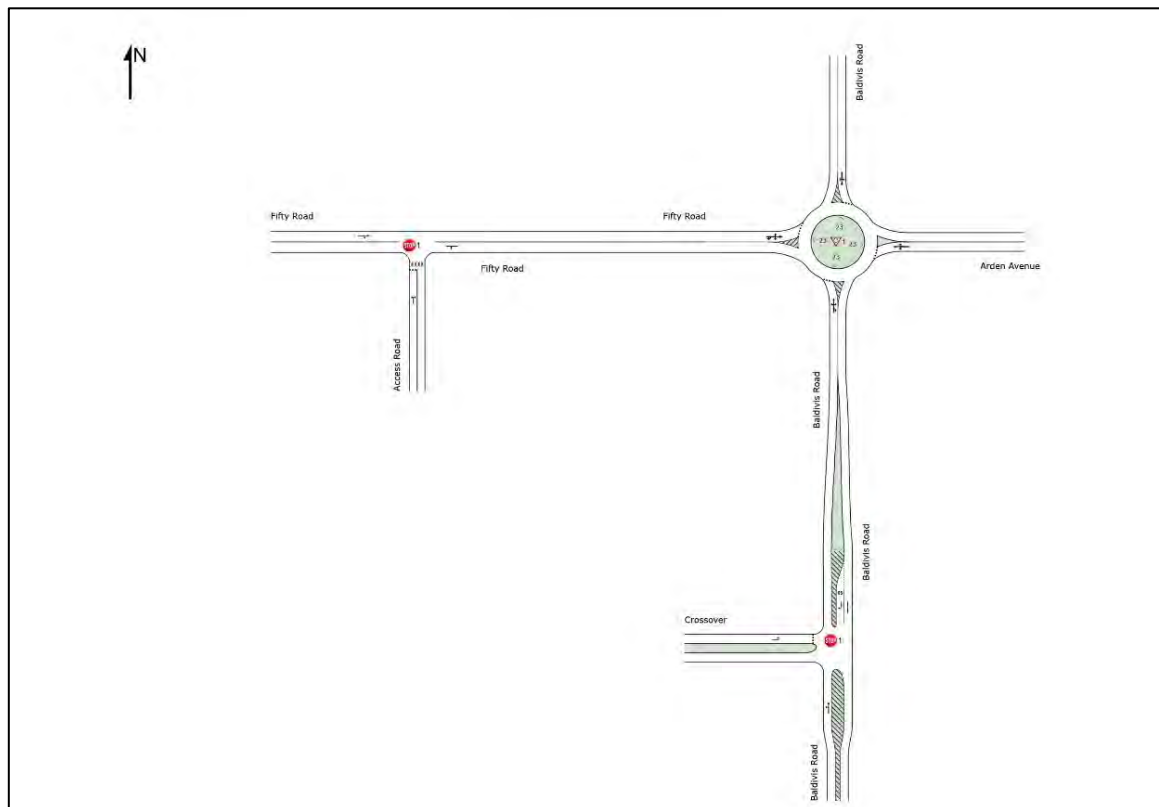


# Appendix C

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## **SIDRA NETWORK OUTPUTS - EXISTING, 2023 & 2031 SCENARIOS**





**Figure 10. Road network layout modelled in SIDRA**

**Table 5. SIDRA results for the Baldvis Road/Fifty Road/Arden Avenue roundabout – Weekday AM peak period (Existing)**

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h ]	HV [ % ]	[ Total veh/h ]	HV [ % ]				[ Veh veh ]	[ Dist m ]				
South: Baldvis Road														
1	L2	142	0.5	149	0.5	0.326	5.6	LOS A	2.3	17.6	0.41	0.52	0.41	57.0
2	T1	229	0.5	241	0.5	0.326	5.8	LOS A	2.3	17.6	0.41	0.52	0.41	61.5
3	R2	7	0.5	7	0.5	0.326	10.9	LOS B	2.3	17.6	0.41	0.52	0.41	58.4
Approach		378	0.5	398	0.5	0.326	5.8	LOS A	2.3	17.6	0.41	0.52	0.41	59.7
East: Arden Avenue														
4	L2	15	0.4	16	0.4	0.051	5.5	LOS A	0.3	2.0	0.49	0.58	0.49	55.3
5	T1	21	0.4	22	0.4	0.051	5.5	LOS A	0.3	2.0	0.49	0.58	0.49	54.4
6	R2	11	0.4	12	0.4	0.051	10.6	LOS B	0.3	2.0	0.49	0.58	0.49	56.3
Approach		47	0.4	49	0.4	0.051	6.7	LOS A	0.3	2.0	0.49	0.58	0.49	55.1
North: Baldvis Road														
7	L2	11	0.5	12	0.5	0.218	5.4	LOS A	1.4	11.1	0.38	0.56	0.38	55.8
8	T1	145	0.5	153	0.5	0.218	5.6	LOS A	1.4	11.1	0.38	0.56	0.38	60.1
9	R2	91	0.5	96	0.5	0.218	10.8	LOS B	1.4	11.1	0.38	0.56	0.38	57.1
Approach		247	0.5	260	0.5	0.218	7.5	LOS A	1.4	11.1	0.38	0.56	0.38	58.7
West: Fifty Road														
10	L2	126	0.4	133	0.4	0.251	5.7	LOS A	1.6	13.0	0.55	0.64	0.55	54.7
11	T1	13	0.4	14	0.4	0.251	5.7	LOS A	1.6	13.0	0.55	0.64	0.55	53.8
12	R2	97	0.4	102	0.4	0.251	10.8	LOS B	1.6	13.0	0.55	0.64	0.55	55.7
12u	U	2	0.4	2	0.4	0.251	12.9	LOS B	1.6	13.0	0.55	0.64	0.55	54.7
Approach		238	0.4	251	0.4	0.251	7.8	LOS A	1.6	13.0	0.55	0.64	0.55	55.0
All Vehicles		910	0.5	958	0.5	0.326	6.8	LOS A	2.3	17.6	0.44	0.57	0.44	57.9

**Table 6. SIDRA results for the Baldvis Road/Fifty Road/Arden Avenue roundabout – Weekday PM peak period (Existing)**

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg Satn	Aver Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver No. Cycles	Aver. Speed
		[ Total veh/h ]	[ HV % ]	[ Total veh/h ]	[ HV % ]				[ Veh. veh ]	[ Dist. m ]				
South: Baldvis Road														
1	L2	55	0.5	58	0.5	0.274	6.5	LOS A	1.8	14.0	0.55	0.61	0.55	56.1
2	T1	195	0.5	205	0.5	0.274	6.7	LOS A	1.8	14.0	0.55	0.61	0.55	60.5
3	R2	12	0.5	13	0.5	0.274	11.9	LOS B	1.8	14.0	0.55	0.61	0.55	57.5
3u	U	1	0.0	1	0.0	0.274	14.0	LOS B	1.8	14.0	0.55	0.61	0.55	61.6
Approach		263	0.5	277	0.5	0.274	6.9	LOS A	1.8	14.0	0.55	0.61	0.55	59.4
East: Arden Avenue														
4	L2	5	0.4	5	0.4	0.044	7.8	LOS A	0.3	2.0	0.70	0.69	0.70	53.2
5	T1	12	0.4	13	0.4	0.044	7.8	LOS A	0.3	2.0	0.70	0.69	0.70	52.3
6	R2	12	0.4	13	0.4	0.044	12.9	LOS B	0.3	2.0	0.70	0.69	0.70	54.1
Approach		29	0.4	31	0.4	0.044	9.9	LOS A	0.3	2.0	0.70	0.69	0.70	53.2
North: Baldvis Road														
7	L2	20	0.5	21	0.5	0.493	5.9	LOS A	4.3	33.2	0.53	0.60	0.53	55.1
8	T1	325	0.5	342	0.5	0.493	6.1	LOS A	4.3	33.2	0.53	0.60	0.53	59.3
9	R2	221	0.5	233	0.5	0.493	11.3	LOS B	4.3	33.2	0.53	0.60	0.53	56.4
Approach		566	0.5	596	0.5	0.493	8.1	LOS A	4.3	33.2	0.53	0.60	0.53	58.0
West: Fifty Road														
10	L2	121	0.4	127	0.4	0.256	5.4	LOS A	1.7	13.6	0.54	0.63	0.54	54.7
11	T1	22	0.4	23	0.4	0.256	5.5	LOS A	1.7	13.6	0.54	0.63	0.54	53.8
12	R2	103	0.4	108	0.4	0.256	10.5	LOS B	1.7	13.6	0.54	0.63	0.54	55.7
12u	U	1	0.4	1	0.4	0.256	12.6	LOS B	1.7	13.6	0.54	0.63	0.54	54.7
Approach		247	0.4	260	0.4	0.256	7.6	LOS A	1.7	13.6	0.54	0.63	0.54	55.0
All Vehicles		1105	0.5	1163	0.5	0.493	7.8	LOS A	4.3	33.2	0.54	0.61	0.54	57.5

**Table 7. SIDRA results for the Baldvis Road/Fifty Road/Arden Avenue roundabout – Weekday AM peak period (2023)**

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg Sat	Aver Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total HV veh/h	%				[ Veh. veh	Dist m				
South: Baldvis Road														
1	L2	156	0.5	156	0.5	0.369	5.0	LOS A	2.7	20.9	0.43	0.54	0.43	35.3
2	T1	258	0.5	258	0.5	0.369	5.2	LOS A	2.7	20.9	0.43	0.54	0.43	57.7
3	R2	13	0.5	13	0.5	0.369	10.4	LOS B	2.7	20.9	0.43	0.54	0.43	53.3
3u	U	24	0.5	24	0.5	0.369	12.7	LOS B	2.7	20.9	0.43	0.54	0.43	35.3
Approach		451	0.5	451	0.5	0.369	5.6	LOS A	2.7	20.9	0.43	0.54	0.43	53.5
East: Arden Avenue														
4	L2	21	0.4	21	0.4	0.058	5.7	LOS A	0.3	2.4	0.51	0.60	0.51	48.9
5	T1	21	0.4	21	0.4	0.058	5.7	LOS A	0.3	2.4	0.51	0.60	0.51	48.9
6	R2	13	0.4	13	0.4	0.058	10.8	LOS B	0.3	2.4	0.51	0.60	0.51	56.3
Approach		55	0.4	55	0.4	0.058	6.9	LOS A	0.3	2.4	0.51	0.60	0.51	51.4
North: Baldvis Road														
7	L2	13	0.5	13	0.5	0.242	5.6	LOS A	1.6	12.3	0.41	0.58	0.41	55.7
8	T1	168	0.5	168	0.5	0.242	5.8	LOS A	1.6	12.3	0.41	0.58	0.41	53.5
9	R2	100	0.5	100	0.5	0.242	11.0	LOS B	1.6	12.3	0.41	0.58	0.41	53.5
Approach		281	0.5	281	0.5	0.242	7.6	LOS A	1.6	12.3	0.41	0.58	0.41	53.7
West: Fifty Road														
10	L2	126	0.4	126	0.4	0.248	6.0	LOS A	1.6	12.8	0.59	0.67	0.59	51.6
11	T1	15	0.4	15	0.4	0.248	6.0	LOS A	1.6	12.8	0.59	0.67	0.59	50.2
12	R2	94	0.4	94	0.4	0.248	11.1	LOS B	1.6	12.8	0.59	0.67	0.59	29.4
12u	U	2	0.4	2	0.4	0.248	13.2	LOS B	1.6	12.8	0.59	0.67	0.59	29.4
Approach		237	0.4	237	0.4	0.248	8.1	LOS A	1.6	12.8	0.59	0.67	0.59	47.1
All Vehicles		1023	0.5	1023	0.5	0.369	6.8	LOS A	2.7	20.9	0.47	0.58	0.47	51.9

**Table 8. SIDRA results for the Baldvis Road/Fifty Road/Arden Avenue roundabout – Weekday PM peak period (2023)**

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg Sat	Aver Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver No. Cycles	Aver Speed
		[ Total veh/h ]	[ HV % ]	[ Total HV veh/h ]	[ % ]				[ Veh. veh ]	[ Dist. m ]				
South: Baldvis Road														
1	L2	61	0.5	61	0.5	0.318	5.9	LOS A	2.2	17.0	0.58	0.64	0.58	33.1
2	T1	218	0.5	218	0.5	0.318	6.2	LOS A	2.2	17.0	0.58	0.64	0.58	56.3
3	R2	17	0.5	17	0.5	0.318	11.4	LOS B	2.2	17.0	0.58	0.64	0.58	52.1
3u	U	21	0.5	21	0.5	0.318	13.7	LOS B	2.2	17.0	0.58	0.64	0.58	33.1
Approach		317	0.5	317	0.5	0.318	6.9	LOS A	2.2	17.0	0.58	0.64	0.58	53.4
East: Arden Avenue														
4	L2	9	0.4	9	0.4	0.053	8.4	LOS A	0.3	2.5	0.74	0.72	0.74	45.3
5	T1	12	0.4	12	0.4	0.053	8.4	LOS A	0.3	2.5	0.74	0.72	0.74	45.3
6	R2	14	0.4	14	0.4	0.053	13.5	LOS B	0.3	2.5	0.74	0.72	0.74	53.7
Approach		35	0.4	35	0.4	0.053	10.4	LOS B	0.3	2.5	0.74	0.72	0.74	49.7
North: Baldvis Road														
7	L2	22	0.5	22	0.5	0.540	6.3	LOS A	4.8	37.3	0.60	0.63	0.60	54.9
8	T1	364	0.5	364	0.5	0.540	6.5	LOS A	4.8	37.3	0.60	0.63	0.60	52.1
9	R2	242	0.5	242	0.5	0.540	11.6	LOS B	4.8	37.3	0.60	0.63	0.60	52.1
Approach		628	0.5	628	0.5	0.540	8.5	LOS A	4.8	37.3	0.60	0.63	0.60	52.3
West: Fifty Road														
10	L2	122	0.4	122	0.4	0.268	5.8	LOS A	1.8	14.3	0.58	0.66	0.58	51.5
11	T1	24	0.4	24	0.4	0.268	5.8	LOS A	1.8	14.3	0.58	0.66	0.58	50.2
12	R2	114	0.4	114	0.4	0.268	10.8	LOS B	1.8	14.3	0.58	0.66	0.58	29.5
12u	U	1	0.4	1	0.4	0.268	12.9	LOS B	1.8	14.3	0.58	0.66	0.58	29.5
Approach		261	0.4	261	0.4	0.268	8.0	LOS A	1.8	14.3	0.58	0.66	0.58	46.4
All Vehicles		1241	0.5	1241	0.5	0.540	8.0	LOS A	4.8	37.3	0.60	0.64	0.60	51.4



**Table 9. SIDRA results for the Baldvis Road/Fifty Road/Arden Avenue roundabout – Weekday AM peak period (2031)**

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deq Satn	Aver Delay	Level of Service	95% BACK-OF-QUEUE		Prop. Que	Effective Stop Rate	Aver No. Cycles	Aver Speed
		[ Total veh/h ]	[ HV % ]	[ Total veh/h ]	[ HV % ]	v/c	sec		[ Veh veh ]	[ Dist m ]				km/h
South: Baldvis Road														
1	L2	180	0.5	180	0.5	0.649	10.4	LOS B	7.2	55.6	0.87	0.91	1.06	25.7
2	T1	299	0.5	299	0.5	0.649	10.6	LOS B	7.2	55.6	0.87	0.91	1.06	51.2
3	R2	47	0.5	47	0.5	0.649	15.8	LOS B	7.2	55.6	0.87	0.91	1.06	47.7
3u	U	42	0.5	42	0.5	0.649	18.1	LOS B	7.2	55.6	0.87	0.91	1.06	25.7
Approach		568	0.5	568	0.5	0.649	11.5	LOS B	7.2	55.6	0.87	0.91	1.06	45.5
East: Arden Avenue														
4	L2	87	0.4	87	0.4	0.436	7.2	LOS A	3.0	23.3	0.72	0.80	0.72	45.0
5	T1	16	0.4	16	0.4	0.436	7.1	LOS A	3.0	23.3	0.72	0.80	0.72	45.0
6	R2	275	0.4	275	0.4	0.436	12.2	LOS B	3.0	23.3	0.72	0.80	0.72	53.4
Approach		378	0.4	378	0.4	0.436	10.8	LOS B	3.0	23.3	0.72	0.80	0.72	51.8
North: Baldvis Road														
7	L2	57	0.5	57	0.5	0.367	6.7	LOS A	2.6	20.5	0.60	0.66	0.60	55.1
8	T1	198	0.5	198	0.5	0.367	6.9	LOS A	2.6	20.5	0.60	0.66	0.60	52.4
9	R2	118	0.5	118	0.5	0.367	12.0	LOS B	2.6	20.5	0.60	0.66	0.60	52.4
Approach		373	0.5	373	0.5	0.367	8.5	LOS A	2.6	20.5	0.60	0.66	0.60	53.1
West: Fifty Road														
10	L2	144	0.4	144	0.4	0.424	8.6	LOS A	2.9	23.2	0.80	0.88	0.84	49.2
11	T1	66	0.4	66	0.4	0.424	8.5	LOS A	2.9	23.2	0.80	0.88	0.84	48.0
12	R2	102	0.4	102	0.4	0.424	13.6	LOS B	2.9	23.2	0.80	0.88	0.84	26.0
12u	U	2	0.4	2	0.4	0.424	15.7	LOS B	2.9	23.2	0.80	0.88	0.84	26.0
Approach		315	0.4	315	0.4	0.424	10.2	LOS B	2.9	23.2	0.80	0.88	0.84	45.1
All Vehicles		1634	0.5	1634	0.5	0.649	10.4	LOS B	7.2	55.6	0.76	0.82	0.83	49.2

**Table 10. SIDRA results for the Baldvis Road/Fifty Road/Arden Avenue roundabout – Weekday PM peak period (2031)**



Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg Satn	Aver Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver No. Cycles	Aver. Speed
		[ Total veh/h ]	[ HV % ]	[ Total HV veh/h ]	[ HV % ]				[ Veh. veh ]	[ Dist. m ]				
South: Baldvivi Road														
1	L2	69	0.5	69	0.5	0.540	8.3	LOS A	4.8	37.3	0.81	0.83	0.88	28.6
2	T1	260	0.5	260	0.5	0.540	8.5	LOS A	4.8	37.3	0.81	0.83	0.88	52.9
3	R2	88	0.5	88	0.5	0.540	13.7	LOS B	4.8	37.3	0.81	0.83	0.88	49.2
3u	U	47	0.5	47	0.5	0.540	16.0	LOS B	4.8	37.3	0.81	0.83	0.88	28.6
Approach		465	0.5	465	0.5	0.540	10.2	LOS B	4.8	37.3	0.81	0.83	0.88	49.2
East: Arden Avenue														
4	L2	64	0.4	64	0.4	0.358	10.9	LOS B	2.6	20.7	0.94	0.95	0.94	43.1
5	T1	54	0.4	54	0.4	0.358	10.9	LOS B	2.6	20.7	0.94	0.95	0.94	43.1
6	R2	57	0.4	57	0.4	0.358	16.0	LOS B	2.6	20.7	0.94	0.95	0.94	52.1
Approach		175	0.4	175	0.4	0.358	12.6	LOS B	2.6	20.7	0.94	0.95	0.94	47.0
North: Baldvivi Road														
7	L2	275	0.5	275	0.5	0.918	19.3	LOS B	25.6	198.9	1.00	1.07	1.60	47.0
8	T1	431	0.5	431	0.5	0.918	19.5	LOS B	25.6	198.9	1.00	1.07	1.60	39.7
9	R2	284	0.5	284	0.5	0.918	24.6	LOS C	25.6	198.9	1.00	1.07	1.60	39.7
Approach		989	0.5	989	0.5	0.918	20.9	LOS C	25.6	198.9	1.00	1.07	1.60	42.5
West: Fifty Road														
10	L2	135	0.4	135	0.4	0.297	6.3	LOS A	1.8	14.4	0.65	0.74	0.65	51.1
11	T1	16	0.4	16	0.4	0.297	6.2	LOS A	1.8	14.4	0.65	0.74	0.65	49.8
12	R2	108	0.4	108	0.4	0.297	11.3	LOS B	1.8	14.4	0.65	0.74	0.65	28.8
12u	U	1	0.4	1	0.4	0.297	13.4	LOS B	1.8	14.4	0.65	0.74	0.65	28.8
Approach		260	0.4	260	0.4	0.297	8.4	LOS A	1.8	14.4	0.65	0.74	0.65	46.3
All Vehicles		1889	0.5	1889	0.5	0.918	15.8	LOS B	25.6	198.9	0.90	0.96	1.23	44.6

**Table 11. SIDRA results for the Fifty Road intersection – Weekday AM peak period (2023)**

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg Satn	Aver Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h ]	HV %	[ Total veh/h ]	HV %	v/c	sec		[ Veh. veh ]	[ Dist m ]				km/h
South: Access Road														
1	L2	47	0.0	47	0.0	0.039	0.9	LOS A	0.2	1.1	0.35	0.21	0.35	45.3
3	R2	1	0.0	1	0.0	0.039	3.0	LOS A	0.2	1.1	0.35	0.21	0.35	17.8
Approach		48	0.0	48	0.0	0.039	1.0	LOS A	0.2	1.1	0.35	0.21	0.35	45.1
East: Fifty Road														
4	L2	1	0.0	1	0.0	0.144	5.6	LOS A	0.0	0.0	0.00	0.00	0.00	48.0
5	T1	277	0.4	277	0.4	0.144	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		278	0.4	278	0.4	0.144	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Fifty Road														
11	T1	235	0.4	235	0.4	0.157	0.3	LOS A	0.4	3.1	0.16	0.11	0.16	56.9
12	R2	48	0.0	48	0.0	0.157	6.6	LOS A	0.4	3.1	0.16	0.11	0.16	51.7
Approach		283	0.3	283	0.3	0.157	1.4	NA	0.4	3.1	0.16	0.11	0.16	55.9
All Vehicles		609	0.3	609	0.3	0.157	0.7	NA	0.4	3.1	0.10	0.07	0.10	56.7

**Table 12. SIDRA results for the Fifty Road intersection – Weekday PM peak period (2023)**

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg Satn	Aver Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver No. Cycles	Aver Speed
		[ Total veh/h ]	HV %	[ Total HV veh/h ]	%	v/c	sec		[ Veh. veh ]	Dist. m				km/h
South: Access Road														
1	L2	37	0.0	37	0.0	0.032	1.1	LOS A	0.1	0.9	0.38	0.24	0.38	45.2
3	R2	1	0.0	1	0.0	0.032	3.4	LOS A	0.1	0.9	0.38	0.24	0.38	17.7
Approach		38	0.0	38	0.0	0.032	1.2	LOS A	0.1	0.9	0.38	0.24	0.38	45.0
East: Fifty Road														
4	L2	1	0.0	1	0.0	0.163	5.6	LOS A	0.0	0.0	0.00	0.00	0.00	48.0
5	T1	315	0.4	315	0.4	0.163	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		316	0.4	316	0.4	0.163	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Fifty Road														
11	T1	260	0.4	260	0.4	0.166	0.3	LOS A	0.4	2.8	0.15	0.08	0.15	57.4
12	R2	41	0.0	41	0.0	0.166	6.8	LOS A	0.4	2.8	0.15	0.08	0.15	52.0
Approach		301	0.3	301	0.3	0.166	1.2	NA	0.4	2.8	0.15	0.08	0.15	56.5
All Vehicles		655	0.4	655	0.4	0.166	0.6	NA	0.4	2.8	0.09	0.05	0.09	57.4

**Table 13. SIDRA results for the Fifty Road intersection – Weekday AM peak period (2031)**

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver No Cycles	Aver Speed
		[ Total veh/h ]	HV %	[ Total HV veh/h ]	%	v/c	SEC		[ Veh. veh ]	Dist. m				km/h
South: Access Road														
1	L2	78	0.0	78	0.0	0.078	1.1	LOS A	0.3	2.2	0.39	0.28	0.39	45.1
3	R2	8	0.0	8	0.0	0.078	4.2	LOS A	0.3	2.2	0.39	0.28	0.39	17.6
Approach		86	0.0	86	0.0	0.078	1.4	LOS A	0.3	2.2	0.39	0.28	0.39	44.3
East: Fifty Road														
4	L2	2	0.0	2	0.0	0.162	5.6	LOS A	0.0	0.0	0.00	0.00	0.00	47.9
5	T1	312	0.4	312	0.4	0.162	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		314	0.4	314	0.4	0.162	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.8
West: Fifty Road														
11	T1	304	0.4	304	0.4	0.219	0.5	LOS A	0.7	5.6	0.22	0.13	0.22	56.1
12	R2	81	0.0	81	0.0	0.219	6.9	LOS A	0.7	5.6	0.22	0.13	0.22	51.0
Approach		385	0.3	385	0.3	0.219	1.8	NA	0.7	5.6	0.22	0.13	0.22	54.9
All Vehicles		785	0.3	785	0.3	0.219	1.1	NA	0.7	5.6	0.15	0.10	0.15	55.5

**Table 14. SIDRA results for the Fifty Road intersection – Weekday PM peak period (2031)**

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg Satn	Aver Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h ]	[ HV % ]	[ Total HV veh/h ]	[ % ]				[ Veh. veh ]	[ Dist. m ]				
South: Access Road														
1	L2	89	0.0	89	0.0	0.088	1.6	LOS A	0.3	2.5	0.44	0.34	0.44	44.9
3	R2	3	0.0	3	0.0	0.088	4.8	LOS A	0.3	2.5	0.44	0.34	0.44	17.3
Approach		93	0.0	93	0.0	0.088	1.7	LOS A	0.3	2.5	0.44	0.34	0.44	44.6
East: Fifty Road														
4	L2	6	0.0	6	0.0	0.210	5.6	LOS A	0.0	0.0	0.00	0.01	0.00	47.7
5	T1	401	0.4	401	0.4	0.210	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	59.8
Approach		407	0.4	407	0.4	0.210	0.1	NA	0.0	0.0	0.00	0.01	0.00	59.7
West: Fifty Road														
11	T1	256	0.4	256	0.4	0.212	0.9	LOS A	0.9	6.8	0.32	0.18	0.32	54.9
12	R2	94	0.0	94	0.0	0.212	7.4	LOS A	0.9	6.8	0.32	0.18	0.32	50.1
Approach		349	0.3	349	0.3	0.212	2.6	NA	0.9	6.8	0.32	0.18	0.32	53.5
All Vehicles		849	0.3	849	0.3	0.212	1.3	NA	0.9	6.8	0.18	0.12	0.18	55.3

**Table 15. SIDRA results for the Baldvis Road crossover – Weekday AM peak period (2023)**

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg Satn	Aver Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver No. Cycles	Aver Speed
		[ Total veh/h ]	[ HV % ]	[ Total HV veh/h ]	[ % ]				[ Veh veh ]	[ Dist m ]				
South: Baldvis Road														
4	L2	26	0.0	26	0.0	0.230	6.4	LOS A	0.0	0.0	0.00	0.04	0.00	55.3
5	T1	403	0.5	403	0.5	0.230	0.1	LOS A	0.0	0.0	0.00	0.04	0.00	68.8
Approach		429	0.5	429	0.5	0.230	0.4	NA	0.0	0.0	0.00	0.04	0.00	67.8
North: Baldvis Road														
11	T1	284	0.5	284	0.5	0.153	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	69.9
12	R2	23	0.0	23	0.0	0.020	7.1	LOS A	0.1	0.6	0.46	0.63	0.46	32.9
Approach		307	0.5	307	0.5	0.153	0.5	NA	0.1	0.6	0.03	0.05	0.03	68.6
West: Crossover														
1	L2	47	0.0	47	0.0	0.044	1.5	LOS A	0.2	1.2	0.43	0.30	0.43	15.7
Approach		47	0.0	47	0.0	0.044	1.5	LOS A	0.2	1.2	0.43	0.30	0.43	15.7
All Vehicles		784	0.4	784	0.4	0.230	0.5	NA	0.2	1.2	0.04	0.06	0.04	67.2



**Table 16. SIDRA results for the Baldvis Road crossover – Weekday PM peak period (2023)**

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		Total veh/h	HV %	Total HV	%				Veh. veh	Dist m				
South: Baldvis Road														
4	L2	22	0.0	22	0.0	0.161	6.4	LOS A	0.0	0.0	0.00	0.05	0.00	55.2
5	T1	278	0.5	278	0.5	0.161	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	68.7
Approach		300	0.5	300	0.5	0.161	0.5	NA	0.0	0.0	0.00	0.05	0.00	67.4
North: Baldvis Road														
11	T1	488	0.5	488	0.5	0.263	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	69.8
12	R2	19	0.0	19	0.0	0.014	6.5	LOS A	0.1	0.5	0.38	0.59	0.38	33.6
Approach		507	0.5	507	0.5	0.263	0.3	NA	0.1	0.5	0.01	0.02	0.01	69.2
West: Crossover														
1	L2	38	0.0	38	0.0	0.030	0.9	LOS A	0.1	0.9	0.35	0.20	0.35	16.4
Approach		38	0.0	38	0.0	0.030	0.9	LOS A	0.1	0.9	0.35	0.20	0.35	16.4
All Vehicles		845	0.5	845	0.5	0.263	0.4	NA	0.1	0.9	0.02	0.04	0.02	68.0

**Table 17. SIDRA results for the Baldvis Road crossover – Weekday AM peak period (2031)**

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h ]	HV %	[ Total HV ]	%	w/c	sec		[ Veh. veh ]	Dist [ m ]				km/h
South: Baldvis Road														
4	L2	42	0.0	42	0.0	0.284	6.4	LOS A	0.0	0.0	0.00	0.05	0.00	55.1
5	T1	488	0.5	488	0.5	0.284	0.1	LOS A	0.0	0.0	0.00	0.05	0.00	68.5
Approach		531	0.5	531	0.5	0.284	0.6	NA	0.0	0.0	0.00	0.05	0.00	67.2
North: Baldvis Road														
11	T1	391	0.5	391	0.5	0.211	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	69.9
12	R2	39	0.0	39	0.0	0.039	7.8	LOS A	0.2	1.2	0.52	0.69	0.52	31.6
Approach		429	0.5	429	0.5	0.211	0.7	NA	0.2	1.2	0.05	0.06	0.05	68.1
West: Crossover														
1	L2	80	0.0	80	0.0	0.082	2.1	LOS A	0.3	2.3	0.48	0.40	0.48	15.2
Approach		80	0.0	80	0.0	0.082	2.1	LOS A	0.3	2.3	0.48	0.40	0.48	15.2
All Vehicles		1040	0.4	1040	0.4	0.284	0.7	NA	0.3	2.3	0.06	0.08	0.06	66.3



**Table 18. SIDRA results for the Baldvis Road crossover – Weekday PM peak period (2031)**

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h ]	[ HV % ]	[ Total HV veh/h ]	[ % ]	v/c	sec		[ Veh. veh ]	[ Dist. m ]				km/h
South: Baldvis Road														
4	L2	48	0.0	48	0.0	0.226	6.4	LOS A	0.0	0.0	0.00	0.07	0.00	54.8
5	T1	374	0.5	374	0.5	0.226	0.1	LOS A	0.0	0.0	0.00	0.07	0.00	68.0
Approach		422	0.4	422	0.4	0.226	0.8	NA	0.0	0.0	0.00	0.07	0.00	66.1
North: Baldvis Road														
11	T1	605	0.5	605	0.5	0.327	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	69.8
12	R2	45	0.0	45	0.0	0.039	7.1	LOS A	0.2	1.2	0.46	0.65	0.46	32.9
Approach		651	0.5	651	0.5	0.327	0.5	NA	0.2	1.2	0.03	0.05	0.03	68.5
West: Crossover														
1	L2	92	0.0	92	0.0	0.081	1.4	LOS A	0.3	2.4	0.42	0.31	0.42	15.8
Approach		92	0.0	92	0.0	0.081	1.4	LOS A	0.3	2.4	0.42	0.31	0.42	15.8
All Vehicles		1164	0.4	1164	0.4	0.327	0.7	NA	0.3	2.4	0.05	0.08	0.05	66.4

# Appendix D

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## **MAIN ROADS WA INTERSECTION WARRANTS CALCULATION FOR FIFTY ROAD/ACCESS ROAD & BALDIVIS ROAD CROSSOVER (WEEKDAY AM & PM PEAKS)**

INTERSECTION WARRANTS

Main Roads WA Supplement to Austroads Guide to Road Design - Part 4 A.8

DESIGN SPEED =	60km/h
SPLITTER ISLAND YES / NO =	No
DUAL CARRIAGEWAY YES / NO =	No

MOVEMENT	COUNT (v/h)	HV (%)
Q <sub>T1</sub> =	289	2
Q <sub>R</sub> =	77	2
Q <sub>T2</sub> =	296	2
Q <sub>L</sub> =	2	2

RIGHT TURN ASSESSMENT

Q <sub>m</sub> =	587
% HV =	2.000
x =	4.22
TREATMENT =	AUR

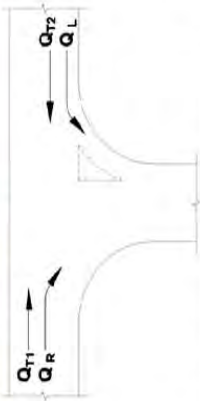
LEFT TURN ASSESSMENT

Q <sub>m</sub> =	296
% HV =	2.000
x =	0.51
TREATMENT =	BAL

Source: Austroads G TM Part 6 - 2017

Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings

Figure 2.27: Calculation of the major road traffic volume Q<sub>m</sub>



Road Type	Turn Type	Splitter Island	Q <sub>m</sub> (veh/h)
Two-lane two-way	Right	No	= Q <sub>T1</sub> + Q <sub>T2</sub> + Q <sub>L</sub>
	Left	Yes or no	= Q <sub>T1</sub> + Q <sub>T2</sub>
Four-lane two-way	Right	No	= 50% × Q <sub>T1</sub> + Q <sub>T2</sub> + Q <sub>L</sub>
	Left	Yes or no	= 50% × Q <sub>T2</sub>
Six-lane two-way	Right	No	= 33% × Q <sub>T1</sub> + Q <sub>T2</sub> + Q <sub>L</sub>
	Left	Yes or no	= 33% × Q <sub>T1</sub> + Q <sub>T2</sub>

Source: TMR (2016a)

FIFTY ROAD & ACCESS ROAD INTERSECTION ASSESSMENT AM PEAK 2031

INTERSECTION WARRANTS

Main Roads WA Supplement to Austroads Guide to Road Design - Part 4.4.8

DESIGN SPEED =	60km/h
SPLITTER ISLAND YES / NO =	No
DUAL CARRIAGEWAY YES / NO =	No

MOVEMENT	COUNT (v/h)	HV (%)
$Q_{T1}$ =	243	2
$Q_R$ =	89	2
$Q_{T2}$ =	381	2
$Q_L$ =	6	2

RIGHT TURN ASSESSMENT

$Q_m$ =	630
% HV =	2.000
x =	4.77
TREATMENT =	AUR

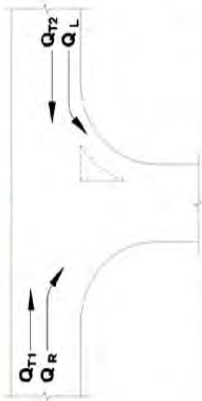
LEFT TURN ASSESSMENT

$Q_m$ =	381
% HV =	2.000
x =	1.01
TREATMENT =	BAL

Source: Austroads GTM Part 6 - 2017

Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings

Figure 2.27: Calculation of the major road traffic volume  $Q_m$



Road type	Turn type	Splitter Island	$Q_m$ (veh/h)
Two-lane two-way	Right	No	$= Q_{T1} + Q_{T2} + Q_L$
	Left	Yes or no	$= Q_{T1} + Q_{T2}$
Four-lane two-way	Right	No	$= 50\% \times Q_{T1} + Q_{T2} + Q_L$
	Left	Yes or no	$= 50\% \times Q_{T1} + Q_{T2}$
Six-lane two-way	Right	No	$= 33\% \times Q_{T1} + Q_{T2} + Q_L$
	Left	Yes or no	$= 33\% \times Q_{T1} + Q_{T2}$

Source: TMR (2016)

FIFTY ROAD & ACCESS ROAD INTERSECTION ASSESSMENT PM PEAK 2031



INTERSECTION WARRANTS

Main Roads WA Supplement to Austroads Guide to Road Design - Part 4.4.8

DESIGN SPEED =	70km/h
SPLITTER ISLAND YES / NO =	No
DUAL CARRIAGEWAY YES / NO =	No

MOVEMENT	COUNT (v/h)	HV (%)
Q <sub>R1</sub> =	371	2
Q <sub>R</sub> =	37	2
Q <sub>R2</sub> =	464	2
Q <sub>L</sub> =	40	2

RIGHT TURN ASSESSMENT

Q <sub>m</sub> =	875
% HV =	2.000
x =	4.50
TREATMENT =	CHR

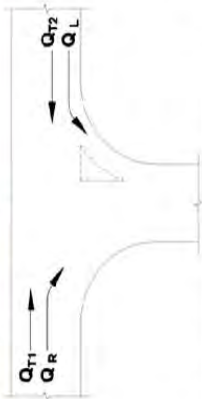
LEFT TURN ASSESSMENT

Q <sub>m</sub> =	464
% HV =	2.000
x =	2.61
TREATMENT =	AUL(S)

Source: Austroads GTM Part 6 - 2017

Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings

Figure 2.27: Calculation of the major road traffic volume Q<sub>m</sub>



Road type	Turn type	Splitter Island	Q <sub>m</sub> (veh/h)
Two-lane two-way	Right	No	$= Q_{R1} + Q_{R2} + Q_L$
	Left	Yes or no	$= Q_{R1} + Q_{R2}$
Four-lane two-way	Right	No	$= 50\% \times Q_{R1} + Q_{R2} + Q_L$
	Left	Yes or no	$= 50\% \times Q_{R1} + Q_{R2}$
Six-lane two-way	Right	No	$= 33\% \times Q_{R1} + Q_{R2} + Q_L$
	Left	Yes or no	$= 33\% \times Q_{R1} + Q_{R2}$

Source: TMR (2016)

BALDIVIS ROAD LILORI CROSSOVER ASSESSMENT AM PEAK 2031

INTERSECTION WARRANTS

Main Roads WA Supplement to Austroads Guide to Road Design - Part 4 A.8

DESIGN SPEED =	70km/h
SPLITTER ISLAND YES / NO =	No
DUAL CARRIAGEWAY YES / NO =	No

MOVEMENT	COUNT (v/h)	HV (%)
Q <sub>T1</sub> =	575	2
Q <sub>R</sub> =	43	2
Q <sub>T2</sub> =	355	2
Q <sub>L</sub> =	46	2

RIGHT TURN ASSESSMENT

Q <sub>m</sub> =	976
% HV =	2.000
x =	5.29
TREATMENT =	CHR

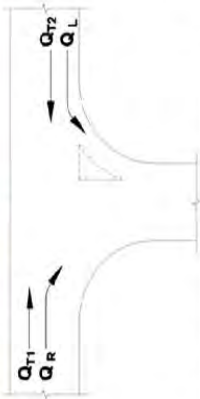
LEFT TURN ASSESSMENT

Q <sub>m</sub> =	355
% HV =	2.000
x =	2.16
TREATMENT =	AUL(S)

Source: Austroads GTM Part 6 - 2017

Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings

Figure 2.27: Calculation of the major road traffic volume Q<sub>m</sub>



Road type	Turn type	Splitter Island	Q <sub>m</sub> (veh/h)
Two-lane two-way	Right	No	= Q <sub>T1</sub> + Q <sub>T2</sub> + Q <sub>L</sub>
	Left	Yes or no	= Q <sub>T1</sub> + Q <sub>T2</sub>
Four-lane two-way	Right	No	= 50% x Q <sub>T1</sub> + Q <sub>T2</sub> + Q <sub>L</sub>
	Left	Yes or no	= 50% x Q <sub>T1</sub> + Q <sub>T2</sub>
Six-lane two-way	Right	No	= 33% x Q <sub>T1</sub> + Q <sub>T2</sub> + Q <sub>L</sub>
	Left	Yes or no	= 33% x Q <sub>T1</sub> + Q <sub>T2</sub>

Source: TMR (2016)

BALDIVIS ROAD LILORI CROSSOVER ASSESSMENT PM PEAK 2031

# **Appendix E**

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## **OCTOBER 2019 TRAFFIC COUNT RESULTS**

Road: Baldvis Rd south of Fifty Rd  
Direction: Combined  
Vehicles: All Vehicles  
Date: 18/10/2019 - 24/10/2019

Time	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Monday - Friday	Monday - Sunday
0:00	29	42	62	14	17	29	20	22	30
1:00	15	26	37	11	11	12	15	13	18
2:00	8	17	13	6	8	18	8	10	11
3:00	25	19	21	29	23	23	25	25	24
4:00	75	24	22	73	83	63	83	75	60
5:00	236	87	56	258	240	250	263	249	199
6:00	283	110	64	302	313	292	301	298	238
7:00	355	188	129	367	373	359	381	367	307
8:00	575	297	198	606	576	584	598	588	491
9:00	387	405	362	377	373	346	305	358	365
10:00	371	511	432	317	333	344	339	341	378
11:00	379	553	499	337	343	339	329	345	397
12:00	396	531	495	362	353	307	321	348	395
13:00	397	494	482	380	378	301	326	356	394
14:00	558	469	475	489	496	478	532	511	500
15:00	721	431	482	626	619	652	628	649	594
16:00	580	398	458	567	585	592	556	576	534
17:00	647	432	356	554	589	571	573	587	532
18:00	446	305	273	383	394	387	432	408	374
19:00	308	238	218	213	241	253	274	258	249
20:00	192	159	166	157	137	155	149	158	159
21:00	180	148	100	89	120	131	118	128	127
22:00	109	125	55	70	83	67	64	79	82
23:00	69	68	21	37	35	49	51	48	47
Total	7341	6077	5476	6624	6723	6602	6691	6796	6505

Road: Fifty Rd west of Baldvis Rd  
Direction: Combined  
Vehicles: All Vehicles  
Date: 18/10/2019 - 24/10/2019

Time	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Monday - Friday	Monday - Sunday
0:00	23	41	30	9	10	10	8	12	19
1:00	13	19	29	10	6	7	3	8	12
2:00	7	11	13	5	9	6	5	6	8
3:00	10	10	17	13	6	13	10	10	11
4:00	46	14	18	43	41	35	43	42	34
5:00	115	41	23	141	134	132	121	129	101
6:00	202	66	43	211	200	205	200	204	161
7:00	260	104	73	263	266	248	247	257	209
8:00	480	197	131	517	489	506	502	499	403
9:00	239	256	224	262	225	204	195	225	229
10:00	179	238	263	204	200	212	234	206	219
11:00	218	284	259	205	201	201	209	207	225
12:00	237	273	294	220	214	223	223	223	241
13:00	233	302	269	216	204	206	230	218	237
14:00	405	256	264	369	339	345	333	358	330
15:00	525	246	270	525	514	474	471	502	432
16:00	421	241	285	476	456	476	403	446	394
17:00	458	258	245	435	420	431	432	435	383
18:00	283	227	174	283	284	289	312	290	265
19:00	199	132	130	134	154	189	186	172	161
20:00	124	124	88	118	111	104	141	120	116
21:00	109	93	66	56	85	88	84	84	83
22:00	58	67	37	49	28	41	58	47	48
23:00	41	52	18	23	17	29	24	27	29
Total	4885	3552	3263	4787	4613	4674	4674	4727	4350



# Appendix 4

## Environmental Noise Assessment

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# Environmental Noise Assessment

**McDonalds Restaurant and Drive-Through**

**Lot 1 (#364) Baldivis Road, Baldivis**

Reference: 21066444-01A

**Prepared for:**  
**McDonalds Australia Ltd**

# Report: 21066444-01A

## Lloyd George Acoustics Pty Ltd

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This report has been prepared in accordance with the scope of services described in the contract or agreement between Lloyd George Acoustics Pty Ltd and the Client. The report relies upon data, surveys, measurements and results taken at or under the particular times and conditions specified herein. Any findings, conclusions or recommendations only apply to the aforementioned circumstances and no greater reliance should be assumed or drawn by the Client. Furthermore, the report has been prepared solely for use by the Client, and Lloyd George Acoustics Pty Ltd accepts no responsibility for its use by other parties.

Date:	Rev	Description	Prepared By	Verified
2-Jul-21	0	Issued to Client	Matt Moyle	Terry George
27-Aug-21	A	Updated Site Plans	Matt Moyle	Terry George

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## Appendices

A	Site Plans
B	Terminology

# 1 INTRODUCTION

Lloyd George Acoustics was commissioned by McDonalds Australia to undertake a noise assessment for a proposed McDonald's Restaurant development at Lot 1 (#364) Baldivis Road, Baldivis (subject site) – refer *Figure 1-1*. The restaurant is part of a multi-staged commercial development (Special use zoning), and consists of the following elements:

- A 24 hours a day, 7 days a week takeaway restaurant with dual-lane drive-through ordering system, including outdoor speakers.
- Mechanical plant situated on the roof top.

While multiple commercial aspects are planned in the future (refer site plan in *Figure 1-2*), the assessment addresses the noise aspects of the McDonald's Restaurant only. Indicative buildings for nearby future commercial sites and screen walls were included in the model, noting that the local development plan (LDP) includes these special use provisions (subject to separate applications).

The most critical noise sensitive premises identified in this assessment are residences to the east, and future residential development to the south.

Noise sources considered were those associated with mechanical plant, delivery vehicles, vehicle noise in the drive-through and parking areas as well as the speaker associated with the ordering system. Noise from this equipment was assessed against the prescribed standards of the *Environmental Protection (Noise) Regulations 1997* by way of noise modelling.



*Figure 1-1 Subject Site Locality*

*Appendix B* contains a description of some of the terminology used throughout this report.

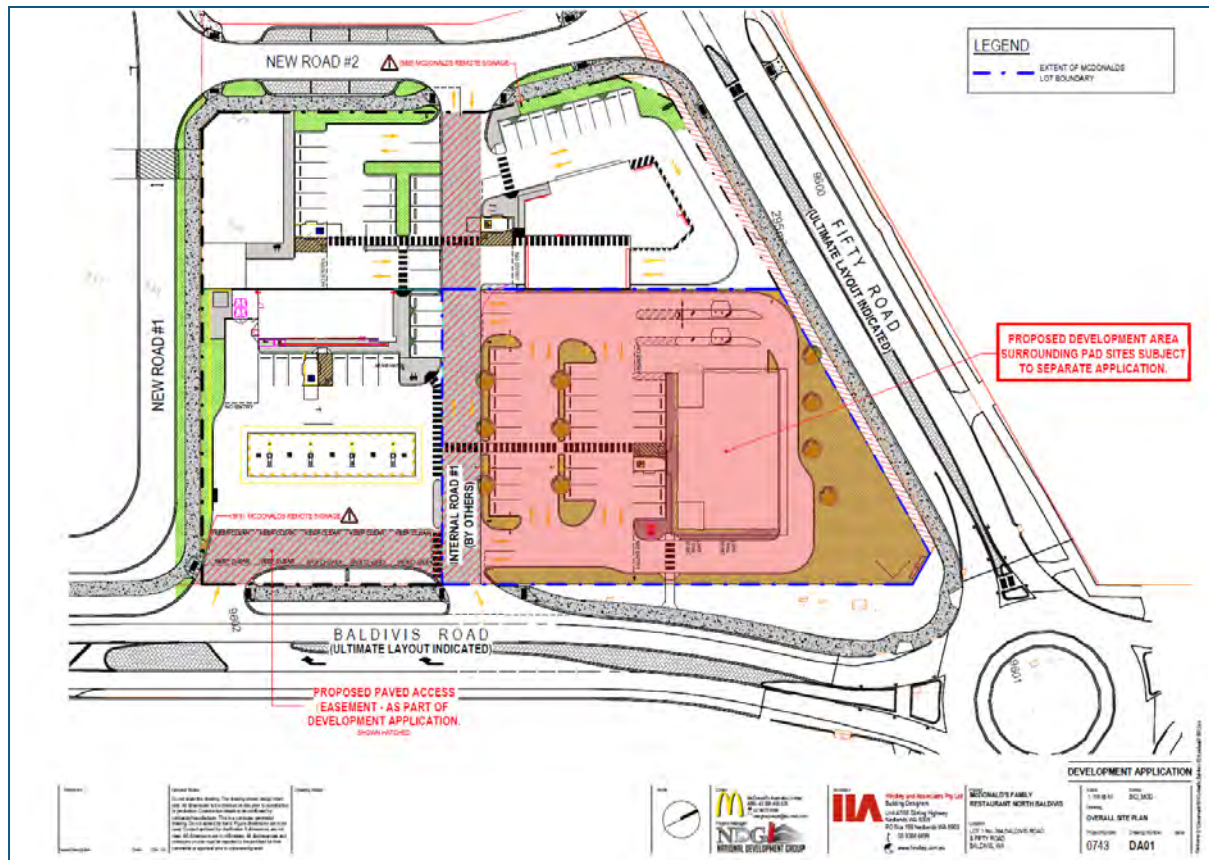


Figure 1-2 Overall Site Plan (From Development Application)

## 2 CRITERIA

Environmental noise in Western Australia is governed by the *Environmental Protection Act 1986*, through the *Environmental Protection (Noise) Regulations 1997* (the Regulations).

Regulation 7 defines the prescribed standard for noise emissions as follows:

"7. (1) Noise emitted from any premises or public place when received at other premises –

- (a) Must not cause or significantly contribute to, a level of noise which exceeds the assigned level in respect of noise received at premises of that kind; and
- (b) Must be free of –
  - i. tonality;
  - ii. impulsiveness; and
  - iii. modulation,

when assessed under regulation 9"

A "...noise emission is taken to significantly contribute to a level of noise if the noise emission ... exceeds a value which is 5 dB below the assigned level..."

Tonality, impulsiveness and modulation are defined in Regulation 9. Noise is to be taken to be free of these characteristics if:

- (a) The characteristics cannot be reasonably and practicably removed by techniques other than attenuating the overall level of noise emission; and
- (b) The noise emission complies with the standard prescribed under regulation 7 after the adjustments of *Table 2-1* are made to the noise emission as measured at the point of reception.

*Table 2-1 Adjustments Where Characteristics Cannot Be Removed*

Where Noise Emission is Not Music			Where Noise Emission is Music	
Tonality	Modulation	Impulsiveness	No Impulsiveness	Impulsiveness
+ 5 dB	+ 5 dB	+ 10 dB	+ 10 dB	+ 15 dB

Note: The above are cumulative to a maximum of 15dB.

The baseline assigned levels (prescribed standards) are specified in Regulation 8 and are shown in *Table 2-2*.

*Table 2-2 Baseline Assigned Noise Levels*

Premises Receiving Noise	Time Of Day	Assigned Level (dB)		
		L <sub>A10</sub>	L <sub>A1</sub>	L <sub>Amax</sub>
Noise sensitive premises: highly sensitive area <sup>1</sup>	0700 to 1900 hours Monday to Saturday (Day)	45 + influencing factor	55 + influencing factor	65 + influencing factor
	0900 to 1900 hours Sunday and public holidays (Sunday)	40 + influencing factor	50 + influencing factor	65 + influencing factor
	1900 to 2200 hours all days (Evening)	40 + influencing factor	50 + influencing factor	55 + influencing factor
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night)	35 + influencing factor	45 + influencing factor	55 + influencing factor
Noise sensitive premises: any area other than highly sensitive area	All hours	60	75	80
Commercial	All hours	60	75	80

1. **highly sensitive area** means that area (if any) of noise sensitive premises comprising —

- (a) a building, or a part of a building, on the premises that is used for a noise sensitive purpose; and
- (b) any other part of the premises within 15 metres of that building or that part of the building.

The influencing factor was calculated for the nearest noise sensitive premises, shown on *Figure 3-1*, being a recent aerial image of the subject area. As per the local development plan, the subject site is



amongst a “special use” zoned area with commercial uses approved. The remaining areas are noted to be residential use or public open space. It is noted that residential premises are planned to the south as part of the LDP and these have been included in the assessment.

An influencing factor of between 2 dB and 3 dB has been calculated for the nearest noise sensitive premises, based on a transport factor of 2 dB premises within 100m of Baldivis Road (Secondary Road with >11,300 vpd in 2015) Furthermore, 0-1 dB has been determined applicable from nearby commercial land uses – refer *Table 2-3* and *Table 2-4*.

*Table 2-3 Influencing Factor Calculation – Noise Sensitive (South)*

Description	Within 100 metre Radius	Within 450 metre Radius	Total
Commercial Land	1.0 dB (21%)	<0.1 dB (1%)	1 dB
Secondary Road	2 dB	-	2 dB
<b>Total</b>			<b>3 dB</b>

*Table 2-4 Influencing Factor Calculation – Noise Sensitive (East)*

Description	Within 100 metre Radius	Within 450 metre Radius	Total
Commercial Land	0.1 dB (2%)	<0.1 dB (1%)	0 dB
Secondary Road	2 dB	-	2 dB
<b>Total</b>			<b>2 dB</b>

*Table 2-5* shows the assigned noise levels including the influencing factor at the receiving locations. The receiving noise sensitive premises are identified in *Figure 3-1*. The restaurant is proposed to operate 24-hours a day, 7-days a week.

Table 2-5 Assigned Noise Levels

Premises Receiving Noise	Time of Day	Assigned Level (dB)		
		L <sub>A10</sub>	L <sub>A1</sub>	L <sub>Amax</sub>
Nearest Residences to the East	0700 to 1900 hours Monday to Saturday (Day)	47	57	67
	0900 to 1900 hours Sunday and public holidays (Sunday)	42	52	67
	1900 to 2200 hours all days (Evening)	42	52	57
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night)	37	47	57
Future Residences to the South	0700 to 1900 hours Monday to Saturday (Day)	48	58	68
	0900 to 1900 hours Sunday and public holidays (Sunday)	43	53	68
	1900 to 2200 hours all days (Evening)	43	53	58
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night)	38	48	58
Commercial	All hours	60	75	80

1. **highly sensitive area** means that area (if any) of noise sensitive premises comprising —
- (a) a building, or a part of a building, on the premises that is used for a noise sensitive purpose; and
  - (b) any other part of the premises within 15 metres of that building or that part of the building.

It must be noted the assigned noise levels apply outside the receiving premises and at a point at least 3 metres away from any substantial reflecting surfaces.

It is further noted the assigned noise levels are statistical levels and therefore the period over which they are determined is important. The Regulations define the Representative Assessment Period (RAP) as *a period of time of not less than 15 minutes, and not exceeding 4 hours*, which is determined by an *inspector or authorised person* to be appropriate for the assessment of a noise emission, having regard to the type and nature of the noise emission. An *inspector or authorised person* is a person appointed under Sections 87 & 88 of the *Environmental Protection Act 1986* and include Local Government Environmental Health Officers and Officers from the Department of Environment Regulation. Acoustic consultants or other environmental consultants are not appointed as an *inspector or authorised person*. Therefore, whilst this assessment is based on a 4 hour RAP, which is assumed to be appropriate given the nature of the operations, this is to be used for guidance only.

Regulation 3 states the following with regards to vehicles:

- (1) *Nothing in these regulations applies to the following noise emissions —*
- (a) *noise emissions from the propulsion and braking systems of motor vehicles operating on a road.*

Since the development is open to the public, the carpark and associated like areas are considered to be a road and therefore vehicle noise (propulsion and braking) is not strictly assessed. However, vehicle propulsion noise in the drive-through area has been considered assessable in this report due to the 24-hour nature of the restaurant and the nature of the lanes being solely for food ordering purposes and not road access. Vehicle door closing noise is also assessable in any parts of the car park, as this does not form part of the 'propulsion or braking' systems.

Regulation 14A provides requirements for the collection of waste stating that this activity can also be exempt from having to comply with regulation 7 prescribed standards provided it is undertaken between 7am and 7pm Mondays to Saturdays and undertaken in the quietest reasonable manner.

### 3 METHODOLOGY

Computer modelling has been used to predict the noise emissions from the site. The software used was *SoundPLAN 8.2* with the ISO 9613 algorithms (ISO 17354 compliant) selected. These algorithms have been selected as they include the influence of wind and atmospheric stability. Input data required in the model are:

- Meteorological Information;
- Topographical data;
- Ground Absorption; and
- Source sound power levels.

#### 3.1 Meteorological Information

Meteorological information utilised is provided in *Table 3-1* and is considered to represent worst-case conditions for noise propagation. At wind speeds greater than those shown, sound propagation may be further enhanced, however background noise from the wind itself and from local vegetation is likely to be elevated and dominate the ambient noise levels.

*Table 3-1 Modelling Meteorological Conditions*

Parameter	Night (1900-0700)	Day (0700-1900)
Temperature (°C)	15	20
Humidity (%)	50	50
Wind Speed (m/s)	Up to 5m/s	Up to 5m/s
Wind Direction*	All	All

\* Note that the modelling package used allows for all wind directions to be modelled simultaneously.

It is generally considered that compliance with the assigned noise levels needs to be demonstrated for 98% of the time, during the day and night periods, for the month of the year in which the worst-case weather conditions prevail. In most cases, the above conditions occur for more than 2% of the time and therefore must be satisfied.

### 3.2 Topographical Data

Topographical data was adapted from *Google* and proposed plans. Existing and future buildings have also been included as these can provide barrier attenuation when located between a source and receiver as well as reflection paths. Parapets are assumed to be atop the restaurant building and between 1.2-2.0 metres higher than the roof. It is noted that the LDP includes provision for an acoustic wall of minimum 1.8m at the southern boundary of the special use zone. This has been included as 1.8m in the model, noting that it may increase should noise from a future service station in this location require it.

### 3.3 Ground Absorption

Ground absorption varies from a value of 0 to 1, with 0 being for an acoustically reflective ground (e.g. water or bitumen) and 1 for acoustically absorbent ground (e.g. grass). In this instance, a value 0.0 has been used for all road and car park areas and 0.6 for all other areas.

### 3.4 Source Sound Levels

*Table 3-2* shows the sound power levels used in the modelling. The spectrum and overall levels are for individual point sources within the model. The general list of noise emissions considered in the assessment are:

- Mechanical Services (Air conditioning, ventilation systems, and refrigeration plant);
- Drive-through speaker noise;
- Vehicles (including deliveries) idling in drive through areas; and
- Car doors closing in parking bays.



Table 3-2 Source Sound Power Levels, dB

Description	Octave Band Centre Frequency (Hz)								Overall dB(A)
	63	125	250	500	1k	2k	4k	8k	
Condenser Package MAC90RP – L <sub>A10</sub>	88	87	85	81	76	70	64	59	<b>82</b>
AC-1 Actron PKY960T Low Speed – L <sub>A10</sub>	-	84	78	75	73	69	60	54	<b>78</b>
AC-1 Actron PKY960T High Speed – L <sub>A10</sub>	-	89	83	80	78	74	64	60	<b>83</b>
AC-2 and AC-3 Actron PCG340 Package Low Speed – L <sub>A10</sub>	-	75	74	73	71	67	65	60	<b>76</b>
AC-2 and AC-3 Actron PCG340 Package Unit High Speed – L <sub>A10</sub>	-	78	78	77	75	71	69	64	<b>80</b>
AC-4 Actron PCA233U Package Unit Low Speed – L <sub>A10</sub>	-	71	71	70	67	62	61	56	<b>69</b>
AC-4 Actron PCA233U Package Unit High Speed – L <sub>A10</sub>	-	76	75	74	71	66	65	60	<b>71</b>
Fan 1 Fantech TCE354, Toilet – L <sub>A10</sub>	80	78	74	71	62	64	63	53	<b>73</b>
Fan 2 Fantech CGD354, Fry EF – L <sub>A10</sub>	80	78	74	71	62	64	63	53	<b>73</b>
Fan 3 Fantech CGD354, Fillet EF – L <sub>A10</sub>	80	78	74	71	62	64	63	53	<b>73</b>
Fan 4 Fantech CGD404, Grille EF – L <sub>A10</sub>	83	81	77	74	65	67	66	56	<b>76</b>
Fan 5 Fantech CE192V, Wash-up EF – L <sub>A10</sub>	78	77	68	65	60	58	56	52	<b>68</b>
Fan 6 Fantech CE406D, IT Room EF – L <sub>A10</sub>	78	77	68	65	60	58	56	52	<b>68</b>
Refrigerated Truck delivery – L <sub>A1</sub>	100	91	87	88	83	81	79	75	<b>90</b>
Drive-Through Speaker – L <sub>A1</sub>	62	64	66	77	80	73	57	42	<b>82</b>
Car Idling – L <sub>A10</sub>	81	78	74	72	74	74	67	64	<b>79</b>
Car Door Closing – L <sub>Amax</sub>	71	74	77	81	80	78	72	61	<b>84</b>

Modelled noise sources were based on file data and manufacturer specifications provided by McDonald's Restaurants. The locations of the noise sources are based on general locations on the site plan (refer *Appendix A*) noting the following:

- Mechanical plant are to be roof mounted at 1.0m above building height in the noise model;
- For night time scenarios, mechanical plant is modelled with low speed noise levels as per *Table 3-2*;
- Car door and all engine sources are modelled at 0.5m above ground;
- 7 to 13 vehicles are modelled idling in the Drive-Through queuing, ordering and waiting areas, depending on the calculation scenario (see following page).

Given the proposed hours of operation, the night-time scenario is most critical for noise sensitive premises and the daytime scenario is most critical for commercial premises. Noise modelling scenarios are:

1. Night  $L_{A10}$  – Consists of all mechanical plant operating on low speed mode and 7 vehicles idling in the drive-through areas;
2. Night  $L_{A1}$  – Consists of drive-through speaker noise, 13 vehicles idling, and low speed mechanical equipment, small delivery truck in bay 2;
3. Sunday Day  $L_{A10}$  – Includes all mechanical plant (at high speed). Also includes 13 vehicles idling in the drive-through areas including the waiting bay; and
4. Night  $L_{Amax}$  – Includes all mechanical plant described for the night scenario, and car door closures at parking bays.

A 2-D overview image of the noise model showing receivers and sources is included in *Figure 3-1*.



Figure 3-1 2D Image of Noise Model

## 4 RESULTS & ASSESSMENT

### 4.1 Scenario 1: Predicted Noise Night $L_{A10}$

The results of the  $L_{A10}$  Night scenario noise modelling are shown as a noise level contour plot in *Figure 4-1* and summarised below in *Table 4-1*. Refer to *Figure 3-1* for receiver locations positioned within the noise model.

*Table 4-1 Predicted Night Noise Levels, dB  $L_{A10}$*

Location	7 Drive-Through Vehicles	Mechanical Plant	Combined	Critical Assigned Level, dB $L_{A10}$	Exceedence Amount
1. 2 Arden Ave (Future house)	34	24	34	37	Complies
2. 5 Manuka St	35	26	35	37	Complies
3. 7 Manuka St	35	26	36	37	Complies
4. 9 Manuka St	34	26	35	37	Complies
5. 11 Manuka St	33	26	34	37	Complies
6. 13 Manuka St	33	26	34	37	Complies
7. 15 Manuka St	30	26	32	37	Complies
8. 17 Manuka St	28	24	30	37	Complies
9. 19 Manuka St	29	26	31	37	Complies
10. 21 Manuka St	31	26	33	37	Complies
11. Future South Lots 1	32	27	34	38	Complies
12. Future South Lots 2	30	28	32	38	Complies
13. Future South Lots 3	25	22	27	38	Complies

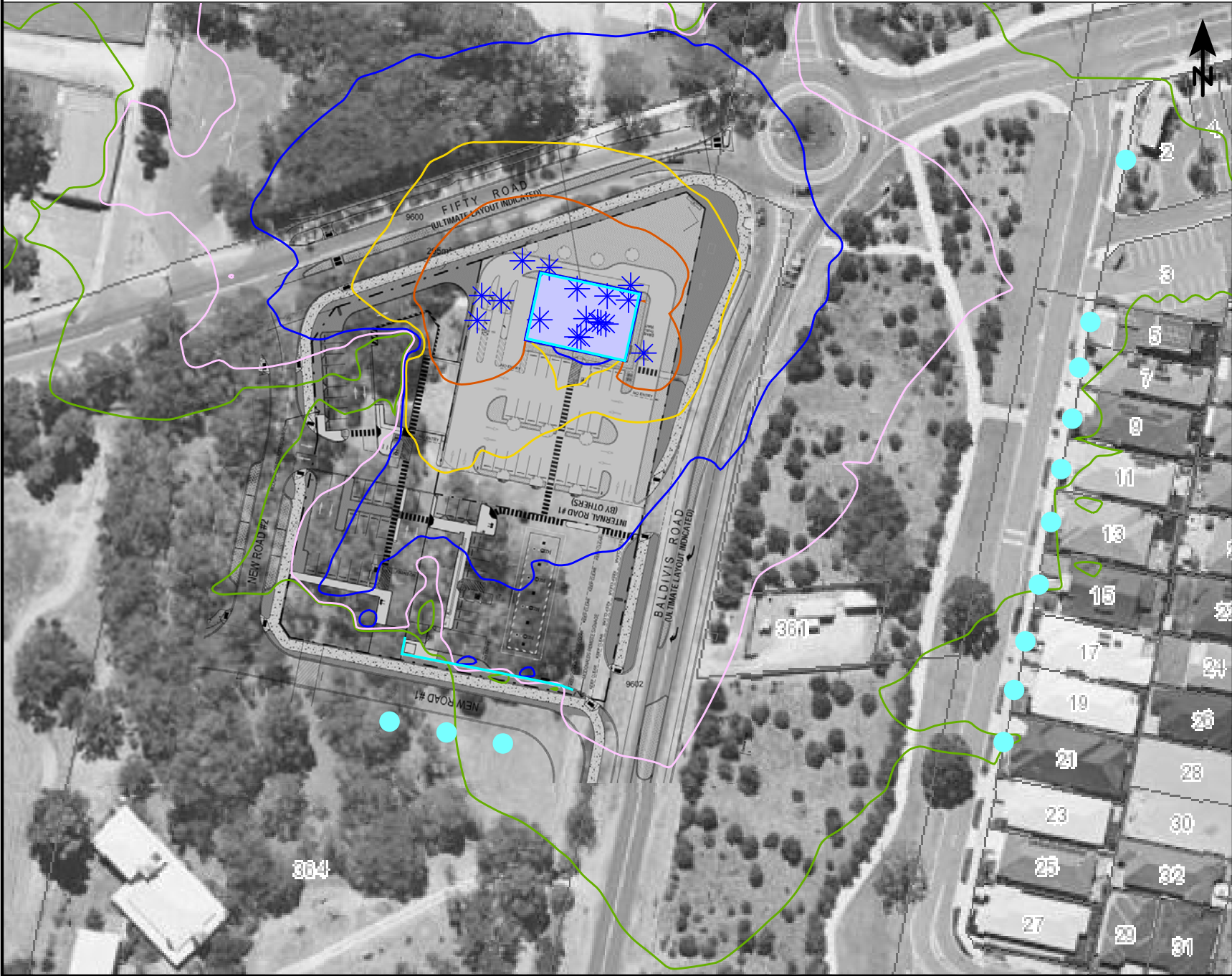
Noise is most critical at 5 and 7 Manuka Street, which represents the nearest houses to the east. A worst case combined level of 35 dB  $L_{A10}$  is predicted with drive-through vehicles contributing the most to overall noise.

The noise from vehicles alone would not be considered tonal due to the number of vehicles and variation in engine sounds over a representative period, or when combined with mechanical plant noise, therefore no adjustments have been applied.

#### **Summary Scenario 1: Compliance achieved at all receivers by at least 2 dB**



Figure 4-1 Scenario 1: Night Time Noise, dB L<sub>A10</sub>



Predicted Noise level


- = 32
- = 37
- = 42
- = 47
- = 52

Legend

- Proposed Building
- Receiver
- Wall/Parapet
- Point Source

Scale 1:1300  
0 5 10 20 30 m

Project No: 21066444  
Consultant: MM  
Date: 2/07/2021  
Algorithm: ISO 9613  
SoundPLAN Version: 8.2

 **Lloyd George Acoustics**  
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## 4.2 Scenario 2: Predicted Noise Night $L_{A1}$

The results of the Night  $L_{A1}$  scenario noise modelling are shown as a noise level contour plot in Figure 4-2 and summarised below in Table 4-2.

Table 4-2 Predicted Night Noise Levels, dB  $L_{A1}$

Location	Truck Delivery	Drive-Through Speaker	13 Drive-Through Vehicles	Combined <sup>1</sup>	Critical Assigned Level, dB $L_{A1}$	Exceedence Amount
1. 2 Arden Ave (Future house)	20	12	37	37	47	Complies
2. 5 Manuka St	26	12	38	38	47	Complies
3. 7 Manuka St	30	12	37	38	47	Complies
4. 9 Manuka St	37	11	36	40	47	Complies
5. 11 Manuka St	38	11	35	40	47	Complies
6. 13 Manuka St	39	11	35	40	47	Complies
7. 15 Manuka St	38	11	33	39	47	Complies
8. 17 Manuka St	37	11	29	38	47	Complies
9. 19 Manuka St	37	19	31	38	47	Complies
10. 21 Manuka St	39	24	33	40	47	Complies
11. Future South Lots 1	38	23	34	40	48	Complies
12. Future South Lots 2	38	26	33	40	48	Complies
13. Future South Lots 3	28	17	26	31	48	Complies

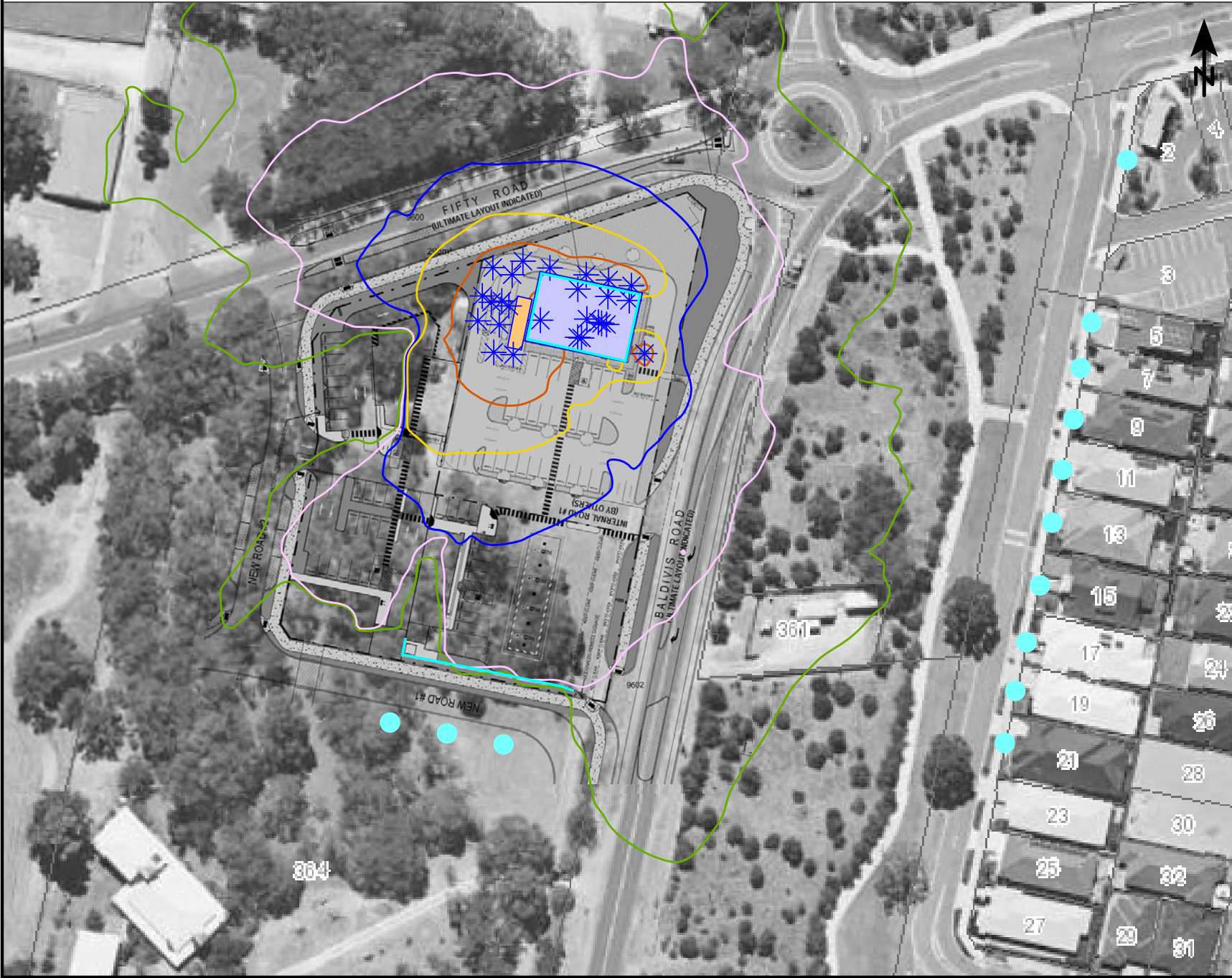
1. Combined level also includes the mechanical plant sources.

Noise is fairly evenly spread to all receivers, with the highest level being predicted as 40 dB  $L_{A1}$ , at the nearest houses to the south and east. Note that the delivery truck is included in this scenario, being considered applicable to the  $L_{A1}$  assessment as the nature of the delivery is short term for a small-scale restaurant (as opposed to a supermarket which would have lengthier and more frequent deliveries). It assumes that a delivery is going on during a full drive-through of cars, which is a conservative worst case scenario.

The worst-case calculated noise level for assessment purposes is 40 dB  $L_{A1}$ . This noise level is predominantly from vehicles idling in the drive-through area and delivery truck noise, though it also includes mechanical plant noise. The noise level complies for all locations. The noise is not considered to contain tonal characteristics when assessed over a representative period.

**Summary Scenario 2: Compliance achieved at all receivers by at least 7 dB.**

Figure 4-2 Scenario 2: Night Time Noise, dB L<sub>A1</sub>



Predicted Noise level


- = 42
- = 47
- = 52
- = 57
- = 62

Legend

- Proposed Building
- Receiver
- Wall/Parapet
- Point Source
- Delivery truck

Scale 1:1300  
0 5 10 20 30 m

Project No: 21066444  
Consultant: MM  
Date: 2/07/2021  
Algorithm: ISO 9613  
SoundPLAN Version: 8.2

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### 4.3 Scenario 3: Predicted Noise Sunday $L_{A10}$

The Sunday day time period includes a full drive-through area with thirteen (13) cars in total (all in queuing positions and one at waiting bay). Mechanical plant are operating at high speeds, however assigned levels are higher for noise sensitive premises at this time, compared to during the night. The results of the Sunday day  $L_{A10}$  scenario noise modelling are shown as a noise level contour plot in Figure 4-3 and summarised in Table 4-3.

Table 4-3 Predicted Sunday Day Noise Levels, dB  $L_{A10}$

Location	13 Drive-Through Vehicles	Mechanical Plant	Combined	Critical Assigned Level, dB $L_{A10}$	Exceedence Amount
1. 2 Arden Ave (Future house)	37	26	37	42	Complies
2. 5 Manuka St	38	29	38	42	Complies
3. 7 Manuka St	37	29	37	42	Complies
4. 9 Manuka St	37	29	37	42	Complies
5. 11 Manuka St	35	29	36	42	Complies
6. 13 Manuka St	35	29	36	42	Complies
7. 15 Manuka St	33	29	34	42	Complies
8. 17 Manuka St	31	27	33	42	Complies
9. 19 Manuka St	32	29	34	42	Complies
10. 21 Manuka St	34	29	35	42	Complies
11. Future South Lots 1	35	31	36	43	Complies
12. Future South Lots 2	34	31	36	43	Complies
13. Future South Lots 3	26	21	27	43	Complies

As with the Night  $L_{A10}$  assessment, noise from vehicles is dominant for most receivers. The Sunday day time scenario includes 13 drive-thru cars and mechanical plant on high speed mode, thus leading to increased combined levels. This combined noise level with mechanical plant, yields a worst case level of 38 dB at 5 Manuka Street to the east. Again, noise would not be considered tonal given the idling vehicles are dominant and would all be idling at different speeds. The Sunday time period is compliant at all receivers even with its assigned level of 42-43 dB  $L_{A10}$ .

**Summary Scenario 3: Compliance achieved at all receivers by at least 4 dB.**



Figure 4-3 Scenario 3: Sunday Day Noise, dB  $L_{A10}$



Predicted Noise level

- = 37
- = 42
- = 47
- = 52
- = 57

Legend

- Proposed Building
- Receiver
- Wall/Parapet
- Point Source

Scale 1:1300



Project No: 21066444  
Consultant: MM  
Date: 2/07/2021  
Algorithm: ISO 9613  
SoundPLAN Version: 8.2



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#### 4.4 Scenario 4: Predicted Noise Night $L_{Amax}$

The results of the Night  $L_{Amax}$  scenario noise modelling are shown below in *Table 4-4*. The noise from car doors (non-cumulative) is shown graphically in *Figure 4-4*. Noise levels in this case are adjusted by + 10 dB for potential impulsive characteristics.

*Table 4-4 Predicted Night Noise Levels, dB  $L_{Amax}$*

Location	Car Doors	Adjusted	Critical Assigned Level, dB $L_{Amax}$	Exceedence Amount
1. 2 Arden Ave (Future house)	30	40	57	Complies
2. 5 Manuka St	32	42	57	Complies
3. 7 Manuka St	33	43	57	Complies
4. 9 Manuka St	34	44	57	Complies
5. 11 Manuka St	34	44	57	Complies
6. 13 Manuka St	33	43	57	Complies
7. 15 Manuka St	34	44	57	Complies
8. 17 Manuka St	31	41	57	Complies
9. 19 Manuka St	32	42	57	Complies
10. 21 Manuka St	34	44	57	Complies
11. Future South Lots 1	36	46	58	Complies
12. Future South Lots 2	34	44	58	Complies
13. Future South Lots 3	32	42	58	Complies

Vehicle door noise is predicted to be up to an adjusted level of 46 dB  $L_{Amax}$  at the worst case receivers to the south, being future residential lots. This is 12 dB below the most critical noise sensitive assigned level of 58 dB  $L_{Amax}$  and therefore compliant for all time periods.

**Summary Scenario 4: Compliance achieved at all receivers by at least 12 dB.**

Figure 4-4 Scenario 4: Car Door Noise, dB  $L_{Amax}$



Predicted Noise level

- = 47
- = 52
- = 57
- = 62
- = 67

Legend

- Proposed Building
- Receiver
- Wall/Parapet
- Car Door Source

Scale 1:1300



Project No: 21066444  
Consultant: MM  
Date: 2/07/2021  
Algorithm: ISO 9613  
SoundPLAN Version: 8.2



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## 5 CONCLUSION

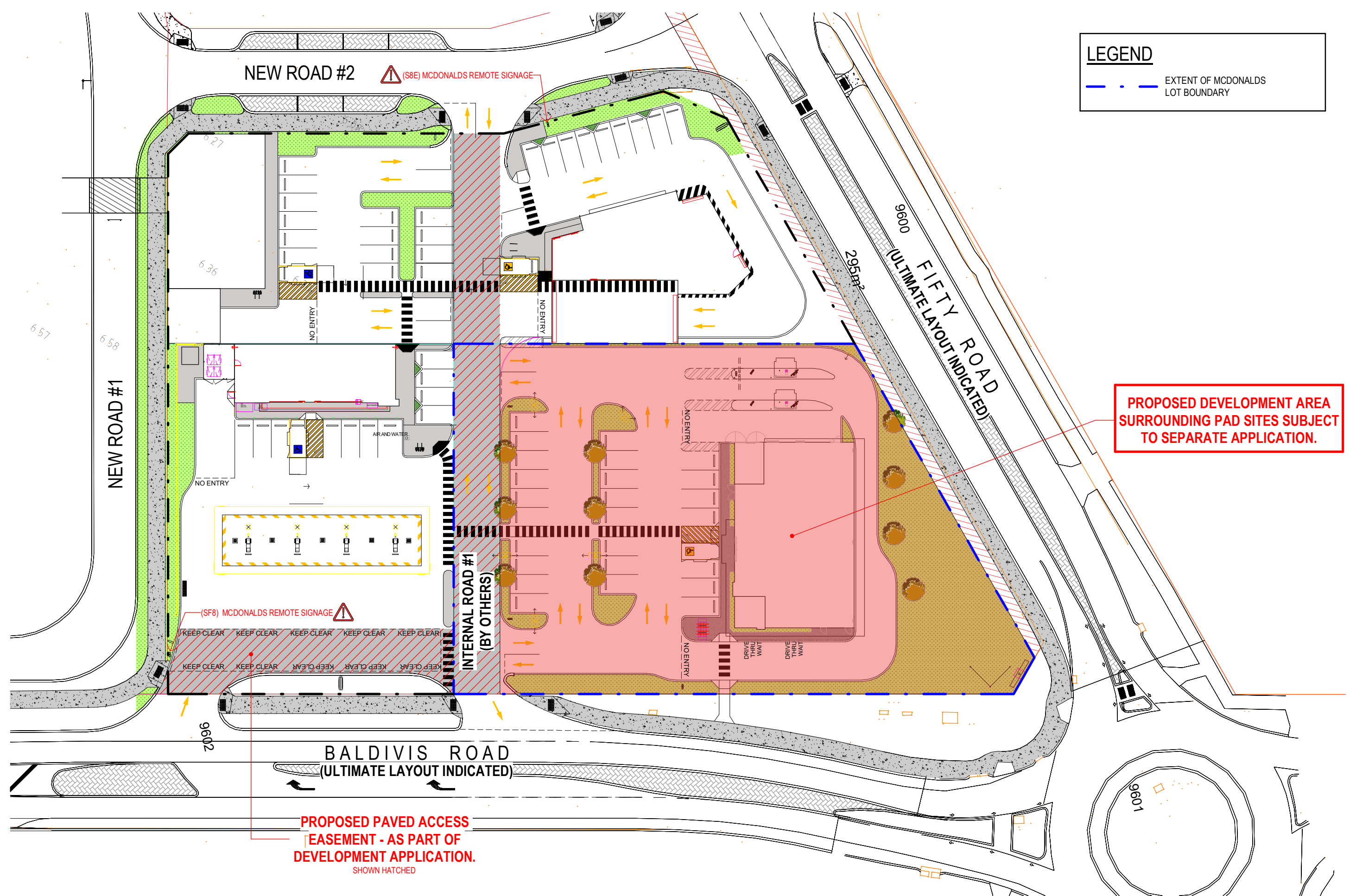
The potential noise impacts resulting from the proposed McDonald's Restaurant development at Lot 1 (#364) Baldivis Road, Baldivis been assessed against the *Environmental Protection (Noise) Regulations 1997*. Compliance with the assigned levels has been demonstrated for all time periods for the surrounding land uses, therefore no further noise mitigation measures are necessary.

Regulation 14A provides requirements for the collection of waste stating that this activity can also be exempt from having to comply with regulation 7 prescribed standards provided it is undertaken between 7am and 7pm Mondays to Saturdays and undertaken in the quietest reasonable manner. Collection outside of these hours will require a separate noise management plan.



**Appendix A**

**Site Plans**



LEGEND

EXTENT OF MCDONALDS LOT BOUNDARY

PROPOSED DEVELOPMENT AREA SURROUNDING PAD SITES SUBJECT TO SEPARATE APPLICATION.

Revisions	General Notes	Drawing Notes
<div>IssueDescription</div>	<div>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/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 millimeters. All discrepancies and omissions on site must be reported to the architect for their comments or approval prior to commencing work.</div>	
<div>Date</div>	<div>Chk Int</div>	

North

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Project Manager

NATIONAL DEVELOPMENT GROUP

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Building Designers  
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08 9386 6699  
www.hindley.com.au

Project

McDONALD'S FAMILY RESTAURANT NORTH BALDIVIS

Location

LOT 1 No. 364 BALDIVIS ROAD & FIFTY ROAD  
BALDIVIS, WA

Scale

1:500 @ A3

Series

BIO\_MOD

Drawing

OVERALL SITE PLAN

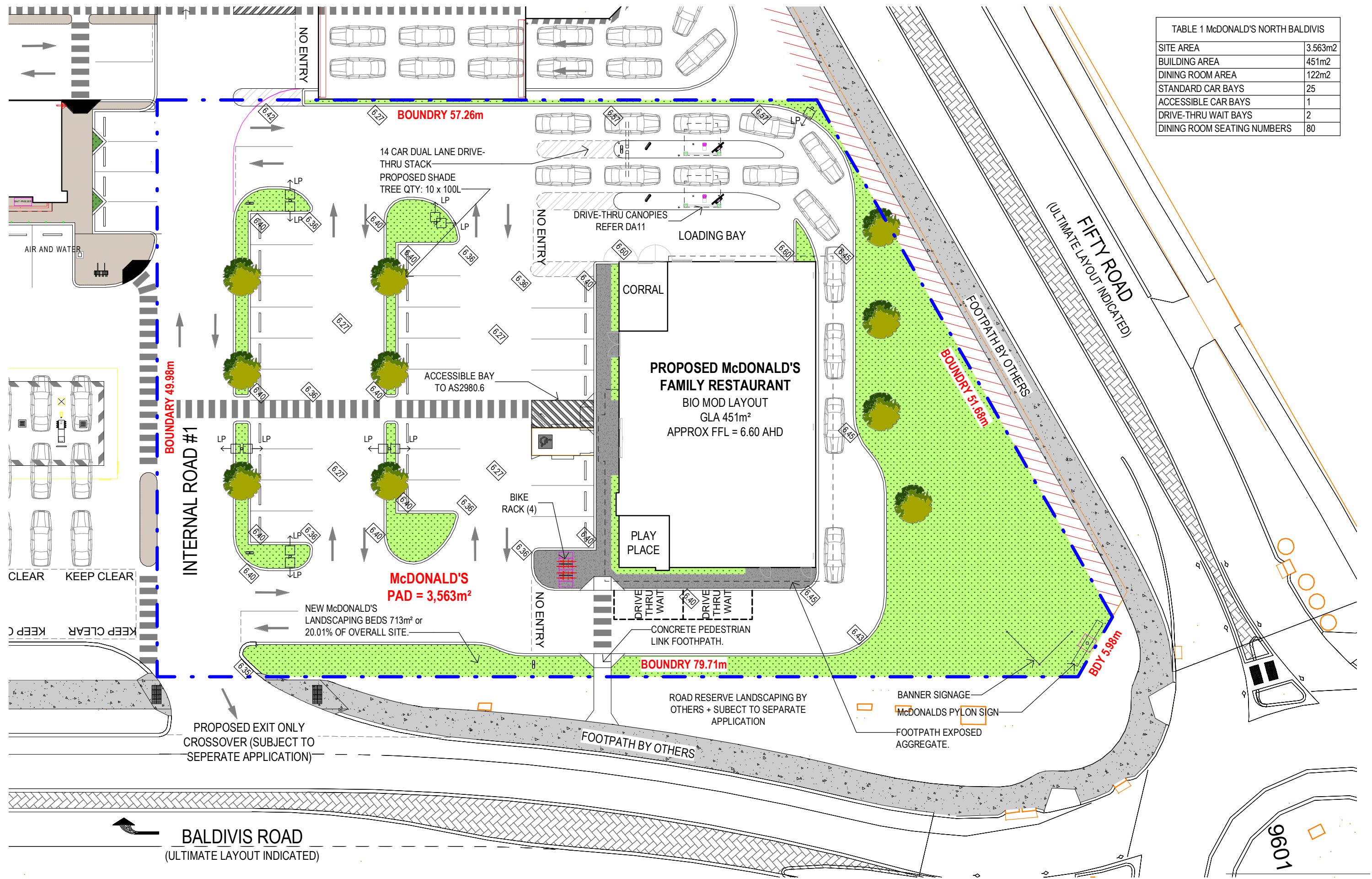
Project Number

0743

Drawing Number

DA01

Issue



## Revisions

Issue/Description	Date	Chk	Int

## General Notes

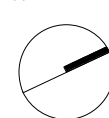
Do not scale this drawing. The drawing shows design intent only. All dimensions to be checked on site prior to construction or production. Construction details to be confirmed by contractor/manufacture. This is a computer generated drawing. Do not amend by hand. Figure dimensions are to be used. Contact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

## Drawing Notes

## LEGEND:

□ → LIGHT POLE. INDICATIVE LOCATIONS AND SUBJECT TO CHANGE

## North



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Project  
McDONALD'S FAMILY RESTAURANT NORTH BALDIVIS

Location  
LOT 1 No. 364 BALDIVIS ROAD  
& FIFTY ROAD  
BALDIVIS, WA

## DEVELOPMENT APPLICATION

## Scale

1:300 @ A3

## Drawing

## SITE PLAN

## Project Number

0743

## Series

BIO\_MOD

## Drawing

## SITE PLAN

## Project Number

0743

## Drawing

## SITE PLAN

## Project Number

0743

## Drawing

## SITE PLAN

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ILLUMINATED SIGNAGE:	
TAG.	DESCRIPTION
S1A S1B	WALL SIGN 2.40x0.69m HIGH "PLAYPLACE" LOGO.
S3A S3B S3C S3D S3E	WALL + BLADE SIGN 1.37m X 1.2m "M" LOGO
S4A	ENTRY FASCIA SIGN 1.9m x 0.23m WORDING "McDONALDS"
S5A	WALL BUTTON SIGN 1.20Ø WORDING "McCAFE"
S5B	WALL BLADE SIGN 1.42m x 0.7m WORDING "McCAFE"
S6A S6B	HEIGHT CLEARANCE GANTRY
S7A S7B	DIGITAL MENUBOARDS (DOUBLE SIZE)
S7C S7D	DIGITAL PRESELL MENUBOARDS (SINGLE SIZE)
S8A S8B S8C S8D S8E S8F	DIRECTIONAL SIGNAGE 0.7 x 2.3m HIGH DOUBLE SIDED WORDING VARIES . REFER TO DA11 REFER ALSO DA01 FOR REMOTE SIGNAGE.
S14	PYLON SIGN . REFER TO DA10 FOR HEIGHT.
S15	WALL BLADE SIGN . 0.4 x 0.4m WORDING "McDELIVERY"

NON ILLUMINATED SIGNAGE:	
TAG.	DESCRIPTION
S9A S9B S9C	SINGLE SIDED " NO PEDESTRIAN ACCESS"
S9D	ACCESSIBLE PARKING BAY
S9E	DOUBLE SIDED : BIKE RACK
S9F S9G	SINGLE SIDED : 10KM/HR
S13A S13B	BANNER SIGN

Revisions	
Issue	Description

General Notes	
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/manufacture. 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 millimeters. All discrepancies and omissions on site must be reported to the architect for their comments or approval prior to commencing work.	

Drawing Notes	

Client

McDonald's Australia Limited  
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Project Manager

NATIONAL DEVELOPMENT GROUP

Architect

Hindley and Associates Pty Ltd  
Building Designers  
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Project

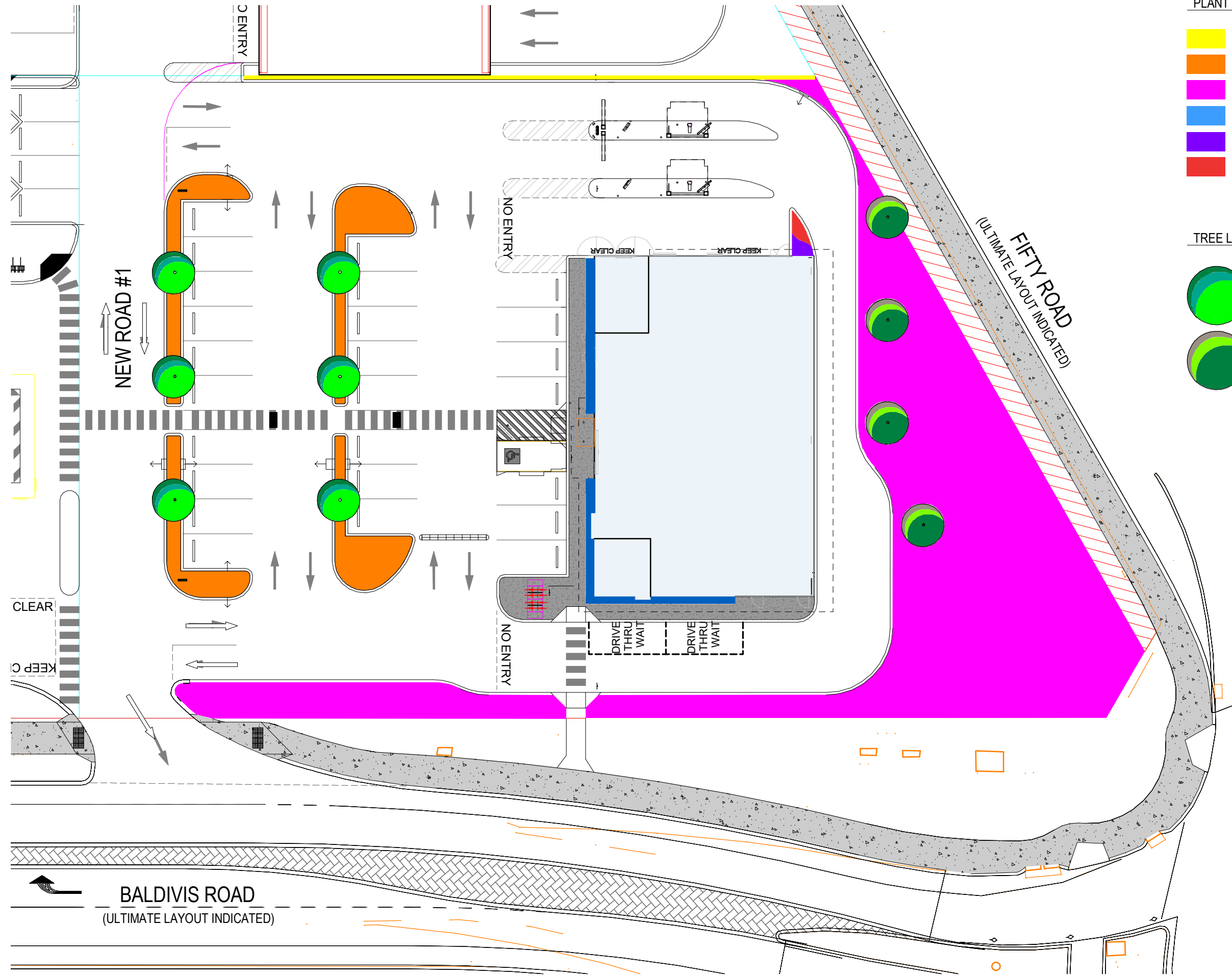
**McDONALD'S FAMILY RESTAURANT NORTH BALDIVIS**

Location

LOT 1 No. 364 BALDIVIS ROAD  
& FIFTY ROAD  
BALDIVIS, WA

DEVELOPMENT APPLICATION	
Scale 1:300 @ A3	Series BIO_MOD
Drawing <b>SITE SIGNAGE PLAN</b>	
Project Number <b>0743</b>	Drawing Number <b>DA03</b>
Issue	





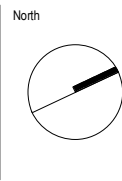
PLANT LEGEND

- INDIAN HAWTHORN FORMED AS HEDGE
- HIBBERTIA SNAKE VINE
- NATIVE MIX - WESTRINGIA, HIBBERTIA SNAKE VINE, OLEARIA, ANIGOZANTHUS, SCAEVOLA
- INDIAN HAWTHORN FORMED AS HEDGE + RADERMACHERA "SUMMERSCENT"
- AGAVE - MASS PLANTING
- PITTOSPORUM MISS MUFFET

TREE LEGEND

- EUCALYPTUS TORQUATA
- EUCALYPTUS FORRESTIANA

Revisions		General Notes		Drawing Notes
Issue	Description	Date	Chk Int	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/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 millimeters. All discrepancies and omissions on site must be reported to the architect for their comments or approval prior to commencing work.



Client  
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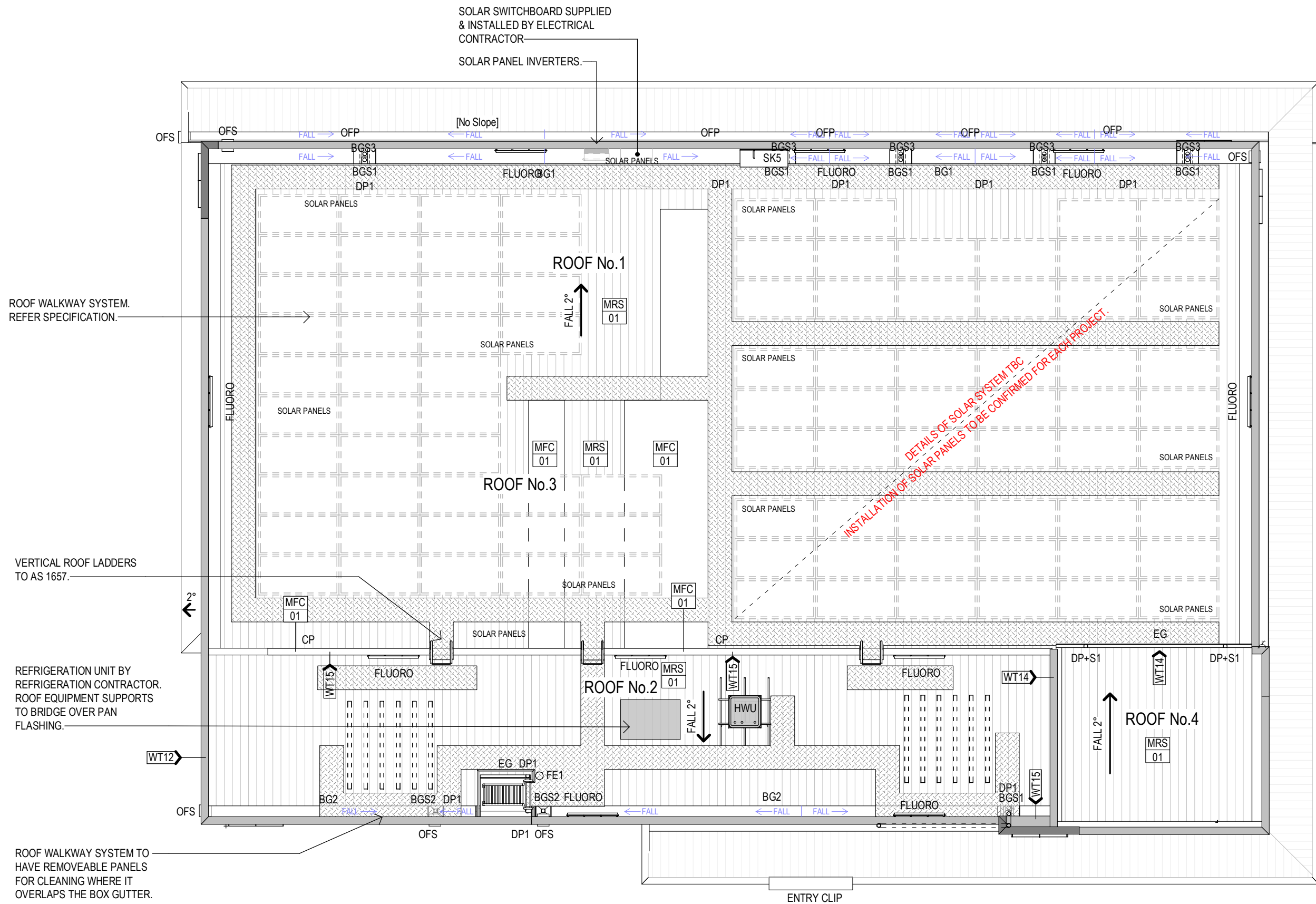
Project  
**MCDONALD'S FAMILY RESTAURANT NORTH BALDIVIS**

Location  
LOT 1 No. 364 BALDIVIS ROAD  
& FIFTY ROAD  
BALDIVIS, WA

DEVELOPMENT APPLICATION

Scale 1:300 @ A3	Series BIO_MOD
Drawing <b>PROPOSED LANDSCAPING PLAN</b>	
Project Number <b>0743</b>	Drawing Number <b>DA04</b>
Issue	





Revisions	General Notes	Drawing Notes
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Client

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Project

**McDONALDS FAMILY RESTAURANT NORTH BALDIVIS**

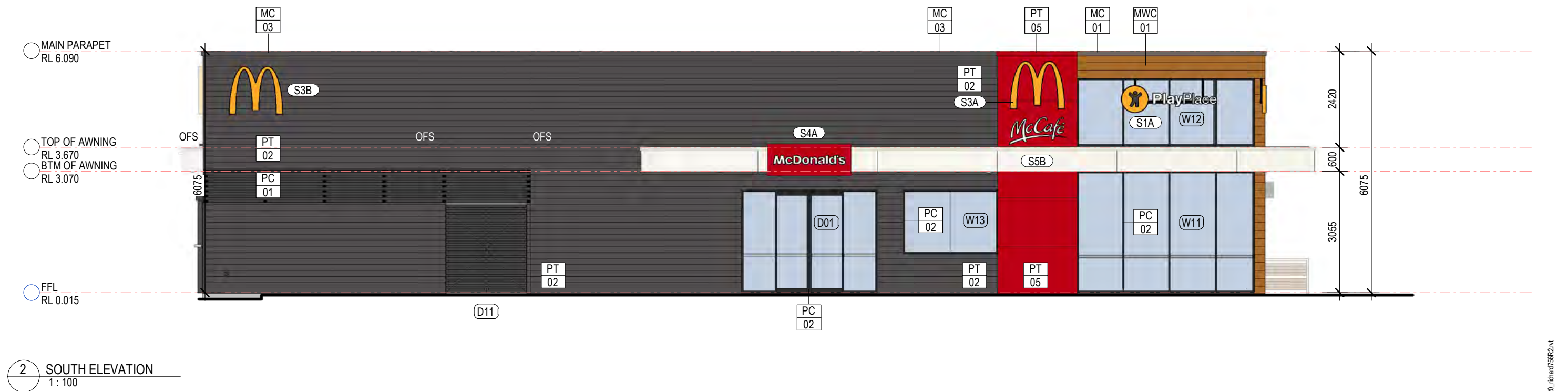
Location

LOT 1 No. 364 BALDIVIS ROAD  
& FIFTY ROAD  
BALDIVIS, WA

## DEVELOPMENT APPLICATION

Scale 1:100 @ A3	Series BIO_MOD
Drawing <b>ROOF PLAN</b>	
Project Number <b>0743</b>	Drawing Number <b>DA06</b>
	Issue -





Revisions				General Notes	Drawing Notes
				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/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 millimeters. All discrepancies and omissions on site must be reported to the architect for their comments or approval prior to commencing work.	
Issue/Description	Date	Chk	Int		



Project

**MCDONALDS FAMILY RESTAURANT NORTH BALDIVIS**

Location

LOT 1 No. 364 BALDIVIS ROAD  
& FIFTY ROAD  
BALDIVIS, WA

DEVELOPMENT APPLICATION			
Scale 1:100 @ A3	Series BIO_MOD		
Drawing <b>FRONT &amp; SIDE BUILDING ELEVATIONS</b>			
Project Number <b>0743</b>	Drawing Number <b>DA07</b>	Issue <b>-</b>	





Revisions	General Notes	Drawing Notes
<div>Issue</div> <div>Description</div>	<div>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/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 millimeters. All discrepancies and omissions on site must be reported to the architect for their comments or approval prior to commencing work.</div>	



Project  
**McDONALDS FAMILY RESTAURANT NORTH BALDIVIS**

Location  
LOT 1 No. 364 BALDIVIS ROAD  
& FIFTY ROAD  
BALDIVIS, WA

#### DEVELOPMENT APPLICATION

Scale	Series
1: 100 @ A3	BIO_MOD
Drawing	Project Number
DRIVETHRU & REAR BUILDING ELEVATIONS	0743
Drawing Number	Issue
DA08	-

## **Appendix B**

# **Terminology**

The following is an explanation of the terminology used throughout this report.

### ***Decibel (dB)***

The decibel is the unit that describes the sound pressure and sound power levels of a noise source. It is a logarithmic scale referenced to the threshold of hearing.

### ***A-Weighting***

An A-weighted noise level has been filtered in such a way as to represent the way in which the human ear perceives sound. This weighting reflects the fact that the human ear is not as sensitive to lower frequencies as it is to higher frequencies. An A-weighted sound level is described as  $L_A$  dB.

### ***Sound Power Level ( $L_w$ )***

Under normal conditions, a given sound source will radiate the same amount of energy, irrespective of its surroundings, being the sound power level. This is similar to a 1kW electric heater always radiating 1kW of heat. The sound power level of a noise source cannot be directly measured using a sound level meter but is calculated based on measured sound pressure levels at known distances. Noise modelling incorporates source sound power levels as part of the input data.

### ***Sound Pressure Level ( $L_p$ )***

The sound pressure level of a noise source is dependent upon its surroundings, being influenced by distance, ground absorption, topography, meteorological conditions etc and is what the human ear actually hears. Using the electric heater analogy above, the heat will vary depending upon where the heater is located, just as the sound pressure level will vary depending on the surroundings. Noise modelling predicts the sound pressure level from the sound power levels taking into account ground absorption, barrier effects, distance etc.

### ***$L_{ASlow}$***

This is the noise level in decibels, obtained using the A frequency weighting and the S (Slow) time weighting as specified in IEC 61672-1:2002. Unless assessing modulation, all measurements use the slow time weighting characteristic.

### ***$L_{AFast}$***

This is the noise level in decibels, obtained using the A frequency weighting and the F (Fast) time weighting as specified in IEC 61672-1:2002. This is used when assessing the presence of modulation only.

### ***$L_{APeak}$***

This is the greatest absolute instantaneous sound pressure in decibels using the A frequency weighting as specified in IEC 61672-1:2002.

### ***$L_{Amax}$***

An  $L_{Amax}$  level is the maximum A-weighted noise level during a particular measurement.

### ***$L_{A1}$***

An  $L_{A1}$  level is the A-weighted noise level which is exceeded for one percent of the measurement period and is considered to represent the average of the maximum noise levels measured.

### ***$L_{A10}$***

An  $L_{A10}$  level is the A-weighted noise level which is exceeded for 10 percent of the measurement period and is considered to represent the “intrusive” noise level.

**$L_{Aeq}$**

The equivalent steady state A-weighted sound level ("equal energy") in decibels which, in a specified time period, contains the same acoustic energy as the time-varying level during the same period. It is considered to represent the "average" noise level.

**$L_{A90}$**

An  $L_{A90}$  level is the A-weighted noise level which is exceeded for 90 percent of the measurement period and is considered to represent the "background" noise level.

**One-Third-Octave Band**

Means a band of frequencies spanning one-third of an octave and having a centre frequency between 25 Hz and 20 000 Hz inclusive.

**$L_{Amax}$  assigned level**

Means an assigned level which, measured as a  $L_{A\ Slow}$  value, is not to be exceeded at any time.

**$L_{A1}$  assigned level**

Means an assigned level which, measured as a  $L_{A\ Slow}$  value, is not to be exceeded for more than 1% of the representative assessment period.

**$L_{A10}$  assigned level**

Means an assigned level which, measured as a  $L_{A\ Slow}$  value, is not to be exceeded for more than 10% of the representative assessment period.

**Tonal Noise**

A tonal noise source can be described as a source that has a distinctive noise emission in one or more frequencies. An example would be whining or droning. The quantitative definition of tonality is:

the presence in the noise emission of tonal characteristics where the difference between -

- (a) the A-weighted sound pressure level in any one-third octave band; and
- (b) the arithmetic average of the A-weighted sound pressure levels in the 2 adjacent one-third octave bands,

is greater than 3 dB when the sound pressure levels are determined as  $L_{Aeq,T}$  levels where the time period T is greater than 10% of the representative assessment period, or greater than 8 dB at any time when the sound pressure levels are determined as  $L_{A\ Slow}$  levels.

This is relatively common in most noise sources.

**Modulating Noise**

A modulating source is regular, cyclic and audible and is present for at least 10% of the measurement period. The quantitative definition of modulation is:

a variation in the emission of noise that —

- (a) is more than 3 dB  $L_{A\ Fast}$  or is more than 3 dB  $L_{A\ Fast}$  in any one-third octave band;
- (b) is present for at least 10% of the representative.



### **Impulsive Noise**

An impulsive noise source has a short-term banging, clunking or explosive sound. The quantitative definition of impulsiveness is:

a variation in the emission of a noise where the difference between  $L_{A\text{ peak}}$  and  $L_{A\text{ Max slow}}$  is more than 15 dB when determined for a single representative event;

### **Major Road**

Is a road with an estimated average daily traffic count of more than 15,000 vehicles.

### **Secondary / Minor Road**

Is a road with an estimated average daily traffic count of between 6,000 and 15,000 vehicles.

### **Influencing Factor (IF)**

$$= \frac{1}{10} (\% \text{ Type A}_{100} + \% \text{ Type A}_{450}) + \frac{1}{20} (\% \text{ Type B}_{100} + \% \text{ Type B}_{450})$$

where :

% Type A<sub>100</sub> = the percentage of industrial land within  
a 100m radius of the premises receiving the noise

% Type A<sub>450</sub> = the percentage of industrial land within  
a 450m radius of the premises receiving the noise

% Type B<sub>100</sub> = the percentage of commercial land within  
a 100m radius of the premises receiving the noise

% Type B<sub>450</sub> = the percentage of commercial land within  
a 450m radius of the premises receiving the noise

+ Traffic Factor (maximum of 6 dB)

= 2 for each secondary road within 100m

= 2 for each major road within 450m

= 6 for each major road within 100m

### **Representative Assessment Period**

Means a period of time not less than 15 minutes, and not exceeding four hours, determined by an inspector or authorised person to be appropriate for the assessment of a noise emission, having regard to the type and nature of the noise emission.

### **Background Noise**

Background noise or residual noise is the noise level from sources other than the source of concern. When measuring environmental noise, residual sound is often a problem. One reason is that regulations often require that the noise from different types of sources be dealt with separately. This separation, e.g. of traffic noise from industrial noise, is often difficult to accomplish in practice. Another reason is that the measurements are normally carried out outdoors. Wind-induced noise, directly on the microphone and indirectly on trees, buildings, etc., may also affect the result. The character of these noise sources can make it difficult or even impossible to carry out any corrections.

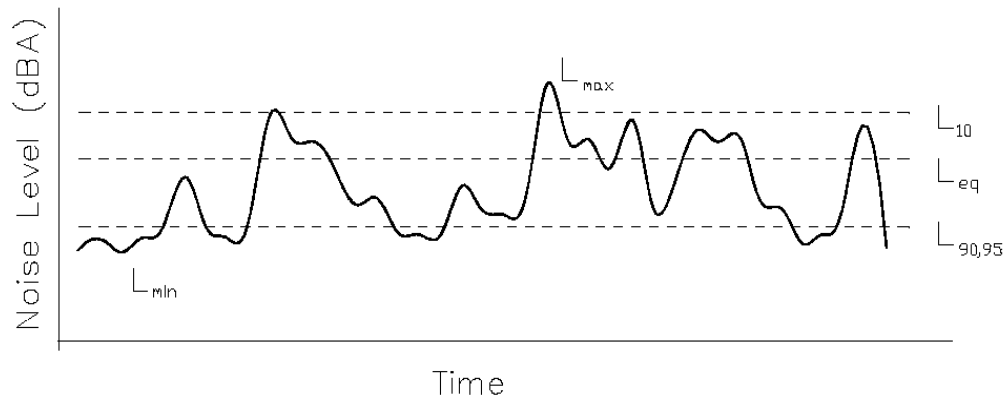
### **Ambient Noise**

Means the level of noise from all sources, including background noise from near and far and the source of interest.

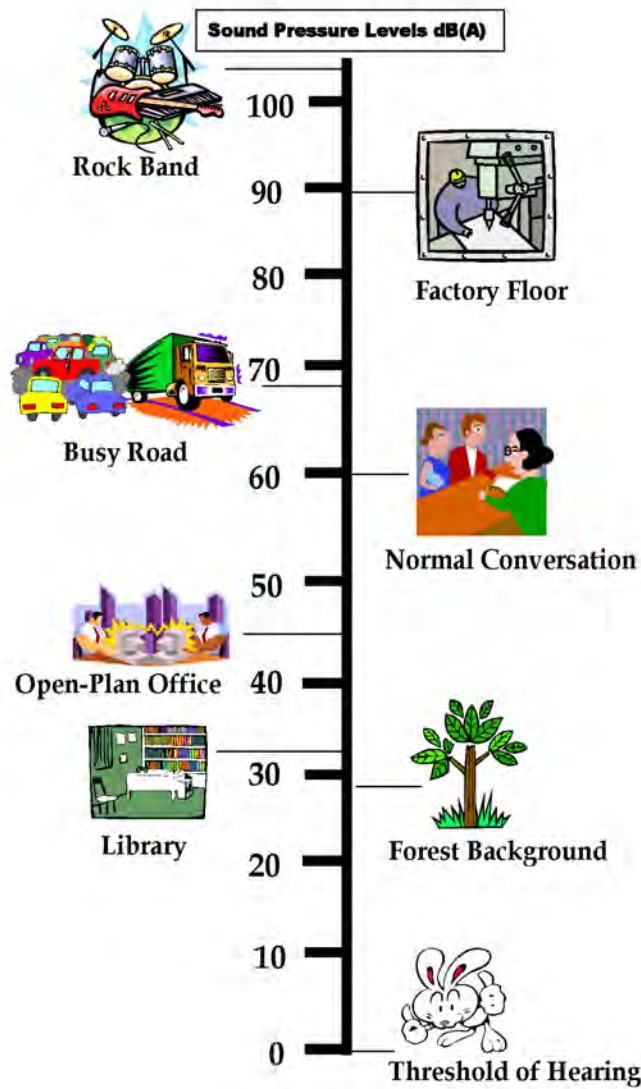
### **Specific Noise**

Relates to the component of the ambient noise that is of interest. This can be referred to as the noise of concern or the noise of interest.

### Chart of Noise Level Descriptors



### Typical Noise Levels



## Appendix 5

# LSP Bushfire Management Plan

---

# Appendix 4

## Bushfire Management Plan





**Smith Bushfire Consultants** Pty Ltd

# **BUSHFIRE MANAGEMENT PLAN**

**Lot 1 Baldivis Road, Baldivis**  
City of Rockingham



Prepared by Ralph Smith  
**SMITH CONSULTING**  
**BPAD 27541**  
**smith.consulting@bigpond.com**  
**0458 292 280**

Site visited 24 August 2020; Report completed 13 January 2021

# Bushfire management plan/Statement addressing the Bushfire Protection Criteria coversheet

Site address: Lot 1 Baldvis Road, Baldvis

Site visit: Yes ☒ No ☐

Date of site visit (if applicable): Day 24 Month August Year 2020

Report author: Ralph Smith

WA BPAD accreditation level (please circle):

Not accredited ☐ Level 1 BAL assessor ☐ Level 2 practitioner ☒ Level 3 practitioner ☐

If accredited please provide the following.

BPAD accreditation number: 27541 Accreditation expiry: Month August Year 2021

Bushfire management plan version number: 4.1

Bushfire management plan date: Day 13 Month January Year 2021

Client/business name: MG Property Pty Ltd

	Yes	No
Has the BAL been calculated by a method other than method 1 as outlined in AS3959 (tick no if AS3959 method 1 has been used to calculate the BAL)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Have any of the bushfire protection criteria elements been addressed through the use of a performance principle (tick no if only acceptable solutions have been used to address all of the bushfire protection criteria elements)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Is the proposal any of the following (see [SPP 3.7 for definitions](#))?

	Yes	No
Unavoidable development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Strategic planning proposal (including rezoning applications)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Minor development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
High risk land-use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vulnerable land-use	<input type="checkbox"/>	<input checked="" type="checkbox"/>

None of the above ☐

**Note:** Only if one (or more) of the above answers in the tables is yes should the decision maker (e.g. local government or the WAPC) refer the proposal to DFES for comment.

Why has it been given one of the above listed classifications (E.g. Considered vulnerable land-use as the development is for accommodation of the elderly, etc.)?

The information provided within this bushfire management plan to the best of my knowledge is true and correct:

Signature of report author

*R. Smith*

Date 13 January 2021



## NOTE

This Bushfire Management Plan has been developed by Smith Bushfire Consultants Pty Ltd for the exclusive use of the client MGP Property and their agents.

The plan has been compiled using the standard methodologies required by Western Australian government departments and agencies. It is based on the following:

- *State Planning Policy 3.7 Planning in Bushfire Prone Areas (SPP 3.7)*, December 2015
- *Guidelines for Planning in Bushfire Prone Areas*, December 2017
- *Australian Standard 3959 – Construction of buildings in bushfire-prone areas*, November 2018

The techniques described in the above publications have been applied in the appropriate areas and circumstances for the development of this document.

Where there was no public access the interpretation is based on photographic and satellite imagery, and a laser distance meter was used to measure distances and effective slope.

It is recommended that this Bushfire Management Plan be revised every five years to ensure that it remains relevant and in-line with current requirements. This will optimise protection. It is proposed that the property owners undertake the review.

## DISCLAIMER

This Bushfire Management Plan has been prepared in good faith. It is derived from sources believed to be reliable and accurate at the time of publication. Nevertheless, this plan is distributed on the terms and understanding that the author is not responsible for results of any actions taken based on information in this publication or for any error or omission from this publication.

Smith Bushfire Consultants Pty Ltd has exercised due and customary care in the preparation of this Bushfire Management Plan and has not, unless specifically stated, independently verified information provided by others.

Any recommendations, opinions or findings stated in this report are based on circumstances and facts as they existed at the time Smith Bushfire Consultants Pty Ltd performed the work. Any changes in such circumstances and facts upon which this document is based may adversely affect any recommendations, opinions or findings contained in this plan.

## Document control

Report Version	Purpose	Author/reviewer and accreditation details	Date Submitted
1	Support the development	Ralph Smith	27/11/2019
2	Minor text amendments following DFES comments	Ralph Smith	3/06/2020
3	Revised layout	Ralph Smith	27/08/2020
3.1	Minor text amendments staging plan added	Ralph Smith	18/11/2020
4	Minor text amendments staging plan and revised maps added	Ralph Smith	21/12/2020
4.1	Minor text and map amendments	Ralph Smith	13/1/2021

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## Section 1: Proposal Details

The proposal is to subdivide Lot 1 Baldvis (Fifty) Road into a number of smaller lots and commercial facilities. The land is zoned development under the Town Planning Scheme 2. The land is declared as bushfire prone. There will be a staged development where stage three will not occur until the poultry farm odour buffer is removed. The grassland vegetation within the buffer zone will be managed or cleared to ensure that the BAL rating is not increased above BAL-12.5. This will be a minimum of 17 metres in width.



### Subdivision Plan

Lot 1 Fifty Road, Baldvis

Date: 19 Sep 2019 Scale: 1:1000 @ A3 File: 19-338 ST-1 A Staff: JP GW Checked: GW

**element.**

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PO Box 1070, Chisholm, Victoria 3190  
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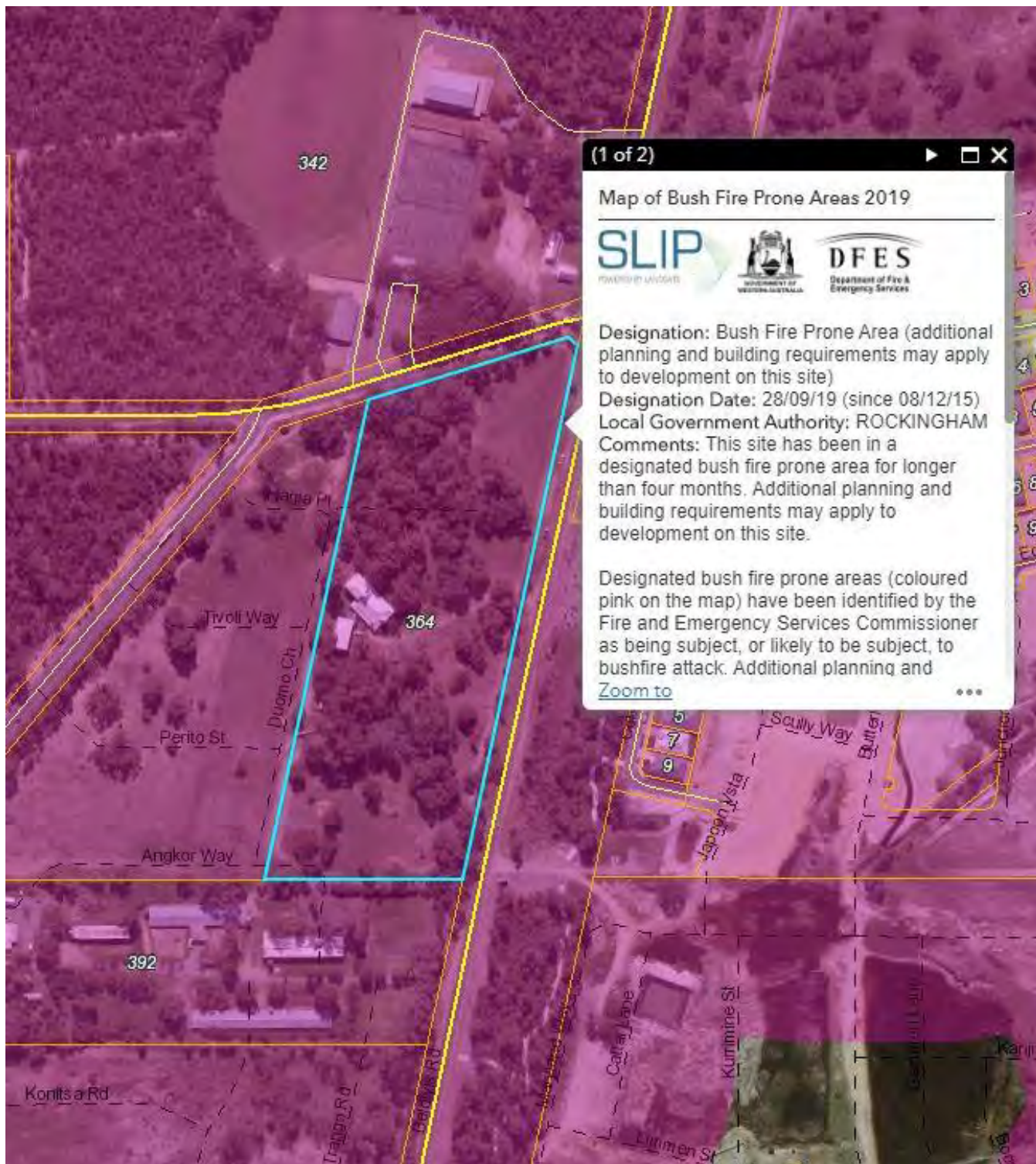
Figure 1. A copy of the site plan as provided with the development application.



This development site is part of the significant development of the expanded area and is declared as bushfire prone. This development site will be cleared of the grassland surface vegetation, but maintaining identified significant trees, ready for the construction of homes and associated infrastructure. Additional access will be provided during the subdivision stage of the development.

The public area spaces (POS) and drainage basins will all be developed as a woodland to ensure appropriate public amenity and drainage, but this will add the bushfire threat to the standards in AS 3959 as the potential head fire width will be significantly less than the default within AS 3959 of 100 metres.

There is an odour buffer north of the poultry farm which impacts the development site. The grass vegetation in the buffer odour area will be managed to a maximum of 10 cm in height during the bushfire season.



**Figure 2.** Aerial photo of the bushfire prone area for the subject site.







## Section 2: Environmental Considerations

### Subsection 2.1: Native Vegetation – modification and clearing

This development site will be partially cleared of overstorey, but maintain identified significant trees. The site is ready for the construction of homes and associated infrastructure to commence. The indicative vegetation and tree clearing plan demonstrates the very limited potential impact of the subdivision on the natural environment, but grassland will be cleared.

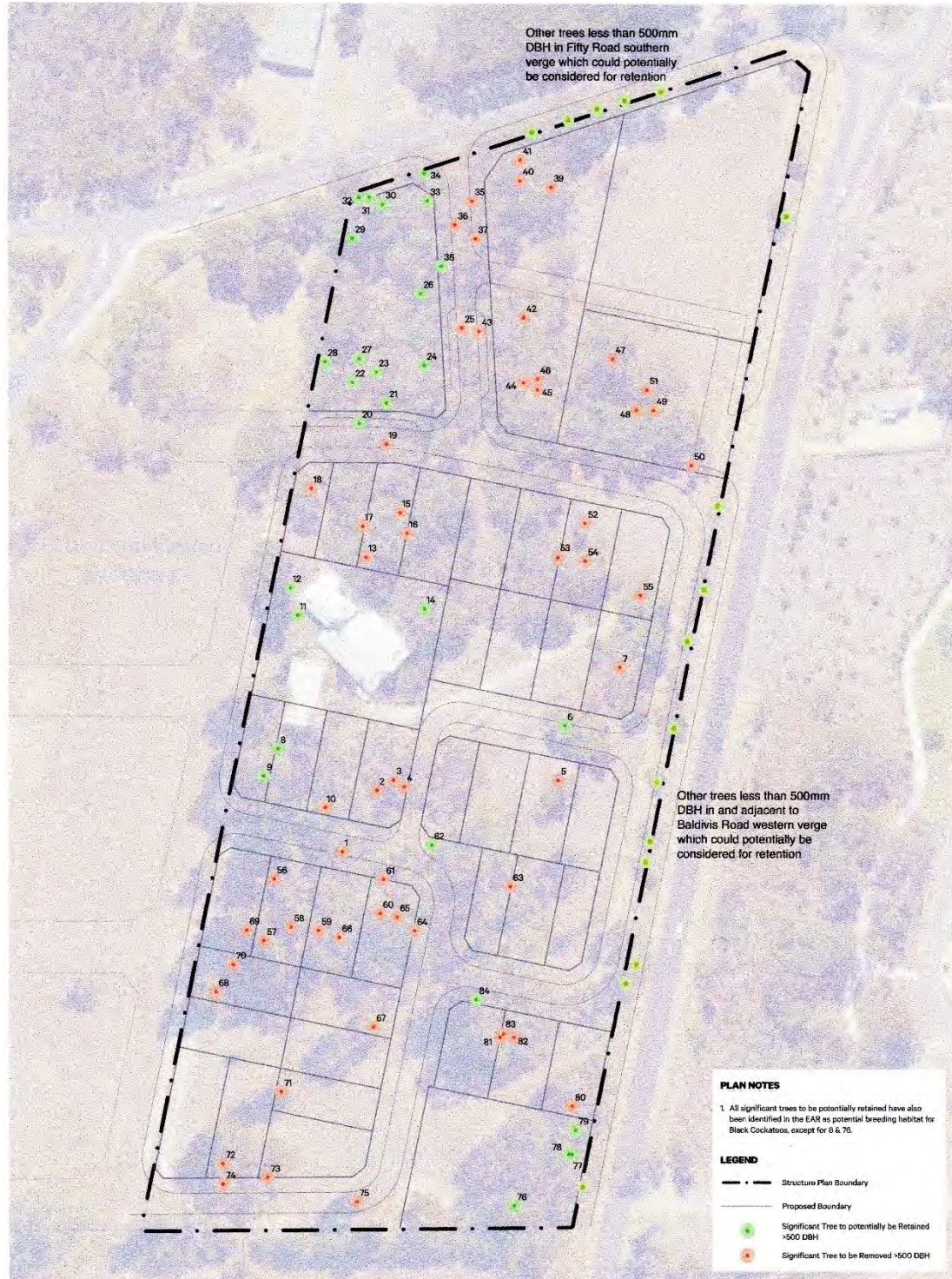


Figure 4. Tree retention plan.



## **Subsection 2.2: Re-vegetation/Landscape Plans**

The public open spaces (POS) and drainage basins will all be developed as a woodland vegetation to ensure appropriate public amenity and drainage. This woodland will increase the bushfire threat, but not to the same level as AS 3959 default level as the head fire width will be significantly less than the standard 100 metres in AS 3959. Appendix three shows the revegetation in more detail.

## Section 3: Bushfire assessment results

### Subsection 3.1: Assessment Inputs

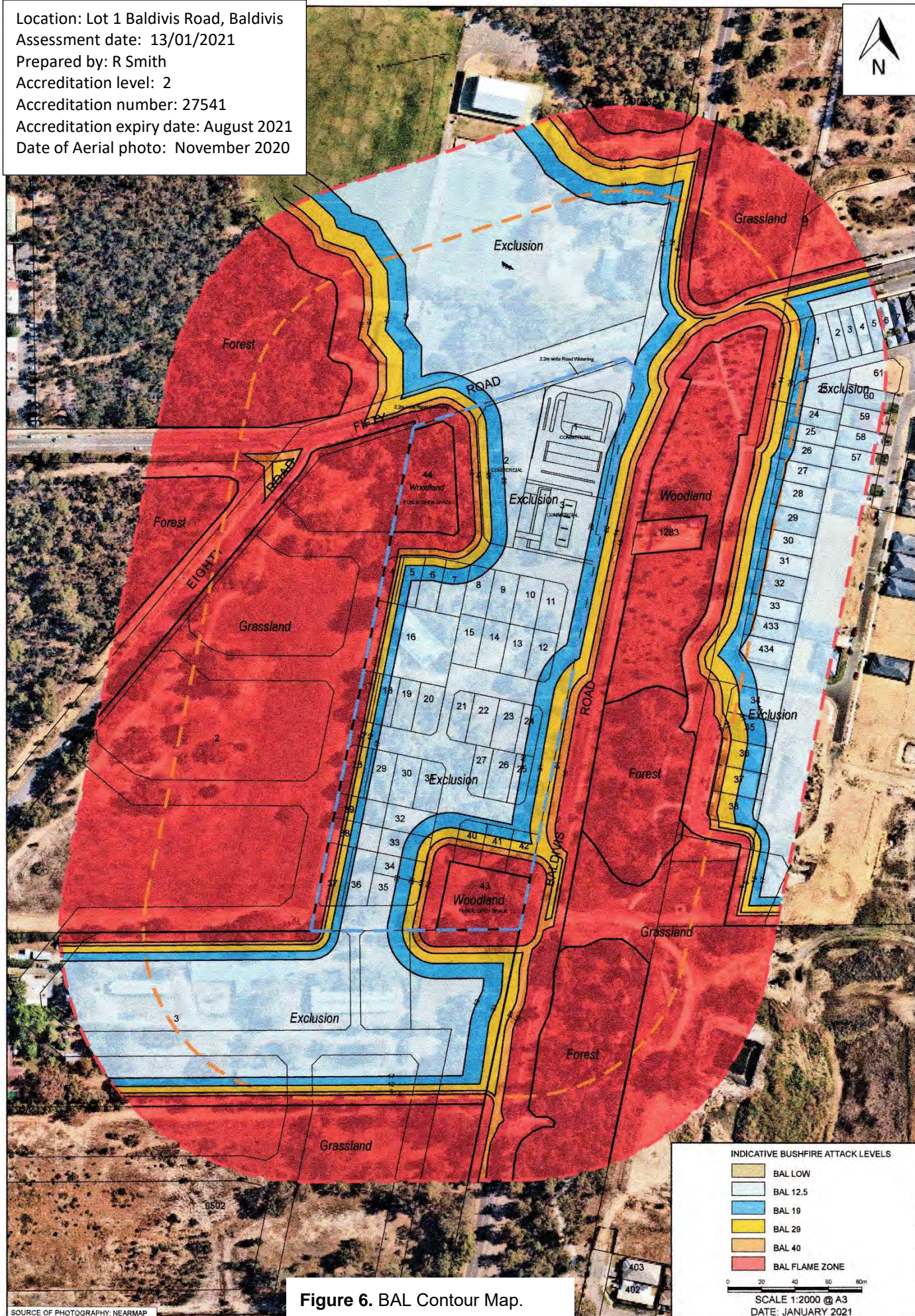
Location: Lot 1 Baldvis Road, Baldvis  
Assessment date: 13/01/2021  
Prepared by: R Smith  
Accreditation level: 2  
Accreditation number: 27541  
Accreditation expiry date: August 2021  
Date of Aerial photo: November 2020



Figure 5. Vegetation classification map



Location: Lot 1 Baldvis Road, Baldvis  
 Assessment date: 13/01/2021  
 Prepared by: R Smith  
 Accreditation level: 2  
 Accreditation number: 27541  
 Accreditation expiry date: August 2021  
 Date of Aerial photo: November 2020





## Vegetation classification

### Plot 1

Exclusion

Clause 2.2.3.3 (e) and (f)



**Photo ID: Photo 1** The excluded vegetation north of the development site.



**Photo ID: Photo 2** The recreation facilities and carpark north of the development site.



**Photo ID: Photo 3** The low threat vegetation north of the development site and used as parking for the recreation site.



**Photo ID: Photo 4** The poultry farm south of the development site.



**Photo ID: Photo 5** The poultry farm south of the development site.



**Photo ID: Photo 6** The current dwelling and APZ in the development site.





**Photo ID: Photo 7** The road infrastructure and dwellings north-east of the development site.



**Photo ID: Photo 8** The road infrastructure, parkland and dwellings east of the development site.



**Photo ID: Photo 9** The Telstra infrastructure east of Baldivis Road.

## Plot 2

Class B – Woodland (AS 3959 vegetation classification B – 05)



**Photo ID: Photo 10** The woodland east of the development site.



**Photo ID: Photo 11** The immature woodland with a grass surface vegetation east of development site.



### Plot 3

Class A – Forest (AS 3959 vegetation classification A – 03)



**Photo ID: Photo 12** The forest vegetation to the east of the development site.



**Photo ID: Photo 13** The forest vegetation to the east of the development site



**Photo ID: Photo 14** The forest vegetation to the north-west of the development site.



**Photo ID: Photo 15** The forest vegetation to the north-west of the development site.



**Photo ID: Photo 16** The forest vegetation to the west of development site.



#### Plot 4

Class G – Grassland (AS 3959 vegetation classification G – 21)



**Photo ID: Photo 17** The grassland vegetation west of the development site.



**Photo ID: Photo 18** The grassland vegetation to the west of the development site. The poultry farm is in the background.



**Photo ID: Photo 19** The grassland vegetation north-east of development site.



**Photo ID: Photo 20** The grass surface vegetation to the east of the development site.



**Photo ID: Photo 21** The grassland to the east of the development site.



**Photo ID: Photo 22** The grassland vegetation to the south of the development site.





24/08/2020 12:42:45 PM (+8.0 hrs) Dir=ESE Lat=-32.31172 Lon=115.82042 Alt=0m MSL WGS 1984

**Photo ID: Photo 23** The grassland south of the development site.

## Notes to Accompany Vegetation Classification

### Plot 1

Exclusion

Clause 2.2.3.3 (e) and (f)

This plot comprises the houses, sheds, gardens, asset protection zones, infrastructure and cleared land within the adjacent land. It also includes the bitumen access roads that service the suburb. This plot includes the recreation site and infrastructure to the north. Portions of the parking area are under the trees as shown in photographs 2 and 3. This area under the trees is around 1708 m<sup>2</sup> and the surface grassland is short and sparse and therefore an isolated and reduced fuel load.

### Plot 2

Class B – Woodland (AS 3959 vegetation classification B – 05)

This plot comprises the woodland area to the east of the development site. This is spaced overstorey species planting principally being *Marri* (*Corymbia callophylla*). There is very limited scrub in the understorey and surface vegetation which is now principally a grass surface vegetation. This site has been planted with the overstorey trees and appears to be spaced to achieve a foliage cover density of less than 30% at maturity.

Table 1. Woodland classification and its foliage cover.

	<b>Woodlands</b>	<b>Open woodlands</b>	<b>Low woodlands</b>	<b>Low open woodlands</b>
	trees 10–30 m	trees 10–30 m	trees <10 m	trees <10 m
	10–30% foliage cover	less than 10% foliage cover	10–30% foliage cover	less than 10% foliage cover
low trees & tall shrubs	✓	✓	–	–
tall shrubs	–	–	✓	✓
low shrubs	✓	–	✓	✓
hummock grasses	✓	✓	✓	✓
tussock grasses	✓	✓	✓	✓
other herbaceous plants	–	✓	✓	✓
no significant lower stratum	–	–	–	✓

The four broad types of woodland in Australia are distinguished by the height of the trees and their foliage cover. Within these categories there may be a range of understorey and ground cover types.

Source: Hobbs, 2002 using information from Specht, 1970 and AUSLIG, 1990.

Source: David Lindenmayer, Mason Crane & Daniel Michael, (2005), *Woodlands A Disappearing Landscape*, CSIRO Publishing, Collingwood, Victoria.



The woodland on this site has tussock grasses and very wide spaced low shrubs. It also contains very wide spaced overstorey species. There are no indications on the site that it will develop into anything other than a woodland with less than 30% crown foliage cover.

**Plot 3**  
 Class A – Forest (AS 3959 vegetation classification A – 03)

This plot has been classified as a forest vegetation with a multi-tiered scrub understorey. Many of the trees and scrub are mature plants. The fringe between the woodland and forest vegetation east of Baldvis Road appears to have had the surface grassland treated with a herbicide to reduce the grassland.

**Plot 4**  
 Class G – Grassland (AS 3959 vegetation classification G – 21)

This plot comprises the grassland to the west of the development site. The grassland is separated from the development site by the firebreak on the neighbouring land.

It also includes the grassland east of Baldvis Road. This is only a small area within the assessment area, but a large contiguous area to the east and north.

**Slope**

The orange line on the slope aerals show the surface slope and the blue line the vegetation and buildings above the surface.



Figure 7. Aerial photo of slope to the west (3.26°).

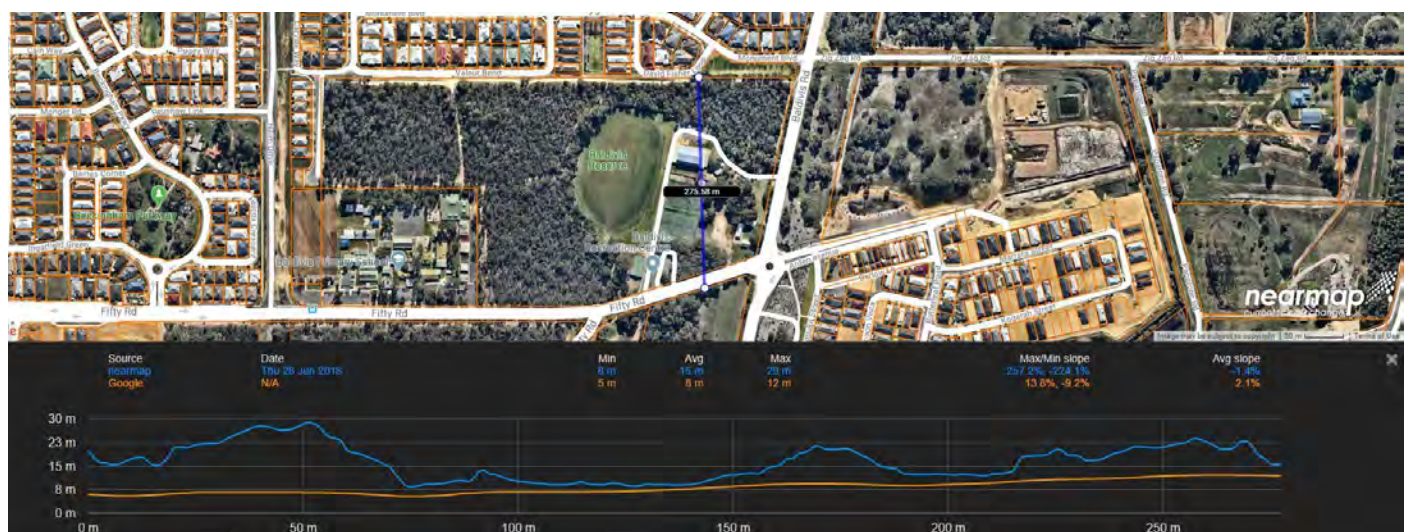


Figure 8. Aerial photo of slope to the north (3.09°).



Figure 9. Aerial photo of slope to the east (3.21°).

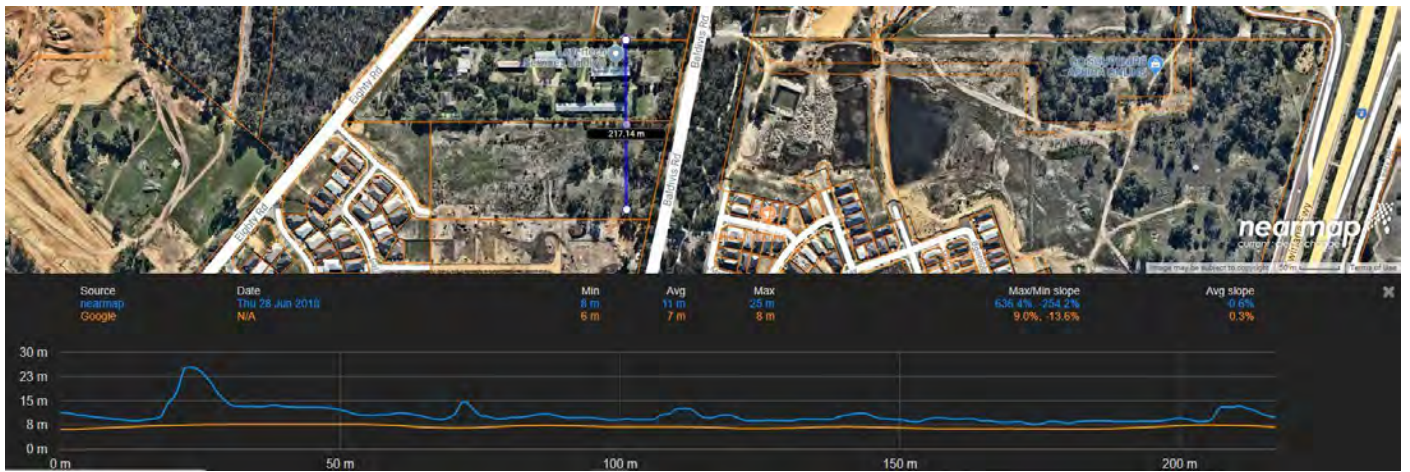


Figure 10. Aerial photo of slope to the south (2.46°).





**Figure 11.** Two-metre contour lines.

### Subsection 3.2: Assessment outputs

Method 1 BAL Determination				
Vegetation Area/Plot	Applied Vegetation Classification	Effective Slope Under the Classified Vegetation (degrees)	Separation Distance to the Classified Vegetation (metres)	Bushfire Attack Level
1	Exclusion	Not applicable	Not applicable	LOW
2	Woodland	Level	25	19
3	Forest	<5° upslope	56	12.5
4	Grassland	Level	3	FZ
Determined Bushfire Attack Level				Varies by lot

The above information is based on the current vegetation surrounding the development site and has considered the ongoing development and vegetation clearing of the development site. The BAL ratings may drop as the vegetation management and clearing for development progresses and where appropriate lots should have specific BAL assessments completed prior to building permits being issued. This is particularly relevant with the land to the west of the subdivision site.

All lots within the current odour buffer zone and/or rated at BAL–FZ and/or BAL–40 BAL rating will be deferred from sale until these lots achieve a BAL rating of BAL–29 or less. As shown in the proposed subdivision plan it is proposed to ultimately develop the neighbouring land to the west. When this occurs, or the vegetation is removed or managed in a 'low threat vegetation' status, the BAL–FZ and/or BAL–40 BAL rated lots can be sold.

### Section 4: Identification of bushfire hazard issues

The principle bushfire hazard is the native vegetation to the north-west and east of the development site. Both vegetation sites are separated from the development site by bitumen roads. Requiring the future dwellings to be constructed to the appropriate standard will further enhance the protection of the community. The development of the public open spaces and drainage areas to 'low threat vegetation' status be such that they will not contribute to any potential bushfire threat.

The revegetation to the east of Baldivis Road has been revegetated to become a woodland as a direct consequence of the tree planting density. The surface vegetation does not appear dense enough to develop into a full multi-tiered scrub understorey, but unless the revegetation tree plantings collapse the site will have greater than 10%, but less than 30% crown overstorey. The BAL contour map and vegetation classification maps therefore show the vegetation classified as a woodland.

The grassland on the development site will be managed so that it is kept to a maximum height of 10 centimetres during the bushfire season whilst the staged development is occurring. This will ensure that the vegetation within the development site, including within the odour buffer zone can be classified as an 'Exclusion – Low threat Vegetation' in accordance with AS 3959 criteria section Clause 2.2.3.3 (f).



## Section 5: Assessment against the Bushfire Protection Criteria

### Subsection 5.1: Compliance

Bushfire protection criteria	Method of Compliance	Proposed bushfire management strategies
	Acceptable solutions	
<b>Element 1: Location</b>	A1.1 Development location	This development is located and will be developed in such a manner that on completion most lots will be at BAL–29 or lower. It is acknowledged that a small number of lots will initially be BAL rated above the upper limit of BAL–29. These lots will not be offered for sale until they achieve BAL–29 or lower. There will not be any APZs required on these lots.
<b>Element 2: Siting and design</b>	A2.1 Asset Protection Zone (APZ)	
<b>Element 3: Vehicular access</b>	A3.1 Two access routes	There will be multiple access options that facilitate movement to a range of alternative locations and directions of travel.
	A3.2 Public road	All public roads will be constructed to the appropriate standards as required in the Guidelines.
	A3.3 Cul-de-sac (including a dead-end-road)	There will be no dead-end roads in the subdivision that exceed the requirements in the Guidelines.
	A3.4 Battle-axe	Not applicable.
	A3.5 Private driveway longer than 50 m	Not applicable.
	A3.6 Emergency access way	A temporary EAW will be developed in Stage 2 during the subdivision phase. It is anticipated that it will be in the vicinity of Lots 24 or 25 and link to Baldivis Road, or as determined in consultation with the City of Rockingham.
	A3.7 Fire service access routes (perimeter roads)	Not applicable.
	A3.8 Firebreak width	Firebreaks will be established and maintained in accordance with the City's firebreak and fuel load notice.
<b>Element 4: Water</b>	A4.1 Reticulated areas	The site will be serviced with reticulated mains water in accordance with the State Government requirements.
	A4.2 Non-reticulated areas	Not applicable.
	A4.3 Individual lots within non-reticulated areas (Only for use if creating 1 additional lot and cannot be applied cumulatively)	Not applicable.

## Subsection 5.2: Additional management strategies



### Legend

- 1. Subject land ---
- 2. Cadastre ---

### Notes

1. AS 3959 construction standards apply to the areas within the declared bushfire prone areas and where a lot is BAL rated at BAL-12.5 or above.
2. The site will have reticulated mains water supply.
3. Forest to the west and east is the primary vegetation plot that provide an ongoing bushfire threat.
4. The site will be partially cleared during the development.
5. The POS will all be developed as 'woodland vegetation'.
6. The revegetated area to the east of Baldvis Road will grow and become a woodland (crown cover >10%, but <30% without a scrub and grassland understorey).
7. The poultry farm, which is located on the southern boundary, has a protective odour buffer, which precludes development of some lots at this stage.
8. Indicative location of the additional access via the EAW which will be determined at subdivision stage.
9. Grassland surface areas will be cleared as a component of the development. As there will be a staged development the non-cleared grassland will be managed to 'low threat vegetation' during the bushfire season.

Location details: Baldvis Road, Baldvis  
 Local government area: City of Rockingham  
 Assessment date: 21 December 2020  
 Prepared by: Ralph Smith  
 Accreditation level: 2    Accreditation number: 27541  
 Accreditation Expiry Date: August 2021  
 Date of Aerial photo: November 2020  
 Version No: 4.1

**Figure 12.** Spatial representation of bushfire management strategies.



## Section 6: Responsibilities for Implementation and Management of the Bushfire Measures

DEVELOPER/LANDOWNER – PRIOR TO SUBDIVISION CLEARANCE	
No.	Implementation Action
1	Install the roads and associated signs to the standards within the Guidelines.
2	Install the required water supply that meets State Government's specifications.
3	<p>A notification, pursuant to Section 165 of the <i>Planning and Development Act 2005</i> is to be placed on the certificate(s) of title of the proposed lot(s) with a Bushfire Attack Level (BAL) rating of 12.5 or above, advising of the existence of a hazard or other factor. Notice of this notification is to be included on the diagram or plan of survey (deposited plan). The notification is to state as follows:</p> <p><i>"This land is within a bushfire prone area as designated by an Order made by the Fire and Emergency Services Commissioner and may be subject to a Bushfire Management Plan. Additional planning and building requirements may apply to development on this land."</i></p> <p>(Western Australian Planning Commission)</p>
4	Temporary emergency access way and associated signage to be installed to the standards within the Guidelines.

LANDOWNER/OCCUPIER – ONGOING MANAGEMENT	
No.	Management Action
1	Comply with the relevant local government annual firebreak notice issued under s33 of the Bush Fires Act 1954.
2	Manage the grassland so that it is 'low threat vegetation' during the bushfire season

## Appendix 1

Vehicle technical requirements extracted from the Guidelines (page 68).

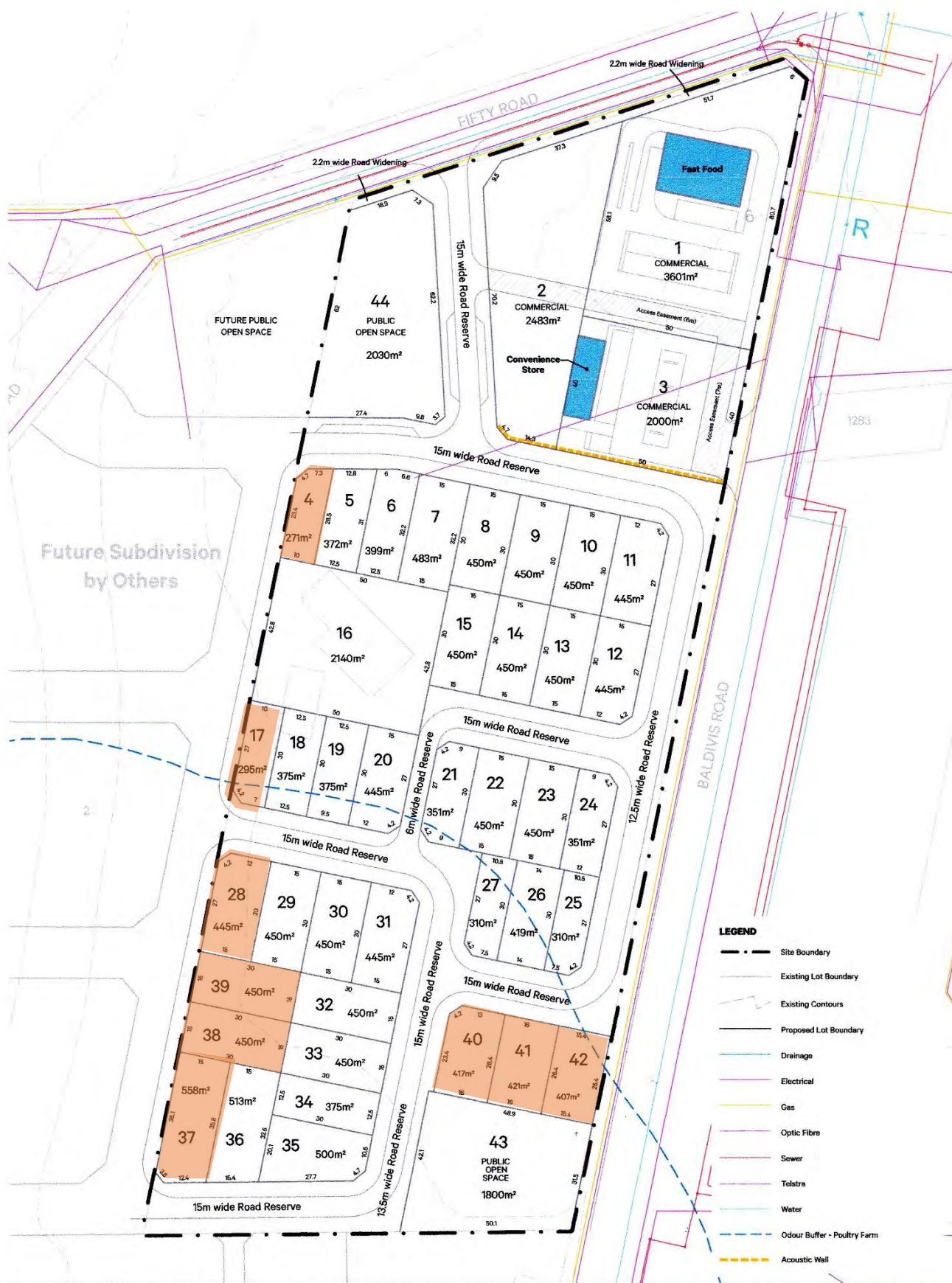
**Table 4:** Vehicular access technical requirements

<b>TECHNICAL REQUIREMENTS</b>	<b>1 Public road</b>	<b>2 Cul-de-sac</b>	<b>3 Private driveway</b>	<b>4 Emergency access way</b>	<b>5 Fire service access routes</b>
Minimum trafficable surface (m)	6*	6	4	6*	6*
Horizontal clearance (m)	6	6	6	6	6
Vertical clearance (m)	4.5	N/A	4.5	4.5	4.5
Maximum grade <50 metres	1 in 10	1 in 10	1 in 10	1 in 10	1 in 10
Minimum weight capacity (t)	15	15	15	15	15
Maximum crossfall	1 in 33	1 in 33	1 in 33	1 in 33	1 in 33
Curves minimum inner radius (m)	8.5	8.5	8.5	8.5	8.5
* Refer to E3.2 Public roads: Trafficable surface					



## Appendix 2

Plan showing the lots currently rated as greater than BAL-29 and deferred from sale until a lower BAL rating is possible through vegetation management or the placement of the dwelling on the lot is achieved.



## Subdivision Plan

Lot 1 Fifty Road, Baldvis

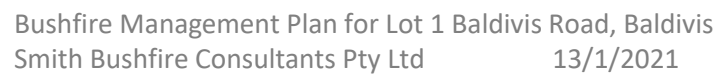
Date: 19 Sep 2019 Scale: 1:1000 @ A3 File: 19-339 ST-1 A Staff: JP GW Checked: GW

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The Landscape Concept and Street Tree Plans for the POS north, POS south and the Drainage Basin.







## LOT 1, BALDIVIS ROAD

LANDSCAPE CONCEPT PLAN - POS SOUTH  
DECEMBER 2020

JOB NO. 1802501  
1:150 @ A1

C1.102  
0 1.5 3 6 9 15m  
REV D

LANDSCAPE ARCHITECTS  
454 ROSEBY RD. SUBIACO WA 6008  
T: (08) 9388 0566 E: [info@plane.com.au](mailto:info@plane.com.au)

LANDSCAPE ARCHITECTS

454 ROSEBY RD. SUBIACO WA 6008  
T: (08) 9388 0566 E: [info@plane.com.au](mailto:info@plane.com.au)





*Eucalyptus gomphocephala*  
- Tuart



*Ulmus parvifolia*  
- Chinese Elm

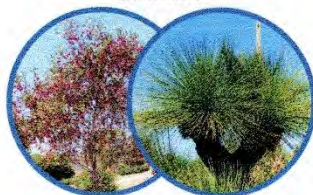


*Pyrus calleryana* 'Chanticleer'  
- Ornamental Pear



*Brachychiton acerifolius*  
- Illawarra Flame Tree

#### SMALL TREES



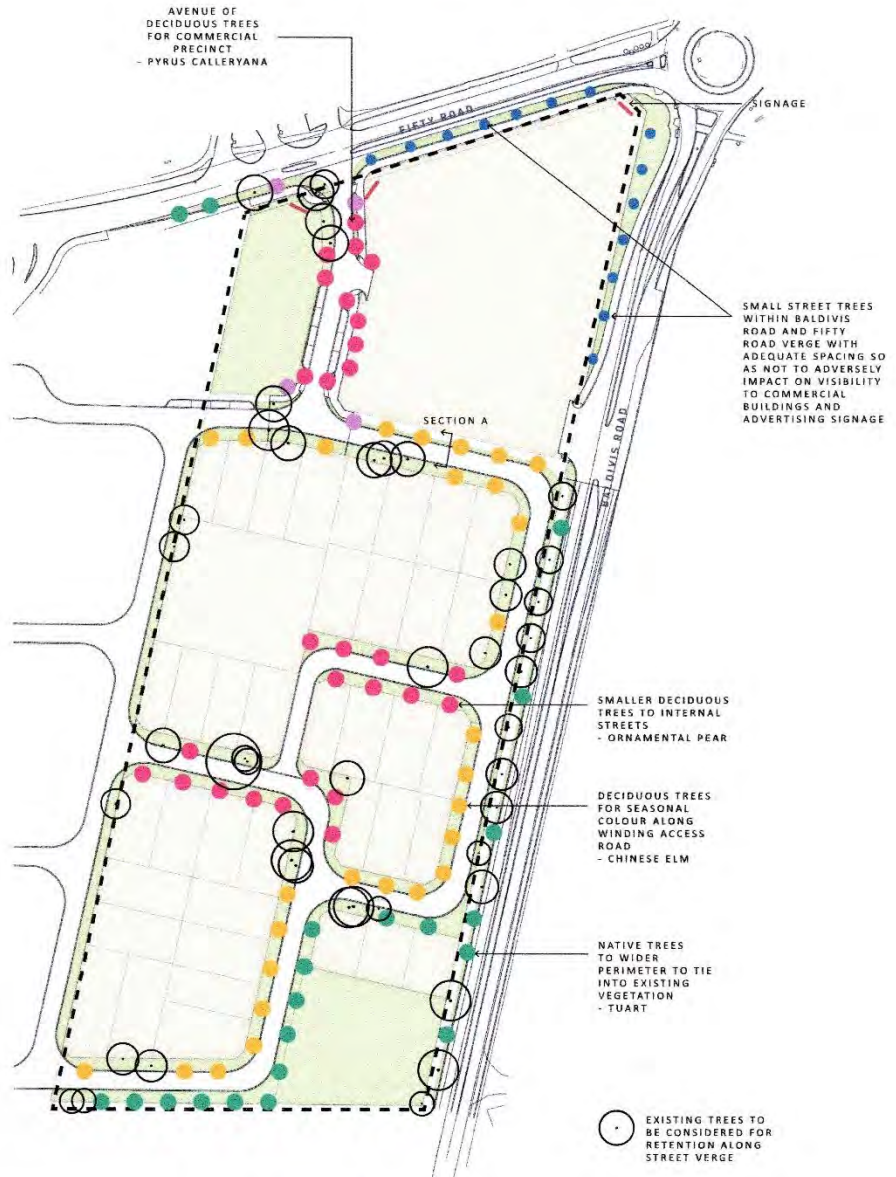
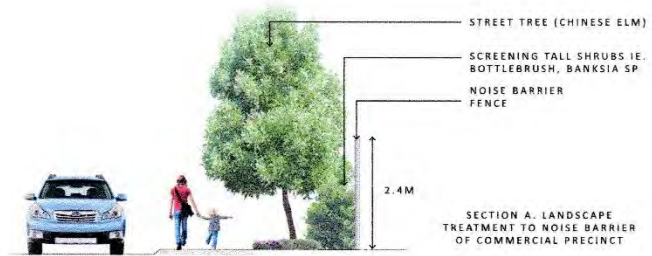
*Eucalyptus forrestiana*  
- Fuschia Gum



*Xanthorrhoea preiseii*  
- Grass Tree

#### LEGEND

- *Eucalyptus gomphocephala*  
(Tuart Tree - Fast growth rate - 30m tall x 10m wide)
- *Ulmus parvifolia*  
(Chinese Elm - Reasonably fast growth rate - 12m tall x 12m wide)
- *Pyrus calleryana* 'Chanticleer'  
(Ornamental Pear - Fast growth rate - 7m tall x 4m wide)
- *Brachychiton acerifolius*  
(Slow growth rate - 20m tall x 15m wide)
- *Eucalyptus forrestiana*  
(Fast growth rate - 5m tall x 3m wide)
- *Xanthorrhoea preiseii*  
(Slow growth rate - 4m tall x 3m wide)



#### INSTALLATION NOTES

- Street Trees to be installed by Developer.
- Street Trees are to be a minimum of 1.2m from back of kerb;
- All street trees planted in verges are to be mulched at base, to prevent damage and retain moisture. The stem is to be kept clear of mulch to prevent fungal attack;
- No street tree to be planted closer than 5m from any overhead service pole or street lamp;
- No street tree shall be planted closer than 2m from any side entry drainage pit or service chamber located within road reserve;
- All street trees shall be installed in accordance with the Utility Providers Code of Practice;
- If any tree is planted between the path and the kerb with insufficient space, the City will require them to be removed; and
- If a street tree is installed behind the lot boundary, the City will not maintain the tree in future
- Existing native trees should be retained as street trees in lieu of ornamental species where practical

#### LOT 1, BALDIVIS ROAD

STREET TREE MASTERPLAN  
DECEMBER 2020

JOB NO. 1802501 M1.101  
NTS

REV H

PREPARED BY: JESSICA COOPER  
DRAWN BY: JESSICA COOPER  
CHECKED BY: JESSICA COOPER



## Appendix 4

Location of the current fire hydrants.



## References

- Australian Building Codes Board, (2019). *Building Code of Australia*. Australian Building Codes Board, Sydney.
- City of Rockingham, (2020). *Fire Break Notice 2020/21*. Retrieved 28 August 2020 from <https://rockingham.wa.gov.au/forms-and-publications/your-services/fire-and-bush/fire-control-notice-2020-2021>
- Near map from <http://maps.au.nearmap.com/>
- Slope percentage to degrees conversion from <https://www.calcunation.com/calculator/slope-percent-conversion.php>
- Contour map from <https://maps.agric.wa.gov.au/nrm-info/>
- Department of Fire and Emergency Services (DFES), (2020). *Map of Bushfire Prone Areas*. Retrieved 4 November 2020 from <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/Pages/default.aspx>
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- Hydrant and water meter locations from <https://espatial.dplh.wa.gov.au/PlanWA/Index.html?viewer=PlanWA>
- Water Corporation, (2012). *Design Standard DS 63 Water Reticulation Standard Design and Construction Requirements for Water Reticulation System up to DN250*. Water Corporation, Perth.
- D Lindermayer, M Crane & D Michael. (2005). *Woodlands a Disappearing Landscape*, CSIRO Publishing, Collingwood.





# Appendix 13

## Commercial Concept Plan





USE	TPS	REQUIRED	PROVIDED
CONVENIENCE STORE	6 PER 100m <sup>2</sup> NLA	9.6	10
FAST FOOD SHOP	1 PER 11m <sup>2</sup> NLA	34.7	44
	6 PER 100m <sup>2</sup> NLA	14.4	12
LIQUOR SHOP	6 PER 100m <sup>2</sup> NLA	18	24
	TOTAL:	76.7	90

**! SUBJECT TO TOWN PLANNING SCHEME REVIEW.**



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NEDLANDS WA 6909

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FAX - 9386 6700  
admin@hindley.com.au

**PROPOSED COMMERCIAL DEVELOPMENT  
LOT 1, No. 364 BALDIVIS ROAD  
BALDIVIS, WA**

SCALE: 1:500

A3 SHEET

NO. DATE: **A 22.11.90** REVISION: **PENDING CALLS** DRAWN: **200** CHECK: **AJJ**

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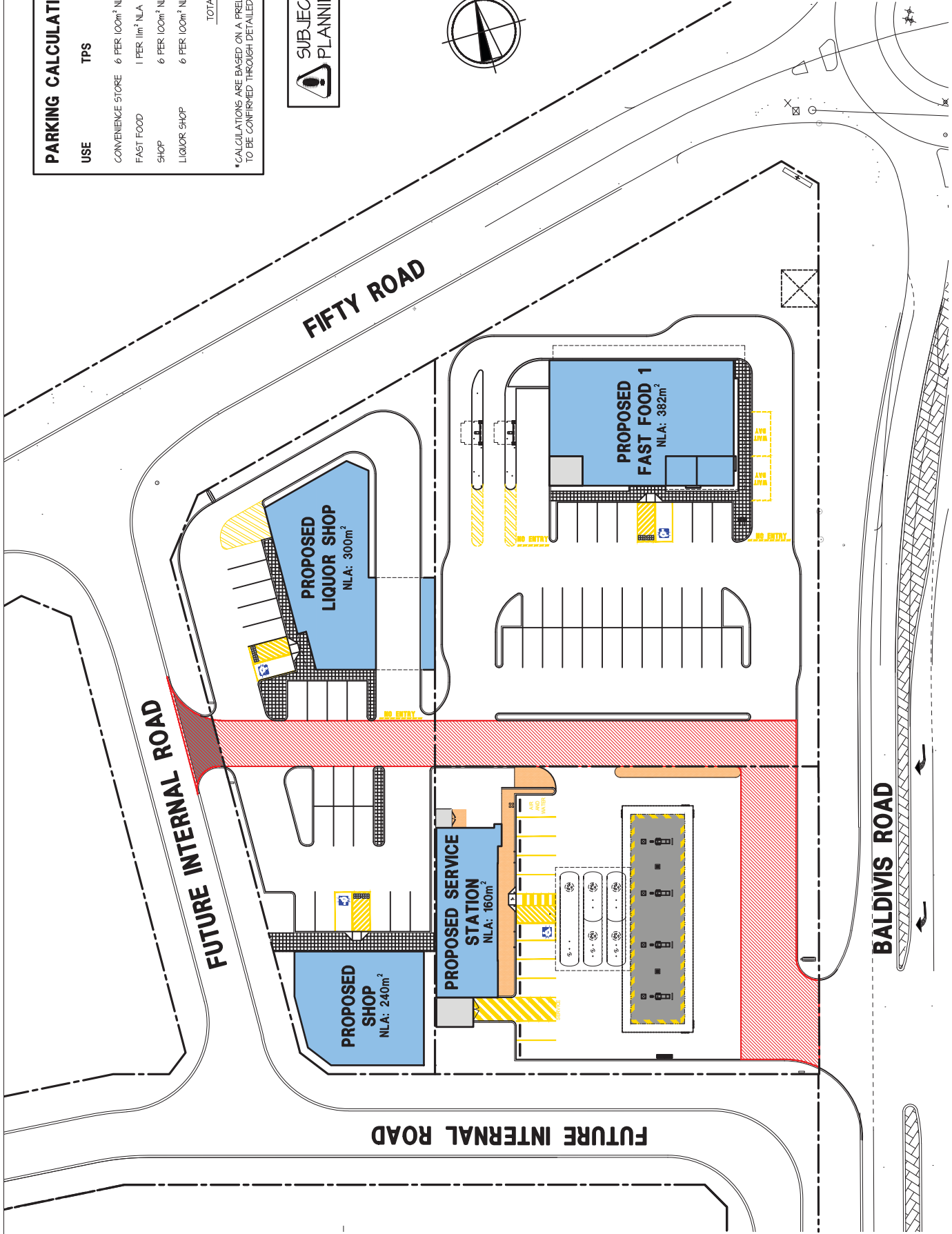
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AS TRUSTEE FOR  
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BOUNDARY BETWEEN CONTINUED WALL







Lot 1 Fifty Road Structure Plan



AMEND PLAN

Received  
02-Mar-2021

Supersedes all of the previous plan dated  
09-Sep-2020

FILE: 159811

LEGEND

- Application Area
- Existing Boundary
- Existing Contours / Survey
- Existing Water Infrastructure
- Existing Sewer Infrastructure
- Existing Power Infrastructure
- Proposed Boundary
- Indicative Future Boundary
- Proposed Easement (Right of Carriageway)

LOT SUMMARY

Subject Site	4.0432ha
<u>Existing</u> Lot 1	4.0432ha
<u>Proposed</u> Commercial Lots (4)	0.8395ha
Road Widening	0.0295ha
Balance Lot 9000	3.0322ha

D 29589  
2

125.3 125.3

FIFTY ROAD

Road Widening  
295m<sup>2</sup>  
51.69

Condition 2 - Restrictive  
Covenant requirement

2  
1566m<sup>2</sup>

1  
3563m<sup>2</sup>

44  
1222m<sup>2</sup>

3  
2044m<sup>2</sup>

Condition 2 - Restrictive  
Covenant requirement

ROAD 04 (15m Reserve)

Right of Carriageway Easement (6.0m)

Right of Carriageway Easement (6.4m)

BALDIVIS ROAD

Existing Dwelling

Existing Shed

Balance Lot 9000  
3.0322ha

Residential  
subdivision to be  
separate stage

Subdivision Plan  
Lot 1 Fifty Road, Baldivis

Date: 16 Sep 2020 Scale: 1:1000 @ A3 1:500 @ A1 File: 19-339 SU01A Staff: JP GW Checked: GW



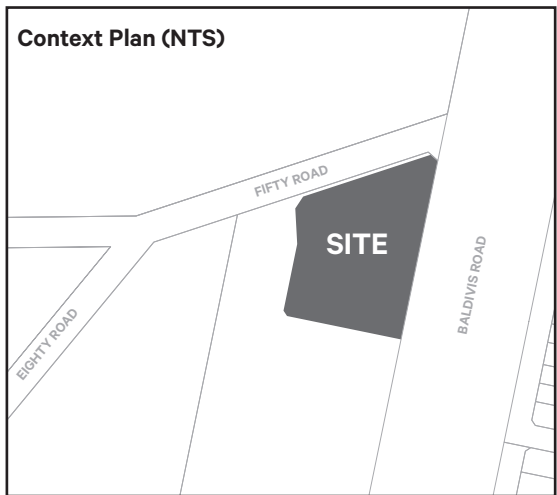
element.

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PO Box 7375 Cloisters Square, Perth Western Australia 6850.  
T. +61 8 9289 8300 | E. hello@elementwa.com.au elementwa.com.au



#### Legend

- LDP Boundary
- Indicative Building Location
- Primary Orientation
- Indicative Location for Drive Thru Service
- Indicative Service Station Canopy Location
- Indicative Service / Bin Area
- Pedestrian Link
- Car Parking and Access
- No Vehicle Access
- Vehicle Connection Required Internal to Site (Reciprocal Easement)
- Access / Egress - Full Movement
- Indicative Landscaping
- Screen Wall with Artwork
- Acoustic Screen Wall
- Existing trees to be considered for retention (Refer to Clause 16)
- Existing trees within Lot 4 and abutting roads to be considered for retention wherever possible subject to further detailed design



## Fifty Road Special Use Local Development Plan

### Application of Local Development Plan

The provisions of this Local Development Plan (LDP) are in addition to any requirements under Local Planning Scheme No. 2 (LPS2) and any development control provisions contained under a Structure Plan.

### Special Use Zone with 'Drive-Through' Uses

This LDP provides planning guidance for the establishment of a Special Use Zone that contains uses which are orientated towards providing customer 'drive through' service and includes such uses as (but not limited to) 'fast food' and 'shop' with drive-through. A 'service station' is also predominantly a customer car based use. Accordingly, the inclusion of a 'drive through' requires an alternative approach to the orientation of development, given the requirements for vehicular manoeuvring.

### Provisions

#### Built Form

- Orientation of development shall address streets and internal areas as shown in this LDP through:
  - appropriate building articulation;
  - buildings must present their main entrance as shown in the LDP primary orientation or be clearly defined and visible from the public realm;
  - variation in materials/colours/textures; and
  - provision of windows with glazing.
- Delivery, storage and loading areas are to be located and screened to minimise the visual impact from public streets.
- Street elevations shall be designed to create visual interest through building form, articulation of walls and openings, architectural features, texture and colour.
- Blank walls visible from the street and residential lots shall be treated through the use of architectural features, materials/painting/textures/artwork to provide variation and interest to the built form.
- The maximum building height shall be the equivalent of two storey development.
- Any buildings with a nil street setback to include a 2.5m wide awning for the entire length of the building where it fronts the street.

#### Landscaping

- A minimum 2.0m landscaping strip is to be provided abutting public streets generally in the location shown in the LDP.
- A minimum of 10% of the site area should be provided as landscaping. This may include areas providing shade trees and landscaping in car parking areas.
- Landscaping should be provided to screen service, loading and storage areas where practical.
- Shade trees for car parking areas shall be provided at a minimum rate of 1 tree per 8 car bays.

#### Approval

This LDP has been approved by the City under Schedule 2, Clause 52 (1)(A) of the Planning and Development (Local Planning Schemes) Regulations 2015.

Manager, Statutory Planning:

Date: 27th May 2021

### Pedestrian Access

- Internally within the LDP, the development shall provide for visual continuity of the pedestrian network to aid pedestrian legibility as shown in this LDP. Legibility and functionality of pedestrian links are to be reinforced using any one or combination of treatments, including painted pavement, texture difference, raised pavement, line markings or similar.

### Vehicle Access

- Vehicular site access is to be provided as shown in this LDP.
- Reciprocal Right of Carriageway (Easement in Gross) is to be provided as shown on the LDP providing adequate vehicular and pedestrian connection to all lots in the LDP.

### Fencing

- An acoustic/screen masonry wall with a minimum height of 1.8m is to be provided as shown in this LDP. The wall shall be articulated with decorative panels and/or artwork so that it does not present as a blank wall to the street.

### Noise Management

- A Development Application shall be accompanied by an Acoustic Assessment prepared by a suitably qualified acoustic consultant that outlines strategies to mitigate and manage the potential impacts of noise from delivery vehicles and activities on surrounding sensitive land use. This includes the provision of an acoustic masonry wall with a minimum height of 1.8m is to be provided as shown in this LDP.

### Existing Trees

- Existing trees shown on the LDP are identified as potential trees for retention subject to detailed design of future development. Where as part of future detailed design any existing tree(s) shown on this LDP are required to be removed to facilitate development, any existing tree(s) shown on this LDP that are proposed to be removed shall require the developer to provide a replacement tree of minimum 100L size at a ratio of one replacement tree to every one existing tree (shown on the LDP) proposed for removal. The planting location for any replacement tree(s) shall be within the subject site to the satisfaction of the City of Rockingham. The details of any replacement tree(s) shall be included as part of the City approved Landscaping Plan for the development. Replacement tree locations (and specimen type) for new tree plantings shall be as determined in accordance with the attached plan 'Pylon Sign Sightlines for Verge Tree Plantings - Dwg IO2 - B'.

### Bushfire Management

- The land subject to this LDP is within a bushfire prone area, as designated by the Department of Fire and Emergency Services. The lots in this LDP are subject to a Bushfire Management Plan and require a Bushfire Attack Level Assessment and certification prior to construction, in accordance with Australian Standard 3959.

# Local Development Plan (Special Use Zone)

Fifty Road, Baldivis

Date: 29 Apr 2021

Scale: 1:750@ A3

File: 19-339 ST-1 A

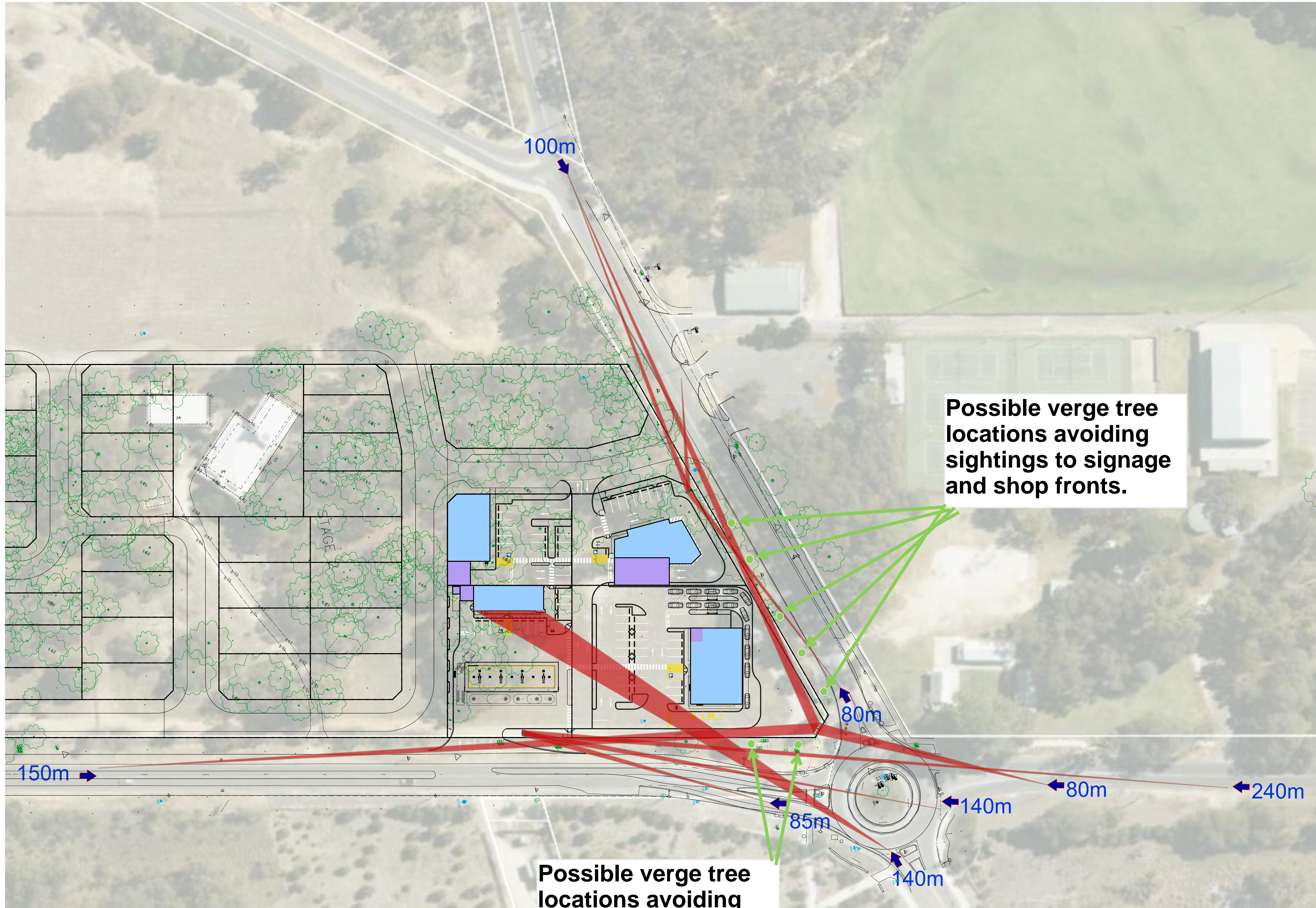
Staff: JP GW

Checked: JP

element.

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T: +61 8 9289 8300 | E: hello@elementwa.com.au elementwa.com.au





Possible verge tree  
locations avoiding  
sightings to signage  
and shop fronts.

PROPOSED COMMERCIAL DEVELOPMENT  
LOT 1 No. 364 BALDIVIS ROAD  
BALDIVIS, WA.  
for MGP PROPERTY

Date	-	18.12.20
Design	-	JJR
Drawn	-	JJR
Checked	-	JJR
Scale	-	1:400
Job No.	-	0730
Dwg	-	102
Rev	-	B