AGENDA

FOR POLICY AND PLANNING COMMITTEE MEETING TO BE HELD ON

11 DECEMBER 2023 AT 6.30 PM

IN LITTLE PARA CONFERENCE ROOMS, SALISBURY COMMUNITY HUB,

34 CHURCH STREET, SALISBURY

MEMBERS

Mayor G Aldridge
Cr B Brug
Cr L Brug
Cr J Chewparsad
Cr A Graham
Cr D Hood
Cr P Jensen (Deputy Chairman)
Cr S McKell
Cr S Ouk
Cr S Reardon

REQUIRED STAFF

Chief Executive Officer, Mr J Harry
Deputy Chief Executive Officer, Mr C Mansueto
General Manager City Infrastructure, Mr J Devine
General Manager Community Development, Mrs A Pokoney Cramey
General Manager City Development, Ms M English
Manager Governance, Mr R Deco
Team Leader Council Governance, Ms J O'Keefe-Craig
Governance Support Officer, Ms K Boyd

APOLOGIES

An apology has been received from Cr M Mazzeo and Cr K Grenfell.

LEAVE OF ABSENCE

Leave of absence for this meeting was previously granted to Deputy Mayor, Cr C Buchanan.

PRESENTATION OF MINUTES

Presentation of the Minutes of the Policy and Planning Committee Meeting held on 20 November 2023.

REPORTS

Administration

1.0.1 Future Reports for the Policy and Planning Committee..... 7

1.0.2 Recommendations of the Intercultural Strategy and Partnerships Sub Committee meeting held on Monday 4 December 2023..... 9

For Decision

1.1.1 Green Fields Centre Code Amendment..... 15

QUESTIONS ON NOTICE

There were no Questions on Notice.

MOTIONS ON NOTICE

There were no Motions on Notice.

OTHER BUSINESS

(Questions Without Notice, Motions Without Notice, CEO Update)

CLOSE

MINUTES OF POLICY AND PLANNING COMMITTEE MEETING HELD IN THE LITTLE PARA CONFERENCE ROOMS, SALISBURY COMMUNITY HUB,

34 CHURCH STREET, SALISBURY ON

20 NOVEMBER 2023

MEMBERS PRESENT

Deputy Mayor, Cr C Buchanan (Chairman)
Mayor G Aldridge
Cr B Brug
Cr L Brug
Cr J Chewparsad
Cr A Graham
Cr D Hood
Cr P Jensen (Deputy Chairman)
Cr M Mazzeo
Cr S McKell
Cr S Ouk

STAFF

Chief Executive Officer, Mr J Harry
Deputy Chief Executive Officer, Mr C Mansueto
General Manager City Infrastructure, Mr J Devine
General Manager Community Development, Mrs A Pokoney Cramey
General Manager City Development, Ms M English
Manager Governance, Mr R Deco
Team Leader Council Governance, Ms J O'Keefe-Craig
Governance Support Officer, Ms K Boyd
Assessment Manager, Mr C Zafiropoulos
Manager Strategic Development Projects, Ms S Klein
Team Leader Community Compliance, Mr B Scholefield
Manager Field Services, Mr M Purdie
Manager Infrastructure Delivery, Mr J Collins
Manager Urban, Recreation and Natural Assets, Mr J Foong
Team Leader Civil Maintenance, Mr S Bartosak

The meeting commenced at 6.31 pm.

The Chairman welcomed the Elected Members, members of the public and staff to the meeting.

APOLOGIES

An apology was received from Cr S Reardon.

LEAVE OF ABSENCE

Leave of absence for this meeting was previously granted to Cr K Grenfell.

PRESENTATION OF MINUTES

Moved Cr A Graham
Seconded Cr B Brug

The Minutes of the Policy and Planning Committee Meeting held on 16 October 2023, be taken as read and confirmed.

CARRIED

REPORTS

Administration

1.0.1 Future Reports for the Policy and Planning Committee

Moved Cr B Brug
Seconded Cr S McKell

That Council:

1. Notes the report.

CARRIED

For Decision

1.1.1 Design Standard - Residential Driveway Crossovers

Moved Mayor G Aldridge
Seconded Cr J Chewparsad

That Council:

1. Endorses the submission to the State Planning Commission on the Design Standard for Residential Driveway Crossovers that is provided in Attachment 1 (Item No. 1.1.1, Policy and Planning Committee, 20 November 2023).

CARRIED

QUESTIONS ON NOTICE

There were no Questions on Notice.

MOTIONS ON NOTICE

There were no Motions on Notice.

OTHER BUSINESS

(Questions Without Notice, Motions Without Notice, CEO Update)

There were no Other Business items.

The meeting closed at 6.34 pm.

CHAIRMAN…….

DATE…….

ITEM 1.0.1

POLICY AND PLANNING COMMITTEE

DATE 11 December 2023

HEADING Future Reports for the Policy and Planning Committee

AUTHOR Michelle Whibley, PA to General Manager, City Development

CITY PLAN LINKS 4.2 We deliver quality outcomes that meet the needs of our community

SUMMARY This item details reports to be presented to the Policy and Planning Committee as a result of a previous Council resolution. If reports have been deferred to a subsequent month, this will be indicated, along with a reason for the deferral.

RECOMMENDATION

That Council:

1. Notes the report.

ATTACHMENTS

There are no attachments to this report.

1. **BACKGROUND**

1.1 Historically, a list of resolutions requiring a future report to Council has been presented to each committee for noting.

2. **REPORT**

3.1 The table below outlines the reports to be presented to the Policy and Planning Committee as a result of a Council resolution.

Meeting - Item	Heading and Resolution	Officer
25/07/2022 US-MON1	**District Level Playground for Amsterdam Reserve** 2. Requests Administration to provide the draft Master Plan and associated costings to the Policy and Planning Committee meeting in six months' time.	Jamie Hosking
Due:	May 2024	

19/12/2022 MON4	**Motion on Notice: Behavioural Standards** 3. Approves the establishment of a working group consisting of the Mayor, Deputy Mayor Cr Buchanan, Cr B Brug, the CEO and the Manager Governance to prepare recommendations to the Policy and Planning Committee for consideration on Behavioural Management Policy and Support Policy, with input from Norman Waterhouse Lawyers.	Rudi Deco
Due:	February 2024	
28/08/2023 CNL-MON1	**Motion on Notice: Major Events Waste Recycling** 4. Requests the Administration to present a report to the Policy and Planning Committee on event waste management.	Amy Pokoney-Cramey
Due:	October 2023	
Reason:	Additional time required to consider options and impacts and develop the report.	
23/10/2023 OB1	**Review of Council's Disability Access Inclusion Network** 1. Requests the Administration to bring back a report to the Policy and Planning Committee reviewing Council's Disability Access Inclusion Network (DAIN). 2. The review to include exploring opportunities how we can increase the frequency and types of projects that Council consults on, encouraging more participation in DAIN. 3. Requests staff to invite Mr Damien Porter to join DAIN.	Vesna Haracic
Due:	April 2024	

4. CONCLUSION / PROPOSAL

4.1 Future reports for the Policy and Planning Committee have been reviewed and are presented to Council for noting.

ITEM	1.0.2
	POLICY AND PLANNING COMMITTEE
HEADING	Recommendations of the Intercultural Strategy and Partnerships Sub Committee meeting held on Monday 4 December 2023
AUTHOR	Sara Howley, PA to GM Community Development, Community Development
CITY PLAN LINKS	1.2 The health and wellbeing of our community is a priority 1.3 People are valued and they feel safe, included and connected 1.4 We are proud of our strengths, achievements and cultural diversity
SUMMARY	The minutes and recommendations of the Intercultural Strategy and Partnerships Sub Committee meeting held on Monday 4 December 2023 are presented for Policy and Planning Committee's consideration.

RECOMMENDATION

That Council:

1. Receives and notes the information contained in the Intercultural Strategy and Partnerships Sub Committee Minutes of the meeting held on 4 December 2023 and that the following recommendations contained therein be adopted by Council:

ISPS1 Reconciliation Action Plan Strategy

That Council:

1. Notes that Council's Reconciliation Action Plan is due to be updated and a review has been undertaken prior to updating the new Reconciliation Action Plan.
2. Approves changes to the Reconciliation Action Plan Working Group, including:
   a. renaming it to the First Nations Strategic Group;
   b. updating the Terms of Reference as outlined in Attachment 1 (Item ISPS1, Intercultural Strategy and Partnerships Sub Committee, 4 December 2023) with the following amendments:
      - that the membership be changed from "Deputy Mayor" to "Elected Member"; and
      - that the membership listed as "City of Salisbury Representative" be clearly defined as an "Executive Officer supporting the First Nations Strategic Group" and not a member of the group.

c. updating the position descriptions for the Chair and Members, as outlined in Attachment 2 and Attachment 3 (Item ISPS1, Intercultural Strategy and Partnerships Sub Committee, 4 December 2023).

3. Requests Administration to compile a schedule of possible chairs and members for the First Nations Strategic Group as outlined in Attachment 2 of the report (Item ISPS1, Intercultural Strategy and Partnerships Sub Committee, 4 December 2023) and provide it to the next meeting of the ISPSC for consideration and decision.

4. Approves the remuneration of the external members of the First Nations Strategic Group in line with the State Government Remuneration Framework for Government of South Australia Boards and Committees.

5. Approves that Cr C Buchanan be the Elected Member representative.

ATTACHMENTS

This document should be read in conjunction with the following attachments:

1. Intercultural Strategy and Partnerships Sub Committee Minutes 4 December 2023

Item 1.0.2 - Attachment 1 - Intercultural Strategy and Partnerships Sub Committee Minutes 4 December 2023

MINUTES OF INTERCULTURAL STRATEGY AND PARTNERSHIPS SUB COMMITTEE MEETING HELD IN THE LITTLE PARA CONFERENCE ROOMS, SALISBURY COMMUNITY HUB,

34 CHURCH STREET, SALISBURY ON

4 DECEMBER 2023

MEMBERS PRESENT	Cr Johnny Chewparsad (Chair) Mayor G Aldridge (ex officio) Deputy Mayor, Cr C Buchanan Cr S McKell Cr S Ouk (Deputy Chair) Cr S Reardon
STAFF	Chief Executive Officer, Mr J Harry Deputy Chief Executive Officer, Mr C Mansueto General Manager Community Development, Mrs A Pokoney Cramey General Manager City Development, Ms M English Manager Governance, Mr R Deco Manager Sport, Recreation & Community Planning, Mr A Hamilton PA to General Manager City Infrastructure, Ms H Prasad Governance Trainee, Ms M Prasad

The meeting commenced at 6.50pm.

The Chairman welcomed the Elected Members, members of the public and staff to the meeting.

APOLOGIES

There were no apologies.

LEAVE OF ABSENCE

Nil.

PRESENTATION OF MINUTES

Moved Cr S McKell
Seconded Cr S Reardon

The Minutes of the Intercultural Strategy and Partnerships Sub Committee Meeting held on 9 October 2023, be taken as read and confirmed.

CARRIED

REPORTS

ISPS1 Reconciliation Action Plan Strategy

Moved Cr C Buchanan
Seconded Mayor G Aldridge

That Council:

1. Notes that Council's Reconciliation Action Plan is due to be updated and a review has been undertaken prior to updating the new Reconciliation Action Plan.
2. Approves changes to the Reconciliation Action Plan Working Group, including:
   a. renaming it to the First Nations Strategic Group;
   b. updating the Terms of Reference as outlined in Attachment 1 (Item ISPS1, Intercultural Strategy and Partnerships Sub Committee, 4 December 2023) with the following amendments:
      - that the membership be changed from "Deputy Mayor" to "Elected Member"; and
      - that the membership listed as "City of Salisbury Representative" be clearly defined as an "Executive Officer supporting the First Nations Strategic Group" and not a member of the group.
   c. updating the position descriptions for the Chair and Members, as outlined in Attachment 2 and Attachment 3 (Item ISPS1, Intercultural Strategy and Partnerships Sub Committee, 4 December 2023).
3. Requests Administration to compile a schedule of possible chairs and members for the First Nations Strategic Group as outlined in Attachment 2 of the report (Item ISPS1, Intercultural Strategy and Partnerships Sub Committee, 4 December 2023) and provide it to the next meeting of the ISPSC for consideration and decision.

Item 1.0.2 - Attachment 1 - Intercultural Strategy and Partnerships Sub Committee Minutes 4 December 2023

4. Approves the remuneration of the external members of the First Nations Strategic Group in line with the State Government Remuneration Framework for Government of South Australia Boards and Committees.

5. Approves that Cr Buchanan be the Elected Member representative.

CARRIED
Unanimously

QUESTIONS ON NOTICE

There were no Questions on Notice.

MOTIONS ON NOTICE

There were no Motions on Notice.

OTHER BUSINESS

(Questions Without Notice, Motions Without Notice, CEO Update)

There were no Other Business items.

CLOSE

The meeting closed at 7.08pm.

CHAIRMAN.....

DATE.....

Item 1.0.2 - Attachment 1 - Intercultural Strategy and Partnerships Sub Committee Minutes 4 December 2023

ITEM 1.1.1

POLICY AND PLANNING COMMITTEE

DATE 11 December 2023

HEADING Green Fields Centre Code Amendment

AUTHOR Peter Jansen, Strategic Planner, City Development

CITY PLAN LINKS 3.4 Our urban growth is well planned and our centres are active

SUMMARY A private proponent is seeking a land use rezoning over the land at the corner of Ryans Road and Salisbury Highway. The land was sold by Council for future development. The private proponent has completed their investigations and prepared the necessary rezoning documentations and has now released the documentation for public consultation. Consultation closes on the 16 January 2024.

Under the new planning system, the private proponents can now prepare code amendments to rezone land. Council is able to make comments along with the public on the proposal. It is considered the proposed policies and zones for the site are appropriate for the intended land uses. It is recommended that the Code Amendment be supported by Council.

RECOMMENDATION

That Council:

1. Authorises the Chief Executive to provide written support for the Code Amendment and include any relevant feedback on the Green Fields Centre Code Amendment for 2-50 Ryans Road.

ATTACHMENTS

This document should be read in conjunction with the following attachments:

1. Locality and Zone Plan
2. Minister approval Proposal to Initiate
3. Information Guide
4. Code Amendment
5. Code Amendment attach B - proposed policy
6. Code Amendment attach C - strategic outcomes
7. Code Amendment attach D - Indigenous
8. Code Amendment attach D2 - retail
9. Code Amendment attach D3 - traffic
10. Code Amendment attach D4 - landscape
11. Code Amendment attach D5 - drainage

12. Code Amendment attach D6 - environment
13. Code Amendment attach D7 - services

1. BACKGROUND

1.1 For many years the Department of Infrastructure and Transport reserved the land at the corner of Ryans Road and Salisbury Highway, Green Fields for a potential road corridor. However, these plans did not eventuate and the land was transferred to the City of Salisbury. A land division was approved in 2022 to create the allotment at 2-50 Ryans Road at the corner of Salisbury Highway, with the balance remaining in Council ownership.

1.2 The Council entered into a contract to sell 2-50 Ryans Road to the rezoning Proponent.

1.3 The subject land is currently zoned as Employment, Strategic Employment, and General Neighbourhood Zone.

1.4 The Proponent is seeking to rezone the north west portion of land to Employment Zone, and the south east portion fronting Salisbury Highway to a Suburban Activity Centre Zone, and re-align the Ryans Road connection with Salisbury Highway through the subject site, and provide traffic signals.

1.5 Various development layouts have been included in the rezoning documentation for information purposes to indicate potential layouts for the land use applications after the rezoning process has been considered by the Minister for Planning.

1.6 However, a code amendment does not approve a detailed development, it rezones land to a zone that provides for a range of suitable land use and design outcomes.

1.7 *The Planning, Development and Infrastructure Act 2016* is the basis of the new planning system in South Australia which has resulted in comprehensive changes to the all aspects of development control across the State.

1.8 Rezonings through a code amendment process can now be undertaken by private proponents in accordance with the legislation. The final decision for a code amendment is from the Minister for Planning.

1.9 Councils are no longer the responsible authority, and can make comments on rezoning proposals as part of the general community consultation. Council does not receive, or consider the comments from the public, nor decide on the rezoning.

1.10 The Planning and Design Code have been written to provide standardised policy across the State. For instance, an Employment Zone in the City of Salisbury will have the same policy as an Employment Zone in every other Council. Thereby there is no ability to change policy to be unique to one site or Council. However, concept plans can be used to show the location for such matters as infrastructure easements or landscape features.

1.11 The Code Amendment is out for public consultation from the 15 November until close of business on Tuesday 16 January 2024 (prior to the January Council meeting).

2. EXTERNAL CONSULTATION / COMMUNICATION

2.1 The proponent has notified the community through the following avenues:

2.1.1 Written to nearby residents and property owners.

2.2 A proponent managed drop in information sessions at the Mawson Centre on Wednesday 6 December 5.30 – 7pm, and Saturday 9 December at 10am – 11.30am.

2.3 The proponent made the Code Amendment available:

2.3.1 Online viewing at Code amendments | PlanSA.

2.3.2 Hard copy documentation at the Salisbury Hub.

2.4 Meetings between staff and proponents on traffic, landscaping, drainage and built form.

3. DISCUSSION

3.1 The Proponent is seeking to:

3.1.1 Have a Suburban Activity Centre Zone at the front portion of the site at the Salisbury Highway frontage.

3.1.2 Have an Employment Zone at the rear portion.

3.1.3 Replace the Strategic Employment Zone component of the subject land with the Employment Zone.

3.1.4 Replace the portion of land that was within the General Neighbourhood Zone (due to the Ryans Road centerline being the zone boundary) with the new Zones.

3.1.5 The traffic solutions for the rezoning reflect DIT preferred design. The design needed to consider the proximity to other roads accessing Salisbury Highway (particularly Cascades Drive), safe and efficient movement of light and heavy vehicles, pedestrian and cycling safety and the location of the bus stop.

3.1.6 As a result, a change to the alignment of Ryans Road at the corner of Salisbury Highway is required so that the current intersection is closed, and a signalised intersection is created to the south.

3.1.7 The realigned road with signalisation will provide two right hand turn lanes and a left-hand turn lane onto Salisbury Highway.

3.1.8 Other changes proposed on Salisbury Highway include an extension of the median strip to Taylor Street to create a right turning land into the realigned Ryans Road. This will result in the closing of the medium strip into Taylor Street.

3.1.9 The transport modelling indicates that there will be a minor impact to the traffic network in the locality.

3.1.10 Traffic currently using Ryans Road can use the new intersection or other roads in the residential area.

- Traffic modelling (attachment D3) has been undertaken showing compliance with DIT requirements.
- Pedestrian crossings, cycling lanes and bus stop location retention with a new indented bus bay are catered for in the traffic

modelling, but will be delivered at the later development application stage of development.

The proponent will need to enter into Deeds of Agreement with agencies and authorities are executed before any Code Amendment is approved. This will apply to the signalisation at Salisbury Highway and the associated changes to the medians and bus stop arrangements, and such matters. Council is included in these issues (refer to Attachment 2).

3.1.11 The future retail component (attachment D2) has been modelled on a 6,220sqm neighbourhood level shopping centre comprised as a 4,150sqm full line supermarket, specialty shops of 2070sqm, 2 fast food sites, a home delivery fulfillment warehouse site of 830sqm, commercial tenancies of 1280sqm, and bulky goods, showroom and warehouse units of 5,125sqm for a total of 14,065sqm floorspace.

3.1.12 The Minister for Planning required additional investigations as part of his approval to initiate the rezoning process to include the maximum retail floorspace for the whole site, and ways to limit non-bulky goods retail if necessary to avoid jeopardising other centres.

3.1.13 The retail study indicates that the 6,220sqm that was modelled is an amount that is comparable to other similar level centres, and has a trading impact across the area ranging from -3% to -9.5% in 2025, which is deemed to have a low to mid-level impact.

- Impacts will be recovered though population and spending change within 1-3 yrs.
- The future retail provision seeks to improve supermarket representation in the area.
- The additional retail analysis was deemed not required by the Proponent because the extent of retail land sought in the rezoning has been reduced.

3.1.14 The Minister also required a concept plan showing the retention of existing trees on the site. The proposed Concept Plan identifies an 8m landscape corridor along Ryans Road, retention of Significant or Regulated trees in two areas of the site subject to assessment, and new landscaping behind the Ryans Road landscape corridor and to an area adjacent Salisbury Highway.

3.1.15 The Code Amendment investigations also states that services are available for the site, and compliance with Council requirements is required for stormwater management and infrastructure.

3.1.16 In addition to the zone modules applying to the site, the following other part of the Planning and Design Code will also apply to guide future development:

- Advertising Near Intersections Overlay at the intersection.
- Extend the Affordable Housing Overlay over the portion of the site for the proposed Suburban Activity Centre Zone, and remove

from the portion of the proposed Employment Zone that replaces the General Neighbourhood Zone.

- Introduce a technical numerical variations of a maximum building heights of 3 levels and 12m over the proposed Suburban Activity Centre Zone.
- Extend the Stormwater Management Overlay over the whole site.
- Extend the Urban Tree Canopy Overlay over the proposed Suburban Activity Centre Zone.

3.2 The proposed Code Amendment is considered to align with the general intent of the Development Deed for the land as follows:

3.2.1 Retail and its impacts on existing centres have been modelled to show benefits to the community with minimal impact on existing centres.

3.2.2 Development layouts shown in the Code Amendment and attachments are different to the previous information, but generally show a refined presentation of the retail component at the Salisbury Highway frontage, and capability for small warehouse type operations at the rear. As previously stated a rezoning does not provide the final development outcome.

3.2.3 The housing component at the north western most edge has been removed from the detailed concept but the proposed zone does not preclude applications for residential development being supported. This is also encouraged through the application of the Affordable Housing Overlay policy over the proposed Suburban Activity Centre Zone with the ability to be flexible in-built design.

3.2.4 Access has been amended from the previous information in order to satisfy DIT requirements for safety distances between intersections. The new signalized intersection would provide safe movements to and from the site and be provided at the proponent's expense. It will also reduce the impact of traffic on the existing residents on the eastern end of Ryans Road.

3.3 The proposed policies to be introduced are considered suitable for the intended zone and future activities, and the existing residential area adjoining the site.

3.4 Council staff are continuing to assess the detailed components of the rezoning proposal over the next couple of weeks. It is unlikely that there will be any significant issues other than technical issues raised. It is therefore recommended that the Council authorises the Chief Executive Officer to finalise and submit the Council's submission on the Code Amendment, which is due before January's Council meeting.

3.5 Council will be involved in the Deed of Agreements for the infrastructure provision and changes.

4. FINANCIAL

4.1 N/A

5. CONCLUSION

5.1 The proposed policy framework is considered to support the future intended development direction of the site which aligns with Council intentions.

5.2 The possible retail and traffic configurations have been modelled to show acceptable capability and minimal impact on the locality.

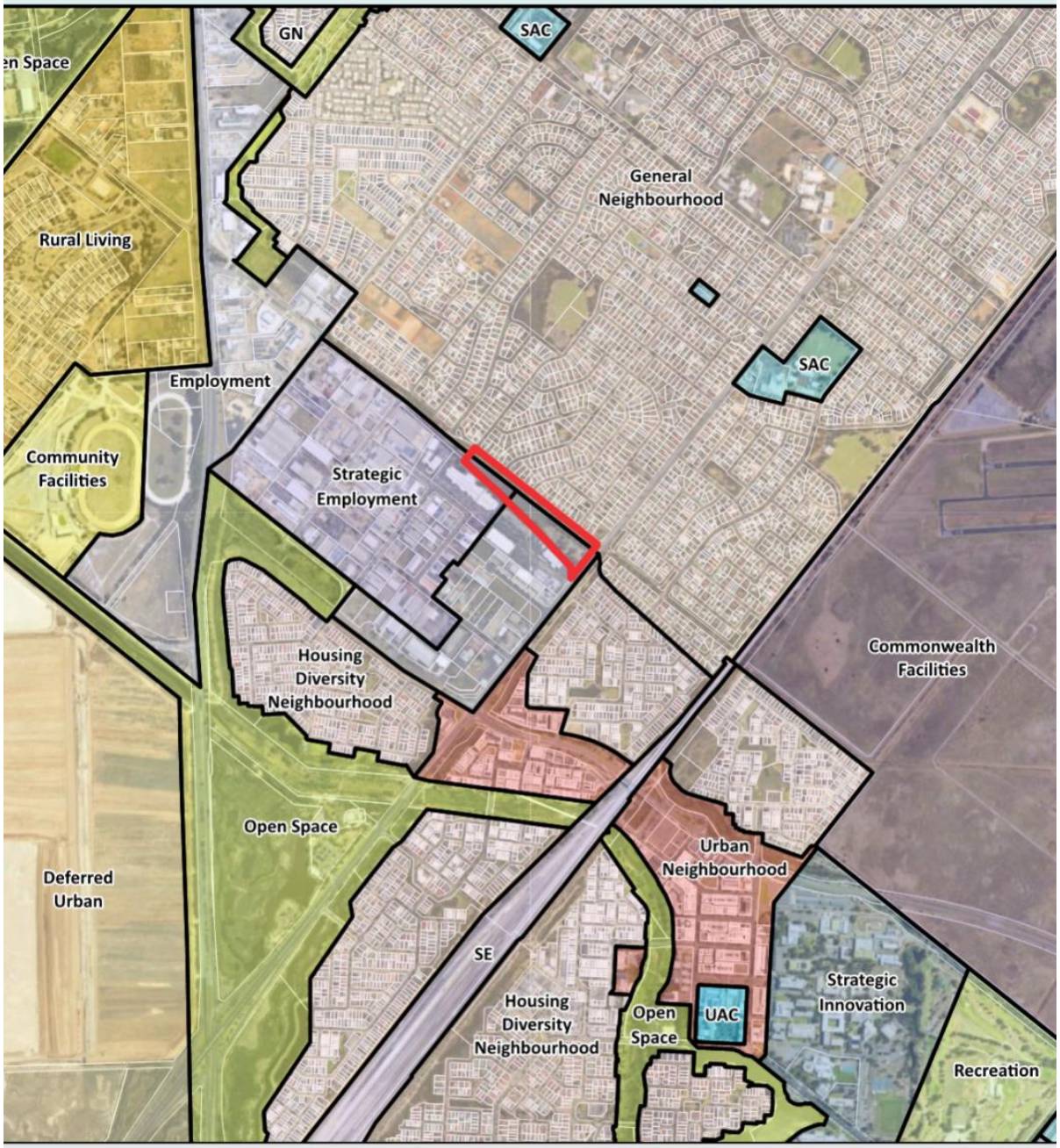
5.3 The land use rezoning will create the policy framework for the detailed development application that will be made a later stage.

5.4 The selected policy modules are considered suitable for the proposed future activities and site.

5.5 It is recommended that Council authorises the Chief Executive Officer to provide written support for the Code Amendment and provide any relevant feedback as deemed required.

Green Fields Centre

Designated Entity: Thirteen Commercial Pty Ltd



LGA: City of Salisbury
Affected Area (ha): 4.3
Current Zone: Employment, General Neighbourhood, Strategic Employment
Proposed Zone: Suburban Activity Centre Zone



Government of South Australia
Department for Trade and Investment

0 640 m

N

Affected Area
Code Zones
Parcel Boundaries

Hon Nick Champion MP

Government of South Australia

Minister for Trade and Investment

Minister for Housing and Urban Development

Minister for Planning

GPO Box 11032
ADELAIDE SA 5001

T: (08) 8235 5580

E: ministerchampion@sa.gov.au

23EXT0232

Mr John Harry
Chief Executive Officer
City of Salisbury

By email: jharry@salisbury.sa.gov.au

Dear Mr Harry

I write to advise that under section 73(2)(b)(vii) of the *Planning, Development and Infrastructure Act 2016* (the Act), I have considered the advice of the State Planning Commission (the Commission) and approved the Proposal to Initiate the Green Fields Centre Code Amendment. This proposal affects land within your council area.

A copy of the signed Proposal to Initiate is enclosed for your reference.

The initiation approval is on the basis that under section 73(4)(a) of the Act, Thirteen Commercial Pty Ltd will be the Designated Entity responsible for undertaking the Code Amendment process.

Pursuant to section 73(5) of the Act, the approval is also subject to the following conditions:

- Prior to approval of the Code Amendment, the Designated Entity must demonstrate to my satisfaction, as Minister for Planning, that all necessary agreements or deeds (including those related to the access arrangements over easements on private land to the north) are fully executed as required to secure the funding and/or delivery of all infrastructure required to accommodate the development of the affected area, as proposed by the Code Amendment (to the satisfaction of all relevant infrastructure providers).
- The scope of the proposed Code Amendment does not include the creation of new planning rules, and is limited to the spatial application of zones, subzones, overlays, or technical and numerical variations provided for under the published Planning and Design Code (the Code) on the date the Amendment is released for consultation. This includes the creation of new Technical and Numeric Variation (TNV) capabilities.
- The Code Amendment is prepared by a person with qualifications and experience that is equivalent to an Accredited Professional—Planning Level 1 under the Act.

SOUTH AUSTRALIA

- Prior to engagement on the proposed Code Amendment, the Designated Entity must submit the proposed Concept Plan to Planning and Land Use Services (PLUS) within the Department for Trade and Investment to ensure that the content aligns with the policy intent/drafting rules for the Code, and appropriately addresses access arrangements and trees.

In addition, the Commission has specified under section 73(6)(e) of the Act that the Designated Entity must consult with the following stakeholders:

- Department for Infrastructure and Transport.
- Aboriginal Affairs and Reconciliation, Attorney-General's Department.
- Environment Protection Authority.
- Utility providers including SA Power Networks, ElectraNet, APA Group, SA Water, Epic Energy, SEA Gas, NBN, and other telecommunications providers.
- State Members of Parliament for the electorates in which the proposed Code Amendment applies.

The Commission has resolved under section 73(6)(f) of the Act, to specify the following further investigations to that outlined in the Proposal to Initiate:

- Undertake investigation into the theoretical retail floorspace capacity of the area affected should the Suburban Activity Centre Zone be applied to its entirety and the potential consequences of this on existing centres and the broader centre hierarchy.
- Investigate appropriate ways of limiting non-bulky goods retail floorspace, including use of the Employment Zone for portion of the site, should the above investigation find that the proposal will jeopardise the efficient functioning of another existing centre or broader centre hierarchy.
- Undertake investigation into the capacity and potential need for augmentation of service infrastructure.
- Conduct a search of the Register of Aboriginal Sites and Objects (Taa wika) to identify relevant Aboriginal heritage considerations, including any identified cultural sites and objects.
- Undertake investigation into potential interface impacts with adjacent land uses including employment and residential, particularly with regard to traffic.
- In preparing the Concept Plan give consideration to the retention of existing trees and identify these on the Concept Plan.

It should also be noted that further investigations may be required in response to feedback or advice received through the engagement process.

Pursuant to section 44(6) and 73(6)(d) of the Act, consultation in writing must be undertaken with:

- City of Salisbury.
- Owners or occupiers of the land and adjacent land, in accordance with Regulation 20 of the *Planning, Development and Infrastructure (General) Regulations 2017.*

OFFICIAL

Engagement must be undertaken on the Code Amendment in accordance with the Community Engagement Charter. More information on the Community Engagement Charter is available in the Community Engagement Charter toolkit online at https://plan.sa.gov.au/resources/learning_and_toolkits/community_engagement_charter_toolkit/overview.

I will make a determination on whether to approve the proposed amendments at the completion of the Code Amendment process.

For further information, please contact Ms Nadia Gencarelli, Team Leader – Code Amendments, PLUS, on 08 7133 2311 or via email at Nadia.Gencarelli@sa.gov.au.

Yours sincerely

Hon Nick Champion MP
Minister for Planning

27 / 8 / 2023

Encl: Signed Proposal to Initiate the Green Fields Centre Code Amendment

cc: Councillor Peter Jensen JP, City of Salisbury (PJansen@salisbury.sa.gov.au)

Page 3 of 3

Item 1.1.1 - Attachment 2 - Minister approval Proposal to Initiate

FACT SHEET

TOWN PLANNING ADVISORS

GREEN FIELDS CENTRE CODE AMENDMENT FOR 2 – 50 RYANS ROAD

November 2023

2 – 50 Ryans Road is proposed to be rezoned to enable a retail/bulky goods centre.

If the rezoning is to go ahead, traffic lights are proposed on Salisbury Highway adjacent Ryans Road. Ryans Road would be a cul-de-sac. The median in Salisbury Highway at Taylor Street would also be closed.

This will impact your neighbourhood.

Consultation is underway so you can understand what is proposed and comment. Submissions due 5pm Tuesday 16 January 2024.

Contents

What is a Code Amendment? 2
What land is involved? 3
What is proposed? 4
How will traffic be impacted? 5
What about walking and cycling? 8
What about the trees? 8
What building development, landscaping, and parking may occur? 10
Do we know what will be built on the land? 10
What about stormwater? 10
Who owns the land? 11
Will the Code Amendment impact other nearby retail centres? 11
How can I find out more? 11
How can I have my say about the proposal? 12
How will I know my feedback has been used? 12
What happens next? 12

What is a Code Amendment?

The Planning and Design Code (the Code) sets out the rules that determine what land uses and buildings can be built on land.

For instance, if you want to build a house, the Code rules will tell you how high you can build and how far back from the front of your land your house will need to be. The Code will also tell you if any additional rules apply to the area where your land is located. For example, you might be in an area with specific rules about regulated and significant trees, and stormwater.

The *Planning, Development and Infrastructure Act 2016* (the Act) provides the legislative framework for undertaking amendments to the Code. With approval of the Minister for Planning (the Minister), a Council, Government Agency, Joint Planning Board or private proponent may initiate an amendment to the Code.

On 27 August 2023, the Minister approved Thirteen Commercial Pty Ltd (a private proponent) to initiate the **Green Fields Centre Code Amendment** (Code Amendment).

The Code Amendment process involves specialist investigations, community engagement, consideration of submissions, and the Minister for Planning making the decision. The Minister's decision is tabled to the Environment, Resources and Development Committee of State Parliament.

Planning and Land Use Services (PLUS) and the State Planning Commission also provide advice to the Minister.

We acknowledge Aboriginal people as the First Peoples and Nations of the lands and waters we live and work upon and we pay our respects to their Elders past, present, and emerging. We acknowledge and respect the deep spiritual connection and the relationship that Aboriginal and Torres Strait Islander people have to Country.

What land is involved?

Changes are proposed to land on the north west corner of Salisbury Highway and Ryans Road. This land is generally known as 2 – 50 Ryans Road.



Figure 1 2 - 50 Ryans Road is proposed to be rezoned to a Suburban Activity Centre Zone in the southern part and Employment Zone in the northern part.

3

What is proposed?

The Code Amendment proposes that 2 – 50 Ryans Road be a Suburban Activity Centre Zone in the southern part and Employment Zone in the northern part. Traffic lights immediately south of Ryans Road are proposed. Technical changes to what are called 'Overlays' are also proposed.



Figure 2 Proposed Extent of Suburban Activity and Employment Zones

The Suburban Activity Centre Zone enables retail development and the Employment Zone allows types of retail that are often called 'bulky goods'. This is why this Code Amendment is called 'Green Fields Centre' as it enables a retail/bulky goods based 'centre' to be developed.

The Planning and Design Code describes the Desired Outcome of:

- a Suburban Activity Centre Zone as 'An active commercial precinct supporting neighbourhood-scale shopping, business, entertainment and recreation facilities to provide a focus for business and community life and most daily and weekly shopping needs of the community. Buildings and pedestrian areas create a high quality, activated public realm that is integrated with pedestrian and cycle networks and establish well-defined connections to available public transport services.'
- an Employment Zone is 'A diverse range of low-impact light industrial, commercial and business activities that complement the role of other zones accommodating significant industrial, shopping and business activities. Distinctive building, landscape and streetscape design to achieve high visual and environmental amenity particularly along arterial roads, zone boundaries and public open spaces.'

2 – 50 Ryans Road is currently in three different zones. These are the Employment, Strategic Employment and General Neighbourhood Zones.

How will traffic be impacted?

In Council consulting about selling the land several years back, traffic issues were raised by residents. Council, the DIT, the Planning Minister and Thirteen Commercial Pty Ltd acknowledge traffic needs investigation. In liaison with DIT and Council, experts have investigated traffic should the land be developed for retail/bulky goods.

The primary finding is that overall, the proposed rezoning and traffic lights will only have a very minor impact on traffic volumes on the adjacent local road network and Salisbury Highway.

The investigation found:

- A new access point on Salisbury Highway would provide access for 2 – 50 Ryans Road, along with access to and from Ryans Road itself. The Salisbury Highway access point would be controlled by traffic signals.
- The Salisbury Highway access point will provide access for light and heavy vehicles associated with the anticipated uses on the site, whilst the Ryans Road access points would provide for light vehicles only.
- The impact on the local road network will be minor, with part-closure of Ryans Road and removal of the median opening on Salisbury Highway at Taylor Street. These are required to accommodate new traffic signals at the Salisbury Highway access point.
- Salisbury Highway will require an additional traffic lane to accommodate the new traffic signals, with a concept plan indicating this can be achieved within the existing road reserve.
- Analysis of the new traffic signals has found it would meet the operating requirements and guidelines of Department for Infrastructure and Transport for new traffic signal controlled intersections.
- A review of the Planning and Design Code has not found any policies which would be problematic for the anticipated uses of 2 – 50 Ryans Road. Given the size and configuration of 2 – 50 Ryans Road, it is these policies can generally be satisfied with development in the Affected Area.

Siting new traffic lights immediately south of Ryans Road or at Ryans Road proper both involve Taylor Street changing to left in/left out due to extending the median north. For residents south of Salisbury Highway, a variety of vehicle movement options to access Salisbury Highway remain with this change.

Siting new traffic lights at the southern end of 2 – 50 Ryans Road is too close to the Elder Smith Road lights and would unduly impact Salisbury Highway traffic flow to an extent that DIT is not prepared to support.

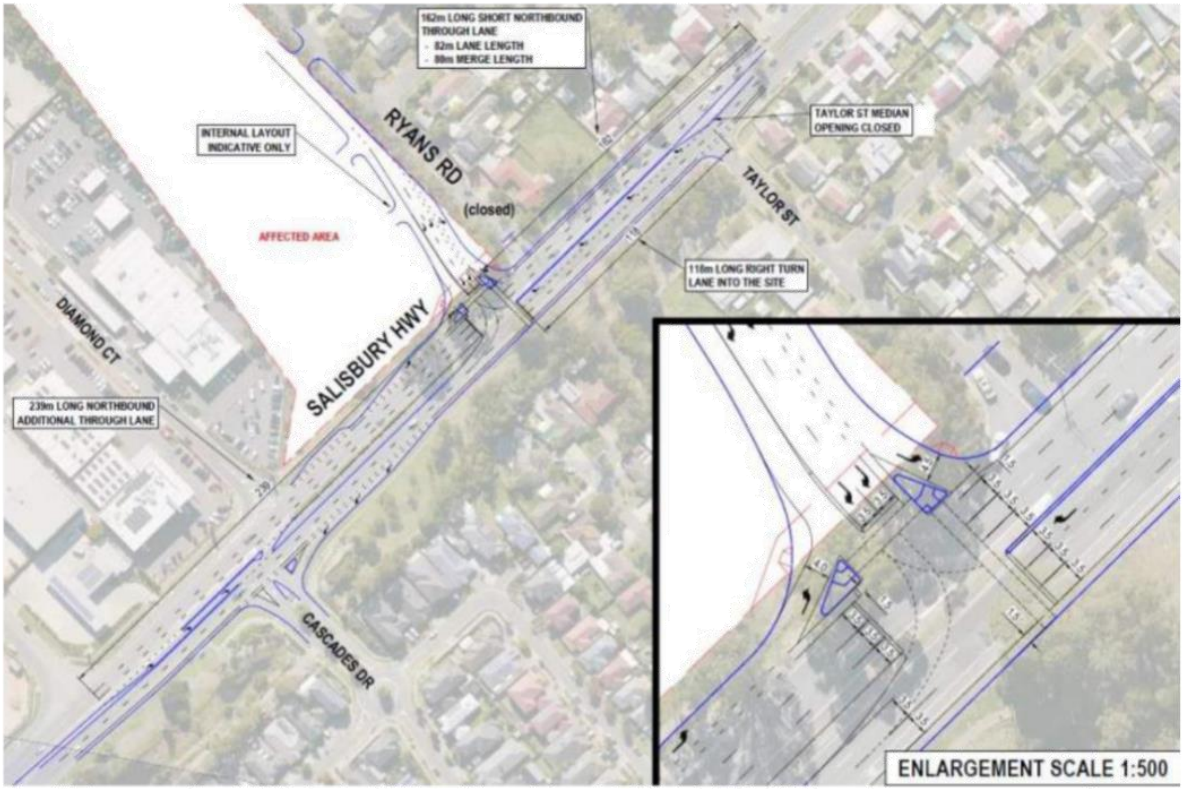


Figure 1 Concept plan of new traffic Lights immediately south of Ryans Road and Ryans Road being a cul-de-sac. This also involves left in left out only at Taylor Road.

Installing traffic lights immediately south of Ryans Road enables:

- Trucks to access buildings on 2 – 50 Ryans Road recognising Ryans Road itself has an 8 tonne limit.
- Ryans Road to continue as a quiet residential street. Residents on Ryan Road and to the east will be able to drive through the site to access Salisbury Highway.
- Pedestrians and cyclists will be able to cross Salisbury Highway via the signals to residential areas as well as Green Fields Train Station to the south.
- Three north bound traffic lanes and a cycle lane on Salisbury Highway are enabled. No changes to the number of south bound lanes is envisaged.
- Left in/left out vehicle access to the site is enabled, and a right turn southbound to the site at the traffic lights is enabled.

6

The investigations considered the impact of the new traffic signals on existing traffic volumes on nearby streets. The predicted redistribution of traffic is shown below.

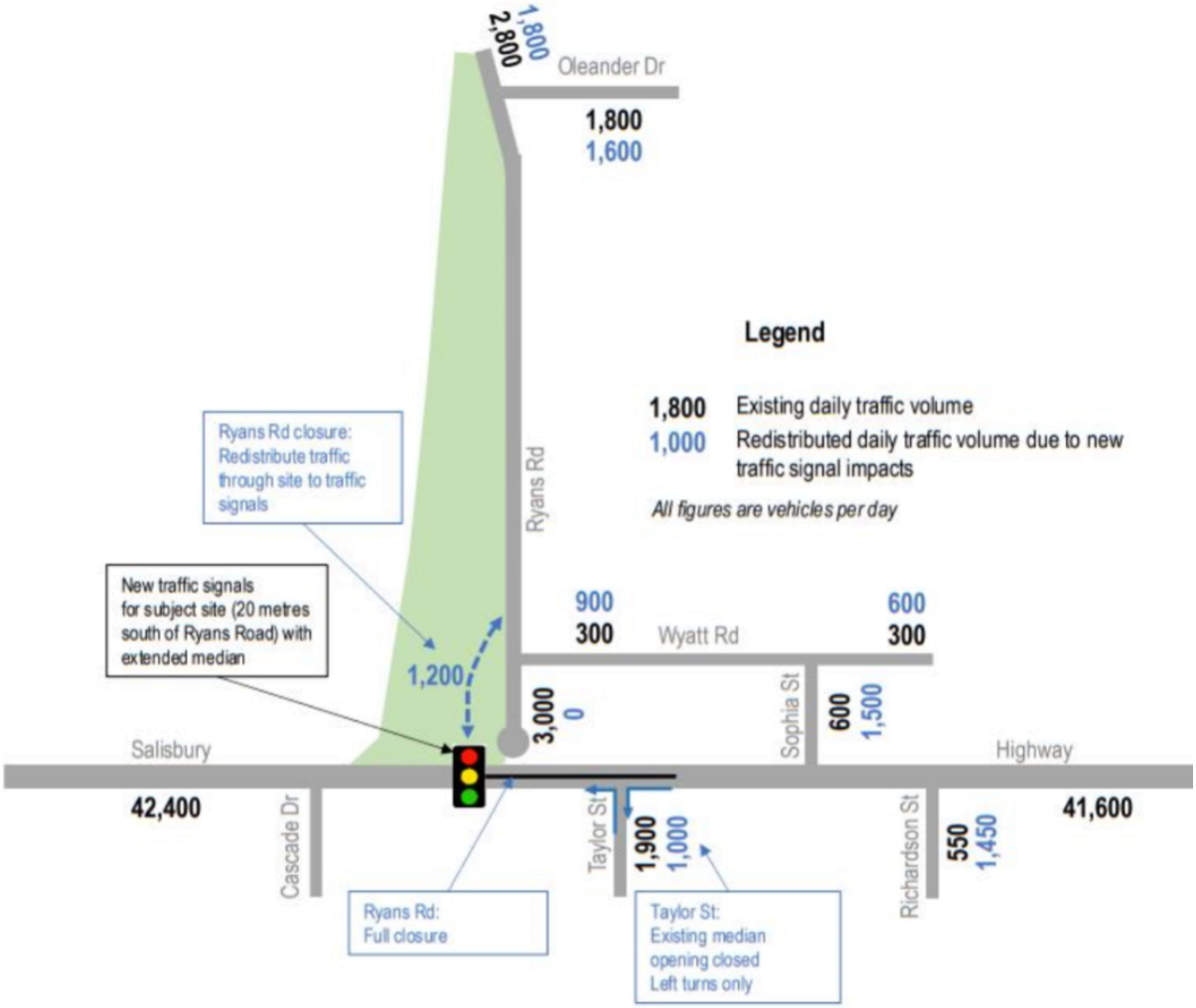


Figure 2 Figure 8 Predicted Redistribution of Existing Traffic Volumes

The adjusted traffic volumes on all streets in residential areas nearby are less than 2000 vehicles per day, this being the accepted standard for acceptable amounts of traffic on streets in residential areas.

The assessment of the redistribution found:

- Taylor Street will reduce in traffic volume from 1,900 to 1,000 vehicles per day.
- The existing right turn movements from Taylor Street will likely redistribute to Richardson Street and increase this street from 550 to 1,450 vehicles per day.
- The partial road closure of Ryans Road will maintain existing left turn movements to Salisbury Highway of 600 vehicles per day.

7

- It is anticipated that most of Ryans Road traffic will divert to the new traffic signals with approximately 1,800 vehicles per day redirected from Ryans Road.
- Some existing Ryans Road traffic is anticipated to use Sophia Street which would be up to 600 vehicles per day increasing Sophia Street from 600 vehicles per day to 1,200 vehicles per day and distributed north and south on Wyatt Street (300 vehicles per day in each segment).
- there is adequate capacity at the local street intersections (Sophia Street and Richardson St) with Salisbury Highway to cater for the increase in traffic associated with the redistribution. Hence the overall impact of the affected area traffic demands will be minor on the adjacent road network with regards to daily traffic volumes.

What about walking and cycling?

Rezoning the land to enable a retail centre and traffic lights increases convenient walking and cycling access to a centre for residents to the east and to the south across Salisbury Highway. Convenience is also improved for workers in businesses to the west and north. Cycle lanes are maintained on Salisbury Highway, and Ryans Road remains a quieter residential street.

What about the trees?



Figure 3 Code Policy about Regulated and Significant Trees is used to make development assessment decisions and is not changed by this Code Amendment

Arborman Tree Solutions have investigated trees.

'Regulated' and 'Significant' trees are the trees managed through the statutory planning system. The investigation identified 17 Significant, 52 Regulated and 15 groups of unregulated trees on the former Lot 1001. Lot 1001 was subdivided in 2023, from which the northern part and an 8m landscaped strip along Ryans Road are vested with Council. The remaining land forms 2 – 50 Ryans Road.

8

The existing Planning and Design Code generally seeks for regulated and significant trees to be retained. However, the Code does provide the following circumstances where regulated and significant trees can be removed[1]:

- Short life expectancy of the tree
- Unacceptable risk to public or private safety from the tree
- Removal accommodates the reasonable development of land in accordance with the relevant zone where such development might not otherwise be possible.

The Minister for Planning and State Planning Commission requested policy options around a Concept Plan and trees. Salisbury Council seeks to foster local biodiversity.

The proposed Concept Plan shows intended locations - subject to assessment regarding regulated and significant tree policy in the Planning and Design Code – to retain select regulated and significant trees.

The Concept Plan also seeks to foster biodiversity through new selection of new trees and landscaping.

Should the land be rezoned, careful site design of a proposed retail/bulky goods development with siting of buildings and arrangement of car parking and landscaping areas can work to retain the regulated and significant trees as much as possible, and to have adequate extent of onsite landscaping to meet other Code policy, such as the Soft Landscaping Performance Outcome.



Figure 4 Draft Proposed Concept Plan

[1] This is a summary of Code policy (Full policy is in the Code). More detail about trees is provided in the Code Amendment.

9

What building development, landscaping, and parking may occur?

The proposed Suburban Activity Centre Zone envisages buildings sited and designed to create pedestrian, vehicular, open space and visual linkages between the various built-form elements within the zone and adjoining main roads and thoroughfares.

The proposed Suburban Activity Centre Zone enables buildings up to three storeys high. Buildings up to two storeys can be built in the Employment Zone. In both proposed zones, building siting, scale and design should mitigate interface impacts on nearby housing.

Existing Code Policy on noise, transport, access and parking (vehicle and bicycle) will also guide detailed design.

Do we know what will be built on the land?

Not exactly.

Under the proposed Suburban Activity Centre and Employment Zones, development for retail, bulky goods, commercial, and within the Suburban Activity Centre Zone, residential purposes could occur. However, exactly what form, where, what land uses, how much parking, what happens with trees and stormwater, all of that needs to be worked out. Once worked out, a development application will be lodged[2] and assessed regarding the Code (as amended this Code Amendment).

Input from engagement and further specialist investigations is informing future development applications. Two Initial master plans are shown in the Code Amendment to provide an 'idea' of what could be developed. However, these are indicative only.

Under the current zoning, commercial buildings could occur on the western part, and residential buildings on the eastern part.

What about stormwater?

2 – 50 Ryans Road plays an important role managing stormwater. In Salisbury Council selling the land to Thirteen Commercial Pty Ltd, Thirteen Commercial entered into a Deed with Council such that Council directs Thirteen Commercial as to what stormwater infrastructure is needed. The Deed obliges Thirteen Commercial to fund the stormwater works.

Development applications are also assessed regarding stormwater policies in the Planning and Design Code. This Code Amendment does not propose to change those policies.

[2] Noting Council's financial interest in the land, Council will need to seek advice as to whether the Council's Assessment Panel or Assessment Manager is sufficiently independent to assess a development application. If not, it may be that the State Commission Assessment Panel is the relevant planning authority. Irrespective of which entity is the planning authority, the assessment undertaken is about how well the development application performs with respect to the policies in the Planning and Design Code.

Who owns the land?

Thirteen Commercial Pty Ltd bought 2 – 50 Ryans Road in 2023 from Salisbury Council. Salisbury Council owned the land for many years, having been transferred the land some years back from the Department of Infrastructure and Transport (DIT).

Will the Code Amendment impact other nearby retail centres?

A retail investigation was undertaken. Based on current benchmarks, there is a significant undersupply of supermarket floorspace in the area. The catchment extends through the central and lower areas of Salisbury where it inevitably overlaps with other centres, some of which are ageing in appearance and function.

The catchment, passing trade and local employment base will support the proposed development with low-moderate one-off impacts on surrounding centres. These impacts can be sustained and managed and recovered in the short term with no likely long term effects on the centres hierarchy.

The proposed centre will generate 210 direct FTE jobs during the construction phase and 125 FTE jobs in its ongoing operation.'

How can I find out more?

You can view the Code Amendment and supporting technical documents on the Plan SA website: plan.sa.gov.au/have_your_say/code_amendments

Supporting documents include investigations about retail, traffic, trees, stormwater, environmental, services and Aboriginal sites.

A hard copy is available to view at the Salisbury Hub, 34 Church Street Salisbury, during business hours.

Scan this QR code to visit the Plan SA website

You can talk to members of the project team at informal drop-in sessions to be held at The Mawson Centre (2 – 8 Main Street Mawson Lakes) on:

- Wednesday 6 December 2023 (5:30pm – 7:00pm)
- Saturday 9 December 2023 (10:00 am – 11:30am).

If you intend to attend, please RSVP to info@townplanningadvisors.com.au or to 0482 063 514. You do not need to RSVP to be able to attend.

If you would like an opportunity to discuss the proposal online, please contact info@townplanningadvisors.com.au

Should you have any questions, please contact info@townplanningadvisors.com.au or 0482 063 514

11

How can I have my say about the proposal?

The Code Amendment will be available for public feedback until **5pm Tuesday 16 January 2024**.

There are several ways in which you can provide a submission:

- Make an online submission (www.plan.sa.gov.au)
- Email info@townplanningadvisors.com.au
- Post Town Planning Advisors PO Box 9061 Henley Beach South SA 5022

Submissions are requested to be labelled 'Submission – Green Frields Centre Code Amendment'.

If these methods are not suitable for you or people you know, please contact us.

How will I know my feedback has been used?

Town Planning Advisors, with support of Community Place Planning Pty Ltd, are independent organisations committed to undertaking consultation in accordance with the principles of the South Australian Government's Community Engagement Charter.

All formal submissions will be considered when determining whether the proposed Amendment is suitable and whether any changes should be made.

Each submission will be entered into a register and you will receive an email acknowledging receipt of your submission. Your submission will be published on the PlanSA portal. Personal addresses, email and phone numbers will not be published; however company details will be.

Thirteen Commercial Pty Ltd and its advisors will consider the feedback received in finalising the Code Amendment and will prepare an Engagement Report which will outline what was heard during consultation and how the proposed Code Amendment was changed in response to submissions.

The Engagement Report will be forwarded to the Minister, and then published on the PlanSA portal.

What happens next?

Once the Engagement Report is provided to the Minister, the Commission may provide further advice to the Minister at the Minister's request, if the Code Amendment is considered significant.

The Minister will then either adopt the Code Amendment (with or without changes) or determine that the Code Amendment should not proceed. The Minister's decision will then be published on the PlanSA portal.

If adopted, the Code Amendment will be referred to the Environment Resources and Development Committee of Parliament (ERDC) for review. The Commission will also provide the Committee with a report on the Code Amendment, including the engagement undertaken on the Code Amendment and its compliance with the Community Engagement Charter.

Green Fields Centre Code Amendment

Thirteen Commercial Pty Ltd (the Proponent)

For Consultation

We acknowledge Aboriginal people as the First Peoples and Nations of the lands and waters we live and work upon and we pay our respects to their Elders past, present, and emerging. We acknowledge and respect the deep spiritual connection and the relationship that Aboriginal and Torres Strait Islander people have to Country.

Contents

HAVE YOUR SAY **5**

1. WHAT IS THE PLANNING AND DESIGN CODE? **6**

1.1 Planning and Design Code Framework 6
1.2 Overlays 6
1.3 Zones 6
1.4 Sub zones 6
1.5 General Development Policies 6
1.6 Amending the Planning and Design Code 6

2. WHAT IS PROPOSED IN THIS CODE AMENDMENT? **8**

2.1 Need for the amendment 8
2.2 Area Affected 10
2.3 Summary of proposed policy changes 12
2.3.1 Current Code Policy 12
2.3.2 Proposed Code Policy 21
2.3.3 Rezone Area Affected to Suburban Activity Centre Zone/Employment Zone 22
2.3.4 Add Advertising Near Intersections Overlay due to Proposed Traffic Lights near Ryans Road 43
2.3.5 Alter Affordable Housing Overlay 44
2.3.6 Add Concept Plan to the Area Affected 45
2.3.7 Building Height in Proposed Suburban Activity Centre Zone 46
2.3.8 Extend Stormwater Management Overlay over entire Area Affected 46
2.3.9 Extend Urban Tree Canopy over Proposed Suburban Activity Centre Zone 47
2.3.10 Overlays with No Changes Proposed 47

3. WHAT ARE THE NEXT STEPS FOR THIS CODE AMENDMENT? **50**

3.1 Engagement 50
3.2 How can I have my say on the Code Amendment? 51
3.3 What changes to the Code Amendment can my feedback influence? 51
3.4 What will happen with my feedback? 51
3.5 Decision on the Code Amendment 52

4. ANALYSIS **53**

4.1 Strategic Planning Outcomes 53
4.1.1 Summary of Strategic Planning Outcomes 53
4.1.2 Consistency with the State Planning Policies 53
4.1.3 Consistency with the Regional Plan 53

4.1.4 Consistency with other key strategic policy documents 53
4.2 Infrastructure planning 54
4.3 Investigations 55
4.3.1 Aboriginal Culture 55
4.3.2 Retail 55
4.3.3 Transport 56
4.3.4 Trees Greening Biodiversity 58
4.3.5 Stormwater 64
4.3.6 Environmental 64
4.3.7 Services 65
4.3.8 Recommended policy changes 66
ATTACHMENT A – AREA AFFECTED MAPPING 67
ATTACHMENT B – CURRENT AND PROPOSED CODE POLICY 71
ATTACHMENT C – STRATEGIC PLANNING OUTCOMES 71
ATTACHMENT D – INVESTIGATIONS 71

This Code Amendment has been prepared by Town Planning Advisors Pty Ltd with support from Community Place Planning Pty Ltd. on behalf of the 'Designated Entity'. Planning practitioners in both companies have qualifications and experience as set out in Part 7(2)(b) of 'Practice Direction 2: Preparation and Amendment of Designated Instruments' (Published 3 June 2022).

TOWN PLANNING ADVISORS

Community Place Planning

Date	Stage	Comment
Oct 2023	Draft D Bailey	

HAVE YOUR SAY

This Code Amendment is on consultation from Wednesday 15 November 2023 to **5pm Tuesday 16 January 2024.**

During this time you are welcome to lodge a written submission about any of the changes proposed in this Code Amendment.

You can view the Code Amendment and supporting technical documents on the Plan SA website: plan.sa.gov.au/have_your_say/code_amendments

Supporting documents include investigations about retail, traffic, trees, stormwater, environmental, services and Aboriginal sites.

A hard copy is available to view at the Salisbury Hub, 34 Church Street Salisbury, during business hours.

You can talk to members of the project team at informal drop-in sessions to be held at The Mawson Centre (2 – 8 Main Street Mawson Lakes) on:

- Wednesday 6 December 2023 (5:30pm – 7:00pm)
- Saturday 9 December 2023 (10:00 am – 11:30am).

If you intend to attend, please RSVP to info@townplanningadvisors.com.au or to 0482 063 514. You do not need to RSVP to be able to attend.

If you would like an opportunity to discuss the proposal online, please contact info@townplanningadvisors.com.au

Should you have any questions, please contact info@townplanningadvisors.com.au or 0482 063 514

There are several ways in which you can provide a submission:

- Make an online submission (www.plan.sa.gov.au)
- Email info@townplanningadvisors.com.au
- Post Town Planning Advisors PO Box 9061 Henley Beach South SA 5022

Submissions are requested to be labelled 'Submission – Green Frields Centre Code Amendment'.

If these methods are not suitable for you or people you know, please contact us.

1. WHAT IS THE PLANNING AND DESIGN CODE?

The Planning and Design Code (the Code) sets out the rules that determine what landowners can do on their land.

For instance, if you want to build a house, the Code rules will tell you how high you can build and how far back from the front of your land your house will need to be positioned. The Code will also tell you if any additional rules apply to the area where your land is located. For example, you might be in a high bushfire risk area or an area with specific rules about protecting native vegetation.

1.1 Planning and Design Code Framework

The Code is based on a framework that contains various elements called overlays, zones, sub zones and general development policies. Together these elements provide all the rules that apply to a particular parcel of land. An outline of the Code Framework is available on the PlanSA portal.

1.2 Overlays

Overlays contain policies and maps that show the location and extent of special land features or sensitivities, such as heritage places or areas of high bushfire risk.

They may apply across one or more zones. Overlays are intended to be applied in conjunction with the relevant zone. However, where policy in a zone conflicts with the policy in an overlay, the overlay policy trumps the zone policy.

1.3 Zones

Zones are areas that share common land uses and in which specific types of development are permitted. Zones are the main element of the Code and will be applied consistently across the state.

For example, a township zone for Andamooka can be expected to apply to similar townships like Carrieton. Each zone includes information (called classification tables) that describes the types of development that are permitted in that zone and how they will be assessed.

1.4 Sub zones

Sub zones enable variation to policy within a zone, which may reflect local characteristics. An example is Port Adelaide centre, which has many different characteristics to typical shopping centres due to its maritime activities and uses.

1.5 General Development Policies

General development policies outline functional requirements for development, such as the need for car parking or wastewater management. While zones determine what development can occur in an area, general development policies provide guidance on how development should occur.

1.6 Amending the Planning and Design Code

The P*lanning, Development and Infrastructure Act 2016* (the Act) provides the legislative framework for undertaking amendments to the Code. With approval of the Minister for Planning (the Minister) a Council, Joint Planning Board,

Government Agency or private proponent may initiate an amendment to the Code and undertake a Code Amendment process.

An approved Proposal to Initiate will define the scope of the Amendment and prescribe the investigations which must occur to enable an assessment of whether the Code Amendment should take place and in what form.

The State Planning Commission (the Commission) is responsible under the Act for ensuring the Code is maintained, reflects contemporary values relevant to planning, and readily responds to emerging trends and issues.

The Commission provided independent advice to the Minister for Planning and Local Government on the Proposal to initiate this Code Amendment. The Commission will also provide a report on the Code Amendment (including compliance with the Community Engagement Charter) at the final stage of the Code Amendment process.



2. WHAT IS PROPOSED IN THIS CODE AMENDMENT?

2.1 Need for the amendment

This Code Amendment is proposed to enable a retail based centre to be developed. Enabling a retail based centre is an orderly development for the growing population within this established area of the City of Salisbury.

The Area Affected is currently zoned for urban development by being within Employment, Strategic Employment and General Neighbourhood Zones. This Code Amendment proposes the Area Affected enable a retail based centre by being rezoned to a Suburban Activity Centre Zone in the southern part and Employment Zone in the northern part.

Enabling a retail/bulky goods based centre serves existing and future population growth, in particular in residents to the south, east and north, and workers to the west. This is supported by retail analysis.

Enabling a retail/bulky goods based centre through this Code Amendment:

- provides increased convenience for walking and cycling by nearby residents and workers, fostering an active lifestyle.
- can be readily accessed via a variety of movement options, including established public transport routes, due to being sited on a strategic transport route.
- supports increasing housing choice in nearby residential areas experiencing regeneration.
- supports development of underutilised land already zoned for urban development.

These are outcomes sought through State Planning Policies.

This Code Amendment proposes to change the zoning to enable a retail/bulky goods based centre use of the land. Other policies in the Planning and Design Code are not proposed to be changed. For example, policies that address matters such as visual appearance of buildings, interface between land uses, regulated trees, and stormwater.

Should the land be rezoned, a development application seeking approval to develop the area affected for a retail based centre will need to be lodged. This development application will be assessed regarding the Planning and Design Code, as amended by the rezoning.

The investigations and engagement through the rezoning, and the preparation of a development application may lead to variations from the Master Plan concept used for the purpose of the retail analysis (Figure 1) as well as further Master Plan iterations, as illustrated in the May 2023 Master Plan (Figure 2).

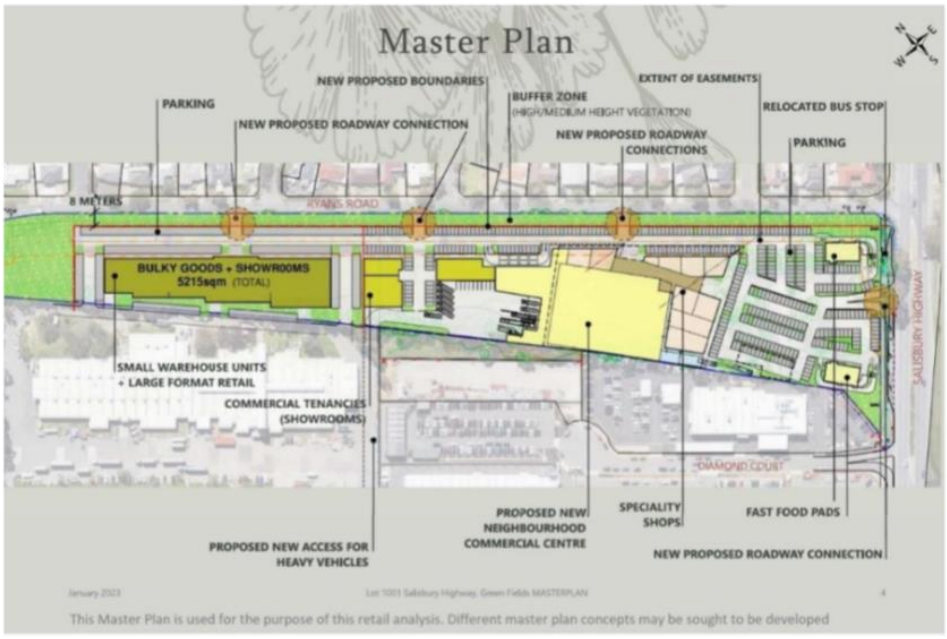


Figure 1 Master Plan January 2023 used for Retail Analysis

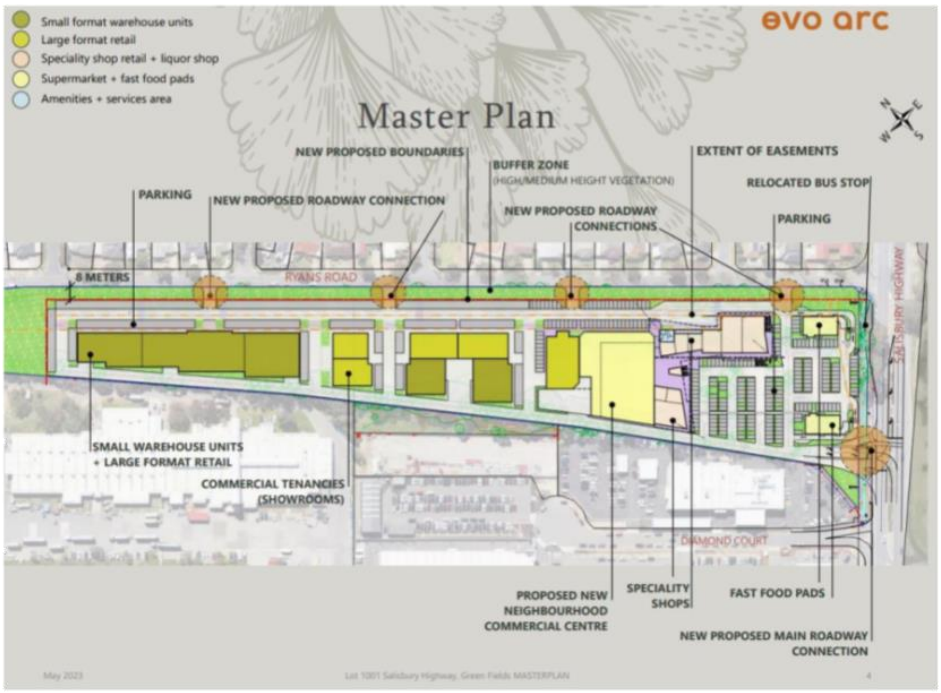


Figure 2 Master Plan May 2023 illustrating a different mix of land uses. The investigations and engagement through the rezoning, and the preparation of a development application may lead to variations from the January 2023 Master Plan used for the retail analysis and the May 2023 Master Plan

This Code Amendment aligns with State Planning Policy 'New activity centres – allow new activity centres to be established to support equitable and convenient access to services, while supporting productive settlement patterns'.

Enabling a retail/bulky goods based centre is an orderly consolidation and development of this established and growing area of the City of Salisbury.

2.2 Area Affected

The area affected by the proposed amendment is described as follows and as shown in the Certificate of Title and maps in **Attachment A**.

The area affected includes:

- the land at 2-50 Ryans Road (corner Salisbury Highway), Green Fields. CT6283/699. 2 – 50 Ryans Road is 38,890 sqm and used for stormwater management purposes with various trees and open areas.
- land of 8m width that forms part of the Ryans Road road reserve.
- land that forms part of the Salisbury Highway road reserve.

The area affected is around 4.5HA

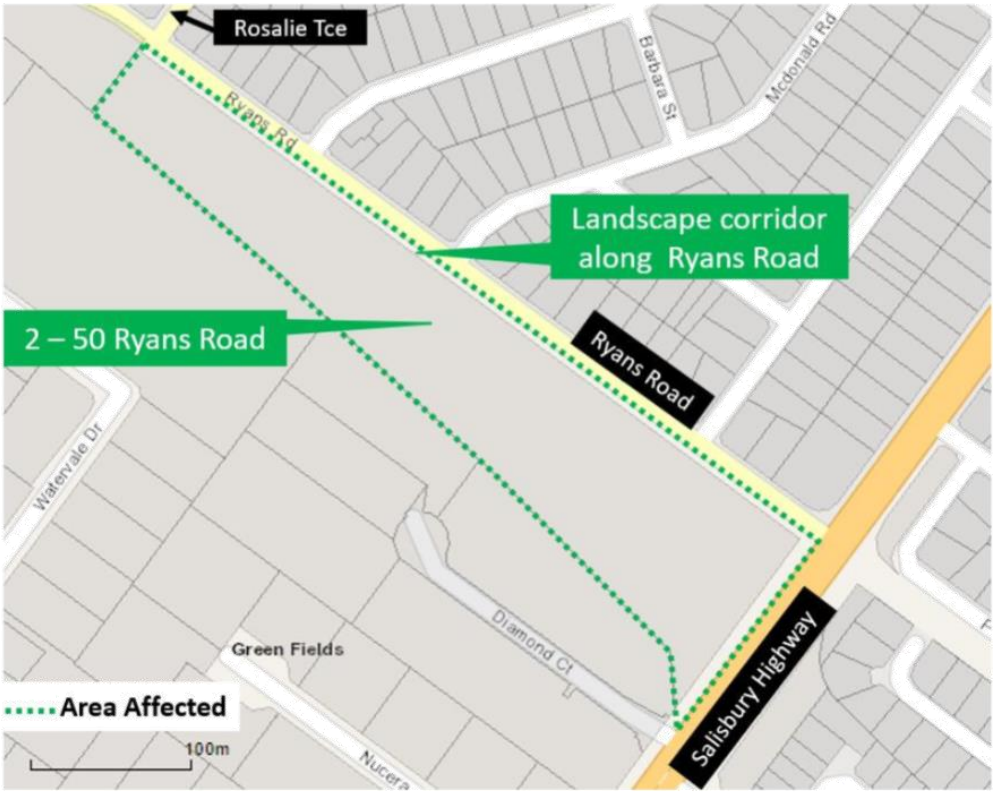


Figure 3 The area affected by the Code Amendment

10

For many years, the majority of the area affected was known as Lot 1001 Salisbury Highway, Green Fields. Lot 1001 extended to the north west and was owned by the City of Salisbury. Over 2021 and 2022, the City of Salisbury placed Lot 1001 on the market. After due processes, the Thirteen Commercial Pty Ltd (the Proponent) was selected as the successful purchaser.

After various considerations by Council and the Proponent, Council lodged development application 361/D523/22[1] to divide the land, with the southern portion to be purchased by the Proponent and Council retaining the northern portion and land of 8m width comprising various trees along Ryans Road.



Figure 4 How Former Lot 1001 was divided to form in part 2 - 50 Ryans Road

As vendor of the land that forms 2 – 50 Ryans Road, the Council entered into a contract with Thirteen Commercial Pty Ltd subject to obligations set out in a Development Deed.

The Development Deed contains standard arrangements between Council and property developers. For the particular circumstances of what is now 2 – 50 Ryans Road, the Development Deed obligates Thirteen Commercial to comply with the Council's directions regarding dealing with drainage including infrastructure. Thirteen Commercial is also obligated under the Deed to fund these obligations.

Former Lot 1001 was held for many years for future road purposes by what is now the Department of Infrastructure and Transport. The land was transferred to the City of Salisbury in more recent years. The land has not been designated as 'Community Land' as understood under the *Local Government Act 1999.*

[1] 361/D523/22/22027464 was lodged by City of Salisbury as a land division to create 1 lot, road and reserve. The application was granted Development Approval on 29 Augst 2022

2.3 Summary of proposed policy changes

2.3.1 Current Code Policy

The Area Affected is currently subject to the following Policy in the Planning and Design Code. **Attachment B** shows maps of existing Code Policy including showing how the Code is proposed to be amended.

Summary - Existing Code Policy affecting 2 – 50 Ryans Road

Zones

- Employment
- General Neighbourhood
- Strategic Employment

The Area Affected is not subject to any Sub-Zones.

Overlays

- Aircraft Noise Exposure (ANEF 20)
- Airport Building Heights (Regulated) (All structures over 15 metres)
- Airport Building Heights (Regulated) (All structures over 45 metres)
- Affordable Housing
- Building Near Airfields
- Defence Aviation Area (All structures over 90 metres)
- Hazards (Flooding)
- Hazards (Flooding – General)
- Prescribed Wells Area
- Regulated and Significant Tree
- Stormwater Management
- Traffic Generating Development
- Urban Transport Routes
- Urban Tree Canopy

Technical and Numeric Variations

- Building Height 2 levels/9m

General Development Policies

- Advertisements
- Animal Keeping and Horse Keeping
- Aquaculture
- Beverage Production in Rural Areas
- Bulk Handling and Storage Facilities
- Clearance from Overhead Power Lines
- Design
- Design in Urban Areas
- Forestry
- Housing Renewal
- Infrastructure and Renewable Energy Facilities
- Intensive Animal Husbandry and Dairies

- Interface between Land Uses
- Land Division
- Marinas and On-Water Structures
- Open Space and Recreation
- Out of Activity Centre Development
- Resource Extraction
- Site Contamination
- Tourism Development
- Transport, Access and Parking
- Waste Treatment and Management Facilities
- Workers' accommodation and Settlements



Figure 5 Current Code Zones and Area Affected

The area affected is one title split across three different zones in the Planning and Design Code.

The portion adjacent Ryans Road is zoned within the General Neighbourhood Zone. This Zone anticipates development for residential uses, as well as non-residential uses, such as childcare, place of worship and education facility. The Zone anticipates retail type land uses up to 200 sqm located at least 500m from an Activity Centre and on a main road. Technically, small scale commercial type land uses (e.g. shop, consulting room, office) up to 200 sqm could be developed on the Salisbury Highway frontage

within the General Neighbourhood Zone of the area affected, and up to 100 sqm on the Ryans Road frontage.

The portions away from Ryans Road are zoned within the Employment and Strategic Employment Zones.

The Employment Zone anticipates development for a diverse range of low impact light industrial, commercial and business activities that complement the role of other zones accommodating significant industrial, shopping and business activities. The Zone anticipates development for service trade premises and shop.

Shops are anticipated to provide day to day services, support the sale of goods manufactured on site, and to otherwise complement the role of Activity Centres. Thus shops are anticipated to be up to 100 sqm, bulky goods, restaurant, or ancillary to an industry. Bulky goods are anticipated to be located to provide convenient access, such as by being located on a main road.

The Strategic Employment Zone anticipates development for a range of industrial, logistical, warehouse, storage, research and training land uses. The Zone anticipates development for service trade premises, shop, and retail fuel outlet. Where development is sited adjacent a residential zone (which the land adjacent Ryans Road can be characterised as), the Zone anticipates development for bulky goods, consulting room, office, and service trade premises.

Shops are anticipated to provide day to day services, support the sale of goods manufactured on site, and to otherwise complement the role of Activity Centres. Thus shops are anticipated to be up to 250 sqm, bulky goods, restaurant, or ancillary to an industry. Bulky goods are anticipated to be located to provide convenient access, such as by being located on a main road.

Zone[2] (Note – for ease of reference, blue shows retail related policy)		
General Neighbourhood	Employment	Strategic Employment
Desired Outcome (as described in the Planning and Design Code)		
DO1 Low-rise, low and medium-density housing that supports a range of needs and lifestyles located within easy reach of services and facilities. Employment and community service uses contribute to making the neighbourhood a convenient place to live without compromising residential amenity.	DO1 A diverse range of low-impact light industrial, commercial and business activities that complement the role of other zones accommodating significant industrial, shopping and business activities. DO2 Distinctive building, landscape and streetscape design to achieve high visual and environmental amenity particularly along arterial roads, zone boundaries and public open spaces.	DO1 A range of industrial, logistical, warehousing, storage, research and training land uses together with compatible business activities generating wealth and employment for the state. DO2 Employment-generating uses are arranged to: • support the efficient movement of goods and materials on land in the vicinity of major transport infrastructure such as ports and intermodal freight facilities • maintain access to waterfront areas for uses that benefit from direct water access including harbour facilities, port related industry and warehousing, ship building and related support industries • create new and enhance existing business clusters • support opportunities for the convenient co-location of rural

[2] based on Planning and Design Code reviewed July 2023

		• related industries and allied businesses that may detract from scenic rural landscapes • be compatible with its location and setting to manage adverse impacts on the amenity of land in adjacent zones. DO3 A pleasant visual amenity from adjacent arterial roads, adjoining zones and entrance ways to cities, towns and settlements.
Land Use and Intensity (as described in the Planning and Design Code)		
PO 1.1 Predominantly residential development with complementary non-residential uses that support an active, convenient, and walkable neighbourhood. DTS/DPF 1.1 Development comprises one or more of the following: • Ancillary accommodation • Child care facility • Community facility • Consulting room • Dwelling • Educational facility • Office • Place of Worship • Recreation area	PO 1.1 A range of employment-generating light industrial, service trade, motor repair and other compatible businesses servicing the local community that do not produce emissions that would detrimentally affect local amenity. DTS/DPF 1.1 Development comprises one or more of the following: • Advertisement • Consulting room • Indoor recreation facility • Light industry • Motor repair station • Office • Place of worship	PO 1.1 Development primarily for a range of higher-impacting land uses including general industry, warehouse, transport distribution and the like is supplemented by other compatible development so as not to unduly impede the use of land in other ownership in the zone for employment-generating land uses, particularly those parts of the zone unaffected by an interface with another zone that would be sensitive to impact-generating uses. DTS/DPF 1.1 Development comprises one or more of the following:

• Residential flat building • Retirement facility • Shop • Student accommodation • Supported accommodation PO 1.2 Non-residential development located and designed to improve community accessibility to services, primarily in the form of: • small scale commercial uses such as offices, shops and consulting rooms • community services such as educational facilities, community centres, places of worship, child care facilities and other health and welfare services • services and facilities ancillary to the function or operation of supported accommodation or retirement facilities • open space and recreation facilities. PO 1.3 Non-residential development sited and designed to complement the residential character and amenity of the neighbourhood. PO 1.4 Commercial activities improve community access to services are of a scale and type to maintain residential amenity.	• Research facility • Retail fuel outlet • Service trade premises • Shop • Store • Telecommunications facility • Training facility • Warehouse.	• Advertisement • Automotive collision repair • Electricity substation • Energy generation facility • Energy storage facility • Fuel depot • General industry • Intermodal facility • Light Industry • Motor repair station • Public service depot • Rail marshalling yard • Renewable energy facility (other than a wind farm) • Retail fuel outlet • Service trade premises • Shop • Store • Telecommunications facility • Training facility • Warehouse PO 1.2 Development on land adjacent to another zone which is used for residential purposes incorporates a range of low-impact, non-residential uses to mitigate adverse amenity and safety impacts on the adjoining zone. DTS/DPF 1.2 Development involving any of the following uses on a site adjacent land in

17

DTS/DPF 1.4 A shop, consulting room or office (or any combination thereof) satisfies any one of the following: 1. it is located on the same allotment and in conjunction with a dwelling where all the following are satisfied: 1. does not exceed 50m² gross leasable floor area 2. does not involve the display of goods in a window or about the dwelling or its curtilage 2. it reinstates a former shop, consulting room or office in an existing building (or portion of a building) and satisfies one of the following: 1. the building is a State or Local Heritage Place 2. is in conjunction with a dwelling and there is no increase in the gross leasable floor area previously used for non-residential purposes 3. is located more than 500m from an Activity Centre and satisfies one of the following: 1. does not exceed 100m² gross leasable floor area (individually or combined, in a single building) where the site does not have a frontage to a State Maintained Road 2. does not exceed 200m² gross leasable floor		another zone used for or expected to be primarily used for residential purposes: • Bulky goods outlet • Consulting room • Indoor recreation facility • Light industry • Motor repair station • Office • Place of worship • Research facility • Service trade premises • Store • Training facility • Warehouse.

area (individually or combined, in a single building) where the site has a frontage to a State Maintained Road 4. the development site abuts an Activity Centre and all the following are satisfied: 1. it does not exceed 200m^2 gross leasable floor area (individually or combined, in a single building) 2. the proposed development will not result in a combined gross leasable floor area (existing and proposed) of all shops, consulting rooms and offices that abut the Activity Centre in this zone exceeding the lesser of the following: 1. 50% of the existing gross leasable floor area within the Activity Centre 2. 1000m^2.		

	PO 1.2 Shops provide convenient day-to-day services and amenities to local businesses and workers, support the sale of products manufactured on-site and otherwise complement the role of Activity Centres. DTS/DPF 1.2 Shop where one of the following applies: • with a gross leasable floor area up to 100m2 • is a bulky goods outlet • is a restaurant • is ancillary to and located on the same allotment as an industry and primarily involves the sale by retail of goods manufactured by the industry.	PO 1.3 Shops provide convenient day-to-day services and amenities to local businesses and workers, support the sale of products manufactured on-site and otherwise complement the role of Activity Centres. DTS/DPF 1.3 Shop where one of the following applies: • with a gross leasable floor area up to 250m2 • is a bulky goods outlet • is a restaurant • is ancillary to and located on the same allotment as an industry.
	PO 1.4 Bulky good outlets and standalone shops are located to provide convenient access. DTS/DPF 1.4 Bulky goods outlets and standalone shops are located on sites with a frontage to a State Maintained Road.	PO 1.6 Bulky good outlets and standalone shops are located to provide convenient access. DTS/DPF 1.6 Bulky goods outlets and standalone shops are located on sites with a frontage to a State Maintained Road.

2.3.2 Proposed Code Policy

Attachment B shows maps of existing Code Policy including showing how the Code is proposed to be amended. Further detail about the proposed Code amendments is in the following sections in the same order as the Summary.

Summary - Proposed Amendments to Code Policy impacting the Area Affected

(black is existing Code Policy - red proposed deletion – green proposed change)

Zones

- Employment
- ~~General Neighbourhood~~
- ~~Strategic Employment~~
- Suburban Activity Centre

The Area Affected is not subject to any Sub-Zones.

Overlays

- Advertising Near Signalised Intersections
- Aircraft Noise Exposure (ANEF 20)
- Airport Building Heights (Regulated) (All structures over 15 metres)
- Airport Building Heights (Regulated) (All structures over 45 metres)
- Affordable Housing (change)
- Building Near Airfields
- Concept Plan
- Defence Aviation Area (All structures over 90 metres)
- Hazards (Flooding)
- Hazards (Flooding – General)
- Prescribed Wells Area
- Regulated and Significant Tree
- Stormwater Management (change)
- Traffic Generating Development
- Urban Transport Routes
- Urban Tree Canopy

Technical and Numeric Variations

- Built Height 2 levels/9 metres (change)

General Development Policies

- Advertisements
- Animal Keeping and Horse Keeping
- Aquaculture
- Beverage Production in Rural Areas
- Bulk Handling and Storage Facilities
- Clearance from Overhead Power Lines
- Design
- Design in Urban Areas
- Forestry

- Housing Renewal
- Infrastructure and Renewable Energy Facilities
- Intensive Animal Husbandry and Dairies
- Interface between Land Uses
- Land Division
- Marinas and On-Water Structures
- Open Space and Recreation
- Out of Activity Centre Development
- Resource Extraction
- Site Contamination
- Tourism Development
- Transport, Access and Parking
- Waste Treatment and Management Facilities
- Workers' accommodation and Settlements

2.3.3 Rezone Area Affected to Suburban Activity Centre Zone/Employment Zone

This Code Amendment proposes to rezone the area affected to the Suburban Activity Centre Zone in the southern part and to Employment Zone in the northern part (See Figure 6).

These proposed zones reflect the approach to ongoing master planning seeking a retail based centre towards Salisbury Highway and more a bulky goods floorspace based precinct to the northern rear.

This approach responds to the requested further retail/bulky investigations in the Minister for Planning's approval of the Proposal to Initiate (letter 27 August 2023) included the State Planning Commission's recommendation that:

> 'Undertake investigation into the theoretical retail floorspace capacity of the area affected should the Suburban Activity Centre Zone be applied to its entirety and the potential consequences of this on existing centres and the broader centre hierarchy.
>
> Investigate appropriate ways of limiting non-bulky goods retail floorspace, including use of the Employment Zone for portion of the site, should the above investigation find that the proposal will jeopardise the efficient functioning of another existing centre or broader centre hierarchy'



Figure 6 Proposed Extent of Suburban Activity and Employment Zones

The following sections review the suitability of the proposed two zones for the area affected.

Noting this Code Amendment can only propose the application of policy existing in the zones, the review of the proposed policy identifies that suitable policy is in the two Zones to enable a retail/bulky goods based centre to be developed, including with suitable interface relationships with nearby other uses and to also not overly impact other centres in the wide region.

Comparable Zones

With regard to what type of zone is appropriate, numerous centres with floorspace varying from 1,700 to 31,259sqm within and beyond the catchment are within the Suburban Activity Centre Zone. The Suburban Activity Centre Zone is a generic zone applying to many retail based centres across South Australia.

Centre	Total Floorspace[3]	Zone
Centres within Catchment[4]		
Parafield Gardens (Plaza)	3,680	Suburban Activity Centre
Martins Plaza	5,600	"
Aldi Parafield Gardens	1,700	"
Centres beyond Catchment[5]		
Mawson Lakes Town Centre	17,308	Urban Activity Centre
Capital Street Shopping Centre	3,472	Urban Neighbourhood
Salisbury Town Centre (incl Parabanks)	37,063	Urban Activity Centre
Hollywood Plaza	31,259	Suburban Activity Centre
Paralowie Village	3,617	"
Paralowie Plaza	4,496	"

[3] Deep End 2023
[4] Deep End 2023
[5] Deep End 2023

Analysis of Suburban Activity Centre Zone Policy for the Southern Part of the Area Affected

An analysis of Zone Policy and its suitability is outlined below.

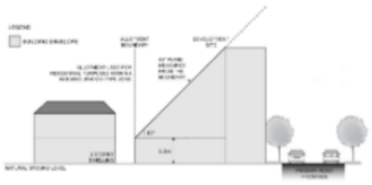
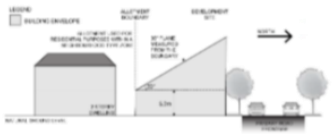
Suburban Activity Centre Zone Policy (as described in the Planning and Design Code)	Suitability for Area Affected
Desired Outcome	
DO 1 An active commercial precinct supporting neighbourhood-scale shopping, business, entertainment and recreation facilities to provide a focus for business and community life and most daily and weekly shopping needs of the community. Buildings and pedestrian areas create a high quality, activated public realm that is integrated with pedestrian and cycle networks and establish well-defined connections to available public transport services.	Suitable. Consistent with investigations and preliminary master planning.
Land Use and Intensity	
PO 1.1 Shops, office, entertainment, health and recreation related uses and other businesses that provide a range of goods and services to the surrounding neighbourhood and district. DTS/DPF 1.1 Development comprises one or more of the following: • Advertisement • Child care facility • Cinema • Community facility • Consulting room • Dwelling • Educational facility • Emergency services facility • Hospital • Hotel • Indoor recreation facility • Library • Office • Place of worship • Recreation area • Residential flat building • Retail fuel outlet • Retirement Facility • Shop • Supported Accommodation • Tourist accommodation.	Suitable. Consistent with investigations and preliminary master planning.
PO 1.2 Residential development does not prejudice the operation of existing non-residential development and the long-term provision of services and facilities for wider community benefit.	Suitable. Preliminary master planning

25

PO 1.3 Dwellings are developed only in conjunction with non-residential uses to support business, entertainment and recreational activities. DTS/DPF 1.3 Dwellings are developed only in conjunction with non-residential uses and sited: • at upper levels of buildings with non-residential uses located at ground level or • behind non-residential uses on the same allotment. PO 1.4 Where residential development is appropriate having regarding to other performance outcomes of the zone, residential development achieves medium to high densities.	to date has not envisaged housing, noting PO 1.4 envisages medium to high densities.
PO 1.5 Development sited and designed to achieve or maintain a vibrant and interesting streetscape within retail areas. DTS/DPF 1.5 Any of the following: • shop, other than a bulky goods outlet with a gross leasable floor area more than 500m2 • cinema • hotel • licensed premises.	Suitable. Consistent with investigations and preliminary master planning.
PO 1.6 Changes in the use of land encourage the efficient reuse of commercial premises to maintain and enhance vibrancy within activity centres. DTS/DPF 1.6 A change of use to a shop, office, consulting room or any combination of these uses where all of the following are achieved: 1. the area to be occupied by the proposed development is in an existing building and is currently used as a shop, office, consulting room or any combination of these uses 2. if the proposed change of use is for a shop that primarily involves the handling and sale of foodstuffs, areas used for the storage and collection of refuse are sited at least 10m from the site of a dwelling (other than a dwelling directly associated with the proposed shop) 3. if the proposed change of use is for a shop that primarily involves heating and cooking of foodstuffs in a commercial kitchen and is within 30m of any neighbourhood-type zone boundary or a dwelling (other than a dwelling directly associated with the proposed shop), an exhaust duct and stack (chimney) exists or is capable of being installed for discharging exhaust emissions 4. if the change in use involves a gross leasable floor area greater than 250m^2 and has direct frontage to an arterial road, it achieves either (i) or (ii):	Suitable. Consistent with investigations.

1. the primary vehicle access (being the access where the majority of vehicles access / egress the site of the proposed development) from a road that is not an arterial road 2. the development is located on a site that operates as an integrated complex containing two or more tenancies (and which may comprise more than one building) where facilities for off-street vehicle parking, vehicle loading and unloading, and the storage and collection of refuse are shared 5. off-street vehicular parking exists in accordance with the rate(s) specified in Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements or Table 2 - Off-Street Car Parking Requirements in Designated Areas to the nearest whole number, except in any of the following circumstances: 1. the building is a local heritage place 2. the required contribution will be made into a relevant car parking offset scheme (other than where a relevant contribution has previously been made) 3. the development is located on a site that operates as an integrated complex containing two or more tenancies (and which may comprise more than one building) where facilities for off-street vehicle parking, vehicle loading and unloading, and the storage and collection of refuse are shared.	
Built Form and Character	
PO 2.1 Development complements adjacent development within the zone, and mitigates interface impacts on adjoining residential uses in neighbourhood-type zones through appropriate building siting, scale and design. PO 2.2 Buildings are sited and designed to create pedestrian, vehicular, open space and visual linkages between the various built-form elements within the zone and adjoining main roads and thoroughfares. PO 2.3 Vehicular access points and car parks are coordinated and consolidated to enable the shared use of parking spaces. PO 2.4 Development promotes the use of pedestrian and cyclist connections to centre facilities and services.	Suitable. Consistent with preliminary master planning.
Building height and setbacks	
PO 3.1 Building height is consistent with the form expressed in any relevant Maximum Building Height (Levels) Technical and Numeric Variation layer and Maximum Building Height (Metres) Technical	Suitable. Consistent with preliminary

and Numeric Variation layers or is generally low rise to complement the established streetscape and local character. DTS/DPF 3.1 Building height is: 1. not greater than: 1. the following: 1. in all other cases (i.e. there are blank fields for both maximum building height (metres) and maximum building height (levels)) - 3 building levels up to a height of 12m and 1. not less than: 2. In relation to DTS/DPF 3.1, in instances where: 1. more than one value is returned in the same field: 1. for the purpose of DTS/DPF 3.1(a)(i), refer to the *Maximum Building Height (Metres) Technical and Numeric Variation* layer or *Maximum Building Height (Levels) Technical and Numeric Variation* layer in the SA planning database to determine the applicable value relevant to the site of the proposed development 2. for the purpose of DTS/DPF 3.1(b) refer to the *Minimum Building Height (Levels) Numeric Variation* layer in the SA planning database to determine the applicable value relevant to the site of the proposed development 2. only one value is returned for DTS/DPF 3.1(a)(i), (i.e. there is one blank field), then the relevant height in metres or building levels applies with no criteria for the other 3. no value is returned for DTS/DPF 3.1(b), (ie there is a blank field), then there is no minimum building height and DTS/DPF 3.1(b) is met.	master planning. 3 levels/12 metres is reasonably separated from housing across Ryans Road, where buildings of 2 levels/9 metres can be built.
PO 3.2 Buildings mitigate visual impacts of building massing on residential development within a neighbourhood-type zone. DTS/DPF 3.2	Suitable. Refer Building Height investigations.

Interface Height Buildings constructed within a building envelope provided by a: (a) 45 degree plane measured from a height of 3 metres above natural ground level at the boundary of the allotment where abutting a residential use, or where the allotment is separated by a road less than 6.5 metres in width measured from the residential allotment boundary, within a neighbourhood-type zone as shown in the following diagram (except where this boundary is a southern boundary):  (b) in relation to a southern boundary, 30 degree plane grading north, measured from a height of 3m above natural ground at the boundary of an allotment used for residential purposes within a neighbourhood-type zone as shown in the following diagram (except where this boundary is a street boundary): 	
PO 3.3 Buildings on an allotment fronting a road that is not a State maintained road, and where land on the opposite side of the road is within a neighbourhood-type zone, provides an orderly transition to the built form scale envisaged in the adjacent zone to complement the streetscape character.	Suitable. Between the area affected and the carriageway of Ryans Road is an 8m wide landscape strip the length of the Ryans Road frontage. Consistent with preliminary master planning for buildings set away from Ryans Road
Advertisements	

PO 4.1 Advertisements are sited and designed to achieve an overall consistency of appearance along individual street frontages. PO 4.2 Freestanding advertisements: • identify the associated business(es) • are of a size that is commensurate with the scale of the centre and the street frontage • avoid visual clutter • positively respond to the context without dominating the locality. DTS/DPF 4.2 Freestanding advertisements: • do not exceed 8m in height, the adjacent building wall height, or the zone's height allowance (whichever is the lesser) • do not have a sign face that exceeds 6m2 per side.	Suitable Consistent with preliminary master planning.
Concept Plans	
PO 5.1 Development is compatible with the outcomes sought by any relevant Concept Plan contained within Part 12 - Concept Plans of the Planning and Design Code to support the orderly development of land through staging of development and provision of infrastructure. DTS/DPF 5.1 The site of the development is wholly located outside any relevant Concept Plan boundary. The following Concept Plans are relevant: In relation to DTS/DPF 5.1, in instances where: • one or more Concept Plan is returned, refer to Part 12 - Concept Plans in the Planning and Design Code to determine if a Concept Plan is relevant to the site of the proposed development. Note: multiple concept plans may be relevant. • in instances where 'no value' is returned, there is no relevant concept plan and DTS/DPF 5.1 is met.	Suitable This Code Amendment proposes a Concept Plan for the area affected.

Analysis of Public Notification Policy in the Suburban Activity Centre Zone for the Area Affected

The Suburban Activity Centre Zone contains policy about what types of development are and are not publicly notified. An analysis of Zone Notification Policy and its suitability for the Affected Area is outlined below.

Suburban Activity Centre Zone Notification Policy (as described in the Planning and Design Code)	Suitability for Area Affected
Table 5 - Procedural Matters (PM) - Notification	
Not Notified Development which, in the opinion of the relevant authority, is of a minor nature only and will not unreasonably impact on the owners or occupiers of land in the locality of the site of the development.	Suitable. This notification policy applies throughout SA.
Not Notified Any kind of development where the site of the development is not adjacent land to a site (or land) used for residential purposes in a neighbourhood-type zone. Except the following development is notified • the demolition (or partial demolition) of a State or Local Heritage Place (other than an excluded building) • the demolition (or partial demolition) of a building in a Historic Area Overlay (other than an excluded building).	Suitable. This notification policy enabling development well removed from land zoned for residential purposes to not be notified applies throughout SA and is appropriate here.
Not Notified Any development involving any of the following (or of any combination of any of the following): • advertisement • child care facility • cinema • community facility • consulting room • dwelling located above a non-residential building level • indoor recreation facility • library • office • place of worship • service trade premises • shop • temporary public service depot • tourist accommodation. Except the following development is notified	Suitable This notification policy enabling retail centre type land uses to be developed without notification except where exceeding building height or envelope (in which case it is notified) applies throughout SA and is appropriate here.

Does not satisfy any of the following: • Suburban Activity Centre Zone DTS/DPF 3.1 (building height) • Suburban Activity Centre Zone DTS/DPF 3.2. (building envelope)	
Not notified Any development involving any of the following (or of any combination of any of the following): • air handling unit, air conditioning system or exhaust fan • carport • deck • fence • internal building works • land division • outbuilding • pergola • private bushfire shelter • recreation area • replacement building • retaining wall • shade sail • solar photovoltaic panels (roof mounted) • swimming pool or spa pool and associated swimming pool safety features • temporary accommodation in an area affected by bushfire • tree damaging activity • verandah • water tank.	Suitable This notification policy enabling ancillary development readily envisaged in retail centre type zones to be developed without notification applies throughout SA and is appropriate here.
Not notified • Demolition. Except the following development <u>is notified</u> • the demolition (or partial demolition) of a State or Local Heritage Place (other than an excluded building) • the demolition (or partial demolition) of a building in a Historic Area Overlay (other than an excluded building).	Suitable This notification policy enabling demolition without notification applies throughout SA and is appropriate here. There are no heritage places on the area affected

Analysis of Employment Zone Policy for the Northern Part of the Area Affected

An analysis of Zone Policy and its suitability is outlined below.

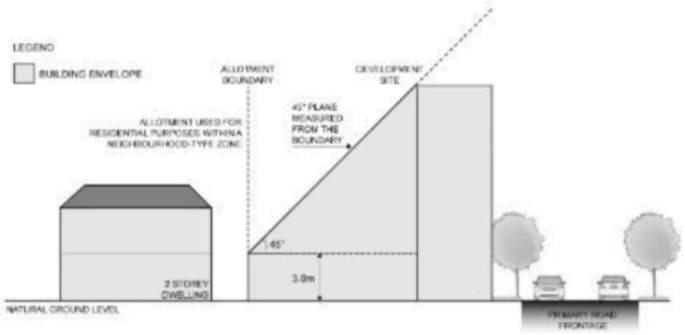
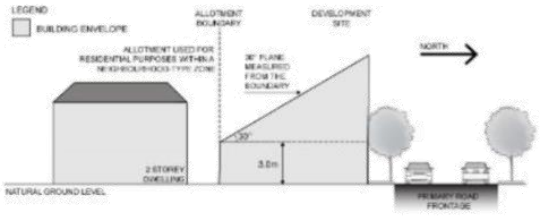
Employment Zone Policy (as described in the Planning and Design Code)	Suitability for Area Affected
Desired Outcome	
DO 1 A diverse range of low-impact light industrial, commercial and business activities that complement the role of other zones accommodating significant industrial, shopping and business activities. DO 2 Distinctive building, landscape and streetscape design to achieve high visual and environmental amenity particularly along arterial roads, zone boundaries and public open spaces.	Suitable. Consistent with investigations and preliminary master planning.
Land Use and Intensity	
PO 1.1 A range of employment-generating light industrial, service trade, motor repair and other compatible businesses servicing the local community that do not produce emissions that would detrimentally affect local amenity. DTS/DPF 1.1 Development comprises one or more of the following: • Advertisement • Consulting room • Indoor recreation facility • Light industry • Motor repair station • Office • Place of worship • Research facility • Retail fuel outlet • Service trade premises • Shop • Store • Telecommunications facility • Training facility • Warehouse.	Suitable. Consistent with investigations and preliminary master planning.
PO 1.2 Shops provide convenient day-to-day services and amenities to local businesses and workers, support the sale of products manufactured on-site and otherwise complement the role of Activity Centres. DTS/DPF 1.2 Shop where one of the following applies: • with a gross leasable floor area up to 100m2 • is a bulky goods outlet • is a restaurant	Suitable. Consistent with investigations and preliminary master planning.

33

• is ancillary to and located on the same allotment as an industry and primarily involves the sale by retail of goods manufactured by the industry.	
PO 1.3 Telecommunication facilities located to mitigate impacts on visual amenity in residential areas. DTS/DPF 1.3 Telecommunications facility in the form of a monopole: • up to a height of 30m • no closer than 50m to a neighbourhood-type zone.	Suitable. Consistent with investigations and preliminary master planning.
PO 1.4 Bulky good outlets and standalone shops are located to provide convenient access. DTS/DPF 1.4 Bulky goods outlets and standalone shops are located on sites with a frontage to a State Maintained Road.	Suitable. Consistent with investigations.
Built Form and Character	
PO 2.1 Development achieves distinctive building, landscape and streetscape design to achieve high visual and environmental amenity particularly along arterial roads, zone boundaries and public open spaces. PO 2.2 Building facades facing a boundary of a zone primarily intended to accommodate residential development, public roads, or public open space incorporate design elements to add visual interest by considering the following: • using a variety of building finishes • avoiding elevations that consist solely of metal cladding • using materials with a low reflectivity • using techniques to add visual interest and reduce large expanses of blank walls including modulation and incorporation of offices and showrooms along elevations visible to a public road.	Suitable. Consistent with preliminary master planning.
Building height and setbacks	
PO 3.1 Buildings are set back from the primary street boundary to contribute to the existing/emerging pattern of street setbacks in the streetscape. DTS/DPF 3.1 Buildings setback from the primary street boundary in accordance with the following table:	Suitable. Consistent with preliminary master planning.

<table><tr><th>Development Context</th><th>Minimum setback</th></tr><tr><td>There is an existing building on both abutting sites sharing the same street frontage as the site of the proposed building.</td><td>The average setback of the existing buildings.</td></tr><tr><td></td><td></td></tr><tr><td>There is an existing building on only one abutting site sharing the same street frontage as the site of the proposed building and the existing building is not on a corner site.</td><td>The setback of the existing building.</td></tr><tr><td></td><td></td></tr><tr><td>There is an existing building on only one abutting site sharing the same street frontage as the site of the proposed building and the existing building is on a corner site.</td><td>(a) Where the existing building shares the same primary street frontage – the setback of the existing building (b) Where the existing building has a different primary street frontage - 5m</td></tr><tr><td></td><td></td></tr><tr><td>There is no existing building on either of the abutting sites sharing the same street frontage as the site of the proposed building.</td><td>5m</td></tr></table> For the purposes of DTS/DPF 3.2: • the setback of an existing building on an abutting site to the street boundary that it shares with the site of the proposed building is to be measured from the closest building wall to that street boundary at its closest point to the building wall and any existing projection from the building such as a verandah, porch, balcony, awning or bay window is not taken to form part of the building for the purposes of determining its setback • any proposed projections such as a verandah, porch, balcony, awning or bay window may encroach not more than 1.5 metres into the minimum setback prescribed in the table	
PO 3.2 Buildings are set back from a secondary street boundary to accommodate the provision of landscaping between buildings and the street to enhance the appearance of land and buildings when viewed from the street. DTS/DPF 3.2 Building walls are no closer than 2m to the secondary street boundary.	Suitable. Consistent with preliminary master planning.
PO 3.3 Buildings are set back from rear access ways to provide adequate manoeuvrability for vehicles to enter and exit the site. DTS/DPF 3.3	Suitable. Consistent with preliminary

Building walls are set back from the rear access way: • where the access way is 6.5m wide or more, no requirement • where the access way is less than 6.5m wide, the distance equal to the additional width required to make the access way at least 6.5m wide.	master planning.
PO 3.4 Buildings are sited to accommodate vehicle access to the rear of a site for deliveries, maintenance and emergency purposes. DTS/DPF 3.4 Building walls are set back at least 3m from at least one side boundary, unless an alternative means for vehicular access to the rear of the site is available.	Suitable. Consistent with preliminary master planning.
PO 3.1 Building height is consistent with the form expressed in any relevant Maximum Building Height (Levels) Technical and Numeric Variation layer and Maximum Building Height (Metres) Technical and Numeric Variation layers or is generally low rise to complement the established streetscape and local character. DTS/DPF 3.1 Building height is: 2. not greater than: 1. the following: 2. in all other cases (i.e. there are blank fields for both maximum building height (metres) and maximum building height (levels)) - 2 building levels up to a height of 9m and 3. not less than: In relation to DTS/DPF 3.1, in instances where: 4. more than one value is returned in the same field: 1. for the purpose of DTS/DPF 3.1(a)(i), refer to the *Maximum Building Height (Metres) Technical and Numeric Variation* layer or *Maximum Building Height (Levels) Technical and Numeric Variation* layer in the SA planning database to determine the applicable value relevant to the site of the proposed development 2. for the purpose of DTS/DPF 3.1(b) refer to the *Minimum Building Height (Levels) Numeric Variation* layer in the SA planning database to determine the applicable value relevant to the site of the proposed development 5. only one value is returned for DTS/DPF 3.1(a)(i), (i.e. there is one blank field), then the relevant height in metres or building levels applies with no criteria for the other	Suitable. Consistent with preliminary master planning. 2 levels/9 metres is reasonably separated from housing across Ryans Road, where buildings of 2 levels/9 metres can also be built.

6. no value is returned for DTS/DPF 3.1(b), (ie there is a blank field), then there is no minimum building height and DTS/DPF 3.1(b) is met.	
PO 3.2 Buildings mitigate visual impacts of building massing on residential development within a neighbourhood-type zone. DTS/DPF 3.2 DTS/DPF 3.6 Buildings are constructed within a building envelope provided by a 45 degree plane, measured from a height of 3m above natural ground level at the boundary of an allotment used for residential purposes in a neighbourhood-type zone as shown in the following diagram, except where the relevant boundary is a southern boundary or where this boundary is the street boundary.  	Suitable. Refer Building Height investigations.
PO 3.7 Buildings mitigate overshadowing of residential development within a neighbourhood-type zone. DTS/DPF 3.7 Buildings on sites with a southern boundary adjoining an allotment used for residential purposes within a neighbourhood-type zone are constructed within a building envelope provided by a 30 degree plane grading north measured from a height of 3m above natural ground level at the southern boundary, as shown in the following diagram (except where this boundary is a street boundary):  	Suitable. Consistent with preliminary master planning.
PO 3.8 Buildings on an allotment fronting a road that is not a State maintained road, and where land on the opposite side of the road is	Suitable.

within a neighbourhood-type zone, provides an orderly transition to the built form scale envisaged in the adjacent zone to complement the streetscape character.	Consistent with preliminary master planning.
Site Dimensions and Land Division	
PO 4.1 Land division creates allotments that vary in size and are suitable for a variety of commercial and business activities. DTS/DPF 4.1 Allotments: • connected to an approved common wastewater disposal service have an area of 1250m2 or more and a frontage width of 20m or more • that will require the disposal of wastewater on-site have an area of 2000m2 or more and a frontage width of 20m or more.	Suitable. Consistent with preliminary master planning.
Landscaping	
PO 5.1 Landscaping is provided to enhance the visual appearance of development when viewed from public roads and thoroughfares. DTS/DPF 5.1Other than to accommodate a lawfully existing or authorised driveway or access point, or an access point for which consent has been granted as part of an application for the division of land, a landscaped area is provided within the development site: • where a building is set back less than 3m from the street boundary - 1m wide or the area remaining between the relevant building and the street boundary where the building is less than 1m from the street boundary • or • in any other case - at least 1.5m wide.	Suitable. Consistent with preliminary master planning.
PO 5.2 Development incorporates areas for landscaping to enhance the overall amenity of the site and locality. DTS/DPF 5.2 Landscape areas comprise: • not less than 10 percent of the site • a dimension of at least 1.5m.	Suitable. Consistent with preliminary master planning.
Advertisements	

PO 6.1 Freestanding advertisements are not visually dominant within the locality. DTS/DPF 4.2 Freestanding advertisements: • do not exceed 6m in height, the adjacent building wall height, or the zone's height allowance (whichever is the lesser) • do not have a sign face that exceeds 8m2 per side.	Suitable Consistent with preliminary master planning.
Concept Plans	
PO 5.1 Development is compatible with the outcomes sought by any relevant Concept Plan contained within Part 12 - Concept Plans of the Planning and Design Code to support the orderly development of land through staging of development and provision of infrastructure. DTS/DPF 5.1 The site of the development is wholly located outside any relevant Concept Plan boundary. The following Concept Plans are relevant: In relation to DTS/DPF 5.1, in instances where: • one or more Concept Plan is returned, refer to Part 12 - Concept Plans in the Planning and Design Code to determine if a Concept Plan is relevant to the site of the proposed development. Note: multiple concept plans may be relevant. • in instances where 'no value' is returned, there is no relevant concept plan and DTS/DPF 5.1 is met.	Suitable This Code Amendment proposes a Concept Plan for the area affected.

Analysis of Public Notification Policy in the Employment Zone for the Area Affected

The Suburban Activity Centre Zone contains policy about what types of development are and are not publicly notified. An analysis of Zone Notification Policy and its suitability for the Affected Area is outlined below.

Suburban Activity Centre Zone Notification Policy (as described in the Planning and Design Code)	Suitability for Area Affected
Table 5 - Procedural Matters (PM) - Notification	
Not Notified Development which, in the opinion of the relevant authority, is of a minor nature only and will not unreasonably impact on the owners or occupiers of land in the locality of the site of the development.	Suitable. This notification policy applies throughout SA.
Not Notified	Suitable.

Any development involving any of the following (or of any combination of any of the following): • advertisement • temporary public service depot. Except development that exceeds the maximum building height specified in Employment Zone DTS/DPF 3.5 or does not satisfy any of the following: • Employment Zone DTS/DPF 3.6 • Employment Zone DTS/DPF 3.7.	This notification policy applies throughout SA.
Not Notified Any development involving any of the following (or of any combination of any of the following): • consulting room • light industry • office • motor repair station • retail fuel outlet • store • warehouse. Except the following development is notified Except where the site of the development is adjacent land to a site (or land) used for residential purposes in a neighbourhood-type zone.	Suitable. This notification policy applies throughout SA.
Not notified Any development involving any of the following (or of any combination of any of the following): • air handling unit, air conditioning system or exhaust fan • carport • deck • fence • internal building works • land division • outbuilding • pergola • private bushfire shelter • recreation area • replacement building • retaining wall • shade sail • solar photovoltaic panels (roof mounted) • swimming pool or spa pool and associated swimming pool safety features	Suitable. This notification policy applies throughout SA.

• temporary accommodation in an area affected by bushfire • tree damaging activity • verandah • water tank.	
Not Notified Building for the purposes of railway activities.	Suitable. This notification policy applies throughout SA.
Not Notified Demolition Except any of the following: • the demolition (or partial demolition) of a State or Local Heritage Place (other than an excluded building) • the demolition (or partial demolition) of a building in a Historic Area Overlay (other than an excluded building).	Suitable. This notification policy applies throughout SA.
Not Notified Railway Line Except where located outside of a rail corridor or rail reserve.	Suitable. This notification policy applies throughout SA.
Not Notified Shop within any of the following: • Retail Activity Centre Subzone • Roadside Service Centre Subzone. Except shop that exceeds the maximum building height specified in Employment Zone DTS/DPF 3.5 or does not satisfy any of the following: • Employment Zone DTS/DPF 3.6 • Employment Zone DTS/DPF 3.7.	Suitable. This notification policy applies throughout SA.
Not Notified Shop. Except: where the site of the shop is adjacent land to a site (or land) used for residential purposes in a neighbourhood-type zone or	Suitable. This notification policy applies throughout SA.

shop that exceeds the maximum building height specified in Employment Zone DTS/DPF 3.5 or shop that does not satisfy Employment Zone DTS/DPF 1.2.	
Not Notified Telecommunications facility. Except telecommunications facility that does not satisfy Employment Zone DTS/DPF 1.3.	Suitable. This notification policy applies throughout SA.

2.3.4 Add Advertising Near Intersections Overlay due to Proposed Traffic Lights near Ryans Road

Investigations support establishing traffic lights near the Ryans Road intersection (see Investigations **Attachment D**). The Code Advertising Near Intersections Overlay requires assessment of particular proposed illuminated advertisements that may conflict with the proper legibility of traffic lights.

To ensure the proper assessment about this risk, the Code is proposed to be changed to apply the Advertising Near Intersections Overlay at Ryans Road.



Figure 7 Proposed Advertising Near Interesections Overlay

2.3.5 Alter Affordable Housing Overlay

The Affordable Housing Overlay applies over the portion of the area affected within the General Neighbourhood Zone, but not within the Employment or Strategic Employment Zones.

Where spatially applicable, the Affordable Housing Overlay applies to development proposing more than 20 dwellings.

As housing is an envisaged land use within the proposed Suburban Activity Centre Zone, it is appropriate to extend the Affordable Housing Overlay over the proposed Suburban Activity Centre Zone. As the existing Neighbourhood Zone is proposed to be replaced with the Employment Zone, and housing is not envisaged in the Employment Zone, the Overlay is proposed to be removed from this portion.



Figure 8 Proposed Alterations to Affordable Housing Overlay

2.3.6 Add Concept Plan to the Area Affected

Investigations identify:

- the southern part of 2 – 50 Ryans Road for retail purposes and the northern part for bulky goods purposes.
- establishing a primary vehicle access point immediately south of Ryans Road, certain works to the Ryans Road intersection, and a circulation road on the site of 2 – 50 Ryans Road extending from Salisbury Highway to the northern end of the site. Several secondary vehicle access points are intended from the area affected to Ryans Road.
- intended locations - subject to assessment regarding regulated and significant tree policy in the Planning and Design Code – to retain select regulated and significant trees
- fostering biodiversity through new selection of new trees and landscaping.

These findings are shown on the draft Concept Plan proposed to be added by way of a Technical and Numeric Variation to the Code.



Figure 9 Draft Proposed Concept Plan

2.3.7 Building Height in Proposed Suburban Activity Centre Zone

The proposed Suburban Activity Centre Zone for the southern part of the Area Affected envisages buildings up to 3 levels high or 12 metres in building height. Consequently, it is proposed to make a Technical and Numeric Variation to Maximum Building Height in both Levels and Metres.

2.3.8 Extend Stormwater Management Overlay over entire Area Affected

The Stormwater Management Overlay applies over the portion of the area affected within the General Neighbourhood Zone, but not within the Employment or Strategic Employment Zones.

Where spatially applicable, the Stormwater Management Overlay seeks a Desired Outcome of 'Development incorporates water sensitive urban design techniques to capture and reuse stormwater'.

The Performance Outcome seeks

'Residential development is designed to capture and re-use stormwater to:

- maximise conservation of water resources
- manage peak stormwater runoff flows and volume to ensure the carrying capacities of downstream systems are not overloaded
- manage stormwater runoff quality.'

As housing is an envisaged land use within the proposed Suburban Activity Centre Zone, it is appropriate to extend the Stormwater Management Overlay over the full extent of the area affected.



Figure 10 Proposed Extension of Stormwater Management Overlay

46

2.3.9 Extend Urban Tree Canopy over Proposed Suburban Activity Centre Zone

The Urban Tree Canopy Overlay applies over the portion of the area affected within the General Neighbourhood Zone, but not within the Employment or Strategic Employment Zones.

Where spatially applicable, the Overlay applies to residential development.

As housing is an envisaged land use within the proposed Suburban Activity Centre Zone, it is appropriate to extend the Overlay over the proposed Suburban Activity Centre Zone.



Figure 11 Proposed Extension to Urban Tree Canopy

2.3.10 Overlays with No Changes Proposed

Analysis of Other Overlays identifies there is no need for change.

Overlay	Desired Outcome	Comment
Aircraft Noise Exposure	Development sensitive to aircraft noise is designed and located to manage noise intrusion to reduce land use conflict and protect human health.	No basis to change with proposed Suburban Activity Centre Zone.
Airport Building Heights (Regulated)	Management of potential impacts of buildings and generated emissions to maintain operational and safety requirements of registered and certified commercial and	"

	military airfields, airports, airstrips and helicopter landing sites.	
Building Near Airfields	Maintain the operational and safety requirements of certified commercial and military airfields, airports, airstrips and helicopter landing sites through management of non-residential lighting, turbulence and activities that may attract or result in the congregation of wildlife.	"
Defence Aviation	Management of potential impacts of buildings on the operational and safety requirements of Defence Aviation Areas.	"
Hazards (Flooding)	Impacts on people, property, infrastructure and the environment from high flood risk are minimised by retaining areas free from development, and minimising intensification where development has occurred.	"
Hazards (Flooding General)	Impacts on people, property, infrastructure and the environment from general flood risk are minimised through the appropriate siting and design of development.	"
Prescribed Wells	Sustainable water use in prescribed wells areas.	Overlay applies to all of area affected No basis to change with proposed Suburban Activity Centre Zone.
Regulated and Significant Tree	Conservation of regulated and significant trees to provide aesthetic and environmental benefits and mitigate tree loss.	Retail type development like housing or employment type development should be developed to meet this Overlay.
Traffic Generating Development	Safe and efficient operation of Urban Transport Routes and Major Urban Transport Routes for all road users. Provision of safe and efficient access to and from urban transport routes and major urban transport routes.	Overlay applies to portion of the area affected closer to Salisbury Highway. No clear need to extend to full extent of site.

Urban Transport Routes	Safe and efficient operation of Urban Transport Routes for all road users. Provision of safe and efficient access to and from Urban Transport Routes.	Overlay applies to all of area affected No basis to change with proposed Suburban Activity Centre Zone.

3. WHAT ARE THE NEXT STEPS FOR THIS CODE AMENDMENT?

3.1 Engagement

Engagement on the Code Amendment must occur in accordance with the Community Engagement Charter principles, which required that:

- engagement is genuine
- engagement is inclusive and respectful
- engagement is fit for purpose
- engagement is informed and transparent
- engagement processes are reviewed and improved.

An Engagement Plan has been prepared for this Code Amendment to ensure that engagement will be conducted and measured against the principles of the Charter. For more information on the Community Engagement Charter go to the PlanSA portal at (plan.sa.gov.au/en/charter).

This Code Amendment is on consultation from Wednesday 15 November 2023 to **5pm Tuesday 16 January 2024.**

During this time you are welcome to lodge a written submission about any of the changes proposed in this Code Amendment.

You can view the Code Amendment and supporting technical documents on the Plan SA website: plan.sa.gov.au/have_your_say/code_amendments

Supporting documents include investigations about retail, traffic, trees, stormwater, environmental, services and Aboriginal sites.

A hard copy is available to view at the Salisbury Hub, 34 Church Street Salisbury, during business hours.

You can talk to members of the project team at informal drop-in sessions to be held at The Mawson Centre (2 – 8 Main Street Mawson Lakes) on:

- Wednesday 6 December 2023 (5:30pm – 7:00pm)
- Saturday 9 December 2023 (10:00 am – 11:30am).

If you intend to attend, please RSVP to info@townplanningadvisors.com.au or to 0482 063 514. You do not need to RSVP to be able to attend.

If you would like an opportunity to discuss the proposal online, please contact info@townplanningadvisors.com.au

Should you have any questions, please contact info@townplanningadvisors.com.au or 0482 063 514

3.2 How can I have my say on the Code Amendment?

There are several ways in which you can provide a submission on the Code Amendment. This includes:

- Make an online submission (www.plan.sa.gov.au)
- Email info@townplanningadvisors.com.au
- Post Town Planning Advisors PO Box 9061 Henley Beach South SA 5022

Submissions are requested to be labelled 'Submission – Green Frields Centre Code Amendment'.

If these methods are not suitable for you or people you know, please contact us.

3.3 What changes to the Code Amendment can my feedback influence?

Feedback can influence the changes to the Planning and Design Code proposed in this Code Amendment.

The Planning and Design Code provides a menu of policy that a proposed Code Amendment can choose from. Feedback is unable to modify the menu of policy able to be chosen from.

For example, it is not possible to vary the standard policy contained in the Suburban Activity Centre Zone, as that is a Zone that applies across SA. However, it is possible to influence the proposed Concept Plan and Building Height, as these are proposed as Technical and Numeric Variations.

3.4 What will happen with my feedback?

Thirteen Commercial Pty Ltd (the Proponent), and its advisors, are committed to undertaking consultation in accordance with the principles of the Community Engagement Charter and is genuinely open to considering the issues raised by people in the community.

All formal submissions will be considered by Thirteen Commercial Pty Ltd and its advisors when determining whether the proposed Amendment is suitable and whether any changes should be made.

Each submission will be entered into a register and you will receive an email acknowledging receipt of your submission. Your submission will be published on the PlanSA portal. Personal addresses, email and phone numbers will not be published; however company details will be.

Thirteen Commercial Pty Ltd will consider the feedback received in finalising the Code Amendment and will prepare an Engagement Report which will outline what was heard during consultation and how the proposed Code Amendment was changed in response to submissions.

The Engagement Report will be forwarded to the Minister, and then published on the PlanSA portal.

3.5 Decision on the Code Amendment

Once the Engagement Report is provided to the Minister, the Commission may provide further advice to the Minister at the Minister's request, if the Code Amendment is considered significant.

The Minister will then either adopt the Code Amendment (with or without changes) or determine that the Code Amendment should not proceed. The Minister's decision will then be published on the PlanSA portal.

If adopted, the Code Amendment will be referred to the Environment Resources and Development Committee of Parliament (ERDC) for their review. The Commission will also provide the Committee with a report on the Code Amendment, including the engagement undertaken on the Code Amendment and its compliance with the Community Engagement Charter.

4. ANALYSIS

4.1 Strategic Planning Outcomes

4.1.1 Summary of Strategic Planning Outcomes

At a strategic level, rezoning the area affected for retail purposes – based on the retail investigations – provides greater convenience for nearby residents and workers, supports greater use of transport options such as walking, cycling and public transport, and fosters walkability and healthy neighbourhoods. Drawing on the retail investigations, the rezoning meets changing business and community needs, supports competition within the retail sector, and has potential to generate a significant positive outcome.

4.1.2 Consistency with the State Planning Policies

State Planning Policies define South Australia's planning priorities, goals and interests. They are the overarching umbrella policies that define the state's interests in land use. There are 16 State Planning Policies and six special legislative State Planning Policies.

These policies are given effect through the Code, with referral powers assigned to relevant Government Agencies (for example, the Environmental Protection Agency for contaminated land). The Code (including any Code Amendments) must comply with any principle prescribed by a State Planning Policy.

This Code Amendment is considered to be consistent with the State Planning Policies as shown in **Attachment C**.

4.1.3 Consistency with the Regional Plan

The directions set out in Regional Plans provide the long term vision and set the spatial patterns for future development within a region. This can include land use integration, transport infrastructure and the public realm.

The Commission has identified that the existing volumes of the South Australian Planning Strategy, prepared under the *Development Act 1993*, will apply until such time as the new Regional Plans are prepared and adopted. Refer to the PlanSA portal for more information on the Commission's program for implementing Regional Plans throughout South Australia.

Where there is conflict between a Regional Plan and the State Planning Policies, the State Planning Policies will prevail.

This Code Amendment is considered to be consistent with the Regional Plan as shown in **Attachment C**.

4.1.4 Consistency with other key strategic policy documents

This Code Amendment is considered to be consistent with key strategic policy documents of the City of Salisbury Council as shown in **Attachment C**.

4.2 Infrastructure planning

The following infrastructure planning is relevant to this Code Amendment:

Council Infrastructure Planning	Response/Comment
Stormwater	The City of Salisbury completed a Drainage Review in 2021 (refer investigations)
Transport	Transport investigations have been undertaken, including discussions with Council officers and the Department of Infrastructure and Transport (refer investigations). These conclude that overall, a retail/bulky goods development will only have a very minor impact on traffic volumes on the adjacent road network. In more detail, the investigations conclude: • A new access point on Salisbury Highway would provide access for the Affected Area, along with access to and from Ryans Road. The Salisbury Highway access point would be controlled by traffic signals • The Salisbury Highway access point will provide access for light and heavy vehicles associated with the anticipated uses, whilst the Ryans Road access points would provide for light vehicles only • The impact on the local road network will include closure of Ryans Road (at Salisbury Highway) and removal of the median opening on Salisbury Highway at Taylor Street. These are required to accommodate the new traffic signals at the Salisbury Highway access point. • Salisbury Highway will require additional northbound traffic lane to accommodate the new traffic signals, with a concept plan indicating this can be achieved within the existing road reserve. • Analysis of the new traffic signals has found it would meet the operating requirements and guidelines of Department for Infrastructure and Transport for a new traffic signal controlled intersection. • A review of the Planning and Design Code policies relevant to the likely zoning has not found any specific policies which would be problematic for the anticipated uses in the Affected Area. Given the size and configuration of the Affected Area, it is likely that these policies can generally be satisfied with development in the Affected Area. • Pedestrian crossing of Salisbury Highway via the new traffic signals. • Cycle lanes on Salisbury Highway are extended through the new traffic signals. • The bus stop is retained with a new indented bay.

Government Agency Infrastructure Planning	Response/Comment
Transport	(refer Council Infrastructure Planning above)
Services e.g. electricity, water	Investigations confirm no major issues

4.3 Investigations

The extent of investigations that have been undertaken as part of the Code Amendment process have been agreed by the Minister in the Proposal to Initiate. In addition to this, the Commission has also specified certain investigations to be undertaken to support the Code Amendment.

The following investigations have been undertaken to inform this Code Amendment.

4.3.1 Aboriginal Culture

There are no entries for Aboriginal sites on the Central Archive of the Register of Aboriginal Sites and Objects. Further details are in **Attachment D**.

4.3.2 Retail

A retail demand and impact assessment investigation was undertaken. The investigation considered a possible retail development (with a portion of bulky goods/warehousing), catchment area, competition, need, impacts, and benefits.

The investigation concluded a retail development has the potential to generate a significant positive economic outcome.

The primary findings are:

- 'The site is a prominent location with good access for residents from the local area, passing traffic on Salisbury Highway and the workforce of the Green Fields industrial area.
- The development has a broad and integrated land use mix with shopping, restaurants, warehouse and bulky goods / showroom uses.
- The development is well laid out with good parking and safe access and egress.
- Based on current benchmarks, there is a significant undersupply of supermarket floorspace in the area.
- The proposed development will introduce the only full line supermarket into the catchment area, offsetting some of the current undersupply.
- The catchment extends through the central and lower areas of Salisbury where it inevitably overlaps with other centres, some of which are ageing in appearance and function.
- The catchment, passing trade and local employment base will support the proposed development with low-moderate one-off impacts on surrounding centres. These impacts can be sustained and managed and recovered in the short term with no likely long term effects on the centres hierarchy.

- The proposed neighbourhood centre will generate 210 direct FTE jobs during the construction phase and 125 FTE jobs in its ongoing operation.'

Further details are in **Attachment D**.

4.3.3 Transport

Council and the Minister for Planning seek suitable transport arrangements (underline below added)

> 'The Salisbury Council CEO letter (23 March 2023) to Thirteen Commercial expressed in-principle support to commence investigations, subject to 'Recognition that the City of Salisbury City Plan has a direction for being 'Vehicle access and egress will require consideration of the impacts along Ryans Road and Salisbury Highway…'
>
> The Minister for Planning's approval of the Proposal to Initiate (letter 27 August 2023) included the State Planning Commission's recommendation that 'Undertake investigation into potential interface impacts with adjacent land uses including employment and residential, particularly with regard to traffic.'

Empirical Traffic Advisory completed a Transport Impact Assessment in 2023 for Thirteen Commercial (**Attachment D**).

The primary finding is that overall, the proposed rezoning and concept will only have a very minor impact on traffic volumes on the adjacent local road network and Salisbury Highway.

The assessment found:

1. The Code Amendment is seeking to change the existing Strategic Employment, General Neighbourhood, Employment Zones to a Suburban Activity Centre Zone to part Suburban Activity Centre and part Employment Zone.
2. Anticipated uses will include retail shops, bulky goods and warehouse.
3. A new access point on Salisbury Highway would provide access for the Affected Area, along with access to and from Ryans Road. The Salisbury Highway access point would be controlled by traffic signals.
4. The Salisbury Highway access point will provide access for light and heavy vehicles associated with the anticipated uses, whilst the Ryans Road access points would provide for light vehicles only.
5. The impact on the local road network will include closure of Ryans Road (at Salisbury Highway) and removal of the median opening on Salisbury Highway at Taylor Street. These are required to accommodate the new traffic signals at the Salisbury Highway access point.
6. Salisbury Highway will require additional northbound traffic lane to accommodate the new traffic signals, with a concept plan indicating this can be achieved within the existing road reserve.
7. Analysis of the new traffic signals has found it would meet the operating requirements and guidelines of Department for Infrastructure and Transport for a new traffic signal controlled intersection.
8. A review of the Planning and Design Code policies relevant to the likely zoning has not found any specific policies which would be problematic for the anticipated uses in the Affected Area. Given the size and configuration of the

Affected Area, it is likely that these policies can generally be satisfied with development in the Affected Area.

9. Pedestrian crossing of Salisbury Highway via the new traffic signals.
10. Cycle lanes on Salisbury Highway are extended through the new traffic signals.
11. The bus stop is retained with a new indented bay.

The assessment considered the impact of the new traffic signals on existing traffic volumes nearby. The key impacts will be:

- Partial closure of Ryans Road at Salisbury Highway due to the proximity of the existing intersection to the new traffic signalised access point, with only left turn exit movements from Ryans Road to be maintained.
- Closure of the existing median opening at Taylor Street which will prevent right turns to and from Salisbury Highway, with only left turns to and from Salisbury Highway to remain.

The predicted redistribution of traffic is shown below

Figure 4.2: Predicted Redistribution of Existing Daily Traffic Volumes

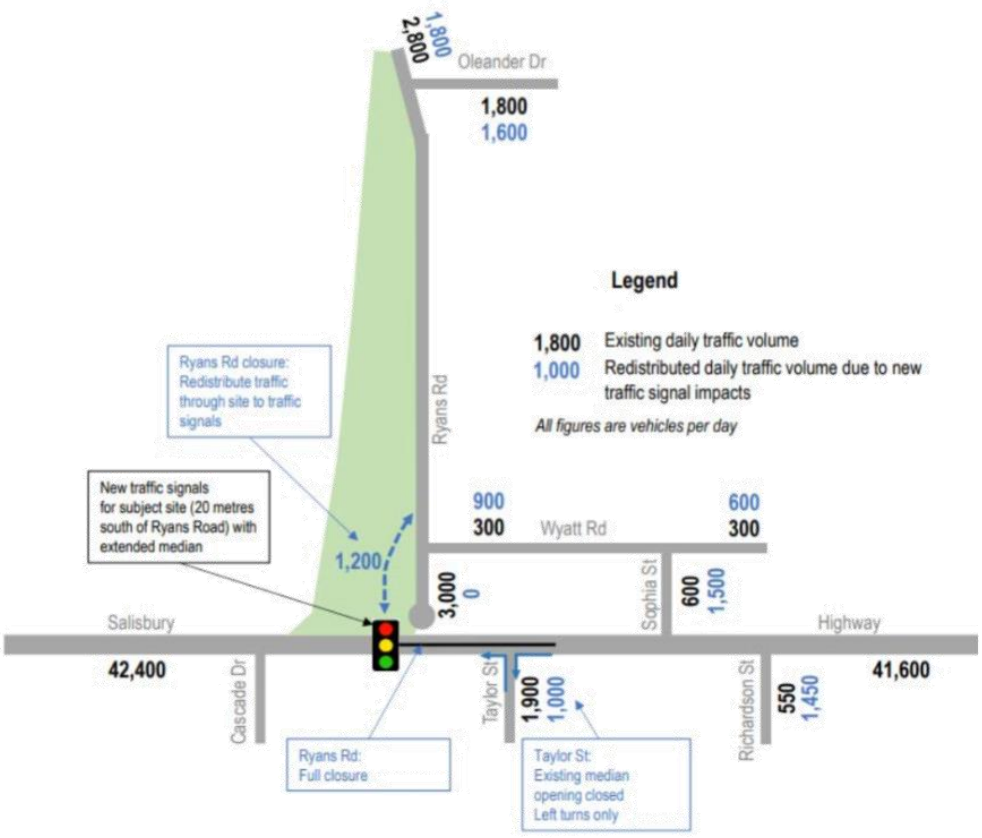


Figure 12 Predicted Redistribution of Existing Traffic Volumes

The assessment of the redistribution found:

- Taylor Street will reduce in traffic volume from 1,900 to 1,000 vehicles per day.
- The existing right turn movements from Taylor Street will likely redistribute to Richardson Street and increase this street from 550 to 1,450 vehicles per day.
- Half of existing movements from Ryans Road West to East will divert to the proposed traffic signals.
- It is anticipated that most of Ryans Road traffic will divert to the new traffic signals with approximately 1,000 vehicles per day redirected from Ryans Road.
- Some existing Ryans Road traffic is anticipated to use Sophia Street which could increase daily traffic on Sophia Street from 600 vehicles per day to 1,500 vehicles per day and distributed north and south on Wyatt Street (600 vehicles per day in the southern segment and 300 vehicle per day in the northern section).

Overall, the impact on the adjacent local road network will be minor with all streets remaining within the general residential amenity traffic volume of less than 2,000 vehicles per day. This is the maximum traffic volume that is considered acceptable on residential streets before impact residential amenity of a street.

Further, the assessment found there is adequate capacity at the local street intersections (Sophia Street and Richardson St) with Salisbury Highway to cater for the increase in traffic associated with the redistribution. Hence the overall impact of the affected area traffic demands will be minor on the adjacent road network with regards to daily traffic volumes.

The impact of the new access point traffic signals on Salisbury Highway has been assessed in accordance with DIT guidelines. The assessment indicates that the new access traffic signals, based on the concept layout plan and calibrated SIDRA models, will meet the Department for Infrastructure and Transport requirements for traffic signal operation.

Further details are in **Attachment D**.

4.3.4 Trees Greening Biodiversity

Council and the Minister for Planning seek a suitable level of investigations around what can be described as trees, greening and biodiversity (underline below added)

> 'The Salisbury Council CEO letter (23 March 2023) to Thirteen Commercial expressed in-principle support to commence investigations, subject to 'Recognition that the City of Salisbury City Plan has a direction for being 'A Sustainable City' which includes protecting and conserving our diverse natural environment to support biodiversity and to be resilient to a changing climate. The subject land parcels are located within close proximity to the Dry Creek River Corridor and wetland system which has highly valued vegetation and is of high biodiversity value to the City. Therefore, I recommend that a vegetation assessment is done including identifying vegetation of significance and Significant and Regulated Trees on the site to assist in consideration of the Code Amendment and development of any Concept Plans to guide future development.'
>
> The Minister for Planning's approval of the Proposal to Initiate (letter 27 August 2023) included the State Planning Commission's recommendation that 'In preparing the Concept Plan give consideration to the retention of existing trees and identify these on the Concept Plan.'

Tree Investigations

Arborman Tree Solutions completed a preliminary tree assessment in 2021 for the City of Salisbury (**Attachment D)**.

In terms of 'Regulated' and 'Significant' trees in the statutory planning system, this preliminary assessment identified 17 Significant, 52 Regulated Trees and 15 groups of unregulated trees on the former Lot 1001.

Lot 1001 was subdivided in 2023, from which the northern part and an 8m landscape corridor along Ryans Road are vested with Council, including the trees on those land parcels (see **Attachment A**)

Regulated and Significant Tree Policy in the Planning and Design Code

The Arborman 2021 preliminary assessment formed an opinion providing a retention rating. The retention rating of trees is based on the regulated and significant tree policy in the Planning and Design Code. This Code Amendment does not propose to alter those policies.

The below Table documents Regulated and Significant Tree Overlay Policy.

The Code seeks the conservation of regulated and significant trees and provides, in summary, the following circumstances where trees can be removed:

- Short life expectancy of the tree
- Unacceptable risk to public or private safety from the tree
- it accommodates the reasonable development of land in accordance with the relevant zone where such development might not otherwise be possible.

With the current employment and neighbourhood zoning, if a development application was lodged for commercial and residential development of 2 – 50 Ryans Road, that application would be assessed regarding these policies.

Likewise, with the proposed Suburban Activity Centre and Employment Zones, if a development application was lodged for retail and a form of bulky goods development of 2 – 50 Ryans Road, that application would be assessed regarding these policies.

The current Policy in the Code has been in place for some years and is used to guide development applications involving regulated and significant trees across Greater Adelaide.

Table: Regulated and Significant Tree Overlay Policy
Desired Outcome
DO 1 Conservation of regulated and significant trees to provide aesthetic and environmental benefits and mitigate tree loss.
Performance Outcome
PO 1.1 Regulated trees are retained where they: a) make an important visual contribution to local character and amenity b) are indigenous to the local area and listed under the National Parks and Wildlife Act 1972 as a rare or endangered native species and / or

c) provide an important habitat for native fauna.
PO 1.2 Significant trees are retained where they: a) make an important contribution to the character or amenity of the local area b) are indigenous to the local area and are listed under the National Parks and Wildlife Act 1972 as a rare or endangered native species c) represent an important habitat for native fauna d) are part of a wildlife corridor of a remnant area of native vegetation e) are important to the maintenance of biodiversity in the local environment and / or f) form a notable visual element to the landscape of the local area.
PO 1.3 A tree damaging activity not in connection with other development satisfies (a) and (b): a) tree damaging activity is only undertaken to: i. remove a diseased tree where its life expectancy is short ii. mitigate an unacceptable risk to public or private safety due to limb drop or the like iii. rectify or prevent extensive damage to a building of value as comprising any of the following: A. a Local Heritage Place B. a State Heritage Place C. a substantial building of value and there is no reasonable alternative to rectify or prevent such damage other than to undertake a tree damaging activity iv. reduce an unacceptable hazard associated with a tree within 20m of an existing residential, tourist accommodation or other habitable building from bushfire v. treat disease or otherwise in the general interests of the health of the tree and / or vi. maintain the aesthetic appearance and structural integrity of the tree b) in relation to a significant tree, tree-damaging activity is avoided unless all reasonable remedial treatments and measures have been determined to be ineffective.
PO 1.4 A tree-damaging activity in connection with other development satisfies all the following: a) it accommodates the reasonable development of land in accordance with the relevant zone or subzone where such development might not otherwise be possible b) in the case of a significant tree, all reasonable development options and design solutions have been considered to prevent substantial tree-damaging activity occurring.
PO 2.1 Regulated and significant trees, including their root systems, are not unduly compromised by excavation and / or filling of land, or the sealing of surfaces within the vicinity of the tree to support their retention and health.

PO 3.1 Land division results in an allotment configuration that enables its subsequent development and the retention of regulated and significant trees as far as is reasonably practicable. DTS/DPF 3.1 Land division where: a) there are no regulated or significant trees located within or adjacent to the plan of division or b) the application demonstrates that an area exists to accommodate subsequent development of proposed allotments after an allowance has been made for a tree protection zone around any regulated tree within and adjacent to the plan of division.

Greening and Biodiversity Policy in the Planning and Design Code

Along with Regulated and Significant Tree policy, the main greening related policy in the Planning and Design Code is the Design in Urban Areas Soft Landscaping Policy which applies in different zones in different ways.

The Soft Landscaping Performance Outcome is PO 22.1 'Soft landscaping[6] is incorporated into development to:

a) minimise heat absorption and reflection
b) contribute shade and shelter
c) provide for stormwater infiltration and biodiversity
d) enhance the appearance of land and streetscapes.'

The 'Table: Approach to Site Development/Landscaping' summarises zone specific policies that influence the extent of on-site landscaping, and thus, opportunity to retain regulated and significant trees.

Table: Approach to Site Development and Soft Landscaping

Zone	Approach to Soft Landscaping
Employment/Strategic Employment	10% of site envisaged
General Neighbourhood	10% on sites <150, 20% >200 – 450 and 25% on sites >450.
Proposed Suburban Activity Centre	Buildings are sited and designed to create pedestrian, vehicular, open space and visual linkages between the various built-form elements within the zone and adjoining main roads and thoroughfares.

[6] The Code defines soft landscaping as 'Means landscaped areas that are pervious and capable of supporting the growth of plant species. It does not include artificial turf or any form of pervious paving or paved/hardstand areas used for pedestrian and/or vehicle movement.'

Proposed Concept Plan

Noting under the existing zoning, the site can be developed with buildings for employment and housing purposes, a preliminary review of different master plan options has been undertaken to inform a proposed Concept Plan (see Figure 16).

This responds to the State Planning Commissions request that 'In preparing the Concept Plan give consideration to the retention of existing trees and identify these on the Concept Plan.' as well as Salisbury Council's goal around '…protecting and conserving our natural environment'.

The preliminary review of master plan options identified the possibility of retaining select regulated/significant trees towards the southern end of the area affected as well as near the north western boundary. The review also identified the possibility of new trees and landscaping towards the southern end of the area affected as well as near to the Ryans Road landscape corridor.

The Ryans Road landscape corridor being within the area affected also can be shown on the Concept Plan.

Noting the request of the Commission along with existing Code policy on soft landscaping, regulated trees and landscaping in the proposed zones, the additional guidance offered by a Concept Plan underscores the importance of trees and landscaping generally in how the site is to be developed.



Figure 13 Proposed approach to trees and landscape on the Draft Concept Plan

Acknowledging the Code Policy and the Arborman investigations contemplate the possibility of some existing regulated and significant trees being removed as part of a development application, it is reasonable to consider how any replacement trees as well as soft landscaping, in the words of Salisbury Council, work towards '…protecting and conserving our diverse natural environment to support biodiversity and to be resilient to a changing climate.'

In particular, the biodiversity value of the Dry Creek system is sought by Salisbury Council to be supported through how this site is developed.

The Soft Landscaping Performance Outcome is not explicit about landscaping being selected to support biodiversity and being resilient to a changing climate. It is reasonable that the Concept Plan seek this outcome.

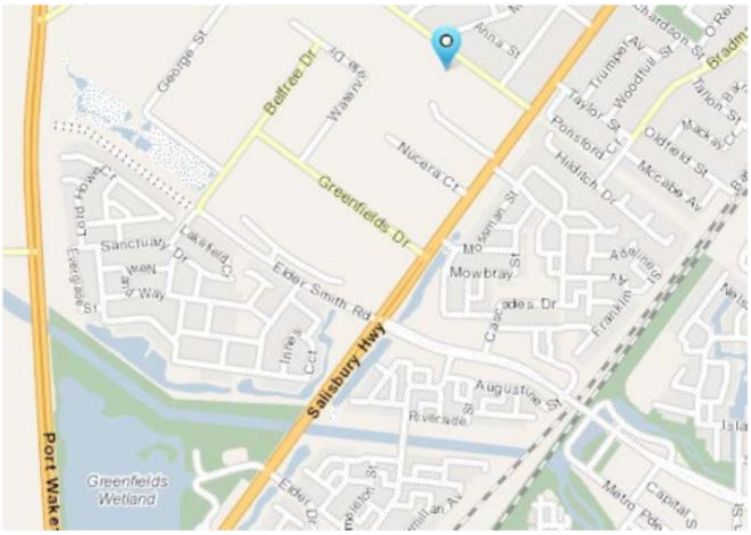


Figure 14 Area Affected Proximity to Green Fields Wetland

Careful site design of a proposed development with siting of buildings and arrangement of car parking and landscaping areas can work to retain the regulated and significant trees as much as possible, and to have adequate extent of onsite landscaping to meet the Soft Landscaping Performance Outcome.

This detailed site design work is to be done at the development application stage.

4.3.5 Stormwater

The City of Salisbury completed a Drainage Review in 2021.

This Review confirmed that Lot 1001 contains drainage infrastructure for a catchment of 120HA. The Review outlined stormwater management and easement requirements should Lot 1001 be elevated or the open channel replaced with pipes.

Note that Lot 1001 is being subdivided (Attachment A), with the subdivision plan showing an easement for stormwater purposes.

Note the Development Deed between the City of Salisbury and Thirteen Commercial obligates Thirteen Commercial to comply with the Council's directions regarding dealing with drainage including infrastructure. Thirteen Commercial is also obligated under the Deed to fund these obligations.

Further details are in **Attachment D**.

4.3.6 Environmental

Greencap completed Preliminary Environmental Investigations in 2021.

Greencap conclude 'The preliminary site investigation has identified that site contamination may exist as a result of activities on the site and adjacent land. Generally, the risk of significant contamination associated with onsite activities classed under the State Planning Commission's Practice Direction 14 is considered low. The presence of fill and other waste (including asbestos) on the site warrants further consideration in terms of any proposed site redevelopment.'

The Planning and Design Code General Development Policies about Soil Contamination will need to be satisfied at the time of development applications being considered.

Further details are in **Attachment D**.

4.3.7 Services

TMK completed a high level services infrastructure investigation in 2023. Their investigation (summarised below) affirmed services for development of the site are available. Further details are in **Attachment D**.

Service	Summary of TMK Investigation
Water	While a network assessment needs to be completed SA Water to finalize connections, generally the existing 150 mm main is suitably sized to provide new 50 mm connections to development on the area affected.
Sewer	While a network assessment needs to be completed SA Water to finalize connections, generally the existing 300 mm main is suitably sized to provide new 150 mm connections to development on the area affected
Gas	There is medium pressure gas main available along Ryans Rd.
Storm-water	Relocation of the existing stormwater easement will be required to accommodate development on the area affected. Those changes will need to go through the council for approval. The proposed stormwater detention system will consist of aboveground/underground detention tanks or swales distributed throughout the site; volume and discharge flow rate into council infrastructure will require approval by the council. Water quality will be achieved with bio-retention swale and/or filter devices prior discharge into the council infrastructure. Note - The Development Deed between the City of Salisbury and Thirteen Commercial obligates Thirteen Commercial to comply with the Council's directions regarding dealing with drainage including infrastructure. Thirteen Commercial is also obligated under the Deed to fund these obligations.
Fire Services	Expect the mains supply to adequately service the site fire hydrant water supply requirements, without supplementing with fire storage tanks / pump sets. Supplementary fire storage tanks / pump sets should be allowed for at planning stage to service fire sprinkler systems for the buildings

	required. A minimum 6m diameter tank x 5 m high, with 8x4m fire pumproom should be allowed for.
Electricity	Two new transformers (2MVA and 1.5MVA) will be required on the site to provide the estimated maximum demand. These transformers will need to be connected to the Hight Voltage overhead cables on Ryans Road. An application is needed to SA Power Networks. The locations of these transformers should be spread out to assist in voltage drop calculations to reduce the size of the consumers mains cables. Standard lighting for a shopping centre and carparking consists of the pole lights through the site along the roadways and floodlights throughout the site on the top of the buildings facing carparking spaces and passageways
Telecomm-unication	The following telecommunications underground infrastructure is present along Ryans Road and Salisbury Highway in the vicinity of the proposed development: • Telstra • Optus • Aussie Broadband • NBN

4.3.8 Recommended policy changes

Following is a list of the recommended policy changes which are proposed in response to the investigations undertaken in support of this Code Amendment:

1. Replace General Neighbourhood and Strategic Employment Zone with Suburban Activity Centre Zone and Employment Zone.
2. Add Advertising Near Intersections Overlay near Ryans Road.
3. Extend Affordable Housing Overlay over part of Proposed Suburban Activity Centre Zone.
4. Extend Concept Plan Overlay over full extent of Area Affected.
5. Extend Maximum Building Height (Levels) – propose buildings up to 3 levels over Proposed Suburban Activity Centre Zone.
6. Extend Maximum Building Height (Metres) – propose buildings up to 12 metres over Proposed Suburban Activity Centre Zone.
7. Extend Stormwater Management Overlay over full extent of Area Affected.
8. Extend Urban Tree Canopy Overlay over part of Proposed Suburban Activity Centre Zone.

ATTACHMENT A – AREA AFFECTED MAPPING

The area affected comprises Certificate of Title 6283/699 with easements for gas, electricity, water supply and drainage purposes. The 11 August 2022 surveyed plan shows easements for different purposes. For ease of reference, an annotated version of the surveyed plan is also included.

LAND SERVICES SA

Product	Register Search (CT 6283/699)
Date/Time	03/07/2023 11:42AM
Customer Reference	THI001
Order ID	20230703004244

REAL PROPERTY ACT, 1886 South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.

Certificate of Title - Volume 6283 Folio 699

Parent Title(s)	CT 6214/652				
Creating Dealing(s)	RTC 13986640				
Title Issued	05/04/2023	**Edition**	2	**Edition Issued**	06/06/2023

Estate Type

FEE SIMPLE

Registered Proprietor

GREENFIELDS CENTRAL PTY. LTD. (ACN: 665 355 626)
OF 234 STURT STREET ADELAIDE SA 5000

Description of Land

ALLOTMENT 1 DEPOSITED PLAN 131287
IN THE AREAS NAMED GREEN FIELDS AND PARAFIELD GARDENS
HUNDRED OF YATALA

Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED G ON D131287 FOR GAS SUPPLY PURPOSES TO AUSTRALIAN GAS NETWORKS (SA) LTD. (RTD 12968154)

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED P ON D131287 FOR THE TRANSMISSION OF ELECTRICITY BY OVERHEAD CABLE TO DISTRIBUTION LESSOR CORPORATION (SUBJECT TO LEASE 8890000) (RTD 12968154)

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED W ON D131287 FOR WATER SUPPLY PURPOSES TO SOUTH AUSTRALIAN WATER CORPORATION (RTD 12968154)

SUBJECT TO SERVICE EASEMENT(S) OVER THE LAND MARKED D ON D131287 FOR DRAINAGE PURPOSES TO THE COUNCIL FOR THE AREA (223LG RPA)

Schedule of Dealings

Dealing Number	Description
14047536	ENCUMBRANCE TO CITY OF SALISBURY
14047537	MORTGAGE TO COMMONWEALTH BANK OF AUSTRALIA (ACN: 123 123 124)
14051569	CAVEAT BY JOE CALABRIA

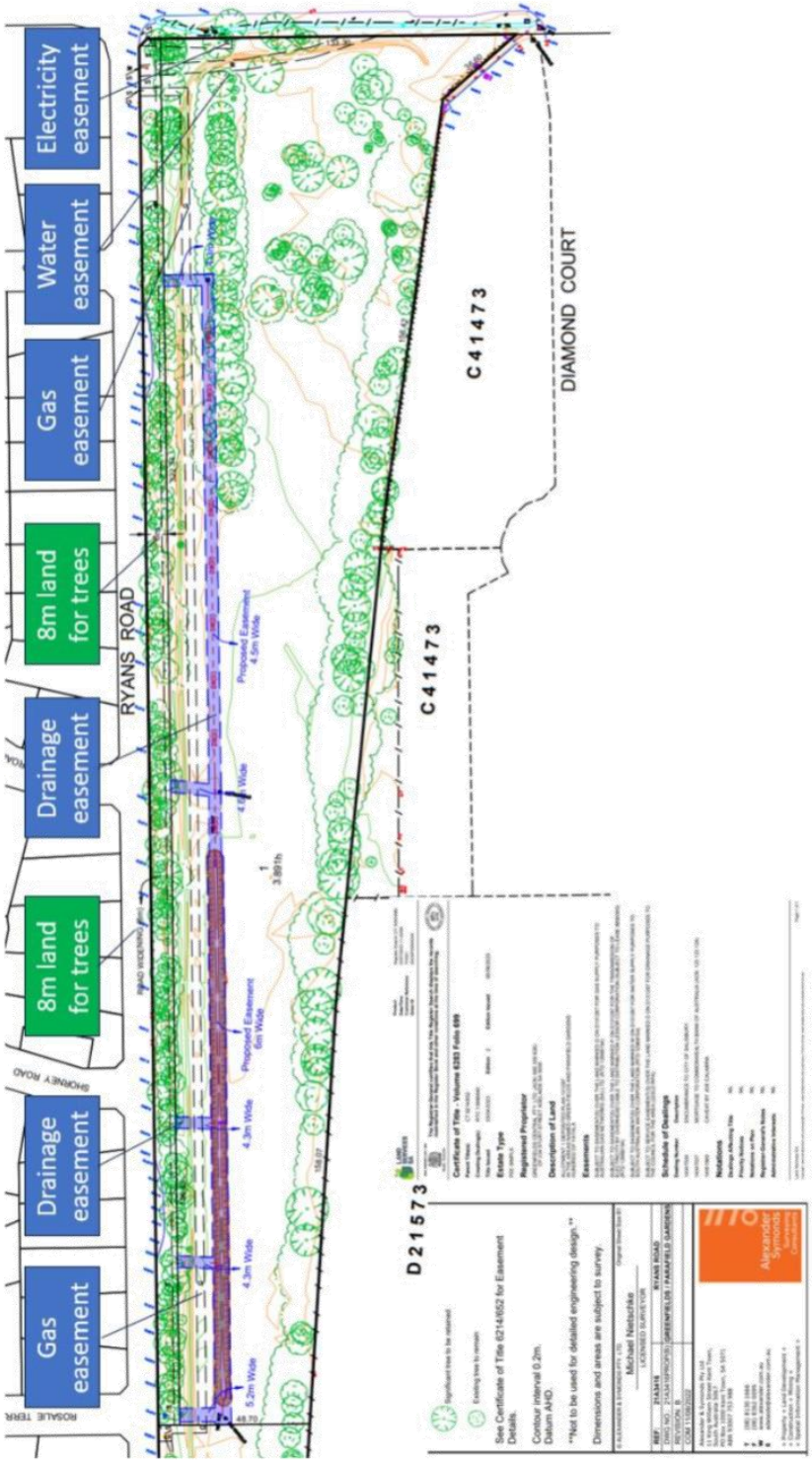
Notations

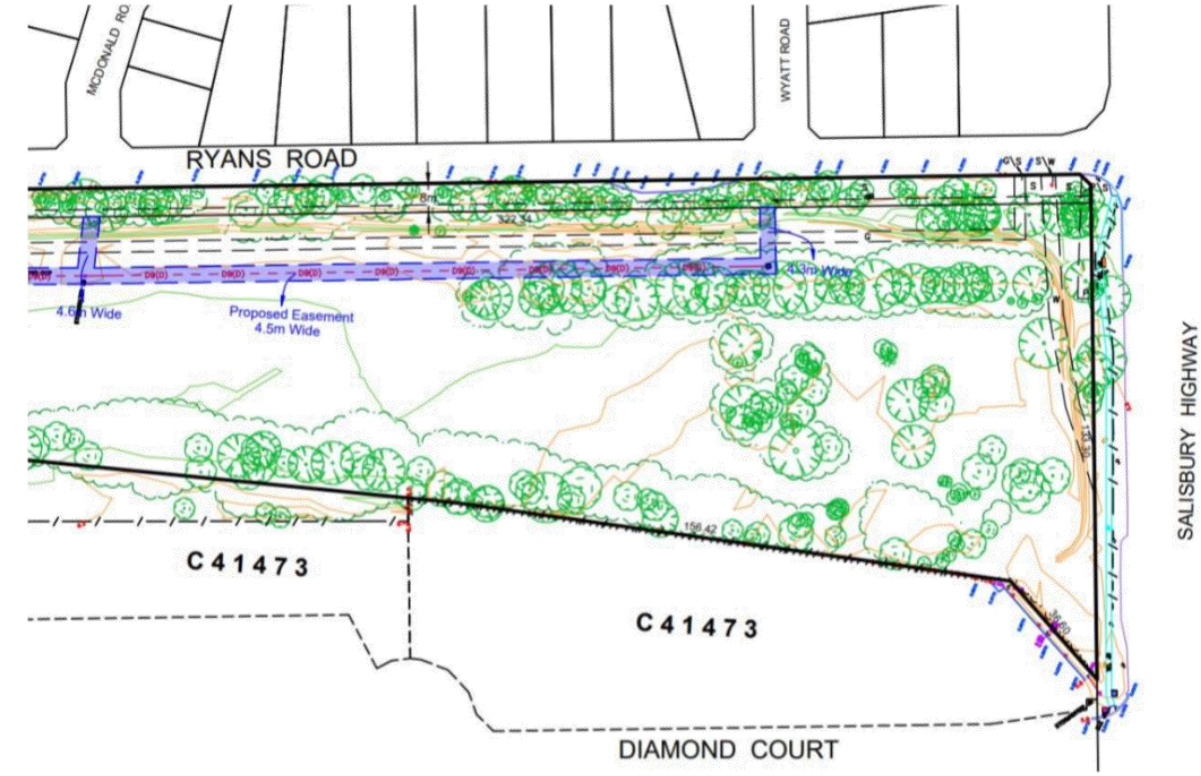
Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL

Land Services SA Page 1 of 1

Copyright: www.landservices.com.au/copyright | Privacy: www.landservices.com.au/privacy | Terms of Use: www.landservices.com.au/sailis-terms-of-use

67


Electricity easement
Water easement
Gas easement
8m land for trees
Drainage easement
8m land for trees
Drainage easement
Gas easement
RYANS ROAD
DIAMOND COURT
C41473
C41473
D21573
SHORNEY ROAD
ROSALIE TERR
Proposed Easement 4.5m Wide
Proposed Easement 6m Wide
4.3m Wide
5.2m Wide
Certificate of Title - Volume 6393 Folio 699
See Certificate of Title 6214/652 for Easement Details.
Contour interval 0.2m.
Datum AHD.
Not to be used for detailed engineering design.
Dimensions and areas are subject to survey.
Michael Nettschke
LICENSED SURVEYOR
Alexander Symonds


MCDONALD RD
WYATT ROAD
RYANS ROAD
4.6m Wide
Proposed Easement
4.5m Wide
4.3m Wide
SALISBURY HIGHWAY
C41473
C41473
DIAMOND COURT


OLEANDER DRIVE
ROSALIE TER
SHORNEY ROAD
MCDONALD RD
ROAD WIDENING (6m)
Reserve
7614m²
5.2m Wide
4.3m Wide
4.3m Wide
Proposed Easement
6m Wide
4.6m Wide
1
3.891h
D21573
D21573

69


Significant tree to be retained
Existing tree to remain
See Certificate of Title 6214/652 for Easement Details.
Contour interval 0.2m.
Datum AHD.
Not to be used for detailed engineering design.
Dimensions and areas are subject to survey.
© ALEXANDER & SYMONDS PTY. LTD.
Original Sheet Size B1
Michael Nietschke
LICENSED SURVEYOR
REF: 21A3416
RYANS ROAD
DWG NO.: 21A3416PROP(B)
GREENFIELDS / PARAFIELD GARDENS
REVISION: B
COM 11/08/2022
Alexander & Symonds Pty Ltd
11 King William Street Kent Town,
South Australia 5067
PO Box 1000 Kent Town, SA 5071
ABN 93007 753 988
T (08) 8130 1666
F (08) 8362 0099
W www.alexander.com.au
E adelaide@alexander.com.au
+ Property + Land Development +
+ Construction + Mining +
+ Spatial Information Management +
Alexander Symonds
Surveying Consultants

ATTACHMENT B – CURRENT AND PROPOSED CODE POLICY

(refer separate document)

ATTACHMENT C – STRATEGIC PLANNING OUTCOMES

(refer separate document)

ATTACHMENT D – INVESTIGATIONS

Refer separate investigations labelled as follows)

Attachment D1 – Aboriginal Heritage Sites - 2 Ryans Road Green Fields - SA Government – June 2023

Attachment D2 – Green Fields Retail Demand & Impact Report – Deep End Services – February 2023

Attachment D3 – Green Fields Code Amendment Transport Impact Assessment – Empirical Traffic Advisory Oct 2023

Attachment D4 – Ryans Road Preliminary Tree Assessment – Arborman – October 2021

Attachment D5 – Ryans Road Drainage Review – CC Salisbury – November 2021

Attachment D6 – Ryans Road Preliminary Environmental Investigation – Greencap – Nov 2021

Attachment D7 – High Level Services Investigation – TMK – Oct 2023

Attachment B - Existing Planning and Design Code Maps and Proposed Changes

This document shows existing Planning and Design Code Maps that are relevant to the area affected of 2 – 50 Ryans Road Green Fields.
Black is existing Code Policy - red proposed deletion – green proposed addition/change.
Base Maps from SAPPA 100% scale, legend 150% July 2023

Existing Planning and Design Code Policy (mid 2023)

Zones

- Employment
- ~~General Neighbourhood~~
- ~~Strategic Employment~~
- Suburban Activity Centre

Overlays

- Advertising Near Signalised Intersections
- Aircraft Noise Exposure (ANEF 20)
- Airport Building Heights (Regulated) (All structures over 15 metres)
- Airport Building Heights (Regulated) (All structures over 45 metres)
- Affordable Housing (change)
- Building Near Airfields
- Concept Plan
- Defence Aviation Area (All structures over 90 metres)
- Hazards (Flooding)
- Hazards (Flooding – General)
- Prescribed Wells Area
- Regulated and Significant Tree
- Stormwater Management (change)
- Traffic Generating Development
- Urban Transport Routes
- Urban Tree Canopy (change)

Technical and Numeric Variations

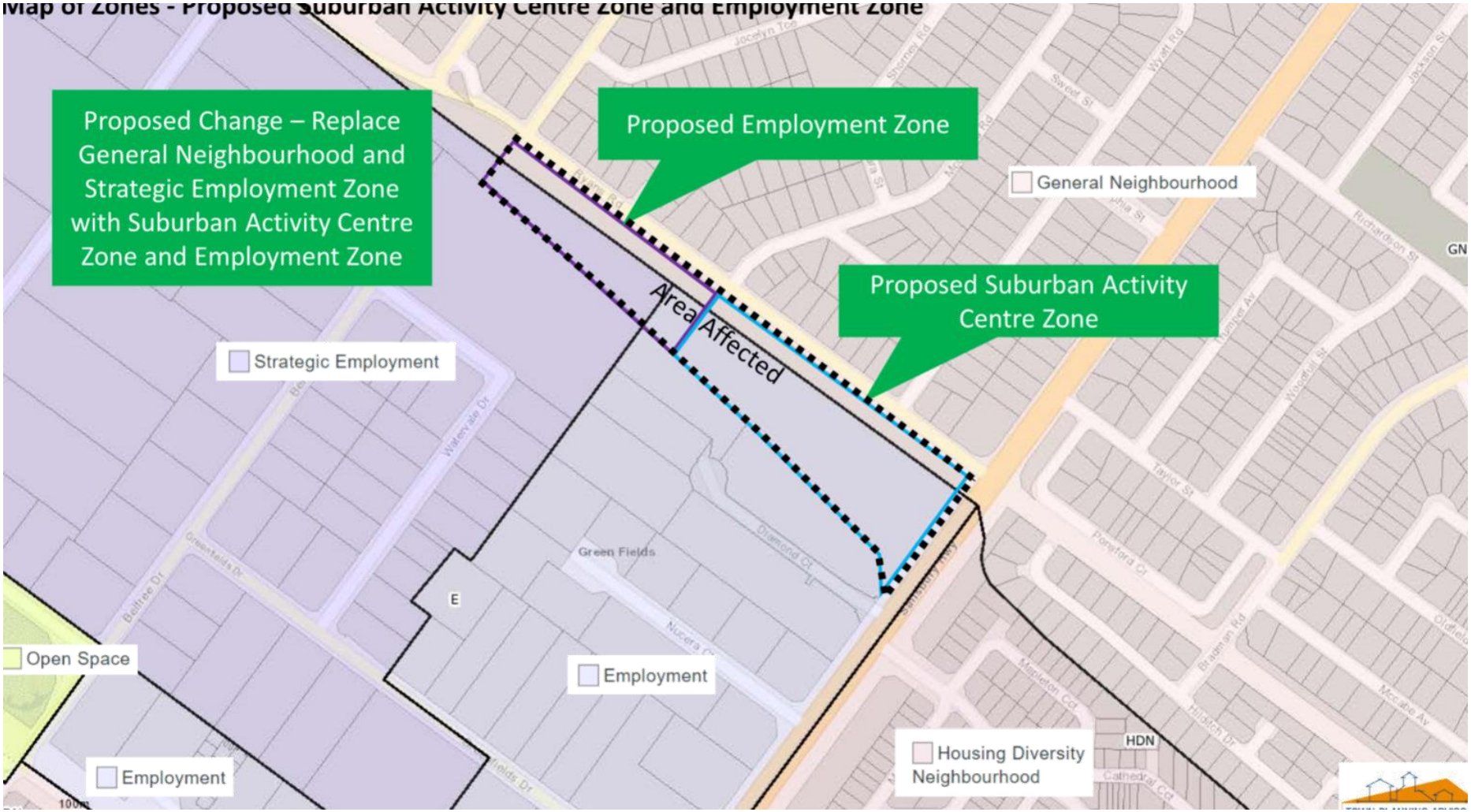
- Building Height 2 levels/9m (change)

Existing Planning and Design Code Policy (mid 2023)

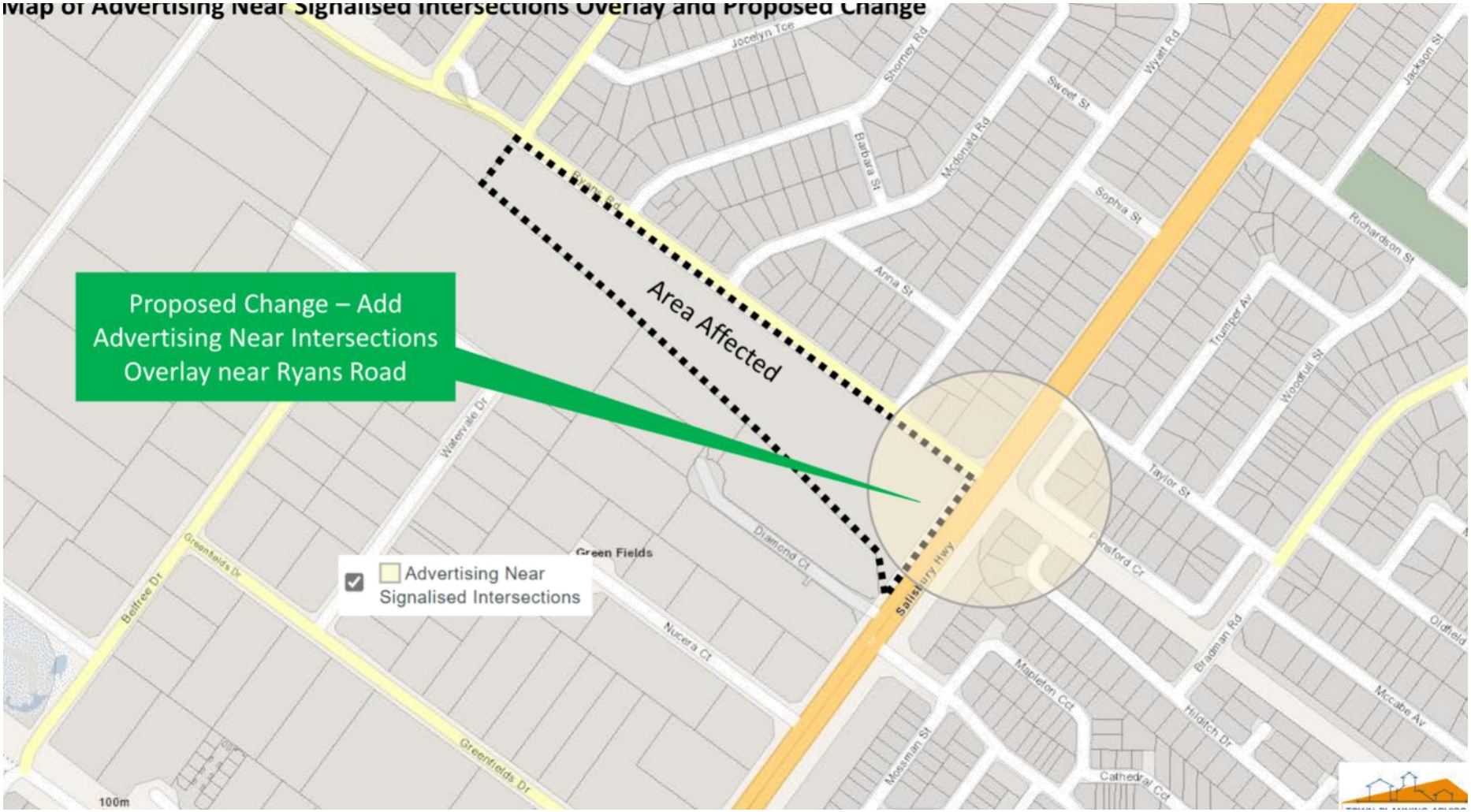
General Development Policies

- Advertisements
- Animal Keeping and Horse Keeping
- Aquaculture
- Beverage Production in Rural Areas
- Bulk Handling and Storage Facilities
- Clearance from Overhead Power Lines
- Design
- Design in Urban Areas
- Forestry
- Housing Renewal
- Infrastructure and Renewable Energy Facilities
- Intensive Animal Husbandry and Dairies
- Interface between Land Uses
- Land Division
- Marinas and On-Water Structures
- Open Space and Recreation
- Out of Activity Centre Development
- Resource Extraction
- Site Contamination
- Tourism Development
- Transport, Access and Parking
- Waste Treatment and Management Facilities

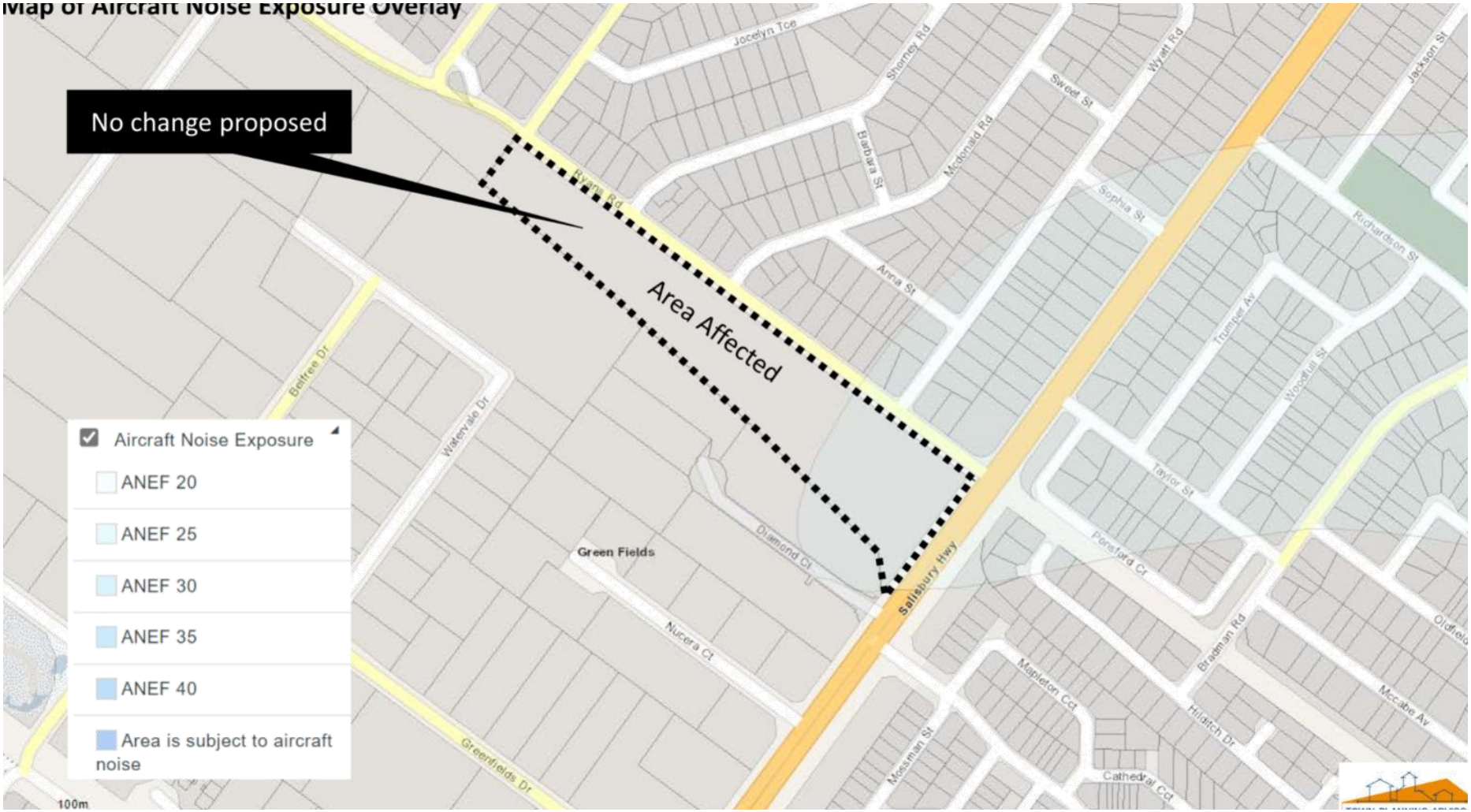
- Workers' accommodation and Settlements

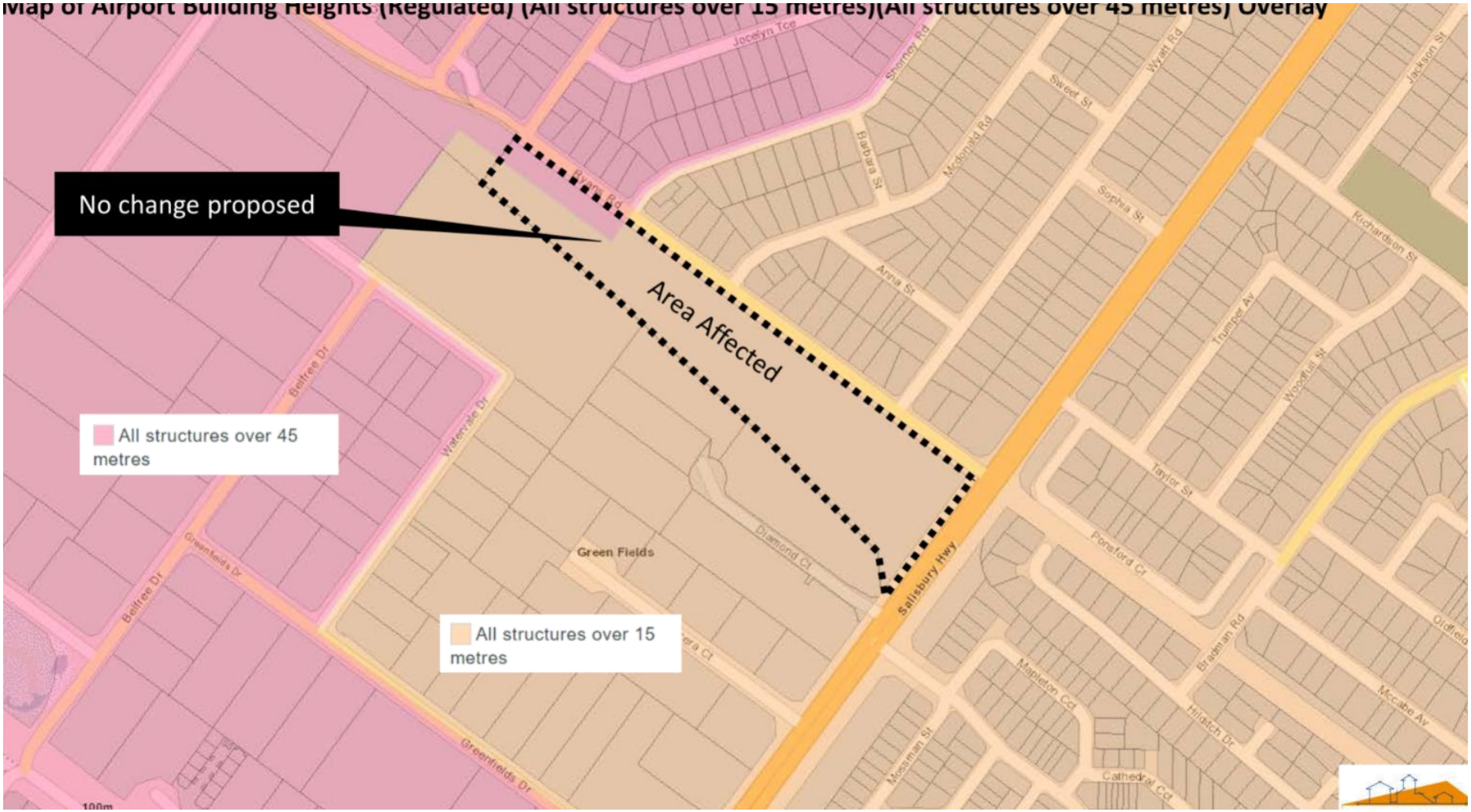


Item 1.1.1 - Attachment 5 - Code Amendment attach B - proposed policy

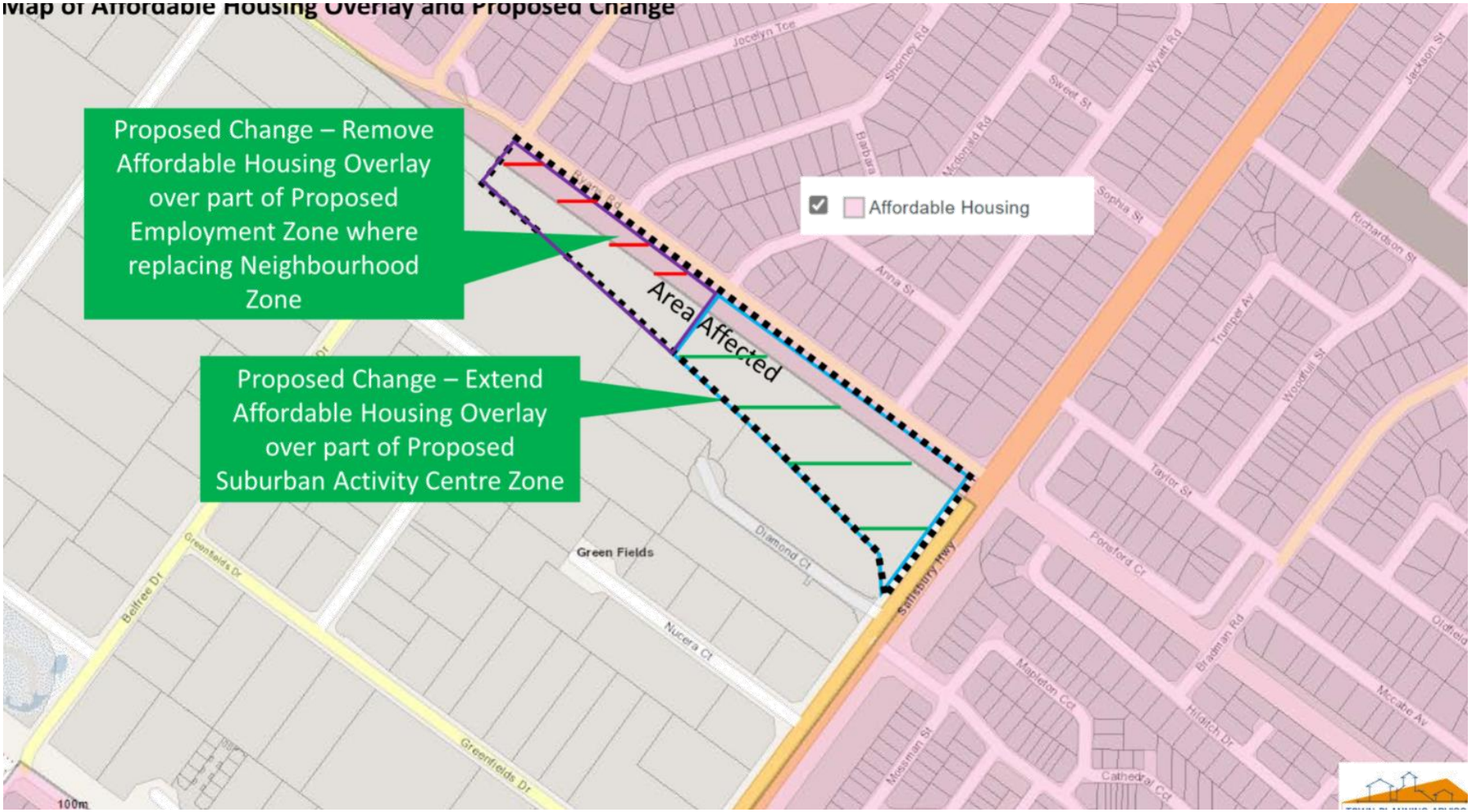


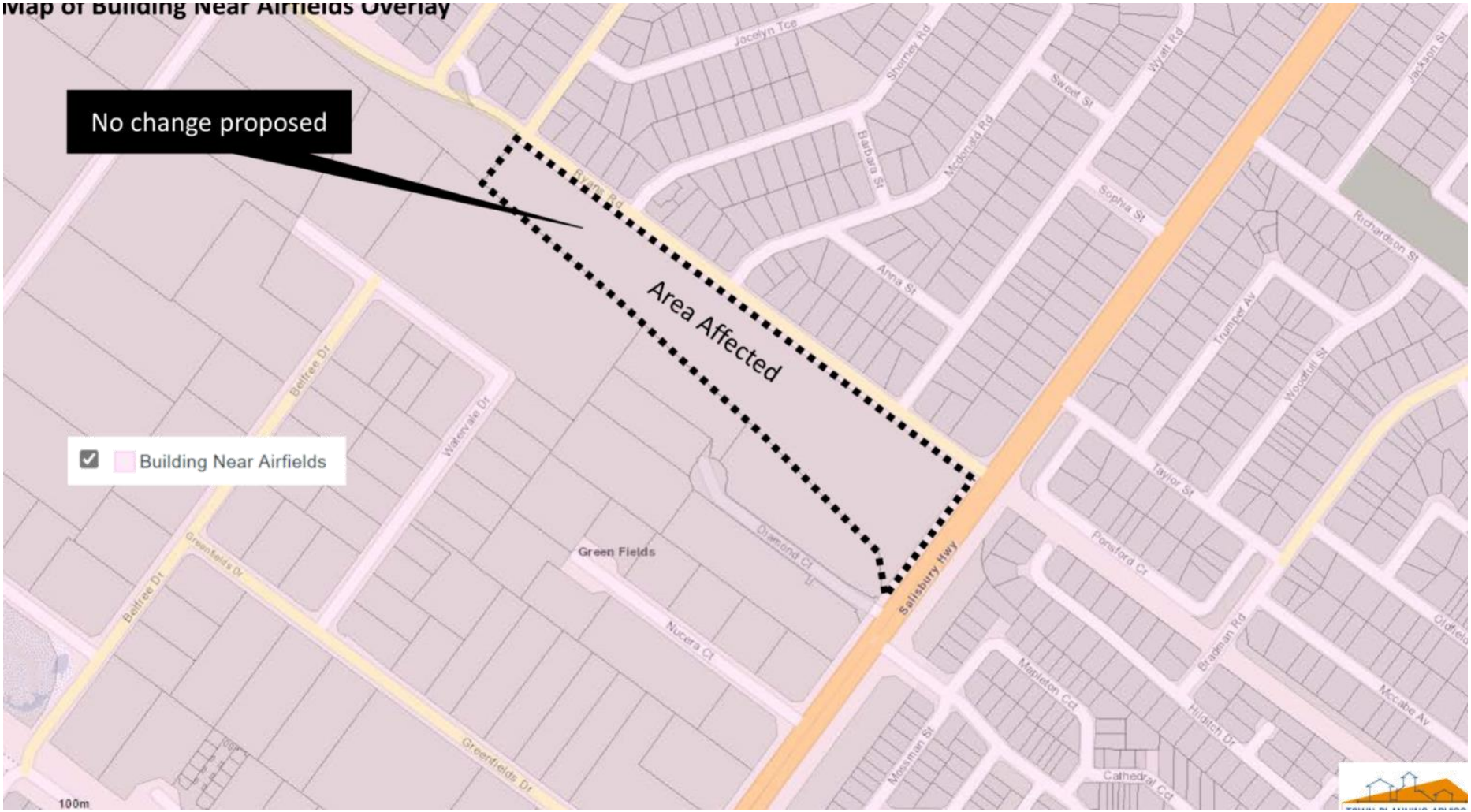
Item 1.1.1 - Attachment 5 - Code Amendment attach B - proposed policy


Map of Aircraft Noise Exposure Overlay
No change proposed
Area Affected
Aircraft Noise Exposure
ANEF 20
ANEF 25
ANEF 30
ANEF 35
ANEF 40
Area is subject to aircraft noise
Green Fields
Salisbury Hwy
Jocelyn Tce
Shorney Rd
Wyatt Rd
Jackson St
Sweet St
Barbara St
McDonald Rd
Ryans Rd
Sophia St
Richardson St
Anna St
Belfree Dr
Waterdale Dr
Trumper Av
Woodfull St
Taylor St
Diamond Ct
Ponsford Cr
Bradman Rd
Nucera Ct
Mapleton Cct
Hilditch Dr
McCabe Av
Messman St
Greenfields Dr
Cathedral Cct
100m

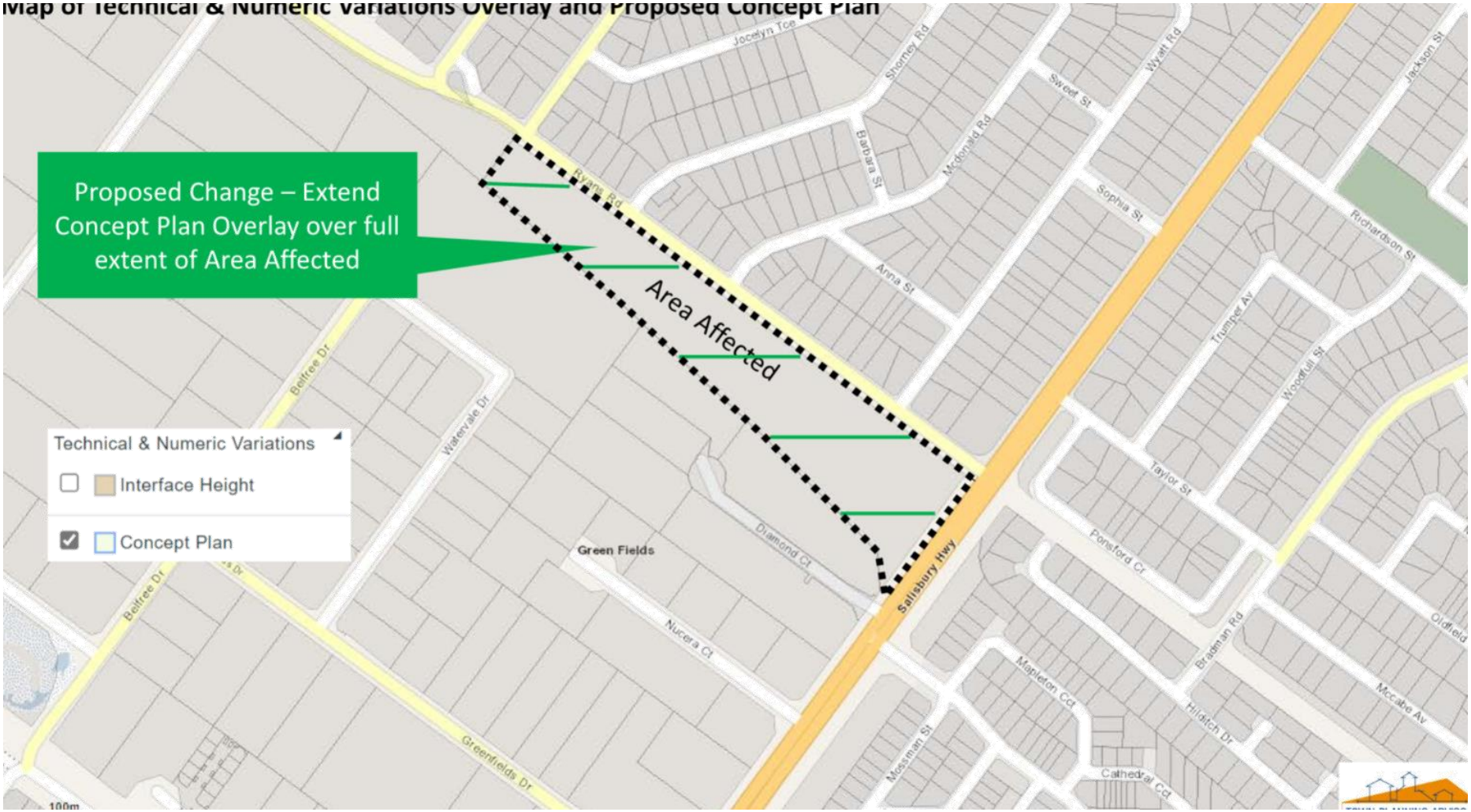


Item 1.1.1 - Attachment 5 - Code Amendment attach B - proposed policy


Map of Affordable Housing Overlay and Proposed Change
Proposed Change – Remove Affordable Housing Overlay over part of Proposed Employment Zone where replacing Neighbourhood Zone
Proposed Change – Extend Affordable Housing Overlay over part of Proposed Suburban Activity Centre Zone
Area Affected
Affordable Housing
Green Fields
Belfree Dr
Greenfields Dr
Salisbury Hwy
Diamond Ct
Nucera Ct
Jocelyn Tce
Sherney Rd
Wyatt Rd
Jackson St
Sweet St
Barbara
McDonald Rd
Sophia St
Richardson St
Anna St
Trumper Av
Wondfull St
Taylor St
Ponsford Cr
Bradman Rd
Oldfield
Mccabe Av
Mapleton Cct
Hilditch Dr
Mossman St
Cathedral Cct
100m

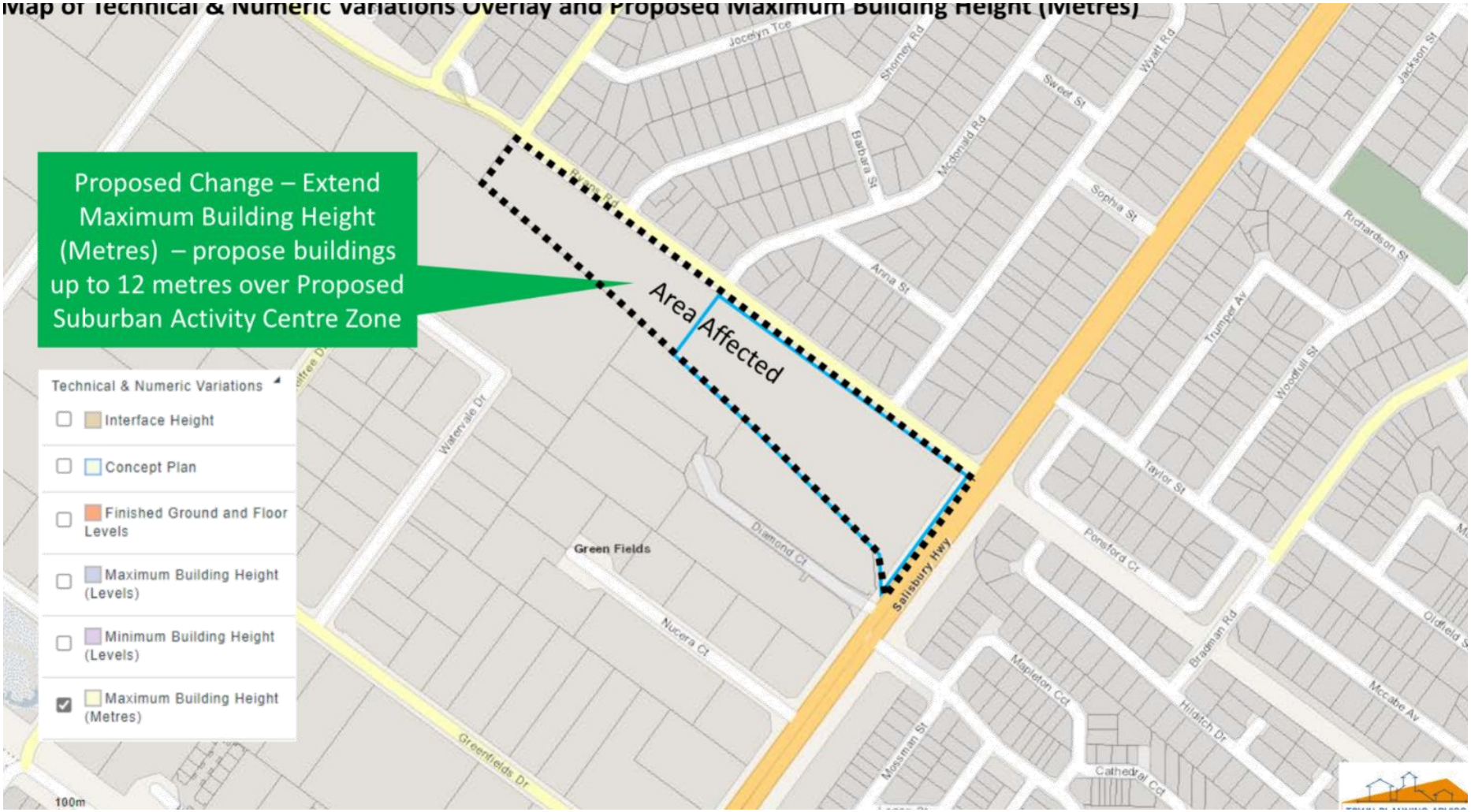


Item 1.1.1 - Attachment 5 - Code Amendment attach B - proposed policy



Item 1.1.1 - Attachment 5 - Code Amendment attach B - proposed policy


Map of Technical & Numeric Variations Overlay and Proposed Maximum Building Height (Levels)
Proposed Change – Extend Maximum Building Height (Levels) – propose buildings up to 3 levels over Proposed Suburban Activity Centre Zone
Area Affected
Technical & Numeric Variations
Interface Height
Concept Plan
Finished Ground and Floor Levels
Maximum Building Height (Levels)
Minimum Building Height (Levels)
Green Fields
Jocelyn Tce
Shorney Rd
Wyatt Rd
Jackson St
Sweet St
Barbara St
Mcdonald Rd
Sophia St
Richardson St
Anna St
Trumper Av
Woodfull St
Taylor St
Ponsford Cr
Bradman Rd
Oldfield
Mccabe Av
Hilditch Dr
Diamond Ct
Nucera Ct
Greenfields Dr
Salisbury Hwy
Watervale Dr
100m

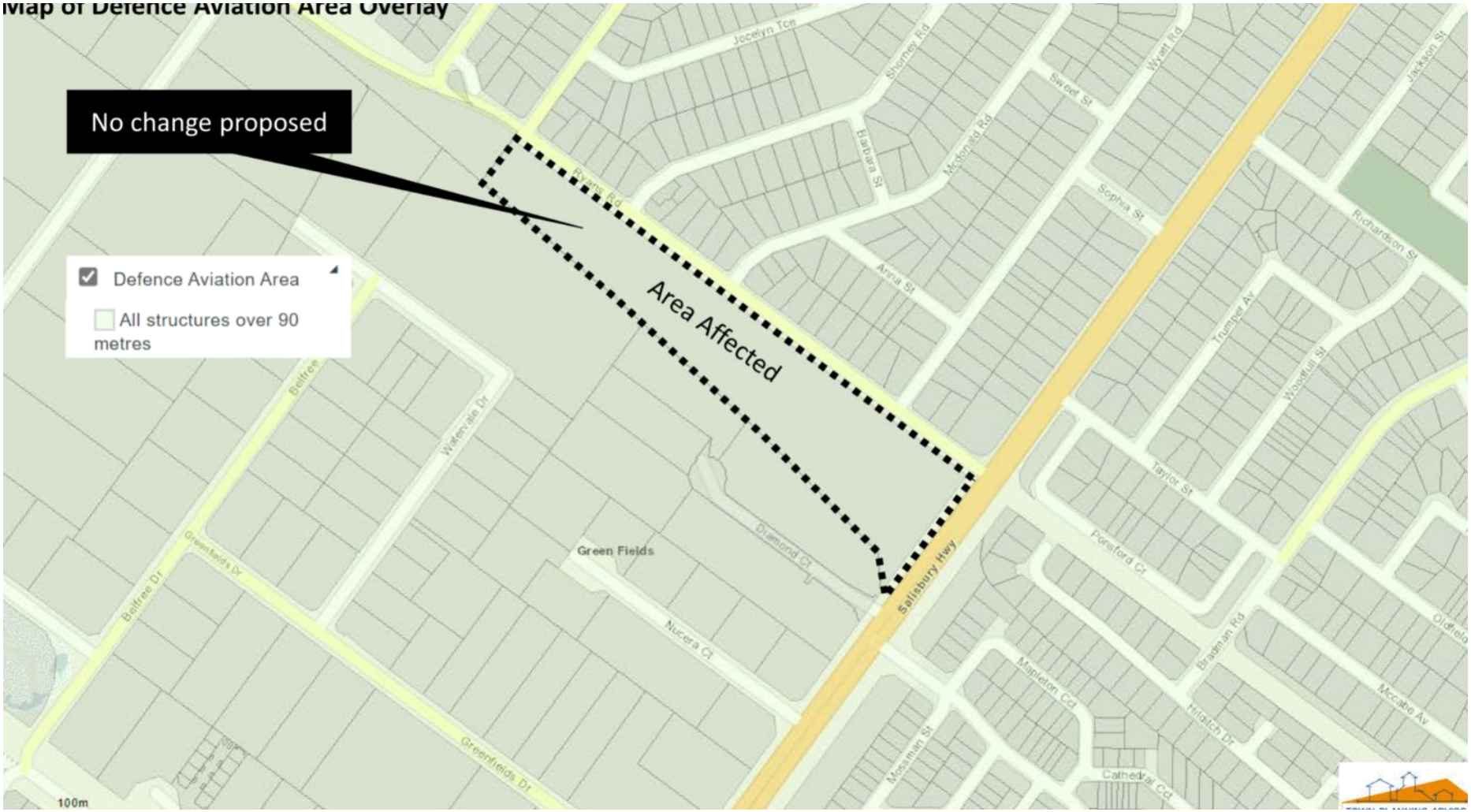


Item 1.1.1 - Attachment 5 - Code Amendment attach B - proposed policy

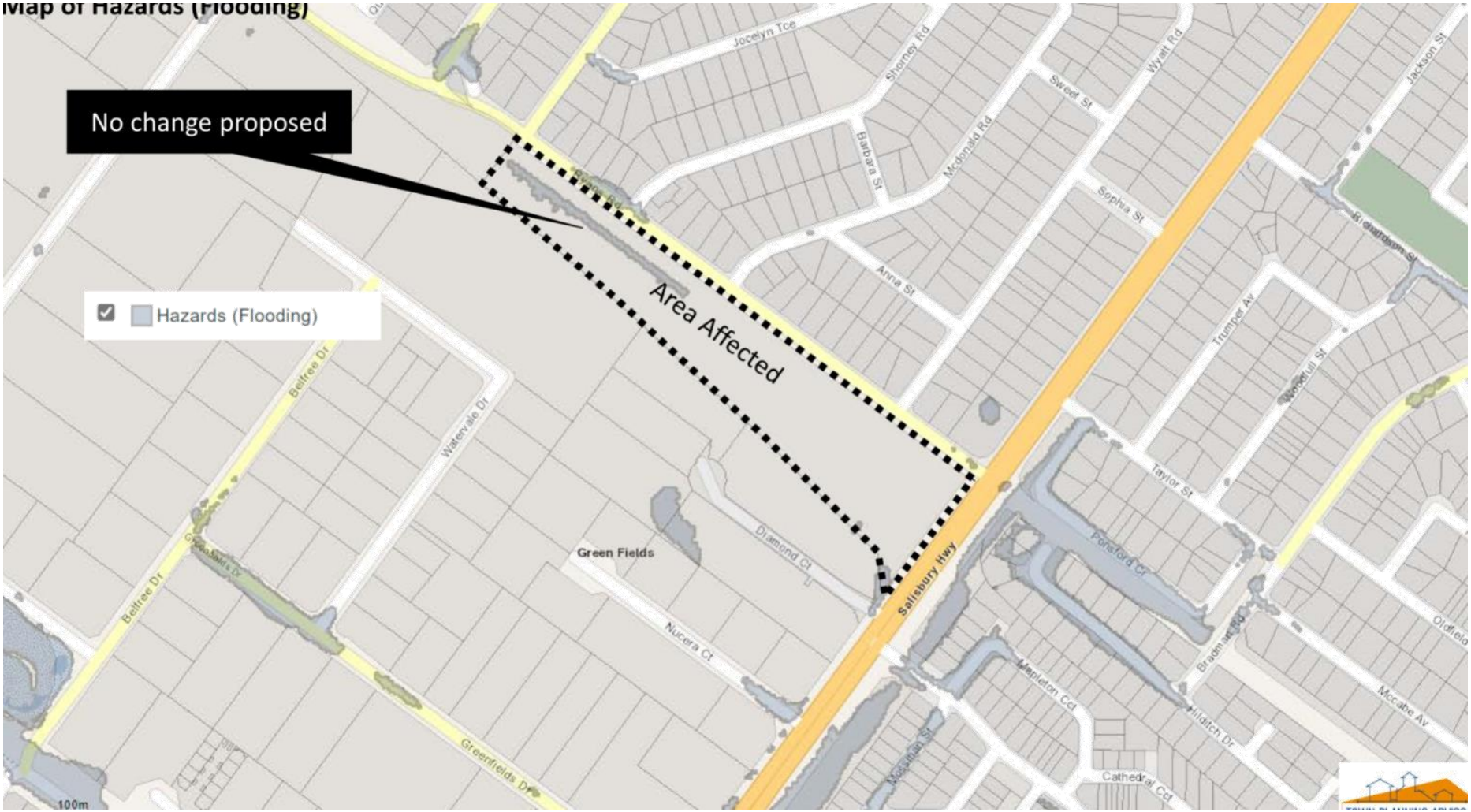
Proposed Concept Plan

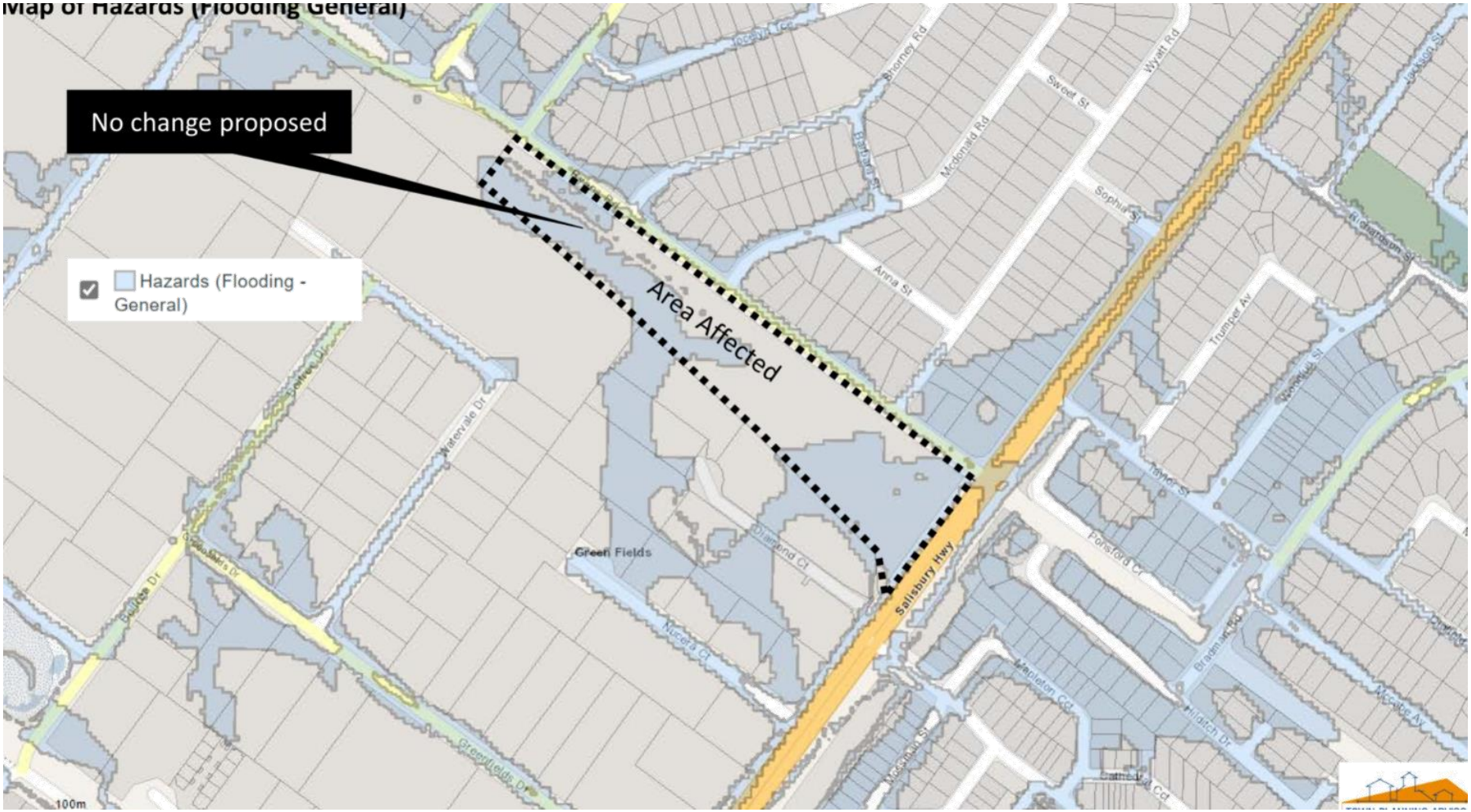


Item 1.1.1 - Attachment 5 - Code Amendment attach B - proposed policy



Item 1.1.1 - Attachment 5 - Code Amendment attach B - proposed policy


Map of Hazards (Flooding)
No change proposed
Area Affected
Hazards (Flooding)
Jocelyn Tce
Shorney Rd
Wyatt Rd
Jackson St
Sweet St
Barbara St
McDonald Rd
Sophia St
Anna St
Trumper Av
Taylor St
Belfree Dr
Waterdale Dr
Green Fields
Diamond Ct
Nucera Ct
Salisbury Hwy
Ponsford Cr
Bradman Rd
Mcrabe Av
Greenfields Dr
Cathedral Cct
100m



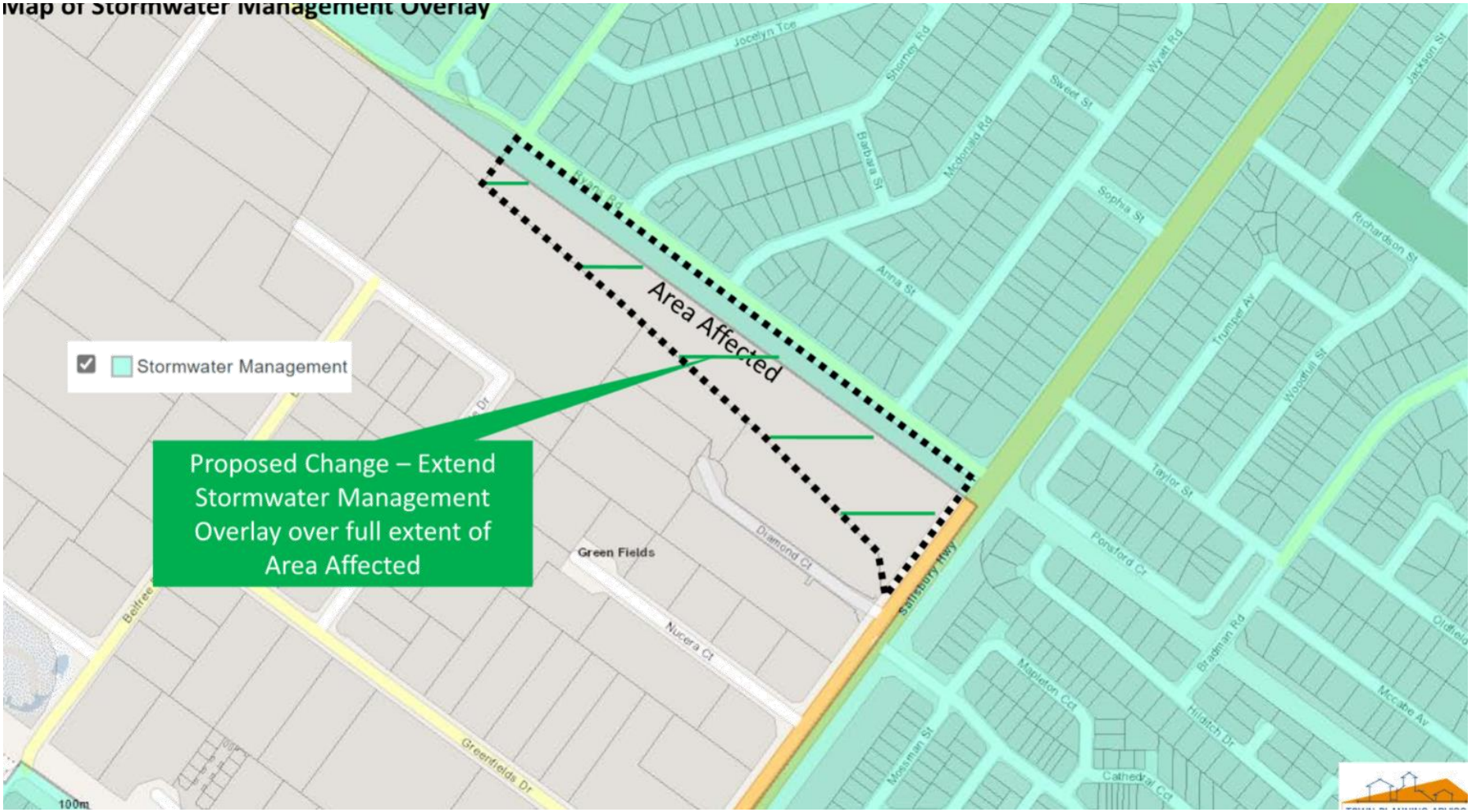
Item 1.1.1 - Attachment 5 - Code Amendment attach B - proposed policy



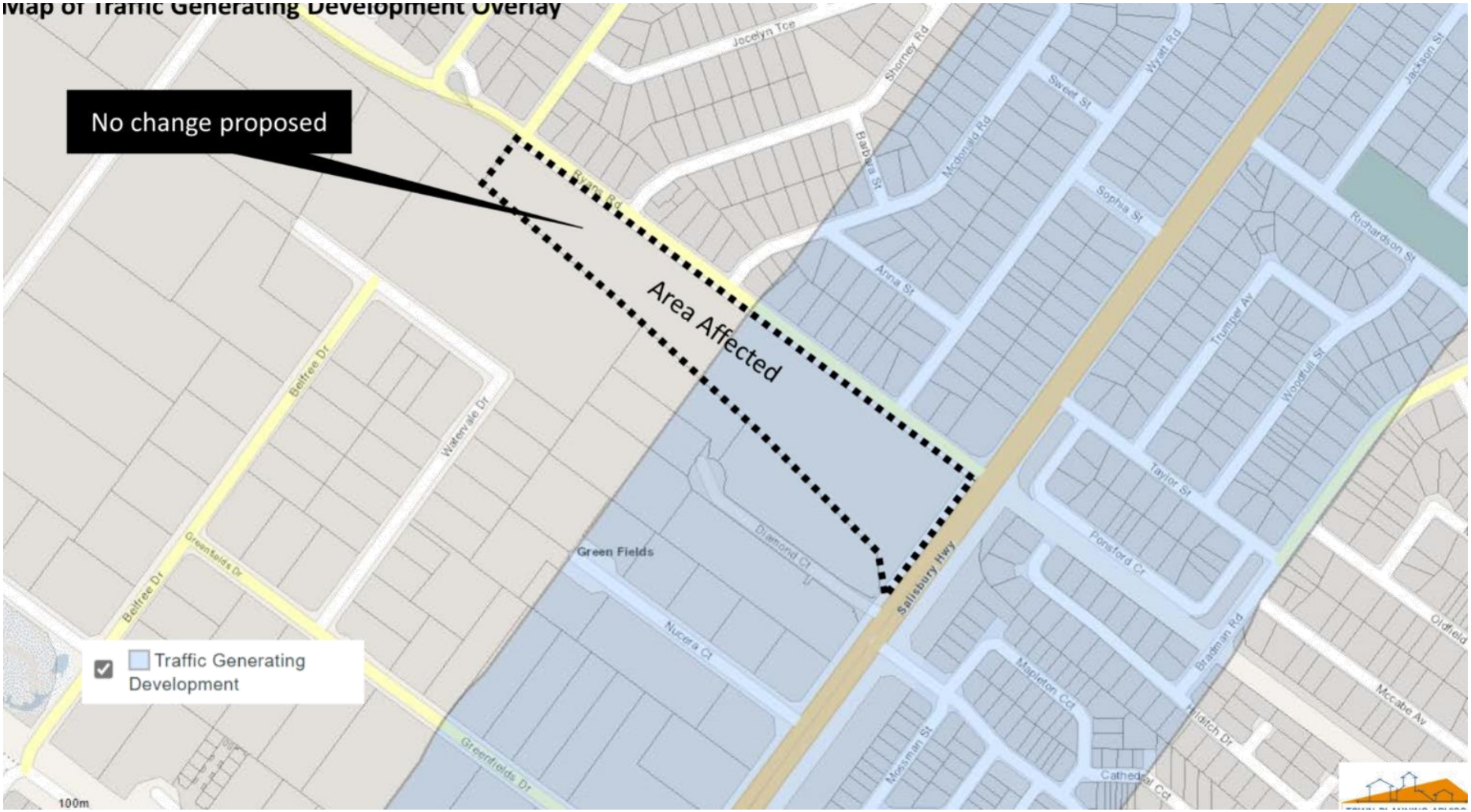
Item 1.1.1 - Attachment 5 - Code Amendment attach B - proposed policy



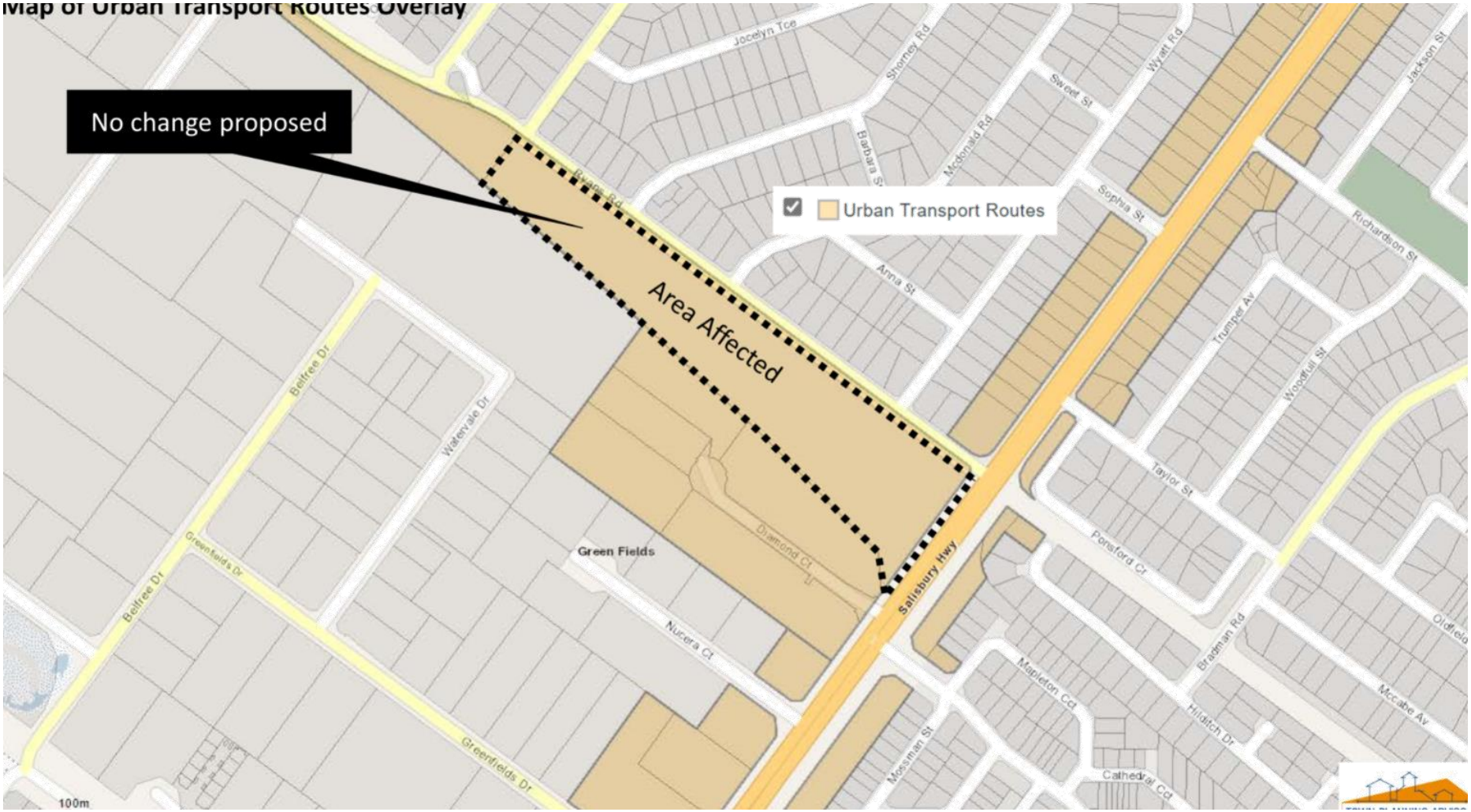
Item 1.1.1 - Attachment 5 - Code Amendment attach B - proposed policy



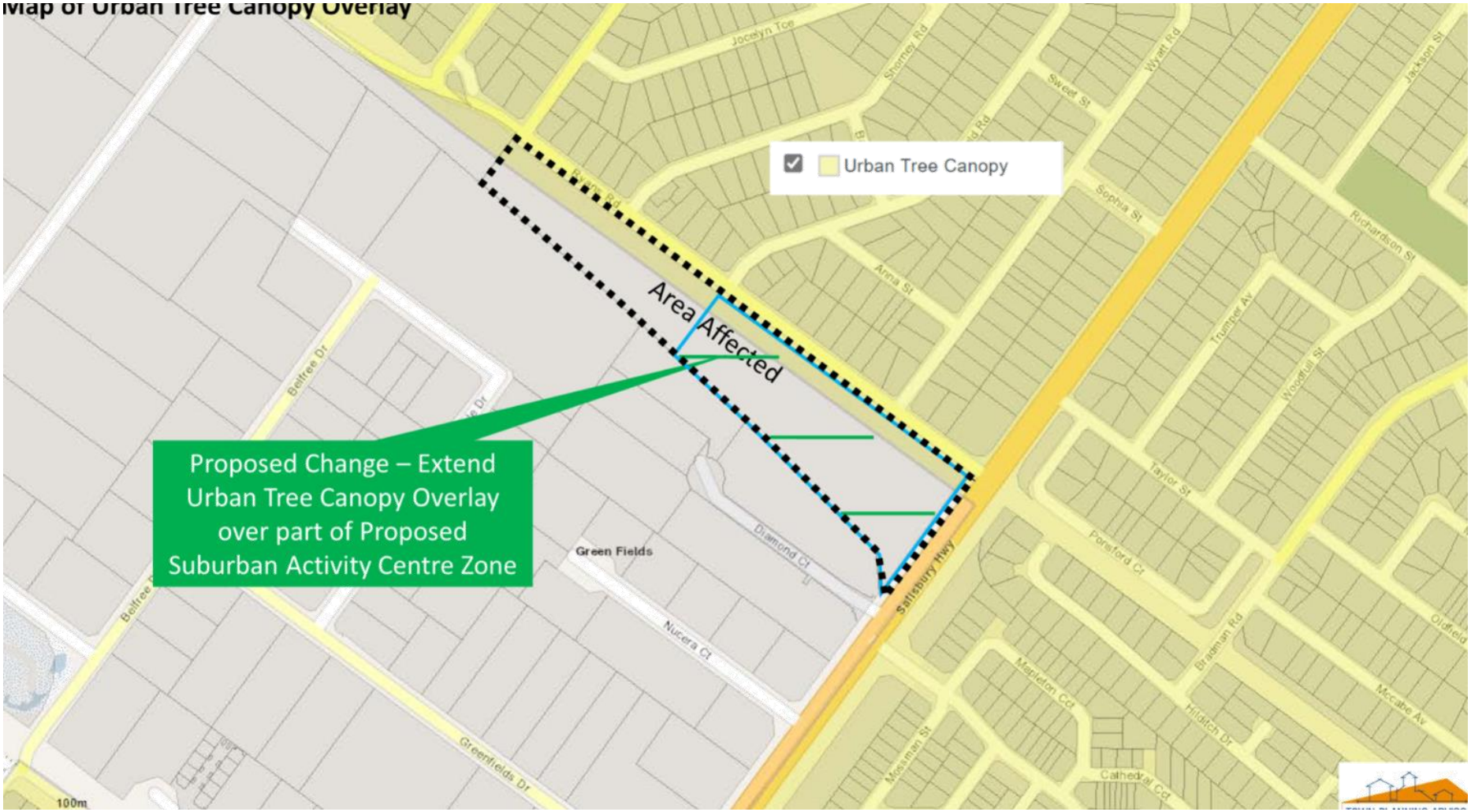
Item 1.1.1 - Attachment 5 - Code Amendment attach B - proposed policy



Item 1.1.1 - Attachment 5 - Code Amendment attach B - proposed policy



Item 1.1.1 - Attachment 5 - Code Amendment attach B - proposed policy



Item 1.1.1 - Attachment 5 - Code Amendment attach B - proposed policy

Attachment C Strategic Planning Outcomes

1. STRATEGIC PLANNING OUTCOMES

Proposed Code Amendments occur within a state, regional and local strategic setting, which includes:

- State Planning Policies (SPPs)
- Regional Plans
- Other relevant strategic documents.

1.1. Summary of Strategic Planning Outcomes

At a strategic level, rezoning the area affected for retail/bulky goods purposes – based on the retail investigations – provides greater convenience for nearby residents and workers, supports greater use of transport options such as walking, cycling and public transport, and fosters walkability and healthy neighbourhoods. Drawing on the retail investigations, the rezoning meets changing business and community needs, supports competition within the retail sector, and has potential to generate a significant positive outcome.

1.2. Alignment with State Planning Policies

The State Planning Policies (SPPs) set out the State's overarching goals and requirements for the planning system. Under section 66(3)(f) of the Act, the Code must comply with any principle prescribed by a SPP.

The Code Amendment should be initiated because the strategic planning outcomes sought to be achieved through the Code Amendment align with or seeks to implement the following SPPs:

State Planning Policy (SPP)	Code Amendment Alignment with SPPs
SPP 1 Integrated Planning	
1.1 An adequate supply of land (well serviced by infrastructure) is available that can accommodate housing and employment growth over the relevant forecast period.	Retail analysis supports the Area Affected being enabled for retail/bulky goods purposes.
1.3 Plan growth in areas of the state that is connected to and integrated with, existing and proposed public transport routes, infrastructure, services and employment lands.	The Area Affected 'is connected to and integrated with, existing and proposed public transport routes, infrastructure, services and employment lands.'

1

State Planning Policy (SPP)	Code Amendment Alignment with SPPs
1.7 Regenerate neighbourhoods to improve the quality and diversity of housing in appropriate locations supported by infrastructure, services and facilities.	Enabling the Area Affected for retail/bulky goods purposes supports 'Regenerate neighbourhoods to improve the quality and diversity of housing'.
1.8 Mixed-use development around activity centres, public transport nodes and strategic transit corridors to encourage greater use of active transport options such as walking, cycling and public transport. 1.9 Plan neighbourhoods to support walking and cycling, particularly in Greater Adelaide and regional townships.	Enabling the Area Affected for retail/bulky goods purposes provides greater convenience for nearby residents and workers. This supports 'greater use of active transport options such as walking, cycling and public transport'.
SPP 2 Design Quality	
2.1 Promote best practice in the design of buildings, places and the public realm by applying the principles of Good Design. 2.2 Promote best practice in access and inclusion planning in the design of buildings and places by applying the principles of Universal Design, Crime Prevention Through Environmental Design and Access and Inclusion. 2.3 The development of environmentally sustainable buildings and places by applying Water Sensitive Urban Design and energy efficiency design solutions.	The following Policies related to Design Quality in the Planning and Design Code will not be changed. These Policies will apply to any proposed development on the Area Affected. • Advertisements • Clearance from Overhead Power Lines • Design • Design in Urban Areas • Infrastructure and Renewable Energy Facilities • Interface between Land Uses • Land Division • Tourism Development • Regulated and Significant Trees • Transport, Access and Parking • Waste Treatment and Management Facilities
2.9 Respect the characteristics and identities of different neighbourhoods, suburbs and precincts by ensuring	The Planning and Design Code contains existing policy on interface between land uses and about design quality.

State Planning Policy (SPP)	Code Amendment Alignment with SPPs
development considers existing and desired future context of a place. 2.10 Facilitate development that positively contributes to the public realm by providing active interfaces with streets and public open spaces. 2.12 Create design solutions for infill development that improves the relationship between buildings and public spaces, and the interface with neighbours.	Enabling the Area Affected for a retail/bulky goods based centre and its interface impacts on nearby housing has been investigated with a review of transport and Code policies about built form and greening in particular as well as interface which deals with impacts such as noise. Further guidance is expressed through the Concept Plan for the Area Affected. Existing Code policy about interface impacts – in particular noise – will be applied to a proposed development at the time of development application. Any proposed development and noise generated, be it traffic, parking or air conditioning, will need to meet relevant EPA standards.
SPP 4 Biodiversity	
4.4 Enhance the biodiversity of urban areas and townships through a connected and diverse network of green infrastructure systems along streetscapes, major watercourses, linear parks, open space, the coast and other strategic locations. 4.5 Where impacts to biodiversity cannot be avoided, these impacts should be minimised and where possible, offset.	The following Overlays relate to Biodiversity. The Urban Tree Canopy is proposed to be extended over the part of the site to be within the Suburban Activity Centre Zone. Further guidance on greening is proposed on a Concept Plan, as described within the Code Amendment document. These Overlays will apply to any proposed development on the Area Affected. • Regulated and Significant Tree • Urban Tree Canopy.
SPP 5 Climate Change	
5.1 Create carbon-efficient living environments through a more compact urban form that supports active travel, walkability and the use of public transport.	Enabling the Area Affected for retail/bulky goods purposes – including adding traffic lights enabling crossing of Salisbury Highway - provides greater convenience for nearby residents and workers. This 'supports active travel, walkability and the use of public transport.
5.2 The good design of public places to increase climate change resilience and future livability.	The following Policies and Overlays related to Climate Change in the Planning and Design Code will not be changed by this Code Amendment.

State Planning Policy (SPP)	Code Amendment Alignment with SPPs
5.3 Facilitate climate-smart buildings to reduce our demand for water and energy. 5.4 Mitigate the impacts of rising temperatures by encouraging water sensitive urban design, green infrastructure and other design responses. 5.5 Avoid development in hazard-prone areas or, where unavoidable, ensure risks to people and property are mitigated to an acceptable or tolerable level through cost-effective measures.	A proposed Concept Plan provides some guidance about on site greening, These will apply to any proposed development on the Area Affected. • Design • Design in Urban Areas • Infrastructure and Renewable Energy Facilities • Waste Treatment and Management Facilities • Stormwater Management • Hazards (Flooding) • Hazards (Flooding - General) • Regulated and Significant Tree
SPP6 Housing Supply and Diversity	
6.2 The timely supply of land for housing that is integrated with, and connected to, the range of services, facilities, public transport and infrastructure needed to support livable and walkable neighbourhoods. 6.3 Develop healthy neighbourhoods that include diverse housing options; enable access to local shops, community facilities and infrastructure; promote active travel and public transport use; and provide quality open space, recreation and sporting facilities.	Enabling the Area Affected for retail/bulky good purposes provides greater convenience for nearby residents and workers and promotes active travel and public transport use. This supports 'Develop healthy neighbourhoods that include diverse housing options; enable access to local shops, community facilities and infrastructure; promote active travel and public transport use'. The following Overlay related to Housing Supply and Diversity. This Overlay will apply to any proposed development on the Suburban Activity Centre Zone portion of the Area Affected. • Affordable Housing.
SPP 7 Cultural Heritage	
7.1 The sensitive and respectful use of our culturally and historically significant places. 7.2 Recognise and protect Indigenous cultural heritage sites and areas of significance.	The Area Affected is acknowledged as 'Country' of the Kaurna people. Investigations of potential Aboriginal heritage through Taa wika[1] has not identified items of value.

[1] Taa wika - Cultural Heritage Database and Register accessed 3 January 2023

State Planning Policy (SPP)	Code Amendment Alignment with SPPs
	The Area Affected contains no places designated as State or Local heritage places.
SPP 9 Employment Lands	
9.2 Enable opportunities for employment and encourage development of underutilised lands connected to, and integrated with, housing, infrastructure, transport and essential services.	The Area Affected is currently zoned for urban development by being within the Employment, Strategic Employment and General Neighbourhood Zones. This Code Amendment proposes the Area Affected enable a retail/bulky goods based centre. Enabling a centre supports 'Enable opportunities for employment and encourage development of underutilised lands connected to, and integrated with, housing, infrastructure, transport and essential services'.
9.4 Adaptable policies that allow commercial and industrial-focused employment lands to support local economies and evolve in response to changing business and community needs.	This Code Amendment proposes the Area Affected enable a centre 'in response to changing business and community needs.' as identified through the retail analysis'.
9.7 Encourage appropriate retail development through the implementation of best practice retail planning guidelines (see Figure 5). **Figure 5: Principles of Retail Planning** **Existing centres** – recognise existing activity centres, main streets and mixed-use areas as the primary place for commercial and retail activity. **Expansion** – allow for expansion of designated centres at 'edge-of-centre' locations. **New activity centres** – allow new activity centres to be established to support equitable and convenient access to services, while supporting productive settlement patterns. **Hierarchy** – protect higher-order centres that support a productive settlement pattern, while allowing for smaller-scale activity centres to emerge and diversify. **Urban design** – reinforce the role of land use policies to guide urban form and place-making in mixed-use activity centres.	This Code Amendment proposes to enable a retail/bulky goods based centre supported by retail analysis. This supports 'New activity centres – allow new activity centres to be established to support equitable and convenient access to services, while supporting productive settlement patterns'. The retail analysis considers existing centres and protects higher order centres. This Code Amendment enabling a retail based centre based on retail analysis aligns with 'allowing for small-scale activity centres to emerge and diversify'.

State Planning Policy (SPP)	Code Amendment Alignment with SPPs
9.8 Allow for competition within the retail sector by providing an appropriate supply of land for all retail formats in areas that are easily accessible to communities.	This Code Amendment supports 'competition within the retail sector by providing an appropriate supply of land for all retail formats in areas that are easily accessible to communities'
9.11 Encourage the development of integrated employment and residential mixed-use precincts where conflicts between uses can be managed.	This Code Amendment supports 'the development of integrated employment and residential mixed-use precincts where conflicts between uses can be managed.' Existing Code policy is sufficient to ensure responsible coexistence between different land uses adjacent the area affected.
9.12 Plan for employment and industrial precincts in strategic locations that improve economic productivity; are protected from encroachment; connect to efficient supply chains; and are located to provide transport access and connectivity.	This Code Amendment supports 'employment … precincts in strategic locations that improve economic productivity; are protected from encroachment; connect to efficient supply chains; and are located to provide transport access and connectivity'.
SPP 11 Strategic Transport Infrastructure	
11.1 Facilitate an efficient, reliable and safe transport network that connects business to markets and people to places (i.e. where they live, work, visit and recreate). 11.2 Development that maximises the use of current and planned investment in transport infrastructure, corridors, nodes and services. 11.4 Minimise negative transport-related impacts on communities and the environment. 11.5 Encourage development that supports the increased use of a wider variety of transport modes, including public transport, walking and cycling, to facilitate a reduced reliance on	This Code Amendment proposes the Area Affected enable a retail/bulky goods based centre 'that connects business to markets and people to places', 'maximises the use of current and planned investment in transport infrastructure', 'Minimise negative transport-related impacts on communities and the environment.' and 'supports the increased use of a wider variety of transport modes, including public transport, walking and cycling…'. Investigations affirm the proposed rezoning and associated traffic lights meet DT standards and also enable nearby residential streets to have traffic movements within accepted standards. The following Overlays related to Strategic Transport Infrastructure will not be changed by this Code Amendment.

State Planning Policy (SPP)	Code Amendment Alignment with SPPs
private vehicle travel and promote beneficial community health outcomes.	These Overlays will apply to any proposed development on the Area Affected. • Traffic Generating Development • Urban Transport Routes.
SPP 14 Water Security and Quality	
14.5 Development should incorporate water sensitive urban design principles that contribute to the management of risks to water quality and other risks (including flooding) to help protect people, property and the environment and enhance urban amenity and livability. 14.6 Support development that does not adversely impact on water quality. 14.7 Improve the alignment between urban water management and planning by adopting an integrated water management approach.	The following Overlays related to Water Security and Quality. These Overlays will apply to any proposed development on the Area Affected. • Prescribed Wells Area • Stormwater Management.
SPP 15 Natural Hazards	
15.1 Identify and minimise the risk to people, property and the environment from exposure to natural hazards including extreme heat events; bushfire; terrestrial and coastal flooding; soil erosion; drought; dune drift; acid sulfate soils; including taking into account the impacts of climate change.	The following Overlays related to Natural Hazards will not be changed by this Code Amendment. These Overlays will apply to any proposed development on the Area Affected. • Hazards (Flooding) • Hazards (Flooding - General).
SPP 16 Emissions and Hazardous Activities	
16.1 Protect communities and the environment from risks associated with industrial emissions and hazards (including radiation) while ensuring	The following Overlays related to Emissions and Hazardous Activities will not be changed by this Code Amendment.

State Planning Policy (SPP)	Code Amendment Alignment with SPPs
that industrial and infrastructure development remains strong through: a) supporting a compatible land use mix through appropriate zoning controls b) appropriate separation distances between industrial sites that are incompatible with sensitive land uses c) controlling or minimising emissions at the source, or where emissions or impacts are unavoidable, at the receiver.	These Overlays will apply to any proposed development on the area affected. • Aircraft Noise Exposure (ANEF 20) • Airport Building Heights (Regulated) (All structures over 15 metres) • Airport Building Heights (Regulated) (All structures over 45 metres) • Building Near Airfields • Defence Aviation Area (All structures over 90 metres).
16.2 Assess and manage risks posed by known or potential site contamination to enable the safe development and use of land.	The following Policies related to Site Contamination in the Planning and Design Code will not be changed by this Code Amendment. These Policies will apply to any proposed development on the Area Affected. • Site Contamination

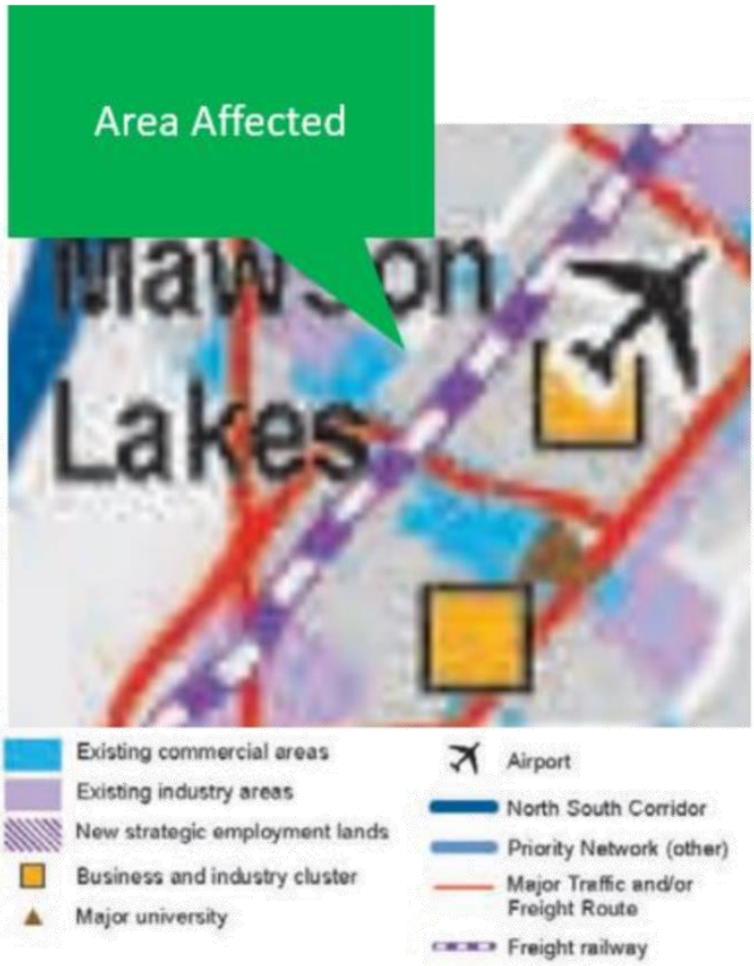
1.3. Alignment with Regional Plans

As with the SPPs, the directions set out in Regional Plans provide the long term vision as well as setting the spatial patterns for future development in a region. This includes consideration of land use integration, transport infrastructure and the public realm.

The Greater Adelaide volume of the Planning Strategy is relevant for this Code Amendment.

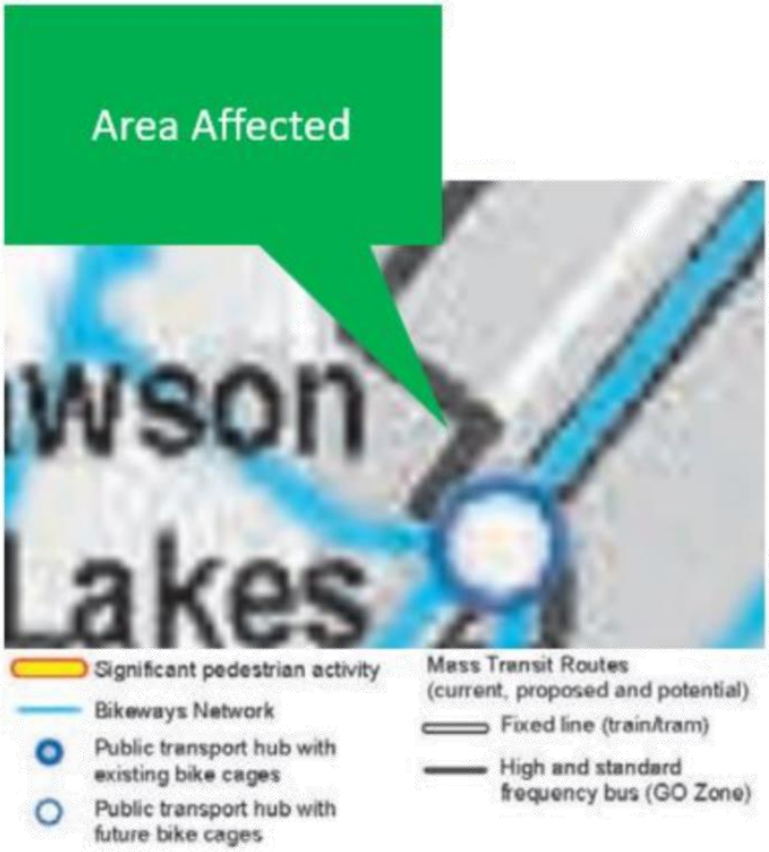
Regional Plan Identified Priorities or Targets	Code Amendment Alignment with Regional Plan
'Map 3 – Designated urban areas and township boundaries' of the 30 Year Plan for Greater Adelaide shows the Area Affected as part of the planned urban lands to 2045, in context with District Centres, and located adjacent a high and standard frequency bus 	The Code Amendment supports the orderly development for the growing resident and worker population within this established area of the City of Salisbury.

9

Regional Plan Identified Priorities or Targets	Code Amendment Alignment with Regional Plan
'Map 4 – Business and Industry Clusters' of the 30 Year Plan for Greater Adelaide shows the Area Affected adjacent existing commercial and industrial areas, and housing. 	The Code Amendment supports the orderly development for the growing worker population within this established area of the City of Salisbury.

10

Regional Plan Identified Priorities or Targets	Code Amendment Alignment with Regional Plan
'Map 7 — Major transport and public transport investments' of the 30 Year Plan for Greater Adelaide shows the Area Affected as part of the planned urban area and adjacent a 'Major Traffic and/or Freight Route' 	The Code Amendment supports the orderly development for the growing population within this established area of the City of Salisbury and is sited on a major transport route.

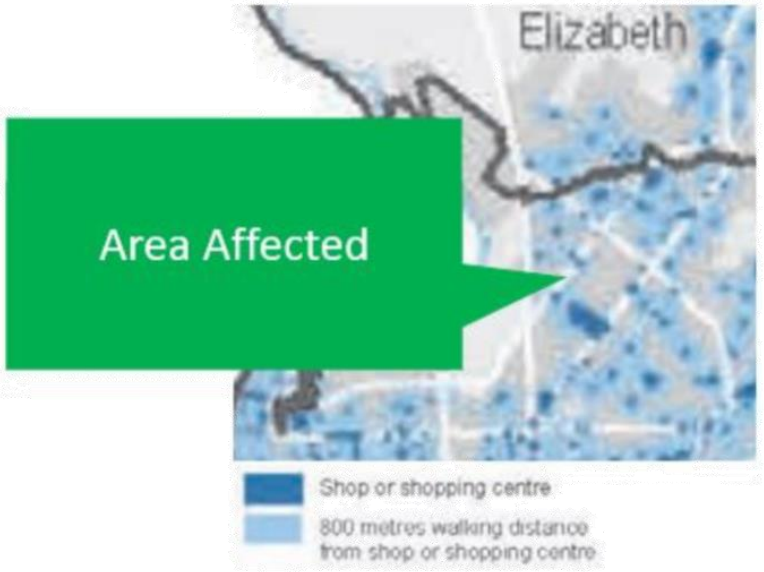
Regional Plan Identified Priorities or Targets	Code Amendment Alignment with Regional Plan
'Map 8 — Bike network and pedestrian activity' of the 30 Year Plan for Greater Adelaide shows the Area Affected adjacent a bus route and some distance from the Bike Direct Network 	The Code Amendment is sited on a high and standard frequency bus route and in proximity to the bike direct network.

12

Regional Plan Identified Priorities or Targets	Code Amendment Alignment with Regional Plan
'Map 10 — Biodiversity' of the 30 Year Plan for Greater Adelaide shows the Area Affected as part of the urban area and north of the waterway through Mawson Lakes. 	The Code Amendment maintains policy on regulated trees and proposes additional greening related policy on the Concept Plan.
'Map 12 — Water resources' of the 30 Year Plan for Greater Adelaide shows the Area Affected as part of the Northern Adelaide Plains and north of the Mawson Lakes water system described as a 'reservoir'. 	The Code Amendment maintains policy on stormwater and water sensitive urban design.

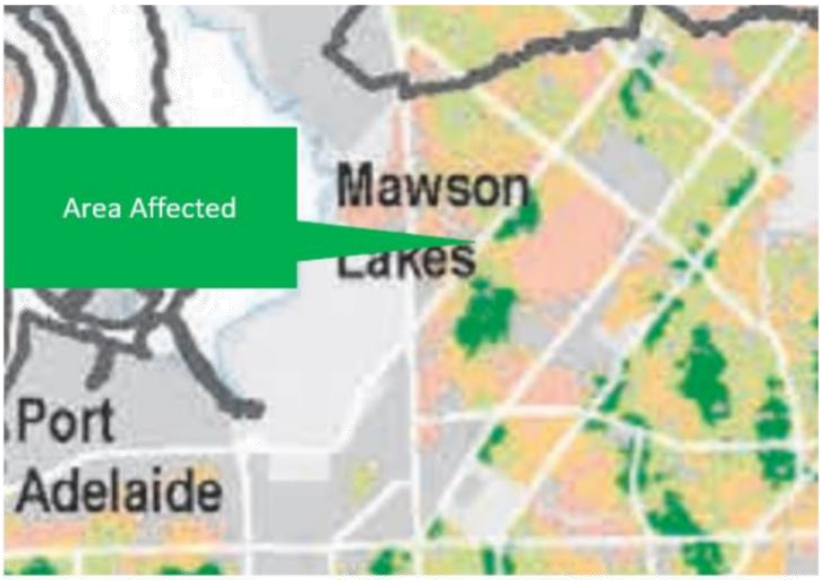
Regional Plan Identified Priorities or Targets	Code Amendment Alignment with Regional Plan
"Map 15 — Current and proposed fixed line and high frequency bus routes' of the 30 Year Plan for Greater Adelaide shows the Area Affected adjacent to a high and standard frequency bus and in proximity to mass transit on the Gawler Train Line. 	The Code Amendment is sited on a high and standard frequency bus route.

14

Regional Plan Identified Priorities or Targets	Code Amendment Alignment with Regional Plan
'Map 17 — Inner, Middle and Outer Metro areas showing the four walkable neighbourhoods criteria' of the 30 Year Plan for Greater Adelaide shows the Area Affected as being not within '800m walking distance from shop or shopping centre'. 	The Code Amendment enables the retail/bulky goods development of land and with associated traffic lights enabling crossing of Salisbury Highway, improves neighbourhood walkability and active living.

15

Regional Plan Identified Priorities or Targets	Code Amendment Alignment with Regional Plan
'Map 18 — Proportion of population within walking distance of services' of the 30 Year Plan for Greater Adelaide shows the Area Affected with a low proportion of the population within walking distance of services.	The Code Amendment enables the retail/bulky goods development of land and improves the proportion of the population within walking distance of services.



Services/Amenities incorporate:

Public open space greater than 4,000m²
- 400 metres walking distance

Primary schools
- 1,000 metres walking distance

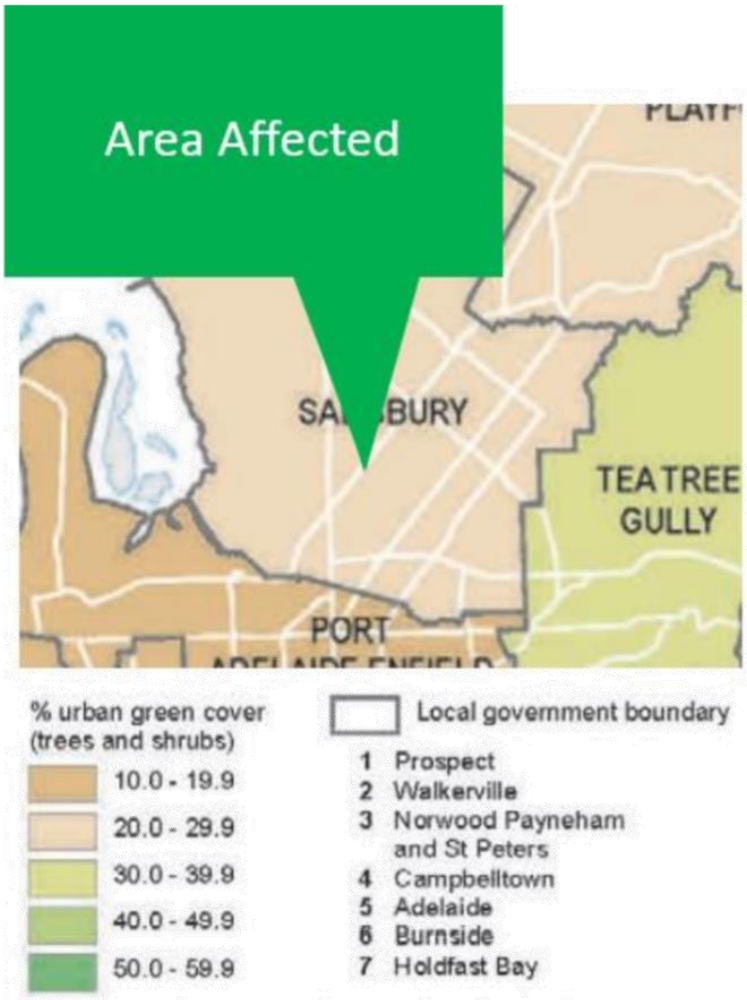
Shop or shopping centres
- 800 metres walking distance

Frequent public transport
- 800 metres from fixed line stations/stops
- 400 metres from bus stops (GO Zones)

% of population within walking distance of services

No. of Services/ Amenities	Inner Metro Infill	Middle Metro Infill	Outer Metro Fringe/Township
0	0%	1%	6%
1	5%	14%	30%
2	21%	32%	35%
3	39%	37%	28%
4	34%	16%	2%
(3+4)	73%	53%	30%

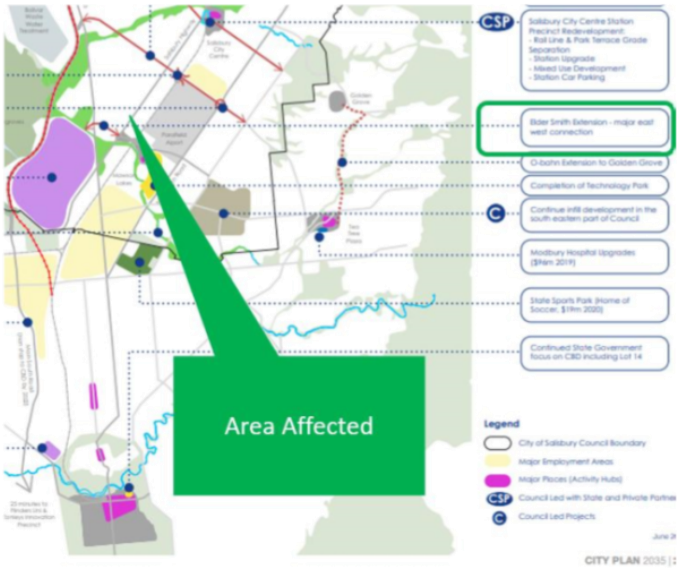
16

Regional Plan Identified Priorities or Targets	Code Amendment Alignment with Regional Plan
'Map 19 — Existing urban green cover across metropolitan Adelaide (indicative)' of the 30 Year Plan for Greater Adelaide shows the Area Affected being part of the City of Salisbury with 20 – 29.9% green cover.  Data Source: Institute of Sustainable Futures (ISF) of the University of Technology, Sydney, 2014	The Code Amendment enables the retail/bulky goods development of land, noting it is able to be able under the current zoning to be developed for urban purposes. The following Policy related to green cover will not be changed by this Code Amendment. • Regulated and Significant Tree The Urban Tree Canopy will be extended over the proposed Suburban Activity Centre Zone as well as additional guidance on greening offered on the proposed Concept Plan.

1.4. Alignment with Other Relevant Documents

Additional documents may relate to the broader land use intent within the scope of this proposed Code Amendment (or directly to the Affected Area) and therefore are identified for consideration in the preparation of the Code Amendment.

The following table identifies other documents relevant to the proposed Code Amendment:

Other Relevant Document	Code Amendment Alignment with Other Relevant Document
City Plan 2035 by City of Salisbury	
City Plan envisages a 'progressive, sustainable and connected community'. The Plan has actions and indicators for the City within the following directions: • A welcoming and liveable City • A sustainable City • A growing City that creates new opportunities.	The Code Amendment enables the retail/bulky goods development of land, This improves opportunities for welcome and liveability, sustainability and new opportunities.
The Plan envisages east west extension of Elder Smith Road, this to the south of the Area Affected. 	The Code Amendment does not conflict with east west extension of Elder Smith Road.

18

Other Relevant Document	Code Amendment Alignment with Other Relevant Document
Landscape Plan by the City of Salisbury	
For 'commercial developments', the Landscape Plan states 'Landscape Plans are a requirement of the development approval process. Plans must be submitted for approval for commercial development applications.'	The Code Amendment enables the retail/bulky goods development of land, noting it is able to be able under the current zoning to be developed for urban purposes. The following Policy related to green cover will not be changed by this Code Amendment. • Regulated and Significant Tree The Urban Tree Canopy will be extended over the proposed Suburban Activity Centre Zone as well as additional guidance on greening offered on the proposed Concept Plan.
Building City Pride Strategy by the City of Salisbury	
This Plan outlines strategies and actions to: '1. Improve the amenity and visual appearance of the City 2. Strengthen social networks and community cohesion 3. Promote the merits of the City as a great place to live, work and play.'	The Code Amendment enables the retail/bulky goods development of land and improves neighbourhood walkability, as well as the amenity of the City. This strengthens social networks and the appeal of the City as a 'great place to live, work and play'.

ABORIGINAL HERITAGE SITES

Government of South Australia

David Bailey
Community Place Planning Pty Ltd
C/- 219 Henley Beach Road
Torrensville 5031 South Australia

Dear David

Thank you for the search request dated 20 Jun 2023. The search was based on the title details - Title Type: CT, Volume: 6283, Folio: 699. The address for this parcel is: 2 RYANS RD GREEN FIELDS SA 5107. Your reference is 4967.

I advise that the central archive, which includes the Register of Aboriginal Sites and Objects (the Register), administered by Aboriginal Affairs and Reconciliation (AAR), has no entries for Aboriginal sites at this location.

The applicant is advised that sites or objects may exist in the proposed development area, even though the Register does not identify them. All Aboriginal sites and objects are protected under the *Aboriginal Heritage Act 1988* (the Act), whether they are listed in the central archive or not. Land within 200 metres of a watercourse (for example the River Murray and its overflow areas) in particular, may contain Aboriginal sites and objects.

Pursuant to the Act, it is an offence to damage, disturb or interfere with any Aboriginal site, object or remains (registered or not) without the authority of the Premier. If the planned activity is likely to damage, disturb or interfere with a site, object or remains, authorisation of the activity must be first obtained from the Premier under Section 23 of the Act. Section 20 of the Act requires that any Aboriginal sites, objects or remains, discovered on the land, need to be reported to the Premier. Penalties apply for failure to comply with the Act. It should be noted that this Aboriginal heritage advice has not addressed any relevant obligations pursuant to the *Native Title Act 1993*.

Please be aware in this area there are Aboriginal groups/organisations/traditional owners that may have an interest. These may include:

Kaurna Yerta Aboriginal Corporation
Chairperson: Tim Agius
Address: C/- South Australian Native Title Services Level 4 345 King William Street ADELAIDE SA 5000
Telephone:
Email:
Contact Officer: Tom Jenkin
Telephone: 08 81102800
Email: tomj@nativetitlesa.org info@nativetitlesa.org

If you require further information, please contact the Aboriginal Heritage Team on telephone (08) 8303 0738 or send to our generic email address AAR.HeritageSites@sa.gov.au

Yours sincerely,

HERITAGE INFORMATION TEAM
ABORIGINAL AFFAIRS & RECONCILIATION

22 June 2023

Aboriginal Affairs and Reconciliation| Date: Thu Jun 22 2023 11:22:49 GMT+0930 (ACST)
Level 16, 30 Wakefield Street | GPO Box 464 Adelaide SA 5001

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

deep end services

Lot 1001 Salisbury Highway Green Fields SA

Retail demand & impact assessment

Prepared for Thirteen Commercial
3 February 2023



Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

Deep End Services
Deep End Services is an economic research and property consulting firm based in Melbourne. It provides a range of services to local and international retailers, property owners and developers including due diligence and market scoping studies, store benchmarking and network planning, site analysis and sales forecasting, market assessments for a variety of land uses, and highest and best use studies.

Contact
Deep End Services Pty Ltd
Suite 304
9-11 Claremont Street
South Yarra VIC 3141

T +61 3 8825 5888
F +61 3 9826 5331
deependservices.com.au

Enquiries about this report should be directed to:

Chris Abery
Director
chris.abery@deependservices.com.au

Toby Wooldridge
Senior Analyst
toby.wooldridge@deependservices.com.au

Document Name
Green Fields retail demand & impact report - 3 Feb 2023
03.02.23

We acknowledge Aboriginal people as the First Peoples and Nations of the lands and waters we live and work upon and we pay our respects to their Elders past, present, and emerging. We acknowledge and respect the deep spiritual connection and the relationship that Aboriginal and Torres Strait Islander people have to Country.

Disclaimer
This report has been prepared by Deep End Services Pty Ltd solely for use by the party to whom it is addressed. Accordingly, any changes to this report will only be notified to that party. Deep End Services Pty Ltd, its employees and agents accept no responsibility or liability for any loss or damage which may arise from the use or reliance on this report or any information contained therein by any other party and gives no guarantees or warranties as to the accuracy or completeness of the information contained in this report.

This report contains forecasts of future events that are based on numerous sources of information as referenced in the text and supporting material. It is not always possible to verify that this information is accurate or complete. It should be noted that information inputs and the factors influencing the findings in this report may change hence Deep End Services Pty Ltd cannot accept responsibility for reliance upon such findings beyond six months from the date of this report. Beyond that date, a review of the findings contained in this report may be necessary.

This report should be read in its entirety, as reference to part only may be misleading.

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

Contents

Executive Summary		**i**
1	**Introduction**	**1**
2	**Green Fields**	**2**
2.1	Regional context	2
2.2	Local context	4
2.3	Site description	6
2.4	Master Plan	7
3	**Catchment area analysis**	**9**
3.1	Catchment area definition	9
3.2	Population	11
3.3	Dwelling approvals	11
3.4	Demographic profile	12
3.5	Local employment	14
3.6	Retail spending	15
4	**Activity centres**	**17**
4.1	Overview	17
4.2	Centres within catchment area	19
4.3	Centres beyond catchment area	20
5	**Economic need**	**24**
5.1	Supermarkets provision	24
5.2	Specialty retail provision	26
5.3	Online, Home Delivery, Click & Collect	27
5.4	Large Format Retail provision	28
5.5	Pad sites	28
6	**Economic Impact Assessment**	**31**
6.1	Approach	31
6.2	Sales forecast	32
6.3	Centre effects	33
6.4	Positive aspects	34
7	**Conclusions**	**37**

Tables + Figures

Table 1—Land use & tenancy area schedule 7
Table 2— Historical and projected population 11
Table 3— Demographic characteristics (2021 Census) 13
Table 4— Trade area spending estimates (at constant $2022) 16
Table 5—Centre floorspace by tenant type 17
Table 6—Specialty retail provision 26
Table 7—Projected total centre sales (2025) 32
Table 8—Projected centre market shares 32
Table 9— Estimated trading impacts Green Fields development 34

Figure 1—Regional context 3
Figure 2—Average daily traffic (2 way) 4
Figure 3—Local context 5
Figure 4— Lot 1001 Salisbury Highway Master Plan 8
Figure 5— Lot 1001 Salisbury Highway Neighbourhood Commercial Centre Plan 8
Figure 6—Catchment area 10
Figure 7—Residential building approvals 11
Figure 8— Workforce by local area - 2021 14
Figure 9—Catchment per capita spending rates (2022) 15
Figure 10—Activity Centres & supermarkets 18
Figure 11—Average supermarket floorspace provision rates 25
Figure 12— Catchment area supermarket floorspace demand & supply, 2021-2032 25
Figure 13— Australian online retail turnover 27
Figure 14—Large format retailers 30
Figure 15— Unemployment by SA2 area 35

Executive Summary

Site

01 The 3.26 hectare site is on the south-west corner of Salisbury Highway and Ryans Road, Green Fields. The sprawling residential area of Parafield Gardens extends north of the site, Mawson Lakes lies to the south and the Green Fields industrial area abuts the site to the south-west. It is a high profile site well connected to the southern residential areas of Salisbury, an industrial workforce of 1,600 people and over 40,000 vehicles per day on Salisbury Highway.

02 The site is within three different zones within the Planning and Design Code. The Employment Zone enables small shops up to 100 sqm, the Strategic Employment Zone small shops up to 250 sqm, and the General Neighbourhood Zone, shops up to 200 sqm.

Zoning

03 A request for an Amendment to the Planning and Design Code will propose an enabling zone for a retail based centre. The proposed Code Amendment will involve investigations and stakeholder, council and community engagement as envisaged within SA's planning system. The decision maker for adoption of a proposed zoning is the Minister for Planning who will be informed by the investigations and stakeholder consultation and advice from the State Planning Commission, Planning and Land Use Services (SA Government), and the City of Salisbury,.

04 Should the land be rezoned, a development application seeking approval to develop the site for a retail based centre will need to be lodged. This development application will be assessed regarding the Planning and Design Code, as amended by the rezoning.

05 The investigations and engagement through the rezoning and the preparation of a development application may lead to variations from the Master Plan concept shown in this report.

Proposed development concept

06 The proposed development concept shown on the Master Plan comprises a supermarket-based neighbourhood shopping centre (6,220 sqm GLA), two pad sites for quick service restaurants on Salisbury Highway, a warehouse and click 'n collect facility associated with the proposed supermarket, commercial showrooms and bulky goods tenancies.

07 The size and composition of the development is best described as a Suburban Activity Centre under the existing centres hierarchy established within the Planning and Design Code.

08 The Master Plan shows integrated car parking and circulation aisles between the uses. The neighbourhood centre has parking for 325 cars and the warehouse zone / bulky goods zone has 75 customer spaces. Proposed access is a left in and out crossover to Salisbury Highway and two crossovers to Ryans Road. Access to the loading dock is shown over an adjoining industrial property to the west.

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

09 The supermarket tenant is yet to be confirmed however a national brand operating a full-line store is assumed. The investigations and engagement through the rezoning, and the preparation of a development application may lead to variations from the development concept shown in the Master Plan in this report.

Catchment area

10 The primary catchment covers the central and southern areas of Parafield Gardens and areas of Mawson Lakes west of the rail line. A secondary north trade area extends to Kings Road and Little Para River and over part of Salisbury Downs.

11 The primary catchment area had 16,362 people at the 2021 Census and the secondary sector 10,704. The total trade area is projected to grow from 27,066 people in 2021 to 28,800 in 2031 – a 10 year average growth rate of 0.6% per annum.

12 The primary trade area is characterised by 'couples with children' in detached homes, a young age structure and a high proportion of overseas born residents. Almost 40% of the population has Asian ancestry. Average household income levels are -4% below the Adelaide average and mortgaged dwellings are higher than average.

13 The young family profile with mortgage commitments lends itself to a wide range and choice of local shopping options close to home. In particular, increased choice and competition between supermarkets can lower average grocery bills for families with rising mortgage payments and the elderly on fixed low incomes.

Competition

14 The centres hierarchy across Salisbury is characterised by the larger street-based Urban Activity Centres at Salisbury and Mawson Lakes and the mall-based Hollywood Plaza. The next level in the hierarchy is supermarket-based Suburban Activity (or Neighbourhood) Centres distributed through the region.

15 The nearest centres are Parafield Gardens based on an Asian grocer (1km north east) and the Foodland-based Martins Plaza in central Parafield Gardens (2.6 km north). Mawson Lakes to the south-east has a range of supermarkets and services catering to a wider resident, student and business market while to the north, beyond the catchment area is Hollywood Plaza and smaller Coles and Woolworths-based centres in Paralowie.

Need

16 The supermarket floorspace provision rate (measured as supermarket GLA sqm per capita) is well below the Adelaide average in the total trade area.

17 The addition of the proposed supermarket (4,150 sqm) will significantly improve choice and availability for catchment area residents however floorspace provision rates after its development will still be less than the Adelaide average.

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

Impacts

18 The assessed trading impacts from the proposed development on centres in the area are in the low-mid range of -3.0% to -9.5% of sales in 2025. These impacts will be recovered with population and spending growth in their respective catchments within 1-3 years.

19 Impacts from the proposed centre are lessened or mitigated by the low provision of supermarket floorspace in the market, the relatively strong trading position of most supermarkets, low vacancy levels at competing centres and the wide distribution of sales across a wide area and multiple centres. Most of the sales effects will fall disproportionately on large national chain supermarkets who can withstand small – medium fluctuations in their sales.

Benefits

20 The benefits include improved access and choice of neighbourhood shopping for a mid-low income suburban area, improved supermarket home delivery and click 'n options, a better range of quick service restaurants and cafés/eateries in the centre and a small range of showroom uses.

21 The location and layout of the centre is convenient for residents, workers in the industrial estate and passing traffic. It will provide a new focal point for the lower Salisbury area with a contemporary design, in contrast to the dated centres which characterise other parts of the catchment.

22 The completed neighbourhood centre will generate about 125 FTE jobs on site plus other support roles and services in an area with above average unemployment. The warehouse and bulky goods / showroom uses are estimated to generate an additional 100 FTEs in storage, distribution, customer service and direct transport roles.

23 The proposal appears likely to deliver a strong net community benefit for the area.

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

1

Introduction

This report has been prepared on the instructions of Evo Arc for Thirteen Commercial, who are contracted to purchase the land known as Lot 1001 Salisbury Highway, Green Fields. It accompanies a proposal seeking an Amendment to the Planning and Design Code to facilitate future development on part of the 5.1-hectare site for a retail, warehouse and bulky goods uses.

The land earmarked for development is 3.26 hectares in area or about two thirds of the total site area. The developable area (hereafter referred to as the site) extends from Salisbury Highway approximately 350 metres west with a narrow and long orientation between Ryans Road (north) and the Green Fields industrial area (south).

This report presents an independent assessment of the retail, warehouse, and bulky goods component of the proposed development as shown on the Master Plan, including an analysis of retail need and an examination of the potential effects on other centres if development occurs in accordance with the proposed Master Plan.

The report is presented in the following sections:

- Section 2 describes the local site context and proposed development.
- Section 3 identifies the catchment served by the development and presents an assessment of population, demographics, and local spending rates.
- Section 4 outlines the retail centres hierarchy within and beyond the catchment.
- Section 5 presents the economic need relating to the proposed supermarket, specialty retail, warehouse, bulky goods and pad site uses.
- Section 6 assesses the likely economic outcomes from the proposed development including trading impacts and employment generation.
- Section 7 summarises the report findings.

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

2

Green Fields

2.1 Regional context

Green Fields is a small, industrial suburb in the southern part of the City of Salisbury bounded by Salisbury Highway (east), Ryans Road and residential areas of Parafield Gardens (north), Port Wakefield Road (west) and the western residential area of Mawson Lakes (south).

Salisbury Highway passes the site extending north into the large contiguous urban area comprising Parafield Gardens, Salisbury Downs, Salisbury, Paralowie, Salisbury North and Burton. In the last 10 years, this area and the suburb of Mawson Lakes has grown from 71,800 people in 2011 to 83,085 in 2021.

The two suburbs adjoining the site, Parafield Gardens (18,718 people in 2021) and Mawson Lakes (13,676 people) have 32,400 people within 3km of the site. These suburbs have grown by about 5,900 people in the last 10 years and 1,800 people in the last 5 years.

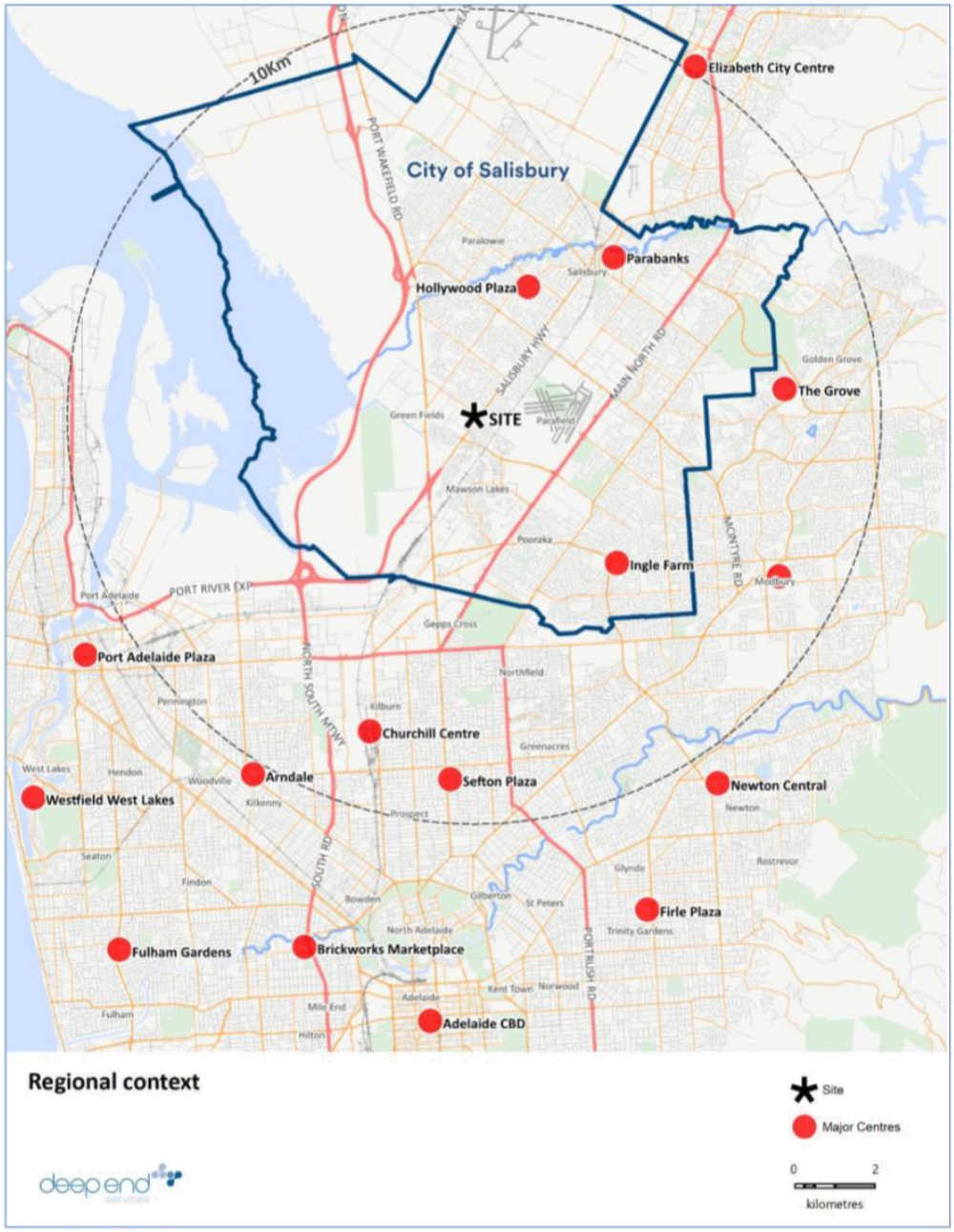
Major retail centres north of the site are Salisbury Town Centre (Parabanks Shopping Centre) and Hollywood Plaza. Elsewhere, the north and central suburbs of Salisbury are served by a range of smaller supermarket-based neighbourhood centres.

Large non-residential areas close to the site include:

- Parafield Airport.
- Industrial areas of Cavan and Gepps Cross to the south and Salisbury South to the north.
- The harness racing track and other equine industry-related uses at Globe Derby Park to the west.
- University of South Australia campus and business park uses at Mawson Lakes.

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

Figure 1—Regional context



Source: Deep End Services

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

2.2 Local context

The site is on the south-west corner of Salisbury Highway and Ryans Road. Salisbury Highway is a 4-lane divided arterial with southern connections to Port River Expressway, South Road and Main North Road (Princes Highway). North of the site it dissects the City of Salisbury, bypassing Salisbury Town Centre through to Main North Road.

Where it passes the site, Salisbury Highway carries about 43,000 vehicles per day (refer Figure 2) highlighting its function as a busy commuter and local traffic route to wider areas of the city. Its volumes are comparable to sections of Main North Road and the southern section of Port Wakefield Road. These volumes present attractive opportunities for retail and commercial uses.

Ryans Road is a local east-west distributor between Salisbury Highway and Port Wakefield Road with local street connections into the Parafield Gardens residential area and Green Fields industrial area.

Figure 2—Average daily traffic (2 way)

Source: Deep End Services; Data SA 2022

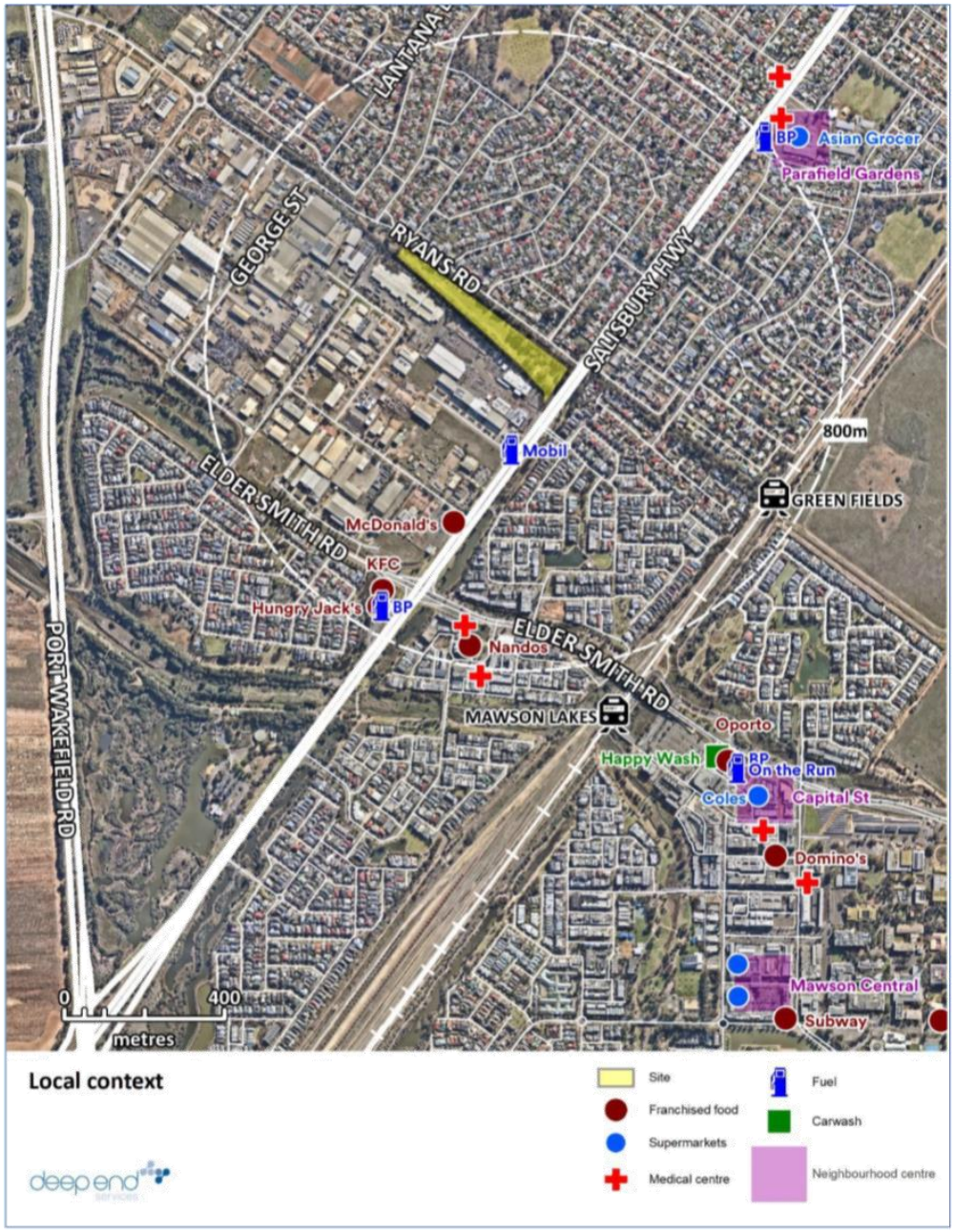


Parafield Gardens to the north has good local and arterial road connections to the site. This large residential area of over 18,000 people is served locally by a small, embedded centre (Martins Plaza) on the corner of Martins Road and Shepherdson Road, a larger and similarly dated local centre north of the site on Salisbury Highway and a standalone ALDI store on Kings Road.

Full-line supermarkets are located outside Parafield Gardens at Paralowie, Salisbury Downs and Mawson Lakes.

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

Figure 3—Local context



Source: Deep End Services; NearMap imagery (May 2022)

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

The suburb of Mawson Lakes is divided into several discrete areas where the main body of 8,000 people reside east of the northern rail line with one road connection (Elder Smith Road) through to Salisbury Highway. Smaller population cells with better access to the site are located between the rail line and Salisbury Highway (population 4,334) and west of Salisbury Highway (population 1,308).

Other relevant land use patterns and connections through the corridor and within a short drive of the site identified in Figure 3 include:

- The Green Fields general industrial area which is largely developed with a range of small to mid-sized warehouse, freight and logistic businesses and fabrication, processing, automotive and other light industrial uses.
- Franchised food and fuel south of the site on Salisbury Highway including, McDonalds, Mobil and co-located BP, KFC and Hungry Jacks.
- Parafield Gardens Shopping Centre, which includes an Asian supermarket (2,053 sqm), medical uses, a BP service station and 1,300 sqm of specialty shops.
- The railway corridor parallel to, and east of Salisbury Highway and Parafield Airport which are barriers to east-west traffic movements.
- Significant retail and community infrastructure in Mawson Lakes Town Centre including three supermarkets.

2.3 Site description

Lot 1001 Salisbury Highway has a long, narrow orientation between Ryans Road and the adjoining industrial area to the south. The north and south boundaries converge to a point at the western end, rendering an area unusable for development.

The land for the proposed retail development is 3.26 hectares covering about two thirds of the central and eastern part of Lot 1001. The western part is intended for bulky goods and showrooms.

The site is generally flat and clear with mature tree lines along the Ryans Road boundary and southern industrial boundary. The north side of Ryans Road is a residential interface of single storey detached dwellings.

The Salisbury Highway and Ryans Road intersection is unsignalised with full turning movements from protected turning lanes in the median break. Salisbury Highway is a straight, flat and wide easement with no central plantation which affords good visibility and sight lines to the site and turning lanes. A bus stop is located on the Salisbury Highway frontage of the site for various north-bound routes.

The site is 560 metres from the Green Fields railway station on the Gawler line and directly linked by a green space corridor and informal pedestrian path. This link could be strengthened with the proposed development.

Under the Planning & Design Code the site is within three different zones. The Employment Zone enables small shops up to 100 sqm, the Strategic Employment Zone small shops up to 250 sqm and the General Neighbourhood Zone, shops up to 200 sqm. Bulky goods outlets and standalone shops are permitted where they are located on sites with a frontage to a State Maintained Road.

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

2.4 Master Plan

A Master Plan (refer Figure 4) divides the site into two distinct parts

- a neighbourhood shopping centre of 6,220 sqm GLA on the eastern Salisbury Highway section; and
- warehouse and bulky goods / showroom uses on the western section.

The neighbourhood centre components are:

- A full-line supermarket (4,150 sqm GLA) opening to a small, enclosed mall.
- Mall-based and external facing specialty shops of 2,070 sqm GLA (including a 250 sqm liquor store).
- Connected open parking areas along both frontages.
- Mall openings to the main eastern car park and to the north-side parking.
- 2 pad sites on the Salisbury Highway corners of the site.
- A left-in and out crossover to Salisbury Highway and a crossover to Ryans Road.
- A landscaped buffer to Ryans Road preserving the existing tree line.

On the western section of the site:

- An online home delivery fulfillment warehouse (830 sqm GLA) and click & collect staging area connected to the supermarket with 8 dedicated drive thru parking spaces.
- Proposed access for supermarket deliveries and other heavy vehicles from a new crossover to an industrial property and access easement to the south.
- Commercial tenancies (1,280 sqm GLA) shielding the truck and loading bay areas of the supermarket and warehouse.
- A strip of bulky goods, showroom and warehouse units (5,215 sqm GLA) extending to the western end of the site.

The proposed uses and floor areas are summarised in Table 1. Investigations and engagement through the rezoning process and the preparation of a development application may lead to variations from the development concept shown in the Master Plan.

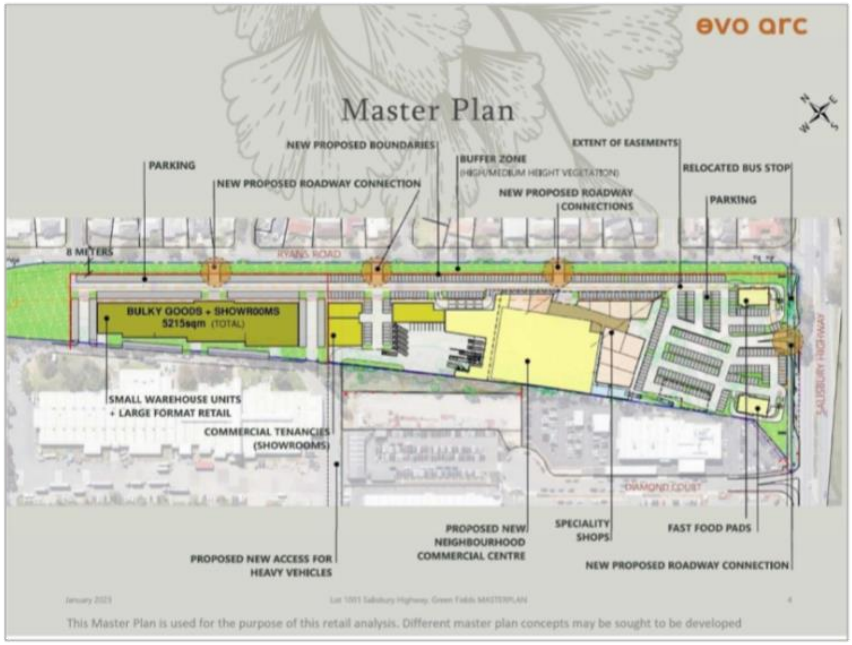
Table 1—Land use & tenancy area schedule

Source: evo arc

Use / tenancy	Floorspace (sqm GLA)
Neighbourhood Centre	
- Supermarket	4,150
- Liquor store	250
- Specialty shops	1,820
Sub total centre	6,220
Pad sites (#2)	520
Warehouse (click 'n collect)	830
Commercial tenancies	1,280
Bulky goods / showrooms	5,215
Total all uses	14,065

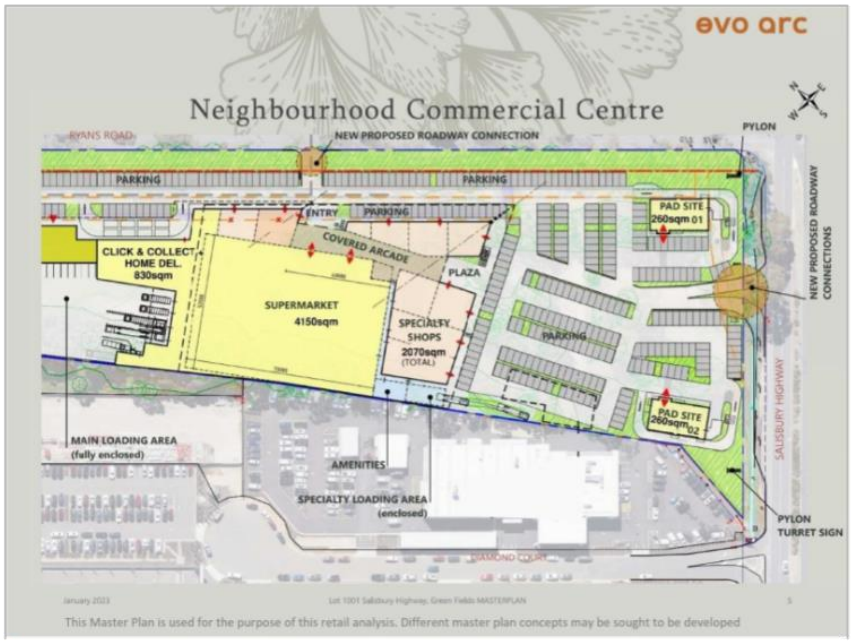
Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

Figure 4— Lot 1001 Salisbury Highway Master Plan



Source: evo arc

Figure 5— Lot 1001 Salisbury Highway Neighbourhood Commercial Centre Plan



Source: evo arc

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

3

Catchment area analysis

3.1 Catchment area definition

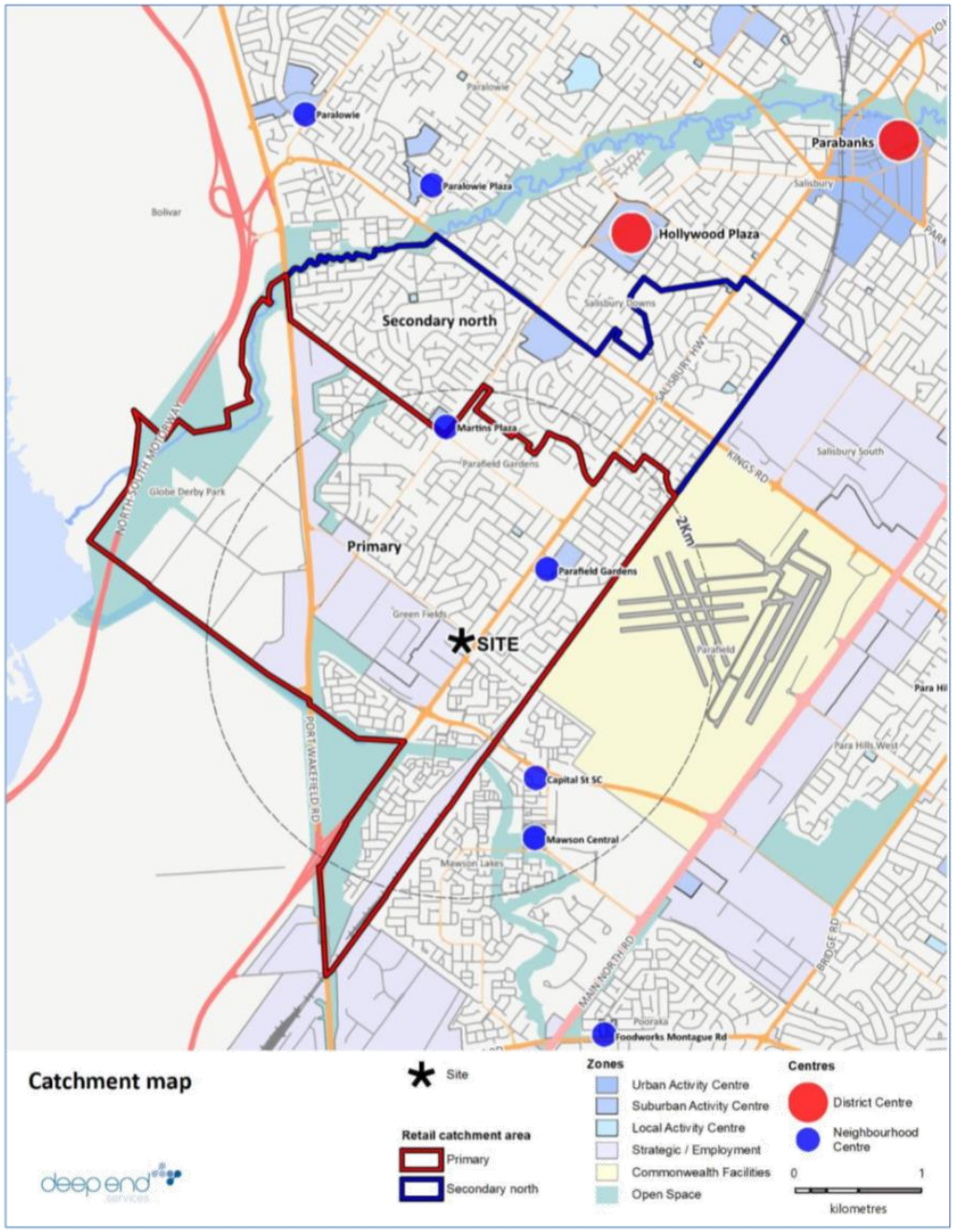
The defined catchment area for the proposed centre reflects several interrelated factors including the spatial pattern of urban development, the location, size and quality of competing centres in the area, road patterns and access and the likely preference by residents towards a supermarket on the site.

The defined catchment area (refer Figure 6) includes:

- A primary sector (red outline) covering the central and southern areas of Parafield Gardens and areas of Mawson Lakes west of the rail line, where a supermarket on the site would be amongst the first-choice preferences for residents.
- A secondary north sector (blue outline) extending to Kings Road and Little Para River in the north-west and into Salisbury Downs in the north-east. Other supermarkets are likely to be preferred in these areas however the site would still be used on a regular basis.

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

Figure 6—Catchment area



Source: Deep End Services

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

3.2 Population

The catchment area had an estimated population of 27,066 at the time of the 2021 Census. The catchment grew by 1,684 people over the five years from 2016 to 2021, averaging 1.3% per annum – marginally higher than the metropolitan Adelaide average of 1.2% per annum.

SA Government population forecasts are predicting lower growth in the area over the next ten years, averaging 0.6% per annum, mainly from small infill subdivisions.

Table 2— Historical and projected population

Source: Deep End Services: ABS; Govt of SA (2019)

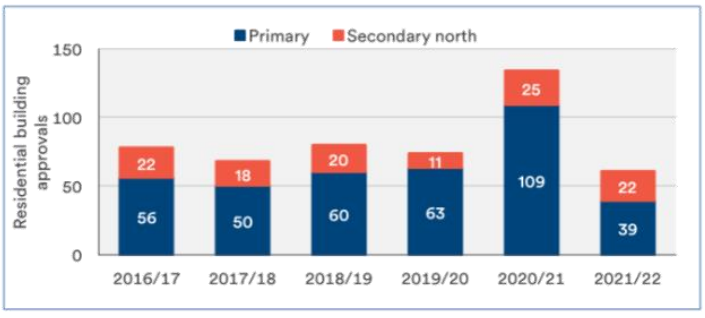
	Census Data			Projections		
Catchment area sector	**2011**	**2016**	**2021**	**2025**	**2028**	**2031**
Population						
Primary	12,302	14,994	16,362	17,112	17,442	17,682
Secondary north	10,011	10,388	10,704	10,924	11,034	11,124
Total catchment	**22,313**	**25,382**	**27,066**	**28,036**	**28,476**	**28,806**
Growth (No. per annum)						
Primary	-	538	274	188	110	80
Secondary north	-	75	63	55	37	30
Total catchment	**-**	**614**	**337**	**243**	**147**	**110**
Growth (% per annum)						
Primary	-	4.0%	1.8%	1.1%	0.6%	0.5%
Secondary north	-	0.7%	0.6%	0.5%	0.3%	0.3%
Total catchment	**-**	**2.6%**	**1.3%**	**0.9%**	**0.5%**	**0.4%**

3.3 Dwelling approvals

Residential building approvals have averaged about 80 per annum over the last 6 years but spiked to 134 in 2021 (refer Figure 7), highlighting the recent interest and activity in the area. These approvals reflect the residential developments along Martins Road in Parafield Gardens and a low to moderate level of infill development occurring within the more established parts of the catchment area. These approvals will underscore the forecast population growth within the catchment area.

Figure 7— Residential building approvals

Source: ABS; Deep End Services



Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

3.4 Demographic profile

The demographic characteristics of the catchment area are presented in Table 3 and compared to metropolitan Adelaide averages. The key characteristics are:

- A young population, particularly in the primary sector with higher proportions aged 0-9 and 20-34 years and a low proportion aged 65+.
- A high proportion of family-based households with (37%) of households comprising 'couples with children' (30% for Adelaide) and 22% 'lone person' (Adelaide 28%).
- 85% of dwellings are separate or detached homes (Adelaide 75%)
- Higher proportions of mortgaged dwellings (42%) and rentals (32%).
- Higher unemployment rate of 7.6% compared to the Adelaide average of 5.5% as at the 2021 Census date.
- 37% white collar workforce (vs Adelaide 50%) and lower higher education attainment with 19% of the catchment possessing a bachelor's degree of higher compared to the Adelaide average of 26%.
- Household income levels are -4% below average in the primary sector and -21% below average in the secondary sector. The combined areas are -11% below the Adelaide average.
- A high 41% of the population born overseas (Adelaide average 29%). Significant countries of origin are India (8%), Vietnam (5%), England (4%) and Afghanistan (3%).
- High over-indexation of people who identify with southern or central Asian ancestry (20% vs Adelaide 7%) and south-east Asian ancestry (16% vs Adelaide 4%).
- A higher proportion of dwellings with 2 or more vehicles compared to the Adelaide average.

The young family profile with mortgage commitments lends itself to a wide range and choice of local shopping options close to home. In particular, increased choice and competition between supermarkets can lower average grocery bills for families with rising mortgage payments and the elderly on fixed low incomes.

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

Table 3— Demographic characteristics (2021 Census)

Source: Deep End Services; ABS

Demographic characteristic (2021 Census)	Primary	Secondary north	Total catchment	Adelaide	Index to Adelaide average
Persons and dwellings					
Usual resident population	16,127	10,554	26,681	1,387,290	-
Total private dwellings	5,896	3,939	9,835	593,885	-
- % unoccupied	4%	4%	4%	7%	61
Average household size	2.84	2.78	2.81	2.44	115
Economic indicators					
Participation rate	63%	56%	61%	62%	98
Unemployment rate	6.9%	8.7%	7.6%	5.5%	137
White collar workers	40%	30%	37%	50%	74
Bachelor degree or higher	23%	13%	19%	26%	75
Age group					
0-9	14%	13%	14%	11%	124
10-19	12%	13%	13%	12%	110
20-34	24%	21%	23%	21%	112
35-49	22%	19%	21%	20%	105
50-64	15%	19%	16%	19%	89
65+	13%	14%	13%	19%	71
Average age	36.0	38.4	36.9	40.9	90
Annual household income					
<$33,800	14%	22%	17%	18%	92
$33,800 - $78,200	33%	38%	35%	31%	114
$78,200 - $130,300	29%	24%	27%	24%	113
$130,300 - $182,400	15%	11%	13%	14%	98
>$182,400	9%	5%	7%	13%	56
Average household income	$97,199	$80,674	$90,547	$101,679	89
Variation from Adelaide average	-4%	-21%	-11%	-	-
Country of birth					
Australia	57%	61%	59%	71%	82
India	10%	6%	8%	3%	264
Vietnam	4%	6%	5%	1%	399
England	3%	4%	4%	6%	62
Afghanistan	3%	3%	3%	1%	558
Philippines	2%	2%	2%	1%	249
Other	20%	17%	19%	17%	112
Top 4 regions of ancestry					
North-West European	33%	37%	35%	52%	66
Oceanian	25%	30%	27%	33%	80
Southern and Central Asian	22%	17%	20%	7%	276
South-East Asian	16%	17%	16%	4%	363
Occupied private dwelling tenure					
Fully owned	24%	28%	26%	32%	80
Being purchased	44%	39%	42%	38%	109
Rented	32%	33%	32%	29%	110
Dwelling type					
Separate house	84%	87%	85%	75%	113
Townhouse/semi-detached	12%	9%	10%	16%	64
Apartment	5%	4%	4%	8%	54
Household composition					
Couples with children	38%	36%	37%	30%	125
Couples without children	23%	20%	22%	26%	84
One parent family	14%	16%	15%	12%	124
Lone person	21%	25%	22%	28%	80
Group	4%	3%	4%	4%	95
Motor vehicles per dwelling					
None	5%	8%	6%	8%	79
One	35%	33%	34%	37%	92
Two	40%	37%	39%	37%	105
Three or more	20%	21%	21%	18%	114

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

3.5 Local employment

Figure 8 shows the distribution and size of the workforce in ABS Journey to Work (JTW) zones from the 2021 Census. The JTW Zone covering the Green Fields industrial area had a significant workforce of 1,659 people in 2021. By occupation, half of the workforce was employed in traditional 'blue collar' occupations such as technical and trades, machinery operators and drivers and labourers.

The three JTW zones within 2 km of the site had a combined workforce of 3,275 people in 2021. These zones also had strong workforce growth between 2016 and 2021 with the number of jobs increasing by 25% in the five-year period. These gains were from increasing population levels (including people working from home) and higher commercial and industrial employment in the Green Fields industrial area and the Mawson Lakes education and business areas.

In addition to the local workforce, significant employment clusters are just beyond the 2 km radius, including the industrial areas of Salisbury South, Cavan and Pooraka.

A range of commercial uses on the site can support demands from the local and wider workforce and leverage the commuter / commercial traffic through the area.

Figure 8— Workforce by local area - 2021

Source: ABS, Deep End Services



Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

3.6 Retail spending

The available spending market by catchment area residents is presented for the following categories:

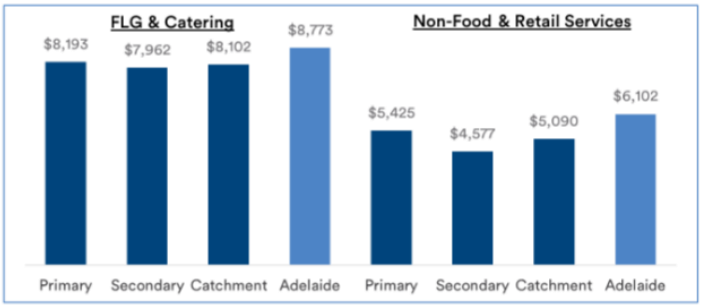
- Food, liquor, groceries & catering (FLG &Catering) – includes fresh and packaged food and non-food groceries including health and beauty, packaged liquor and catering being takeaway food and dining out spending.
- Non-food & retail services is a broad category including clothing, footwear, gifts, pharmaceuticals, newspapers and books, small and large household goods and appliances and retail services such as hairdressing, beauty, optical services, dry cleaning and clothing repairs.

A comparison of per capita spending levels for the Green Fields catchment area against the Adelaide average is shown in Figure 9.

The market of most relevance for the proposed supermarket is Food, Liquor, Groceries and Catering (FLG&C). Average spending on this category by catchment area residents is 7.6% below the Adelaide average. For the more discretionary non-food and services category, average spending is 16% below average.

Figure 9— Catchment per capita spending rates (2022)

Source: Source: Deep End Services; ABS; Market Data Systems; Deloitte Access Economics



The available spending market (refer Table 4) is derived from existing and projected population levels and average per capita spending rates.

The total spending market was estimated at $359.8 million in 2022, of which $221.0 million (or 61%) was spent on FLG & Catering.

Excluding inflation, the spending market is projected to grow by 1.9% per annum over the next three years to 2025, influenced by the moderate rate of population growth during the period and small real increase in spending recovery post COVID.

In total, annual retail spending by catchment area residents is forecast to increase by $59.8 million over the next 9 years, from $359.8 million in 2022 to $419.6 million in 2031 (at constant $2022).

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

Table 4— Trade area spending estimates (at constant $2022)

Source: Source: Deep End Services; ABS; Market Data Systems; Deloitte Access Economics

	Spending market ($m)				Average change (%pa)		
Spending category	2022	2025	2028	2031	2022-25	2025-28	2028-31
FLG & Catering							
Primary	135.3	145.6	155.8	161.7	2.5%	2.3%	1.3%
Secondary north	85.7	90.1	95.2	97.9	1.7%	1.8%	0.9%
Total	**221.0**	**235.7**	**251.0**	**259.6**	**2.2%**	**2.1%**	**1.1%**
Non-Food & Retail Services							
Primary	89.6	94.2	100.3	104.5	1.7%	2.1%	1.4%
Secondary north	49.3	50.8	53.5	55.5	1.0%	1.8%	1.2%
Total	**138.8**	**145.0**	**153.8**	**160.0**	**1.5%**	**2.0%**	**1.3%**
Total retail							
Primary	224.9	239.8	256.1	266.2	2.2%	2.2%	1.3%
Secondary north	135.0	140.9	148.7	153.4	1.4%	1.8%	1.0%
Total	**359.8**	**380.7**	**404.8**	**419.6**	**1.9%**	**2.1%**	**1.2%**

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

4

Activity centres

4.1 Overview

Residents of the catchment are served by several supermarket-based and higher order shopping centres, mostly situated beyond the catchment area. Figure 10 shows the zoning and classification of the centres in the catchment and surrounding areas and the distribution and branding of supermarkets.

Floorspace estimates for individual retailers and centres are based on field work inspections, aerial imagery and internal databases (refer Table 5).

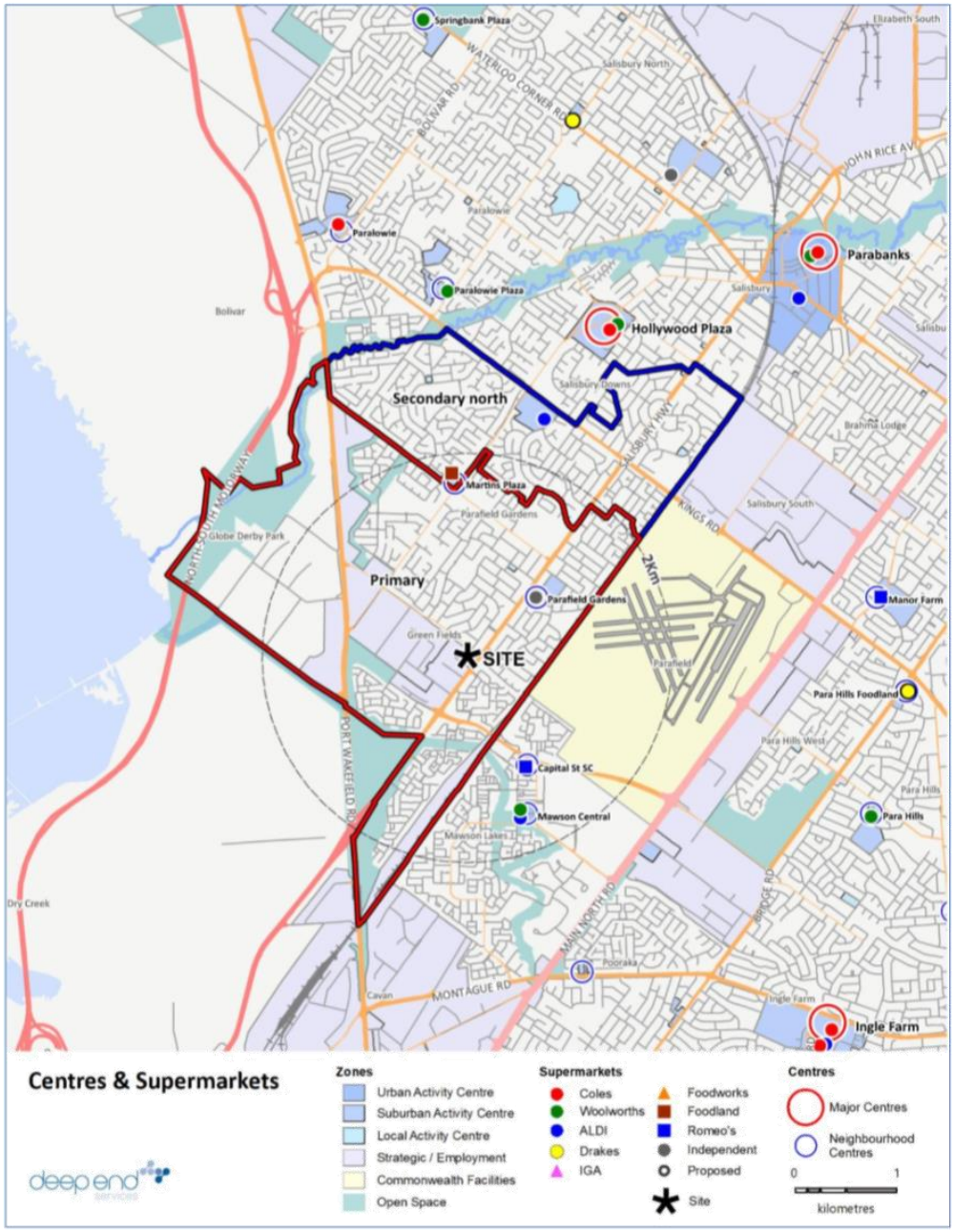
Table 5—Centre floorspace by tenant type

Activity centre	Smkts	Liquor	Other food	Total food & drink	Non-food & Services	Total retail	Non-retail	Vacant	Total floorspace	Vacant % of total
WITHIN CATCHMENT										
Parafield Gardens	2,053	150	659	2,862	188	3,050	300	330	3,680	9.0%
Martins Plaza	1,750	-	1,750	3,500	1,050	4,550	1,050	-	5,600	0.0%
Aldi Parafield Gardens	1,700	-	-	1,700	-	1,700	-	-	1,700	0.0%
Total catchment	5,503	150	2,409	8,062	1,238	9,300	1,350	330	10,980	3.0%
BEYOND CATCHMENT										
Mawson Lakes Town Centre										
- Mawson Central	4,012	190	508	4,710	653	5,363	493	120	5,976	2.0%
- The Promenade	1,738	-	1,443	3,181	321	3,502	677	160	4,339	3.7%
- Capital Street SC	2,500	-	502	3,002	251	3,253	219	-	3,472	0.0%
- Balance of MLTC	-	-	1,895	1,895	2,085	3,980	2,720	293	6,993	4.2%
Total Mawson Lakes Town Centre	8,250	190	4,348	12,788	3,310	16,098	4,109	573	20,780	2.8%
Salisbury Town Centre										
- Parabanks SC	7,479	250	2,591	10,320	14,910	25,230	671	939	26,840	3.5%
- Balance of Salisbury TC	1,727	200	2,691	4,618	2,019	6,637	3,043	543	10,223	5.3%
Total Salisbury Town Centre	9,206	450	5,282	14,938	16,929	31,867	3,714	1,482	37,063	4.0%
Hollywood Plaza	6,275	350	4,608	11,233	16,923	28,156	2,192	911	31,259	2.9%
Paralowie Village	2,162	200	650	3,012	455	3,467	150	-	3,617	0.0%
Paralowie Plaza	2,715	-	693	3,408	578	3,986	450	60	4,496	1.3%
Total	34,111	1,340	17,990	53,441	39,433	92,874	11,965	3,356	108,195	3.1%

Source: Deep End Services; Property Council Australia

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

Figure 10—Activity Centres & supermarkets



Source: Deep End Services

4.2 Centres within catchment area

4.2.1 Parafield Plaza

Parafield Plaza is a suburban activity (or neighbourhood) centre with a total gross lettable area (GLA) of 3,680 sqm. The centre is located approximately 1km to the north of the site on Salisbury Highway in the suburb of Parafield Gardens.

Parafield Plaza is anchored by a 2,053 sqm Asian supermarket (former Drakes supermarket) with 11 tenancies either internal to the mall or external facing a 181-space carpark. It is partly screened by a BP station and separate two-level shop and office development on the highway frontage.

The centre provides local convenience needs including a Liquorland bottle shop, a chemist, bakery, butcher and several take-away food shops and restaurants. The centre has three vacancies of about 331 sqm or 3% of the total GLA.

The supermarket and other businesses reflect the relatively large community of Asian ethnicity in the catchment.





4.2.2 Martins Plaza

Martins Plaza is a suburban activity (neighbourhood) centre located 2.6 km north of the site. It is embedded centrally in the Parafield Gardens suburb with a relatively large captive market and new residential areas developed in the last 10 years to the south and west, off Martins Road and Shepherdson Road.

The open plan L-shaped centre is anchored by a Foodland supermarket (1,750 sqm) and provides a medical centre, dental clinic and 13 speciality shops and services. The centre has a total GLA of 5,600 sqm with all tenancies having external shopfronts to a large on-grade car park.

An early learning centre and OTR fuel station are adjacent to the centre. There were no vacancies at the time of inspection.

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail



4.2.3 Aldi Parafield Gardens

Aldi Parafield Gardens is a standalone mid-sized supermarket (1,700 sqm) on the Corner of Kings Road and Lavender Drive, 3.2km north of the site. ALDI opened in 2016 and operated as the only store for central and northern Salisbury area until the Salisbury Town Centre store opened in 2021.

The store occupies a high profile corner location mid-way between the centres at Paralowie, Hollywood Plaza and Martin's Plaza.

4.3 Centres beyond catchment area

Mawson Lakes is a mixed use town centre serving the suburb of Mawson Lakes (pop. 13,680) and Pooraka (7,650) east of Main North Road and the large employment and visitor base associated with the technology precinct and Mawson Lakes campus of the University of South Australia. It provides the strongest and most direct competition to the site with three major supermarkets and a range of street-based retailing and services.

The Mawson Lakes centre comprises about 10 commercial and mixed use blocks laid out with neighbourhood shopping and mixed-use developments with ground level retail and service uses. The retail core is approximately 2 km by road from the site.

Mawson Central is an enclosed mall that opened in 2013 anchored by a full-line Woolworths supermarket (4,012 sqm). The centre has a total GLA of 5,976 sqm, a two-level decked car park and 18 supporting shops and services.



The Promenade is a separate section of Mawson Central located south of University Drive but connected by a large awning and pedestrian crossing. The centre is anchored by an Aldi supermarket (1,738 sqm), which backfilled a former Target store

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

in 2020. The centre has a total GLA of 4,339 sqm, an on-grade car park, speciality tenancies and first floor office above the medical centre. The centre draws its name from the restaurant tenancies on Mawson Lakes Boulevard overlooking Mawson Lake.



Capital Street is a smaller 3,472 sqm neighbourhood centre located at the northern section of Mawson Lakes Town Centre about 4 blocks north of Woolworths. The centre opened in 2017 and occupies the lower level of a student accommodation building. It contains a Romeo's Foodland (2,500 sqm), a pharmacy, Pilates studios and restaurant / takeaway food outlets.



The balance of Mawson Lakes Town Centre is primarily ground-floor strata office space, service retailing such as hair salons and take away food and restaurants. These uses service the office and University workforce and the permanent resident and student population base.

4.3.1 Paralowie Plaza

Paralowie Plaza is a suburban activity centre on Whites Road (just north of Kings Road), 5.1 km by road from the site. It likely serves the central area of Paralowie and northern parts of Parafield Gardens.

It was developed in about 1995 and is anchored by mid-sized Woolworths supermarket (2,715 sqm). The centre has a total GLA of 4,496 sqm with 15 speciality tenancies including an Indian grocer, discount store, chemist, bakery, take away food (x4), veterinary clinic, barber, nails, lotto, café and medical centre.

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail



4.3.2 Paralowie Village

Paralowie Village is a suburban activity centre approximately 1.3 km west of Paralowie Plaza where it shares a similar catchment over central and west Paralowie. The centre opened in 1997 with a Bi Lo supermarket (2,162 sqm) until it was rebadged to Coles in 2006.

The centre has a GLA of 3,617 sqm with 22 tenancies and an on-grade car park with 215 spaces. Three quick service restaurants (McDonalds, KFC and Hungry Jacks) and a church are located on pad sites. There is surplus Suburban Activity Centre zoned land around the centre however there has been no apparent need to expand the complex or develop other uses.



4.3.3 Hollywood Plaza

Hollywood Plaza is a sub-regional (or District Centre) centre in Salisbury Downs, situated 5km north of the site. It was established in 1979 as the major mall-based centre for the growing southern suburbs of Salisbury. The centre has had at least one major extension but has remained unchanged for many years with 31,259 sqm GLA.

The centre comprises Coles (3,072 sqm), Woolworths (3,203), Target (4,380 sqm) and approximately 60 other shop and service tenants. Large outdoor parking areas have 1,440 bays. It had a last reported MAT in the COVID-affected 2021 year or $122m.

A separate bulky goods precinct on the west side of Winzor Street is also identified by pylon signage as Hollywood Plaza. It is about 6,830 sqm GLA across two

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

buildings and is home to Cheap as Chips, Supercheap Auto, Salvos, Petstock and Anytime Fitness.



4.3.4 Salisbury Town Centre

Salisbury Town Centre is the main retail, commercial and administrative centre for the City of Salisbury. It is classified as a District Centre in the 30 Year Plan.

The main element is Parabanks Shopping Centre, a sub-regional centre of approximately 26,840 sqm GLA located in the heart of the Town Centre. The major tenants are Big W (7,915 sqm), Woolworths (3,779 sqm) and Coles (3,700 sqm) along with 74 specialty stores. The centre was constructed in 1974 and last redeveloped in 2017 when Coles relocated from an external tenancy into an enlarged store within the centre.

The balance of Salisbury Town Centre includes street-based retailing along Church and John Streets with supermarkets, shops, eateries, entertainment venues, banking, community, and public transport services. This area is home to a freestanding Aldi supermarket on Park Terrace that opened in 2020. Church and John Streets are currently undergoing a multi-million-dollar Council led renewal program, part of which seeks to "*unlock medium density residential and mixed-use developments to increase activity and population within the City Centre.*"

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

5

Economic need

5.1 Supermarkets provision

A general measure of the rate of supermarket floorspace provision in a defined area is made by dividing the resident population into the total supply of floorspace (sqm) and expressing this as a rate (sqm) per person. When compared to city or state-wide benchmarks, the current or projected rate for a given region is a simple guide as to whether retail floorspace supply levels are relatively high or low before and after a proposed development. A low existing rate of provision can indicate a need for additional floorspace with obvious benefits relating to competition, choice and a higher standard of facilities.

The defined catchment area has no full-line supermarkets, which are generally defined as supermarkets of more than 3,000 sqm GLA. There are three small-medium sized stores including:

- Foodland (1,750 sqm) at Martins Plaza
- ALDI (1,500 sqm) on Kings Road at Parafield Gardens
- Asian grocer (2,053 sqm) at Parafield Plaza Shopping Centre.

Foodland serves a localised catchment while the Asian Grocer is specialised and occupies a larger tenancy than other typical stores of this kind as it backfilled a former Drakes supermarket. Other larger supermarkets are outside the catchment area at Mawson Lakes (Woolworths, ALDI, Romeo's), Paralowie (Coles and Woolworths) and Hollywood Plaza (Coles and Woolworths).

The catchment has 5,344 sqm of supermarket floorspace for 27,066 people or a provision rate of **0.20 sqm** per capita. While other supermarkets outside the catchment clearly serve some of the catchment area's needs, the simple provision

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

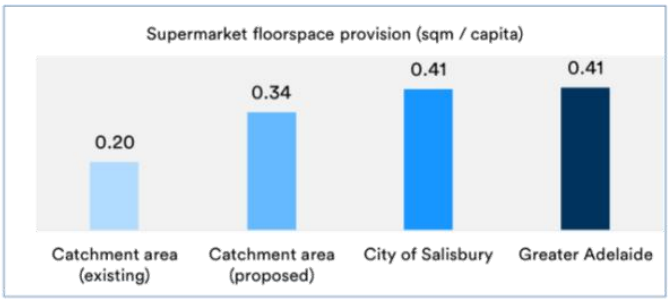
rate is less than half the Adelaide average of **0.41 sqm** per capita. The City of Salisbury has a similar rate (0.41 sqm) to the Adelaide average for its 148,000 people.

The pattern and size of supermarkets suggests a much higher rate of provision outside the catchment, to the north of Kings Road and in Mawson Lakes.

The addition of a 4,150 sqm supermarket on the site by 2025 when the catchment population is 28,036 would increase the rate of supermarket floorspace provision in the catchment to **0.34 sqm** per capita – a rate still 17% below the current Adelaide and City of Salisbury averages (refer Figure 11). Allowing for the continued flow of spending to other supermarkets outside the catchment the analysis suggests there is a need or demand for a full line supermarket.

Figure 11—Average supermarket floorspace provision rates

Source: Deep End Services; ABS.



The supermarket supply and demand lines (with and without the proposed supermarket) over the extended time series to 2031 are illustrated in Figure 12. The analysis shows:

- There is a significant deficiency in supermarket floorspace in the catchment that increases over time with population growth.
- The addition of the proposed supermarket at the site in 2025 alleviates much of the undersupply of supermarket floorspace within the catchment area.
- The new supply line however stays below the demand line out to 2031 which indicates the area is not over supplied with floorspace and spending will continue to flow to and support supermarkets outside the catchment.

Figure 12—Catchment area supermarket floorspace demand & supply, 2021-2032

Source: Deep End Services



Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

5.2 Specialty retail provision

The inclusion of specialty retail stores enables a local shopping centre to better cater for the diverse needs of its local catchment area. The specialty stores in a neighbourhood centre such as the proposed development will aim to cater for the local convenience-based needs of its patrons. This manifests itself in food and grocery, food catering, health and beauty, household goods and personal and financial services that cater to non-discretionary shopping needs.

More so than the supermarket, the range and style of specialty stores can often reflective the unique demographic profile of the local catchment, adding to the role of the centre as a community hub.

An assessment of the Property Council of Australia's *Shopping Centre Directory 2021* reveals that supermarket-based neighbourhood centres in Adelaide contain on average 15 specialty stores across 1,870 sqm of floor area. This specialty floorspace typically represents 35% of the total centre retail area (refer Table 6).

For the seven supermarket-based centres within or beyond the catchment area, the average number of specialty shops is also 15 with a slightly higher average specialty shop floorspace (2,230 sqm) representing 48% of the average centre GLA. For this sample, the average size of the specialty shops is inflated by Martins Plaza and the proportion is higher because of the relatively small area of some supermarkets.

The proposed neighbourhood centre has a total specialty shop floor area of 2,070 sqm which is midway between the local centres and Adelaide average. Once a leasing campaign and tenancy divisions are established, the GLA would represent about 14-16 individual shops. The specialty floor area represents 33% of the total centre GLA which is below average, mainly due to the proposed supermarket at 4,150 sqm.

Table 6—Specialty retail provision

Source: Deep End Services; Property Council of Australia (2021)

Centre	Specialty tenancies (#)	Specialty area (sqm)	Proportion of total centre (%)
Parafield Gardens	14	1,628	44%
Martins Plaza	16	3,950	69%
Mawson Central	16	1,964	33%
The Promenade	16	2,601	60%
Paralowie Village	17	1,455	40%
Paralowie Plaza	13	1,781	40%
Local centre avg.	*15*	*2,230*	*48%*
Adelaide avg.	*15*	*1,949*	*35%*
Green Fields	14-16	2,070	33%

The comparison indicates that the allocation of specialty retail floor space in the proposed centre is not excessive but generally in line with the broader Adelaide and local centre averages for comparable centres.

5.3 Online, Home Delivery, Click & Collect

Online retailing in Australia has experienced significant investment over the past five years as retailers seek to accommodate the growing volume of customers who prefer this form of shopping. Online retailing offers benefits to consumers in the form of convenience, access to a wider product variety, more informed decision making as well as time and monetary savings.

In recent years supermarket retailers have been at the font of online retailing innovation in Australia with the development of new online channels including service desk, click & collect and home delivery food, grocery and liquor options. In Australia online Food retailing sales were $1,003.6m for the 12 months ending October 2022 or 5.6% of the total Food retailing market. This proportion has steadily grown since October 2015, reaching a peak of 7.4% at the height of COVID-19 lockdowns in Melbourne and Sydney in August 2021. Since its peak, the online proportion of total food sales has moderated but remains well above pre-pandemic levels with more than a 100% increase since October 2018.

Figure 13—Australian online retail turnover

Source: ABS



The inclusion of 830 sqm of warehouse space to provide a home-delivery hub from the Green Fields centre will support the growing demand for online retail and enable this service to be provided to a wide range of customers within the northern Adelaide region. Furthermore, a click & collect service is earmarked for the proposed site and will be supported by 8 dedicated car spaces in the staging and pick-up area.

The inclusion of click & collect services on the site will further enhance the centre's offering by providing a convenient alternative to in-person shopping, which is now both expected and common-place in the modern retail landscape.

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

5.4 Large Format Retail provision

Large format retailers (LFR) located in the region grouped by major product category are mapped in Figure 14.

Long-established LFR centres and clusters are as follows:

- Gepps X Home HQ is the largest homemaker centre in Adelaide with 61,767 sqm of floorspace. The centre is 4.5 km (by direct line) south of the site, along Main North Road and has a strong representation of major LFRs.
- On Main North Road beside Parafield Airport within the Parafield Airport Commercial Estate and HomeCo Parafield. HomeCo Parafield is the smaller of the two where 50% of the 15,671 sqm is taken up by a trade supplies. LFR tenants include BCF, Carpet Court, Officeworks and Supercheap Auto. Parafield Airport Commercial Estate has 24,850 sqm of LFR uses across 16 tenancies and a further 16,000 sqm of other uses including fuel and large liquor store. The main tenant is Bunnings (16,400 sqm).
- The smaller, secondary Hollywood Plaza LFR complex 3.5 km north of the site with 8,080 sqm. Major tenants are Super Cheap, Pet stock and Cheap as Chips.
- Further north, other LFR clusters at Elizabeth and Smithfield.

Given the concentration of national LFR tenants at Gepps X and Parafield which have significant scale and major tenants such as Bunnings and the Good Guys, the site is expected to attract more interest from secondary (State based or independent) retailers unable to enter the main precincts or, more likely, trade supplies.

Trade supplies / services include businesses that primarily serve a business-to-business market through the provision of wholesale products (e.g., paints, tiles, tools) and services (e.g. plumbing services, equipment, and tool hire) to trades or the industrial sector are a more likely market.

These typically seek sites in or close to industrial estates where they can effectively serve local construction and other industrial businesses or on main roads to service passing trade vehicles, both of which the site is well positioned to leverage.

The proposed bulky goods, showroom or trades supply uses offer flexible tenancy options, are a relatively small component of the site and provide a good adjacent use to the centre and the adjoining industrial area. The building layout and floor area could deliver 10-15 tenancies which could be staged according to market demand.

5.5 Pad sites

The Master Plan shows two pad sites on Salisbury Highway laid out for quick service restaurants (QSR) with access via the main driveway off Salisbury Highway.

The two locations offer:

- High visibility and access to high volumes of passing traffic
- Ease of ingress and egress to the site
- Onsite parking
- Synergies from the adjoining shopping complex

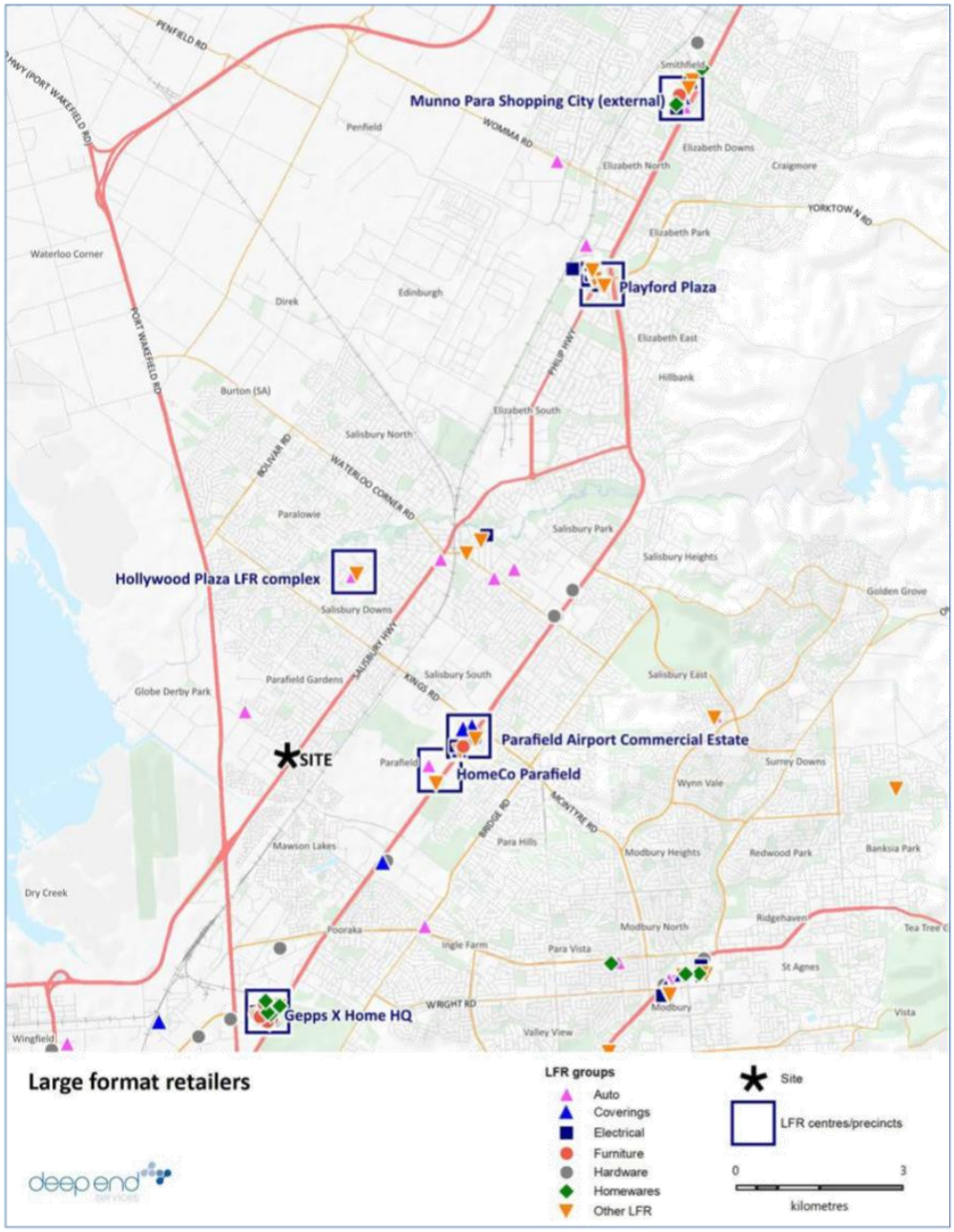
Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

With the high volume of passing traffic, this section of Salisbury Highway has been a popular destination for QSRs with several national brands positioned in the corridor south of the site.

The QSR industry is diversifying and growing with new market entrants such as Gusman y Gomez, Carl's Jr, Taco Bell and others seeking main road sites. The proposed uses diversify the land use and employment base of the site and increase the overall attractiveness of the centre. The site layouts contain the use, access, parking and circulation within the site and use the main access and egress points.

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

Figure 14—Large format retailers



Source: Deep End Services

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

6

Economic Impact Assessment

6.1 Approach

This section considers the likely economic benefits and any potential impacts of the proposed development.

The potential economic impacts could include:

- Trading impacts leading to a loss of viability for competing centres
- Adverse effects on the centres hierarchy.

Potential economic benefits are:

- Capital investment
- Employment during construction and ongoing operation
- Consumer benefits
- Positive externalities

The retail impact assessment is undertaken on the shopping centre retail floorspace and specifically assumptions about those tenants who would report turnover to the owner / manager. An allowance for tenants who do not report turnover including service-based tenancies is made and excluded from the analysis.

The impact assessment proceeds through the following steps:

- Projected retail turnover for the supermarket and specialty shops reporting turnover in the assumed first full financial year of operation (2024/25);
- Projected sales redirected from competing centres are modelled and expressed in percentage and dollar terms; and
- New employment and other positive benefits from the proposed development.

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

6.2 Sales forecast

Projected sales for the reporting retail tenants of the proposed centre in the assumed first full financial year of operation (2024/25) are set out in Table 7.

Table 7—Projected total centre sales (2025)

Source: Deep End Services

	Floorspace	Sales	Trading level	Sales by category ($m)				
Tenancy	(sqm GLA)	($m)	($/sqm)	F&G	Liquor	FLG & Catering	NF & Services	Total retail
Supermarket	4,150	37.3	8,991	35.1		35.1	2.2	37.3
Reporting shops	1,760	13.7	7,775	5.8	2.6	8.4	5.3	13.7
Non-reporting	311	-	-					
Total	**6,220**	**51.0**	**8,198**	**40.9**	**2.6**	**43.5**	**7.5**	**51.0**

The supermarket forecast considers the location and quality of competing supermarkets within and outside the catchment area including:

- Supermarket competition (and quality) is generally low to the north of the site.
- Competition is much higher (and more distant) north of Kings Road.
- Competition is high (in number and quality) in Mawson Lakes with a relatively new (and large) Woolworths, ALDI and Romeo's stores all developed since 2013.
- The surrounding employment areas and main road exposure will generate a high proportion of sales from beyond the catchment.

The projected supermarket sales are $37.3 million in 2025 or $8,991 per sqm. This is considered an average supermarket volume based on current benchmarks, the demographic profile and competition. The sales per sqm rate is lower than industry averages which in part, is due to the large footprint at 4,150 sqm. A slightly smaller supermarket is likely to generate similar sales.

Forecast sales for the specialty tenants are $13.7 million in 2025, based on distribution of shops to typical retail categories and an allocation to non-reporting tenants. The average trading level is almost $7,800 sqm.

Total sales are $51.0 million. Of this, $43.5 million is forecast to be generated in FLG & Catering and the remaining $7.5 million in Non-Food and Retail Services.

The sales by broad product category are expressed as estimated market shares of the available spending levels in the two catchment areas (refer Table 8.)

Table 8—Projected centre market shares

Source: Deep End Services

	Spending ($m 2024/25)			Market share (%)			Turnover ($m)		
Catchment area sector	FLG & Catering	NF & Services	Total Retail	FLG & Catering	NF & Services	Total Retail	FLG & Catering	NF & Services	Total Retail
Primary	145.6	94.2	239.8	20.5%	5.5%	14.6%	29.8	5.1	35.0
Secondary north	90.1	50.8	140.9	4.5%	1.4%	3.4%	4.1	0.7	4.8
Total catchment area	235.7	145.0	380.7	14.4%	4.0%	10.4%	33.9	5.8	39.7
Beyond catchment area							9.6	1.7	11.3
Total							**43.5**	**7.5**	**51.0**

A strong market share will be drawn from the primary sector where the site will rank highly with a close and convenient full-line supermarket for these residents. The

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

prospective tenant is assumed to be a major supermarket. A lower share will be derived from the secondary north, reflecting proximity to other major supermarkets.

The proposed centre is expected to attract a 10.5% share of the total retail spending by catchment residents. For the two catchment sectors, the average shares are:

- 14.6% of spending by residents of the primary sector.
- 3.4% of retail spending by secondary north catchment area residents.

Sales generated from residents living beyond the catchment area are estimated at 22%, reflecting the store's location on a major arterial and its convenience for home-bound traffic and the large employment base in Green Fields and other areas.

6.3 Centre effects

In assessing and apportioning impacts to the surrounding network of supermarket-based centres the following considerations are relevant:

- **Size of new supermarket.** The proposed new supermarket will have the largest floor area of all supermarkets within and beyond the defined catchment area. Moreover, this will be the first new full-line supermarket to open in several years with the most recent openings being mid-sized supermarkets by Aldi Mawson Lakes (2020) and Romeo's Mawson Lakes (2017). The proposed supermarket generates 71% of the proposed sales indicating that the trading effects will fall disproportionately on other supermarkets in the region.
- **Supermarket provision**. The existing provision of supermarket floorspace in the catchment is well below the Adelaide average. The addition of 4,150 sqm by 2025 raises the provision rate but to a level still below the metropolitan average.
- **Spread across multiple supermarkets**. With relative short travel times across the catchment area, there will be overlapping catchments and varied shopping patterns. New supermarket floorspace adds to the choice and diversity of food shopping and brings competition to a range of operators. The effects of new competition will therefore be spread across a range of centres.
- **Condition of nearby centres**. The two existing centres within the primary sector are dated in their physical appearance and lacking maintenance in some areas, such as parking. These factors typically increase the impacts that stem from a new market entrant.
- **Well-resourced supermarket groups.** Most supermarkets in the catchment area and beyond are operated by well-resourced major supermarket operators such as Woolworths, Coles and Aldi. These operators are large enough to withstand small, competitive impacts from new competition which they would experience in the normal course of operating their regional or state-wide store networks.

The estimated direct trading impacts are summarised in Table 9 for the year 2024/25. In overall terms, the projected sales and accompanying range of impacts are moderate and proportional to the proposed change in retail floorspace and the existing supermarket undersupply in the catchment. There are no impacts which exceed -10% on any centre nor approaching -15% which could give rise to concerns over the loss of some tenants.

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

Sales re-allocations are well within the tolerance levels of a normal competitive environment where retail turnover naturally fluctuates with changes in economic and market conditions.

Indeed, trading impacts from time to time from the refurbishment of existing centres or opening of new centres is part of the continuing process of activity centre improvements and better access and services to consumers.

The one-off annual impacts will be offset by population and spending growth in the market which should recover the lost sales in 1-3 years across all centres, and potentially at a faster rate for some with higher local growth or for those that can respond to the increased competition with physical, marketing or tenancy improvements.

The centre will not undermine or significantly impact any individual centre or the broader hierarchy. To the contrary, it will enhance the centres hierarchy with a modern facility providing new retailers and better access to goods and services.

Table 9— Estimated trading impacts Green Fields development

Source: Deep End Services

Centre	Retail floorspace (sqm)		Retail sales ($m)			Green Fields centre	
	2022	2025	2022	2025 - no dev.	2025 - post dev.	($m)	(%)
Green Fields centre	-	5,910	-	-	51.0	-	-
WITHIN CATCHMENT							
Suburban Activity Centre							
Parafield Gardens	3,050	3,050	18.3	19.6	17.8	-1.9	-9.5%
Martins Plaza	4,550	4,550	39.7	42.6	38.7	-3.9	-9.2%
Aldi Parafield Gardens	1,700	1,700	17.0	18.3	17.1	-1.2	-6.5%
Total catchment	**9,300**	**9,300**	**75.0**	**80.5**	**73.5**	**-7.0**	**-8.7%**
BEYOND CATCHMENT							
Urban Activity Centre							
Mawson Lakes Town Centre	16,098	16,098	147.0	157.6	145.0	-12.6	-8.0%
Salisbury Town Centre	31,867	31,867	242.7	259.0	251.8	-7.3	-2.8%
Suburban Activity Centre							
Hollywood Plaza	28,156	28,156	148.0	157.8	148.3	-9.5	-6.0%
Paralowie Village	3,467	3,467	34.2	36.7	35.2	-1.5	-4.0%
Paralowie Plaza	3,986	3,986	43.5	46.7	44.6	-2.1	-4.5%
Other centres/locations						-11.1	
Total	-	-	-	-	-	**-51.0**	-

6.4 Positive aspects

The benefits assessment is based on the Master Plan of development showing a neighbourhood centre of 6,520 sqm, two pad-sites, a retail warehouse and bulky goods uses.

6.4.1 Construction employment

Estimates of on-site construction employment are made based on:

- The estimated value of construction.
- The typical labour component of the construction cost.
- Average labour costs for commercial projects of this type, sourced from ABS Weekly Earnings, Australia series

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

The estimated construction cost for the total project is $48 million over an 18-month period. On these estimates, approximately 210 construction-related FTE jobs will be created on-site during the building contract.

Another 370 or so FTE jobs would be generated elsewhere in the local and wider economy during the construction phase through the supply of materials, finished products, equipment and services.

6.4.2 Operating employment

The proposed supermarket is anticipated to generate up to 70 FTE positions, with the retail specialty tenants and QSRs generating up to 55 FTE jobs.

The warehouse and bulky goods / showroom uses are estimated to generate an additional 100 FTEs in storage, distribution, customer service and direct transport roles. In total, the development would generate an estimated 225 FTE on-site jobs.

Other direct and indirect employment would be generated in centre and building management, leasing, marketing, cleaning and maintenance, security, IT and other support services to retailers and building owners.

The employment positions offered by a well-known supermarket operator are dependable, stable and provided in a safe and professional workplace where extensive training is provided, and new skills are developed which can lead to further career opportunities in the retail industry.

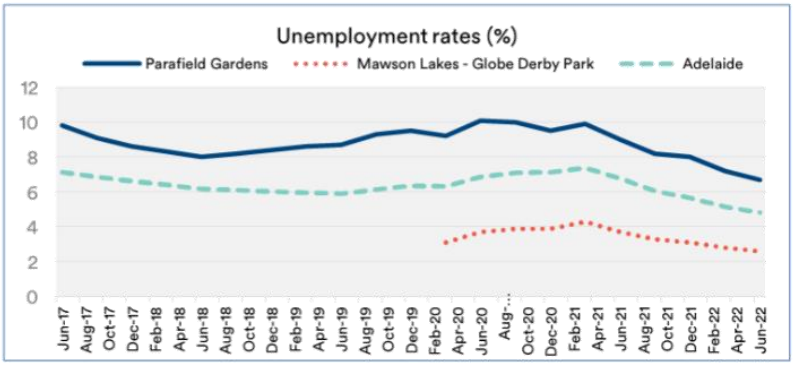
New local employment will increase wages and salaries in the area which should be spent in part, with local retailers.

Job creation is important in an area with high average unemployment rates. Figure 15 shows the trend in unemployment rates for the Parafield Gardens and Mawson Lakes SA2 areas in the last five years against the Adelaide average. The larger populated SA2 of Parafield Gardens extending north of the site has a long term unemployment rate 2-3 percentage points above the Adelaide average.

This area, in particular, would benefit from the 225 FTE jobs generated by the development.

Figure 15—Unemployment by SA2 area

Source: Australian Government



Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

6.4.3 Other benefits

The proposed development will generate other economic and consumer benefits. It will:

- Enhance the range, choice and convenience of supermarket and specialty shopping available to residents.
- Provide a convenient centre for businesses and employees of the adjacent industrial area where meals, snacks and other essential needs can be met during working hours.
- Provide a convenient drop-in option for commuters travelling to home or work along Salisbury Highway.
- Provide a new focal point for the lower Salisbury area with a contemporary design, in contrast to the dated centres which characterise other parts of the catchment.
- Increase supermarket competition, potentially exerting downward pressure on food and grocery prices to the benefit of local consumers.
- Provide a more intensive use of an under-utilised site, leveraging existing infrastructure and investment in the region.
- Generate valuable rate revenue to the City of Salisbury.

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

7

Conclusions

The proposed development has the potential to generate a significant positive economic outcome. Acknowledging the investigations and engagement through the rezoning, and the preparation of a development application may lead to variations from the Master Plan, the primary findings of the report are:

- The site is a prominent location with good access for residents from the local area, passing traffic on Salisbury Highway and the workforce of the Green Fields industrial area.
- The development has a broad and integrated land use mix with shopping, restaurants, warehouse and bulky goods / showroom uses.
- The development is well laid out with good parking and safe access and egress.
- Based on current benchmarks, there is a significant undersupply of supermarket floorspace in the area.
- The proposed development will introduce the only full line supermarket into the catchment area, offsetting some of the current undersupply.
- The catchment extends through the central and lower areas of Salisbury where it inevitably overlaps with other centres, some of which are ageing in appearance and function.
- The catchment, passing trade and local employment base will support the proposed development with low-moderate one-off impacts on surrounding centres. These impacts can be sustained and managed and recovered in the short term with no likely long term effects on the centres hierarchy.
- The proposed neighbourhood centre will generate 210 direct FTE jobs during the construction phase and 125 FTE jobs in its ongoing operation.

- Additional economic and consumer benefits will accrue from the activation of a vacant site, the development of a new community hub and increased choice and convenience in neighbourhood shopping and on-line delivery for residents.

Item 1.1.1 - Attachment 8 - Code Amendment attach D2 - retail

Item 1.1.1 - Attachment 9 - Code Amendment attach D3 - traffic



Green Fields Code Amendment

Lot 1001 Salisbury Highway

Transport Impact Assessment

#eta1000001

DATE

23 October 2023

Empirical Traffic Advisory

Document Information

Project Name	Green Fields Code Amendment
Project Location	Lot 1001 Salisbury Highway
Type	Transport Impact Assessment
Version	0
Issue Date	23 October 2023
Client	Thirteen Commercial
Project Number	1000001
Filename	231023_1000001_greenfields_code_tia_0.docx

Quality Record

Issue	Date	Description	Author	Checked	Approved	Signed
0	23 October 2023	Final report for issue	PSM	DK	PSM	

Table of Contents

1	**Introduction**	**3**
	1.1 Background	3
2	**Existing Conditions**	**4**
	2.1 Affected Areas	4
	2.2 Road Network	5
	2.3 Ryans Road	5
	2.4 Pedestrian Access	6
	2.5 Cycling Access	6
	2.6 Public Transport	6
3	**Intended Policy**	**7**
	3.1 Anticipated Uses	7
4	**Traffic Assessment**	**9**
	4.1 Traffic Demands	9
	4.2 Proposed Access	9
	4.3 Impact on Road Network	10
	4.4 New Access Point Traffic Signals	14
5	**Parking**	**15**
6	**Conclusions**	**16**
Appendix A	**SIDRA Summary**	**A-1**
Appendix B	**Concept Plans**	**B-1**

Figures

Figure 2.1:	Site and Surrounding Environs	4
Figure 2.2:	View north-east of Salisbury Highway (Affected Area on left)	5
Figure 2.3:	View east of Ryans Road (Affected Area on right)	6
Figure 3.1:	Concept Plan	8
Figure 4.1:	Concept Plan of New Access Point Traffic Signals	10
Figure 4.2:	Predicted Redistribution of Existing Daily Traffic Volumes	12
Figure 4.3:	Predicted Daily Traffic Volumes	13

Tables

Table 3.1:	Anticipated Uses	7
Table 4.1:	Traffic Generation of Anticipated Uses	9
Table 4.2:	Summary of Proposed Access Point SIDRA Analysis Results	14

1 INTRODUCTION

1.1 Background

An amendment to the Planning and Design Code is being sought relating to land located at Lot 1001 Salisbury Highway in Green Fields to change the land use from the existing Strategic Employment, General Neighbourhood, Employment zones to new policy which accommodates commercial uses on the land.

Empirical Traffic Advisory was commissioned to undertake a transport impact assessment of the Code Amendment.

This report sets out the findings and conclusions of an assessment of the anticipated transport implications of the anticipated uses for the Code Amendment. In particular this report assesses the impact of the anticipated uses on the existing adjacent road infrastructure.

2 EXISTING CONDITIONS

2.1 Affected Areas

The Affected Area is located at Lot 1001 Salisbury Highway in Green Fields with frontages to Ryans Road and Salisbury Highway. The frontage on Ryans Road extends approximately 800 metres between Salisbury Highway and George Street (to the west). The Salisbury Highway frontage is approximately 134 metres from Ryans Road to the south-west. The location of the Affected Area is shown in Figure 2.1. The Affected Area is approximately 3.89 hectares in size.

The Affected Area is located within Strategic Employment, General Neighbourhood, Employment zones and is currently vacant.

The surrounding properties include a mix of residential land uses to the north and east, and commercial and industrial uses to the south and west.

Figure 2.1: Site and Surrounding Environs



(Photomap courtesy of Metromap)

2.2 Road Network

2.2.1 Salisbury Highway

Salisbury Highway is an arterial road under the care and control of the Department for Infrastructure and Transport. It is a four lane road with a central raised median and dual carriageways, and carries approximately 41,200 vehicles per day (DIT, 2023). Bicycle lanes operate on both sides of the road adjacent the site. Adjacent the subject site, the speed limit is 70 km/h transitioning to 60 km/h for northbound traffic. For southbound traffic, the speed limit is 60 km/h.

Figure 2.2: View north-east of Salisbury Highway (Affected Area on left)



2.3 Ryans Road

Ryans Road is a local collector road under the care and control of the City of Salisbury. It comprises a single carriageway approximately 7.5 metres wide with parking permitted on each side of the road. Ryans Road links between Salisbury Highway and Port Wakefield Road to the west. Traffic management has been installed on Ryans Road at Oleander Drive to prioritise local residential traffic and minimise industrial traffic from the west. There is also an 8 Tonne load limit on Ryans Road adjacent the site between Oleander Drive and Salisbury Highway. The street carries up to 3,000 vehicles per day (DIT, 2022) and has a speed limit of 50km/h

Figure 2.3: View east of Ryans Road (Affected Area on right)



2.4 Pedestrian Access

Footpaths are provided on both sides of Salisbury Highway adjacent the site, and on the northern side of Ryans Road.

2.5 Cycling Access

Bicycle lanes are provided on each carriageway of Salisbury Highway.

2.6 Public Transport

Bus Stop 34U west is located immediately adjacent the Affected Area, while Bus Stop 34U east is located approximately 130 metres south. These stops are serviced by bus 224 (Elizabeth Interchange to City), school bus services and night services (N224). The regular services are generally 30 minute frequency on weekdays, and 1 hour on weekday evenings and weekends.

3 INTENDED POLICY

The Code Amendment intends to replace the existing Strategic Employment, General Neighbourhood, Employment zones with a Suburban Activity Centre Zone in the southern part and Employment Zone in the northern part.

With regards to Traffic and Transport, the relevant parts of the P&D Code include:

Part 3 – Overlays

Traffic Generating Development Overlay

Urban Transport Routes Overlay

Part 4 – General Development Polices

Design

Transport, Access and Parking

3.1 Anticipated Uses

The anticipated uses within the Affected Area based on the Intended Policy is likely to provide shop and warehouse uses across the Affected Area. These anticipated uses are shown in Table 3.1.

Table 3.1: Anticipated Uses

Land Use	Area/Size (sq.m)
Shop (Shopping Centre)	6,000
Shop (Bulky Goods)	2,500
Warehouse	3,000

A concept plan of the anticipated uses in the Affected Area is shown in Figure 3.1

Figure 3.1: Concept Plan



The concept plan includes a primary access point on Salisbury Highway, and secondary access points on Ryans Road. It should be noted that the traffic assessment assumes that Ryans Road will be closed with no access to Salisbury Highway.

4 TRAFFIC ASSESSMENT

4.1 Traffic Demands

Traffic generation estimates for the proposed development have been sourced from the Transport for New South Wales *'Guide to Traffic Generating Developments'* (formerly RTA NSW, 2002) and associated document *'Updated traffic surveys (TDT 2013/04)'*. These documents form a national benchmark for traffic generation data for various land uses, including those anticipated for the Affected Area. For the purpose of this assessment, the AM peak period is expected to generate 30% of the PM peak period for the shopping centre rates which are shown below

Table 4.1: Traffic Generation of Anticipated Uses

Land Use	Area (sq.m GLFA)	Traffic Generation Rate (trips per 100sq.m weekday)				Traffic Trips Total			
		Sat Peak	Weekday AM Peak	Weekday PM Peak	Weekday Daily	Sat Peak	Weekday AM Peak	Weekday PM Peak	Weekday Daily
Shopping Centre	6,000	16.3	3.7	12.3	121	978	222	738	7260
Bulky Goods	2,500	6.6	2.5	2.5	25	165	165	165	625
Warehouse	3,000	0.5	0.5	0.5	4	15	15	15	120
					Total	**1,158**	**402**	**918**	**8,005**

Based on these traffic generate rates, the anticipated uses are predicted to generate approximately 8,000 vehicles per day, 920 vehicles per hour in the PM peak period, 400 vehicles per hour in the AM peak period on a weekday and 1,160 vehicles per hour during a Saturday peak hour.

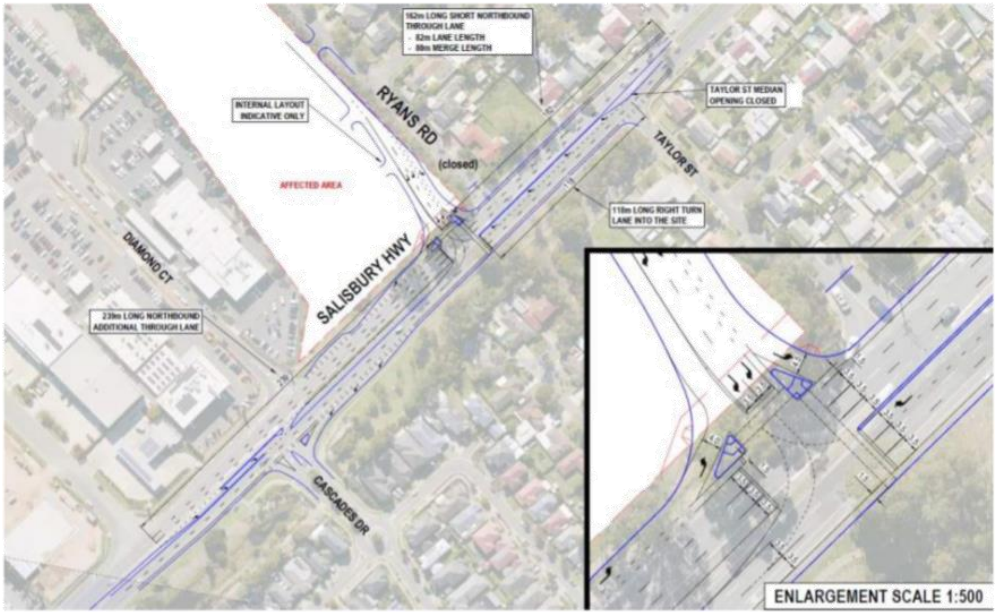
4.2 Proposed Access

Access for the anticipated uses is based on a new access point on Salisbury Highway which will provide access for most of the traffic demands of the Affected Area. It is proposed that this access point be controlled by traffic signals to facilitate safe and efficient access to and from Salisbury Highway. This access point will link to a circulation road which will extend internally from Salisbury Highway frontage to the western portion of the site. The new access point would provide for all turning movements to and from Salisbury Highway, accommodating both light and heavy vehicle movements.

Options for access to the site were developed including locations at the southern end of the site, central to the site and at the northern end of the site (adjacent Ryans Road). Liaison with Department for Infrastructure and Transport found their preference for traffic signals at or near to Ryans Road, at the northern end of the site. DIT was concerned with the proximity of Cascades Drive with traffic signs located at the southern end of the site. Hence, the northern traffic signal option was selected as the preferred option for analysis in this report.

An extract of the concept plan of the new traffic signalised access point has been prepared as shown in Figure 4.1. A concept plan is provided in Appendix B.

Figure 4.1: Concept Plan of New Access Point Traffic Signals



The new access point will require additional lanes on Salisbury Highway including:

- Right turn lane into the site on the north-eastern approach.
- An additional through lane on the south-western approach.
- A left turn lane on south-western approach.
- Dual right turn lanes and left turn lane on the western approach (from the within the site).
- Pedestrian crossing facilities across Salisbury Highway and the new access point.
- Extend bicycle lanes on Salisbury Highway through the new traffic signals.
- Retention of the existing bus stop adjacent the site with a new indented bus bay

The new traffic signals and associated traffic lanes can be provided within the existing road reserve on Salisbury Highway, and in some instances not impacting the existing kerbs.

Additional benefits of the new access point traffic signals include improved access for pedestrians and cyclists across Salisbury Highway which provides linkages to communities to the east and west of this road.

4.3 Impact on Road Network

The installation of traffic signals at a new access point will require changes to the Ryans Road and Taylor Street intersections with the median to be extended to provide a new extended right turn lane at the new traffic signals. Preliminary discussions around access arrangements have been undertaken with both DIT and Council.

Due to the proximity of the new traffic signalised access point to Ryans Road and following preliminary DIT discussions, the intersection of Ryans Road and Salisbury Highway would be closed.

Right turns into and out of Taylor Street (on the eastern side of Salisbury Highway) would be removed by the extended median for the new right turn lane.

4.3.1 Redistribution of Existing Traffic

The existing traffic volumes on streets near the Affected Area will be impacted the new traffic signals at the new access point on Salisbury Highway. The key impacts will be:

- Closure of Ryans Road at Salisbury Highway due to the proximity of the existing intersection to the new traffic signalised access point, with turning movements from the residential dwellings redistributed through the road network.
- Closure of Ryans Road at Salisbury Highway, will result in some existing cut through movements from Ryans Road (west) will be redistributed through the site and the remainder via the external road network
- Closure of the existing median opening at Taylor Street which will prevent right turns to and from Salisbury Highway, with only left turns to and from Salisbury Highway to remain.

The predicted redistribution of traffic at these intersections is shown in Figure 4.2.

Figure 4.2: Predicted Redistribution of Existing Daily Traffic Volumes



The assessment of the redistribution has found the following:

- Taylor Street will reduce in traffic volume from 1,900 to 1,000 vehicles per day.
- The existing right turn movements from Taylor Street will likely redistribute to Richardson Street and increase this street from 550 to 1,450 vehicles per day.
- Half of existing movements from Ryans Road West to East will divert to the proposed traffic signals.
- It is anticipated that most of Ryans Road traffic will divert to the new traffic signals with approximately 1,000 vehicles per day redirected from Ryans Road.
- Some existing Ryans Road traffic is anticipated to use Sophia Street which could increase daily traffic on Sophia Street from 600 vehicles per day to 1,500 vehicles per day, and distributed north and south on Wyatt Street (600 vehicles per day in the southern segment and 300 vehicle per day in the northern section).

Overall, the impact on the adjacent local road network will be minor with all streets remaining within the general residential amenity traffic volume of less than 2,000 vehicles per day. This is the maximum

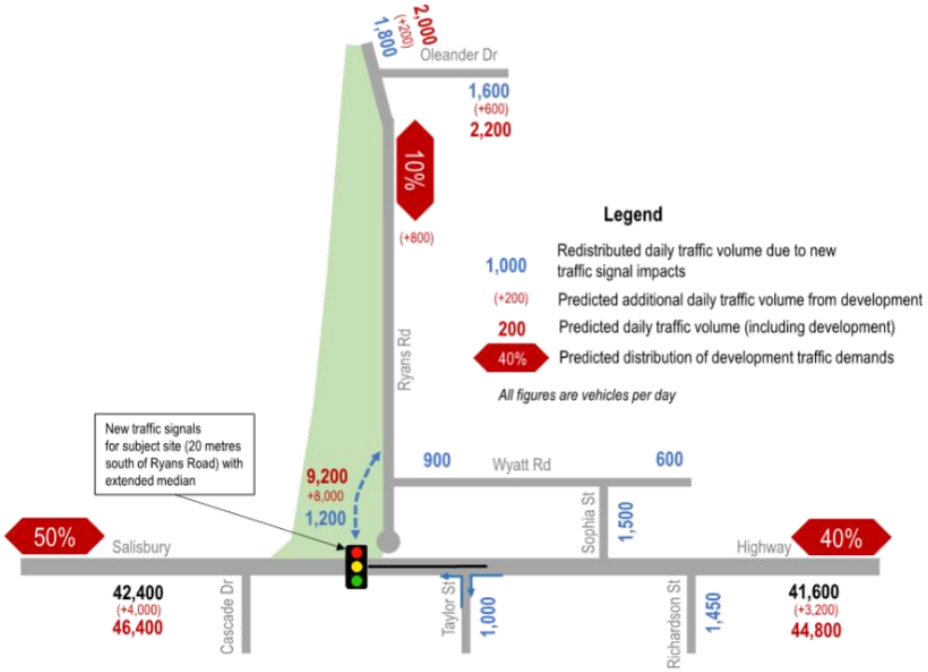
traffic volume that is considered acceptable on residential streets before impact residential amenity of a street.

There is adequate capacity at the local street intersections (Sophia Street and Richardson St) with Salisbury Highway to cater for the increase in traffic associated with the redistribution. Observations during peak periods at each of these intersections found very little queueing and delays for right turn movements into each street.

4.3.2 Affected Area Traffic Impact

The traffic demands predicted for the Affected Area based on the anticipated uses has been considered with regards to the likely distribution on the adjacent road network. It is predicted that most of the traffic generated by the Affected Area will be on Salisbury Highway with a high level of passing trade, that is traffic already using Salisbury Highway for other trips.

Figure 4.3: Predicted Daily Traffic Volumes



The predicted traffic volumes from the anticipated uses in the Affected Area will cause an increase in traffic on each of the frontage roads including Ryans Road and Salisbury Highway.

It is noted that the increase in traffic on Salisbury Highway is likely to be less given some traffic will be passing trade (which can be up to 30% of traffic demands at a retail/commercial site). This has not specifically been calculated in the predicted traffic volumes so these can be considered worst case. The predicted increases in traffic volumes on Salisbury Highway are within 10% of the existing traffic

volumes, and would not be obvious in daily operation on the mid-block segments given the daily traffic volumes on roads can vary by up to 10% each day.

Traffic on Ryans Road is anticipated to increase by 800 vehicles per day, and will split between Ryans Road (west) and Oleander Drive. Both of these roads will remain within the general residential amenity traffic level of less than 2,000 vehicles per day.

Hence the overall impact of the Affected Area traffic demands will be minor on the adjacent road network with regards to daily traffic volumes.

4.4 New Access Point Traffic Signals

The impact of the new access point traffic signals on Salisbury Highway has been assessed in accordance with Department for Infrastructure and Transport guidelines including relevant calibration where required. The analysis using SIDRA Intersection software has been undertaken to consider the key peak periods as follows:

- Weekday AM peak
- Weekday PM peak
- Saturday peak

The summary results of the intersection operation are shown in Table 4.2.

Table 4.2: Summary of Proposed Access Point SIDRA Analysis Results

Intersection	Level of Service	Degree of Saturation	Average Delay (seconds)	95th Percentile Queue Length (Metres)
Weekday AM Peak	B	0.632	12.3	224.3
Weekday PM Peak	C	0.859	25.2	415.6
Saturday Peak	C	0.791	34.8	263.2

The summary results indicate that the new access traffic signals, based on the concept layout plan and calibrated SIDRA models, will meet the Department for Infrastructure and Transport requirements for traffic signal operation which notably requires the Degree of Saturation to be less than 0.9 and Level of Service to be D or better.

Details of the SIDRA analysis for each of the peak periods is included in Appendix A.

5 PARKING

The Planning and Design Code provides parking requirements for land uses in Part 4 General Development Policies:

- Transport, Access and Parking

A review of these policies has not found any specific policies which would be problematic for the anticipated uses in the Affected Area. Given the size and layout of the Affected Area, it is likely that these policies can generally be satisfied with development in the Affected Area.

Parking for commercial uses in the Affected Area would be assessed with any development application based on actual land use and built form layouts. The parking rates provided in the Planning & Design Code will be suitable for consideration of the anticipated uses in the Affected Area.

6 CONCLUSIONS

Based on the analysis and discussions presented within this report, the following conclusions are made:

1. The Affected Area is located on the western side of Salisbury Highway and southern side of Ryans Road, in Lot 1001 Salisbury Highway in Green Fields.
2. The Code Amendment is seeking to change the existing Strategic Employment, General Neighbourhood, Employment Zones to a Suburban Activity Centre Zone in the southern part and Employment Zone in the northern part.
3. Anticipated uses will include retail shops, bulky goods and warehouse.
4. A new access point on Salisbury Highway would provide access for the Affected Area, along with access to and from Ryans Road. The Salisbury Highway access point would be controlled by traffic signals.
5. The Salisbury Highway access point will provide access for light and heavy vehicles associated with the anticipated uses, whilst the Ryans Road access points would provide for light vehicles only.
6. The impact on the local road network will include closure of Ryans Road (at Salisbury Highway) and removal of the median opening on Salisbury Highway at Taylor Street. These are required to accommodate the new traffic signals at the Salisbury Highway access point.
7. Salisbury Highway will require additional northbound traffic lane to accommodate the new traffic signals, with a concept plan indicating this can be achieved within the existing road reserve.
8. Analysis of the new traffic signals has found it would meet the operating requirements and guidelines of Department for Infrastructure and Transport for a new traffic signal controlled intersection.
9. A review of the Planning and Design Code policies relevant to the likely zoning has not found any specific policies which would be problematic for the anticipated uses in the Affected Area. Given the size and configuration of the Affected Area, it is likely that these policies can generally be satisfied with development in the Affected Area.

Overall the proposed development will only have a very minor impact on traffic volumes on the adjacent road network.

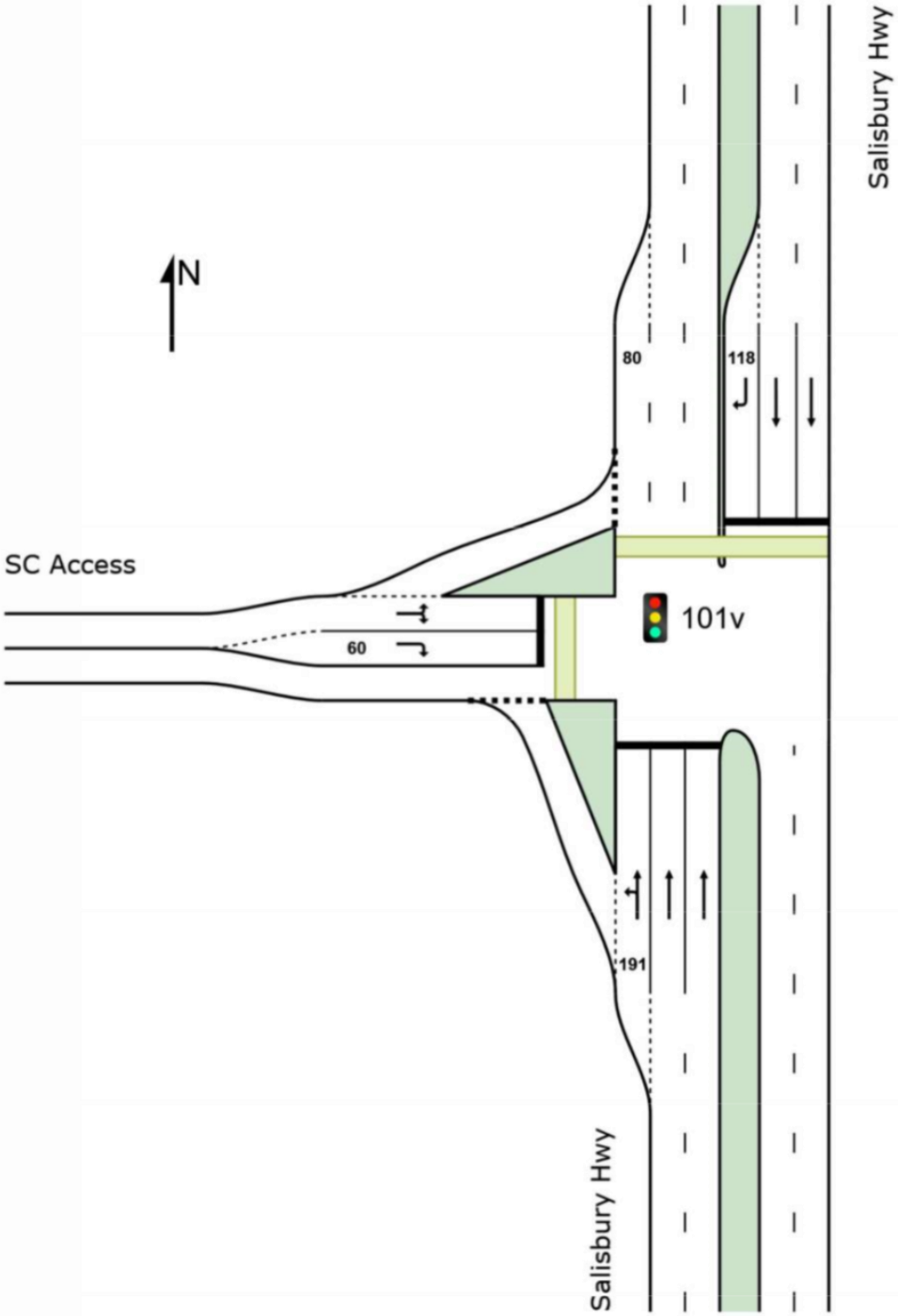
Appendix A SIDRA Summary

SITE LAYOUT

Site: 101v [SH-NewSig- Post Dev AM (Site Folder: General)]

New Shopping Centre Access Signals. Ryans Road Entry and Right Exit Traffic Utilising Signals. Lane Saturation Flows based On Horrie Miller Drive/Kings Road AM Post Development Peak
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: EMPIRICAL TRAFFIC ADVISORY PTY LTD | Licence: PLUS / 1PC | Created: Thursday, 24 August 2023 10:53:24 AM

A-2

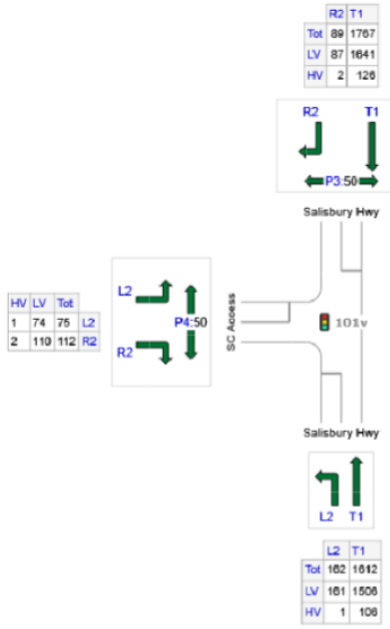
INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 101v [SH-NewSig- Post Dev AM (Site Folder: General)]

New Shopping Centre Access Signals. Ryans Road Entry and Right Exit Traffic Utilising Signals. Lane Saturation Flows based On Horrie Miller Drive/Kings Road
AM Post Development Peak
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

Volume Display Method: Separate



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Salisbury Hwy	1774	1667	107
N: Salisbury Hwy	1856	1728	128
W: SC Access	187	184	3
Total	3817	3579	238

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: EMPIRICAL TRAFFIC ADVISORY PTY LTD | Licence: PLUS / 1PC | Created: Thursday, 24 August 2023 10:53:26 AM

A-3

MOVEMENT SUMMARY

Site: 101v [SH-NewSig- Post Dev AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Shopping Centre Access Signals. Ryans Road Entry and Right Exit Traffic Utilising Signals. Lane Saturation Flows based On Horrie Miller Drive/Kings Road
AM Post Development Peak
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 150 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Salisbury Hwy															
1	L2	All MCs	171	0.6	171	0.6	0.282	6.6	LOS A	7.2	53.0	0.33	0.48	0.33	36.9
2	T1	All MCs	1697	6.6	1697	6.6	*0.631	13.4	LOS B	29.6	224.3	0.57	0.54	0.57	45.2
Approach			1867	6.0	1867	6.0	0.631	12.8	LOS B	29.6	224.3	0.55	0.54	0.55	43.9
North: Salisbury Hwy															
8	T1	All MCs	1860	7.1	1860	7.1	0.627	5.2	LOS A	24.8	189.9	0.40	0.37	0.40	53.0
9	R2	All MCs	94	2.2	94	2.2	*0.632	79.6	LOS E	6.9	50.1	1.00	0.81	1.04	16.1
Approach			1954	6.9	1954	6.9	0.632	8.8	LOS A	24.8	189.9	0.43	0.39	0.43	47.7
West: SC Access															
10	L2	All MCs	79	1.3	79	1.3	0.451	8.9	LOS A	6.5	46.5	0.91	0.81	0.91	24.5
12	R2	All MCs	118	1.8	118	1.8	*0.451	63.1	LOS E	6.5	46.5	0.95	0.79	0.95	25.2
Approach			197	1.6	197	1.6	0.451	41.3	LOS D	6.5	46.5	0.93	0.80	0.93	25.0
All Vehicles			4018	6.2	4018	6.2	0.632	12.3	LOS B	29.6	224.3	0.51	0.48	0.51	43.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
North: Salisbury Hwy												
P3	Full	50	53	64.5	LOS F	0.2	0.2	0.93	0.93	218.4	200.0	0.92
West: SC Access												
P4	Full	50	53	64.5	LOS F	0.2	0.2	0.93	0.93	218.4	200.0	0.92
All Pedestrians		0	105	64.5	LOS F	0.2	0.2	0.93	0.93	218.4	200.0	0.92

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: EMPIRICAL TRAFFIC ADVISORY PTY LTD | Licence: PLUS / 1PC | Processed: Thursday, 24 August 2023 10:19:30 AM

A-4

PHASING SUMMARY

Site: 101v [SH-NewSig- Post Dev AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Shopping Centre Access Signals. Ryans Road Entry and Right Exit Traffic Utilising Signals. Lane Saturation Flows based On Horrie Miller Drive/Kings Road AM Post Development Peak
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 150 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

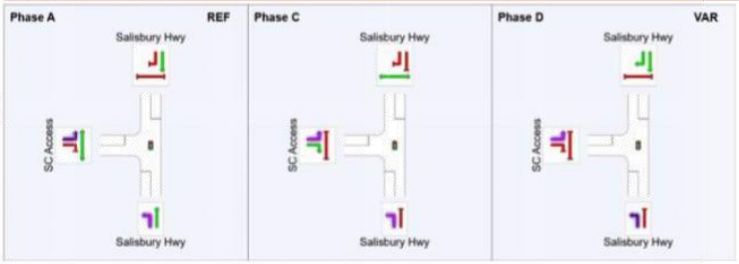
Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Phase Sequence: Phasing
Input Phase Sequence: A, B*, C, D*
Output Phase Sequence: A, C, D*
Reference Phase: Phase A
(* Variable Phase)

Phase Timing Summary

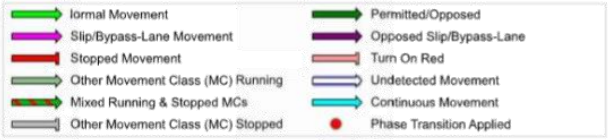
Phase	A	C	D
Phase Change Time (sec)	0	109	130
Green Time (sec)	103	15	14
Phase Time (sec)	109	21	20
Phase Split	73%	14%	13%
Phase Frequency (%)	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase



SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: EMPIRICAL TRAFFIC ADVISORY PTY LTD | Licence: PLUS / 1PC | Processed: Thursday, 24 August 2023 10:19:30 AM

A-5

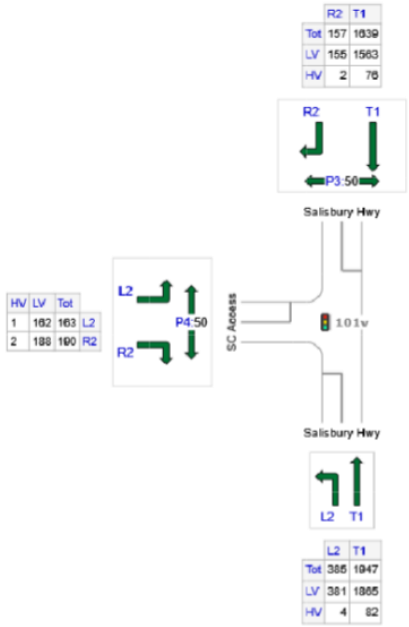
INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 101v [SH-NewSig- Post Dev PM (Site Folder: General)]

New Shopping Centre Access Signals. Ryans Road Entry and Right Exit Traffic Utilising Signals. Lane Saturation Flows based On Horrie Miller Drive/Kings Road
PM Post Development Peak
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

Volume Display Method: Separate



	MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Salisbury Hwy	2332	2246	86
N: Salisbury Hwy	1796	1718	78
W: SC Access	353	350	3
Total	4481	4314	167

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: EMPIRICAL TRAFFIC ADVISORY PTY LTD | Licence: PLUS / 1PC | Created: Thursday, 24 August 2023 10:53:30 AM

MOVEMENT SUMMARY

Site: 101v [SH-NewSig- Post Dev PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Shopping Centre Access Signals. Ryans Road Entry and Right Exit Traffic Utilising Signals. Lane Saturation Flows based On Horrie Miller Drive/Kings Road
PM Post Development Peak
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 150 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Salisbury Hwy															
1	L2	All MCs	405	1.0	405	1.0	0.384	8.7	LOS A	8.8	63.3	0.30	0.59	0.30	36.8
2	T1	All MCs	2049	4.2	2049	4.2	*0.859	21.5	LOS C	56.5	415.6	0.82	0.77	0.82	39.5
Approach			2455	3.7	2455	3.7	0.859	19.4	LOS B	56.5	415.6	0.73	0.74	0.73	38.8
North: Salisbury Hwy															
8	T1	All MCs	1725	4.6	1725	4.6	0.567	5.1	LOS A	21.5	159.4	0.38	0.35	0.38	53.2
9	R2	All MCs	165	1.3	165	1.3	*0.856	85.5	LOS F	13.2	94.0	1.00	0.95	1.23	15.5
Approach			1891	4.3	1891	4.3	0.856	12.1	LOS B	21.5	159.4	0.43	0.40	0.45	43.8
West: SC Access															
10	L2	All MCs	172	0.6	172	0.6	0.785	105.9	LOS F	17.4	122.4	1.00	1.25	1.09	17.2
12	R2	All MCs	200	1.1	200	1.1	*0.785	150.3	LOS F	17.4	122.4	1.00	1.08	1.14	21.8
Approach			372	0.8	372	0.8	0.785	129.8	LOS F	17.4	122.4	1.00	1.16	1.12	19.9
All Vehicles			4717	3.7	4717	3.7	0.859	25.2	LOS C	56.5	415.6	0.63	0.64	0.65	37.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
North: Salisbury Hwy												
P3	Full	50	53	64.5	LOS F	0.2	0.2	0.93	0.93	218.4	200.0	0.92
West: SC Access												
P4	Full	50	53	64.5	LOS F	0.2	0.2	0.93	0.93	218.4	200.0	0.92
All Pedestrians		0	105	64.5	LOS F	0.2	0.2	0.93	0.93	218.4	200.0	0.92

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: EMPIRICAL TRAFFIC ADVISORY PTY LTD | Licence: PLUS / 1PC | Processed: Thursday, 24 August 2023 10:18:07 AM

A-7

PHASING SUMMARY

Site: 101v [SH-NewSig- Post Dev PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Shopping Centre Access Signals. Ryans Road Entry and Right Exit Traffic Utilising Signals. Lane Saturation Flows based On Horrie Miller Drive/Kings Road
PM Post Development Peak
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 150 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

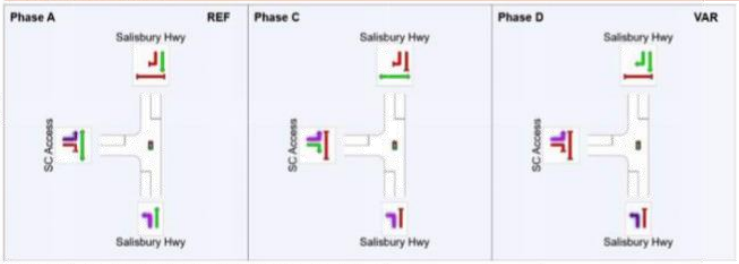
Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Phase Sequence: Phasing
Input Phase Sequence: A, B*, C, D*
Output Phase Sequence: A, C, D*
Reference Phase: Phase A
(* Variable Phase)

Phase Timing Summary

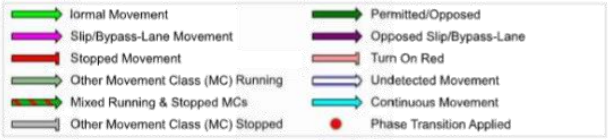
Phase	A	C	D
Phase Change Time (sec)	0	104	126
Green Time (sec)	98	16	18
Phase Time (sec)	104	22	24
Phase Split	69%	15%	16%
Phase Frequency (%)	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase



SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: EMPIRICAL TRAFFIC ADVISORY PTY LTD | Licence: PLUS / 1PC | Processed: Thursday, 24 August 2023 10:18:07 AM

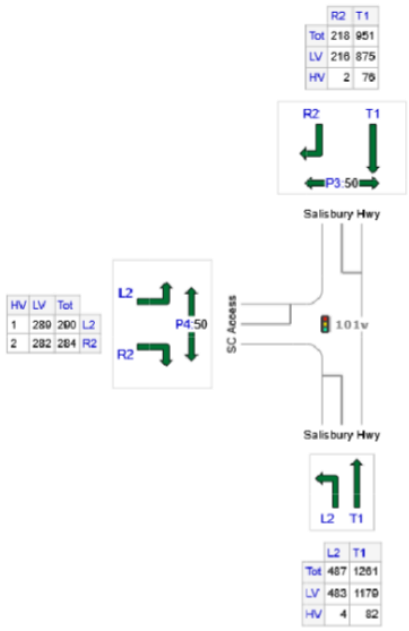
INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 101v [SH-NewSig- Post Dev Sat (Site Folder: General)]

New Shopping Centre Access Signals. Ryans Road Entry and Right Exit Traffic Utilising Signals. Lane Saturation Flows based On Horrie Miller Drive/Kings Road.
SAT Post Development Peak
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

Volume Display Method: Separate



	MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Salisbury Hwy	1748	1662	86
N: Salisbury Hwy	1169	1091	78
W: SC Access	574	571	3
Total	3491	3324	167

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: EMPIRICAL TRAFFIC ADVISORY PTY LTD | Licence: PLUS / 1PC | Created: Thursday, 24 August 2023 10:53:41 AM

A-9

MOVEMENT SUMMARY

Site: 101v [SH-NewSig- Post Dev Sat (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Shopping Centre Access Signals. Ryans Road Entry and Right Exit Traffic Utilising Signals. Lane Saturation Flows based On Horrie Miller Drive/Kings Road.
SAT Post Development Peak
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Salisbury Hwy															
1	L2	All MCs	513	0.8	513	0.8	0.373	9.4	LOS A	8.3	58.2	0.33	0.67	0.33	36.5
2	T1	All MCs	1327	6.5	1327	6.5	*0.791	29.8	LOS C	34.8	263.2	0.90	0.82	0.90	34.3
Approach			1840	4.9	1840	4.9	0.791	24.2	LOS C	34.8	263.2	0.74	0.78	0.74	35.1
North: Salisbury Hwy															
8	T1	All MCs	1001	8.0	1001	8.0	0.389	7.7	LOS A	12.4	95.2	0.43	0.38	0.43	50.3
9	R2	All MCs	229	0.9	229	0.9	*0.769	63.9	LOS E	14.7	104.3	1.00	0.89	1.10	17.9
Approach			1231	6.7	1231	6.7	0.769	18.2	LOS B	14.7	104.3	0.53	0.48	0.55	37.6
West: SC Access															
10	L2	All MCs	305	0.3	305	0.3	0.732	46.5	LOS D	17.5	122.9	0.89	1.07	0.89	22.5
12	R2	All MCs	299	0.7	299	0.7	*0.732	92.5	LOS F	17.5	122.9	0.96	0.95	1.01	25.3
Approach			604	0.5	604	0.5	0.732	69.3	LOS E	17.5	122.9	0.93	1.01	0.95	24.1
All Vehicles			3675	4.8	3675	4.8	0.791	29.6	LOS C	34.8	263.2	0.70	0.72	0.71	32.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
North: Salisbury Hwy												
P3	Full	50	53	54.6	LOS E	0.2	0.2	0.92	0.92	208.4	200.0	0.96
West: SC Access												
P4	Full	50	53	54.6	LOS E	0.2	0.2	0.92	0.92	208.4	200.0	0.96
All Pedestrians		0	105	54.6	LOS E	0.2	0.2	0.92	0.92	208.4	200.0	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: EMPIRICAL TRAFFIC ADVISORY PTY LTD | Licence: PLUS / 1PC | Processed: Friday, 11 August 2023 10:21:42 AM

A-10

PHASING SUMMARY

Site: 101v [SH-NewSig- Post Dev Sat (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Shopping Centre Access Signals. Ryans Road Entry and Right Exit Traffic Utilising Signals. Lane Saturation Flows based On Horrie Miller Drive/Kings Road.
SAT Post Development Peak
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

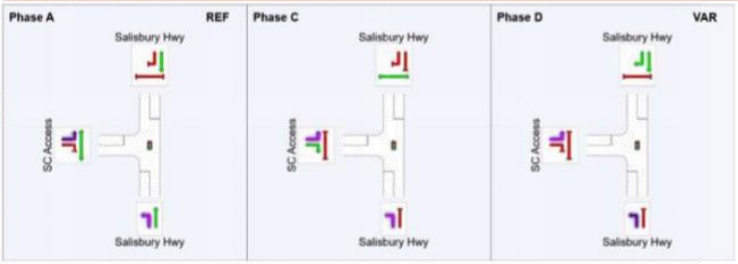
Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Phase Sequence: Phasing
Input Phase Sequence: A, B*, C, D*
Output Phase Sequence: A, C, D*
Reference Phase: Phase A
(* Variable Phase)

Phase Timing Summary

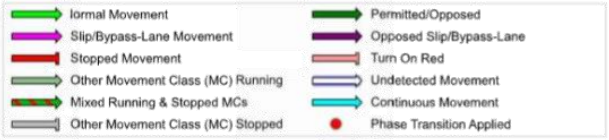
Phase	A	C	D
Phase Change Time (sec)	0	69	100
Green Time (sec)	63	25	24
Phase Time (sec)	69	31	30
Phase Split	53%	24%	23%
Phase Frequency (%)	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



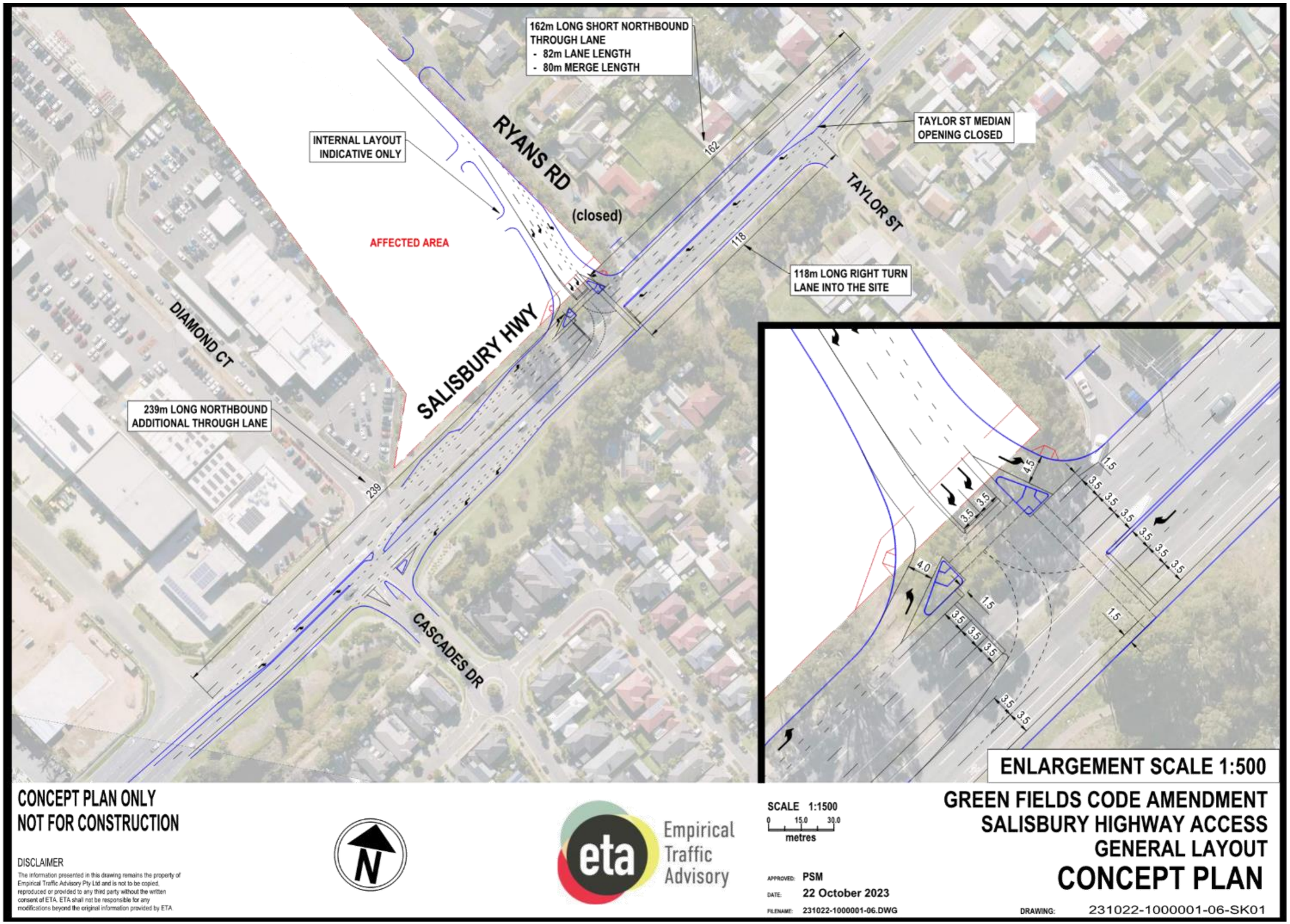
REF: Reference Phase
VAR: Variable Phase



SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: EMPIRICAL TRAFFIC ADVISORY PTY LTD | Licence: PLUS / 1PC | Processed: Friday, 11 August 2023 10:21:42 AM

A-11

Appendix B Concept Plans


162m LONG SHORT NORTHBOUND
THROUGH LANE
- 82m LANE LENGTH
- 80m MERGE LENGTH
INTERNAL LAYOUT
INDICATIVE ONLY
RYANS RD
(closed)
AFFECTED AREA
TAYLOR ST MEDIAN
OPENING CLOSED
TAYLOR ST
118m LONG RIGHT TURN
LANE INTO THE SITE
DIAMOND CT
SALISBURY HWY
239m LONG NORTHBOUND
ADDITIONAL THROUGH LANE
CASCADES DR
ENLARGEMENT SCALE 1:500
CONCEPT PLAN ONLY
NOT FOR CONSTRUCTION
DISCLAIMER
The information presented in this drawing remains the property of Empirical Traffic Advisory Pty Ltd and is not to be copied, reproduced or provided to any third party without the written consent of ETA. ETA shall not be responsible for any modifications beyond the original information provided by ETA.
N
eta
Empirical
Traffic
Advisory
SCALE 1:1500
0 15.0 30.0
metres
APPROVED: PSM
DATE: 22 October 2023
FILENAME: 231022-1000001-06.DWG
GREEN FIELDS CODE AMENDMENT
SALISBURY HIGHWAY ACCESS
GENERAL LAYOUT
CONCEPT PLAN
DRAWING: 231022-1000001-06-SK01



PO Box 268
Glenside SA 5063
contact@empiricaltraffic.com.au

Item 1.1.1 - Attachment 9 - Code Amendment attach D3 - traffic

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Preliminary Tree Assessment

Site: Ryans Road and Salisbury Highway, Greenfields

Date: Friday, 1 October 2021

ATS5530-RyaRdSalHyPTA

Contents

Executive Summary 1
Brief 2
Documents and Information Provided 2
Method 2
Site Location 3
Assessment 4
Tree Assessment 4
Legislative Assessment 5
Retention Assessment 4
Tree Protection 5
Conclusion 6
Definitions 7
References 7

Appendix A - Tree Assessment Methodology
Appendix B - Tree Assessment Findings
Appendix C - Mapping
Appendix D - Tree Assessment Summary

Report Reference Number: ATS5530-RyaRdSalHyPTA

Report prepared for
Stewart Tremain, Project Manager Strategic Development Projects for the City of Salisbury

Author
Marcus Lodge, Consulting Arborist, Arborman Tree Solutions Pty Ltd

Executive Summary

Arborman Tree Solutions was engaged by Stewart Tremain, Project Manager Strategic Development Projects for the City of Salisbury to undertake Preliminary Tree Assessment of the trees within the identified survey area at Ryans Road and Salisbury Highway, Greenfields. The purpose of this assessment is to evaluate tree suitability for retention through a Tree Retention Rating system and provide Preliminary Tree Protection advice for trees to be retained. This assessment provides information in accordance with Australian Standard *AS4970-2009 Protection of trees on development sites* (AS4970-2009) and relevant legislation.

The assessment considered 84 trees, including 15 tree groups, which are identified as a mix of locally indigenous and/or Australian native species as shown in Table 1 below. The tree population is dominated by the locally indigenous *Eucalyptus camaldulensis* (River Red Gum) with 61 specimens equating to 73% of the population, noting that a number of the tree groups are also dominated by this species. Whilst both River Red Gum and Mallee Box are indigenous to the area these trees have all been planted and as such are not considered to remnant vegetation although they could be identified as contributing to a wildlife corridor. The majority of trees are considered to be in Good (48) to Fair (31) overall condition and have extended useful life expectancies; only five trees, Tree(s) 12, 57, 64, 65 and 82, are displaying poor overall condition as evidenced by substantial health decline.

The assessment has identified seventeen Significant Trees and fifty-two Regulated Trees as defined in the *PDI Act 2016*. The remaining trees are grouped into fifteen groups of unregulated trees. There are twenty-two Regulated (16) and Significant (6) Trees which are considered to provide 'important' aesthetic and/or environmental benefit which would warrant their protection; the remaining trees whilst providing benefit in this regard do not do so to a level that would be considered to be 'important'.

The assessment has identified twenty-six trees or tree groups as having a High Retention Rating. It is my opinion, as the Regulated/Significant Trees with a High Retention Rating, display one or more attributes described within the *PDI Act 2016*, that warrant their retention.

The remaining trees achieve a Moderate or Low Retention Rating. Trees that achieve a Moderate Retention Rating are worthy of consideration for retention if they can be adequately protected in an otherwise reasonable and expected development. The trees that achieve a Low Retention Rating should not form a constraint to an otherwise reasonable and expected development.

Brief

Arborman Tree Solutions was engaged by Stewart Tremain, Project Manager Strategic Development Projects for the City of Salisbury to undertake a Preliminary Tree Assessment of the trees within the identified survey area at the corner of Ryans Road and Salisbury Highway, Greenfields. The purpose of a Preliminary Tree Assessment is to evaluate trees' suitability for retention through a Tree Retention Rating system and provide Preliminary Tree Protection advice for trees to be retained.

In accordance with section 2.2 of the Australian Standard *AS4970-2009 Protection of trees on development sites* (2.2) the following information is provided:

- Identification of the species of each tree and assessment of their health and structure.
- Identification of the legislative status of trees as defined in the *Planning, Development and Infrastructure Act 2016* (*PDI Act 201*).
- Tree Retention Rating for each tree, this has been applied to all trees regardless of legislative status.
- Identify the Tree Protection Zone for each tree.

Note: This report is intended to provide preliminary advice to assist with determining scope for development and guide design. The City Council may require further information to approve the removal of any Significant Trees/Regulated Trees.

Documents and Information Provided

The following information was provided for the preparation of this assessment

- Email instruction on scope of works
- Site Plan identifying the area to be assessed

Method

A site inspection was undertaken on Thursday, 9 September 2021. Trees in this report were mapped using TreePlotter software and assigned a unique tree number. Individual tree findings were recorded using the Tree Assessment Form (TAF©). Tree Health Indicator (THI©), Tree Structure Assessment (TSA©) and Useful Life Expectancy (ULE), were assessed using the methodology described in Appendix A. Legislative Status was identified for all trees controlled under the relevant legislation.

Each tree's suitability for retention was determined by reviewing principles under the *PDI Act 2016* or relevant authority and applying these findings in the Tree Retention Rating (TRR©) method, as described within Appendix A. Tree Protection Zones were calculated using the Australian Standard *AS4970-2009* (Section 3.2). Mapping was performed using GIS and CAD software.

Limitations: Tree management options such as pruning, soil amelioration, pathogen treatment are not part of this report; these should be considered in relation to any proposed development.

Site Location

Figure 1: Survey Area - Ryans Road and Salisbury Highway, Greenfields



Assessment

Arborman Tree Solutions was engaged by Stewart Tremain, Project Manager Strategic Development Projects for the City of Salisbury to undertake Preliminary Tree Assessment of the trees within the identified survey area at Ryans Road and Salisbury Highway, Greenfields. The purpose of this assessment is to evaluate tree suitability for retention through a Tree Retention Rating system and provide Preliminary Tree Protection advice for trees to be retained. This assessment provides information in accordance with Australian Standard *AS4970-2009 Protection of trees on development sites* (AS4970-2009) and relevant legislation.

Tree Assessment

The assessment considered 84 trees, including 15 tree groups, which are identified as a mix of locally indigenous and/or Australian native species as shown in Table 1 below. The tree population is dominated by the locally indigenous *Eucalyptus camaldulensis* (River Red Gum) with 61 specimens equating to 73% of the population, noting that a number of the tree groups are also dominated by this species. Whilst both River Red Gum and Mallee Box are indigenous to the area these trees have all been planted and as such are not considered to remnant vegetation although they could be identified as contributing to a wildlife corridor. The majority of trees are considered to be in Good (48) to Fair (31) overall condition and have extended useful life expectancies; only five trees, Tree(s) 12, 57, 64, 65 and 82, are displaying poor overall condition as evidenced by substantial health decline.

Table 1 – Tree Identification

Botanic Name	Common Name	Number of Trees	Origin	Tree Number
Acacia salicina	Native Willow	3	Native	15, 19 and 31
Acacia sp.	Wattle	2	Native	11 (g) and 16 (g)
Eucalyptus camaldulensis	River Red Gum	61	Indigenous	2, 4, 6, 8, 10, 12-14, 21, 23, 25, 26 (g), 27, 28 (g), 29 (g), 30 (g), 36, 38, 40-48, 50-62 and 64-84
Eucalyptus cladocalyx	Sugar Gum	1	Native	63
Eucalyptus porosa	Mallee Box	2	Indigenous	37 and 49
Eucalyptus sp.	Gum Tree	15	Native	1 (g), 3 (g), 5 (g), 7 (g), 9 (g), 17, 18 (g), 20 (g), 22 (g), 24 (g), 32-35 and 39

Findings on individual tree health and condition is presented in Appendix B - Tree Assessment Findings.

Retention Assessment

Trees that provide an environmental and/or aesthetic contribution to the area, are in good condition will achieve a High or Moderate Retention Rating and conservation of these trees is encouraged. Trees that do not provide this contribution and/or are in poor condition will achieve a Low Retention Rating; these trees will display one or more of the following or similar attributes:

a) are in poor condition due to health and/or structural decline,
b) have poor form that impacts their aesthetic value,
c) provide limited environmental and/or aesthetic benefit,
d) are a short lived species and/or have a short Useful Life Expectancy,
e) represent a material risk to persons or property,
f) are identified as causing or threatening to cause substantial damage to a structure of value,

The assessment has identified twenty six trees, including four tree groups, as having a High Retention Rating. It is my opinion, the Regulated/Significant Trees with a High Retention Rating, display one or more attributes described within the *PDI Act 2016*, that warrant their retention as important trees.

A further 55 trees including eleven tree groups have been identified as having a Moderate Retention Rating. Whilst the Regulated/Significant Trees with a Moderate Retention Rating, do not display attributes described within the *PDI Act 2016*, that would warrant their retention as important trees, they are worthy of consideration for retention if they can be adequately protected in an otherwise reasonable and expected development.

Table 3 - Retention Rating

Retention Rating	Number of Trees	Tree Numbers
High	26	4, 6, 8, 10, 26 (g), 28 (g), 29 (g), 30 (g), 36, 40-42, 50, 59-63, 67, 68, 76-79, 83 and 84
Moderate	55	1 (g), 2, 3 (g), 5 (g), 7 (g), 9 (g), 11 (g), 12-15, 16 (g), 17, 18 (g), 19, 20 (g), 21, 22 (g), 23, 24 (g), 25, 27, 31-35, 37-39, 43-49, 51-56, 58, 64, 66, 69-75, 80 and 81
Low	3	57, 65 and 82

The remaining three trees, Trees 57, 65 and 82, achieved a Low Retention Rating indicating that development constraint, alternative designs or tree-friendly construction methodologies are not warranted. As such, tree removal could be considered to achieve development (this includes Regulated/Significant Trees).

Legislative Assessment

The assessment has identified seventeen Significant Trees and fifty-two Regulated Trees as defined in the *PDI Act 2016*. The remaining trees are grouped into fifteen groups of unregulated trees. Significant and Regulated Trees should be preserved if they meet aesthetic and/or environmental criteria as described in the *PDI (General) Regulations 2017*. There are twenty-two Regulated (16) and Significant (6) Trees which are considered to provide 'important' aesthetic and/or environmental benefit which would warrant their protection; the remaining trees whilst providing benefit in this regard do not do so to a level that would be considered to be 'important'.

Table 2 - Legislative Status

Legislative Status	Number of Trees	Tree Numbers
Significant	17	8, 15, 19, 54-57, 59, 60, 66, 69, 73, 74, 77-79 and 82
Regulated	52	2, 4, 6, 10, 12-14, 17, 21, 23, 25, 27, 31-53, 58, 61-65, 67, 68, 70-72, 75, 76, 80, 81, 83 and 84
Unregulated	15 groups	1, 3, 5, 7, 9, 11, 16, 18, 20, 22, 24, 26, 28, 29 and 30

Tree Protection Assessment

Australian Standard AS4970-2009 *Protection of trees on development sites* prescribes the use of a Tree Protection Zone (TPZ) as the principle means of protecting trees throughout the development process. If encroachment is required within any TPZ, the Project Arborist should be consulted to identify impacts and recommend mitigation measures. The Tree Protection Zones should be used to inform any future development of the site, maintaining these areas as open space. The Tree Protection Zone radii are included in Table 4 and Appendix D - Tree Assessment Summary.

The Tree Protection Zone radii for these trees, as measured from the centre of the trunk, have been calculated and are included in Appendix B - Tree Assessment Findings and Appendix D - Tree Assessment Summary; alterations to the area around these trees should be restricted in accordance with the guidelines of AS4970-2009.

Conclusion

The assessment has identified all of the twenty-six trees or tree groups as having a High Retention Rating. It is my opinion, as the Regulated/Significant Trees with a High Retention Rating, display one or more attributes described within the *PDI Act 2016*, that warrant their retention. Their removal is highly unlikely to be approved unless it can be demonstrated that:

a. they are substantially restricting an otherwise reasonable and expected development, and

b. alternative design solutions that retain these trees and achieve any form of reasonable and expected development are not available.

The remaining trees achieve a Moderate or Low Retention Rating. Trees that achieve a Moderate Retention Rating are worthy of consideration for retention if they can be adequately protected in an otherwise reasonable and expected development. The trees that achieve a Low Retention Rating should not form a constraint to an otherwise reasonable and expected development.

The Regulated or Significant Trees require Development Approval prior to any tree damaging activity occurring. This includes development activities within the TPZ, tree removal and potentially pruning.

A Project Arborist should be appointed to assist in the design around trees to be retained; the development impacts and tree protection requirements are to be included in a Development Impact Report and a Tree Protection Plan as identified in Australian Standard *AS4970 2009 Protection of trees on development sites*.

Thank you for the opportunity to provide this report. Should you require further information, please contact me and I will be happy to be of assistance.

Yours sincerely

MARCUS LODGE
Senior Consulting Arboriculturist
Australian Arborist License AL11
Diploma in Arboriculture
International Society of Arboriculture – Tree Risk Assessment
Quantified Tree Risk Assessment (QTRA) License – 5780
VALID Tree Risk Assessment (VALID) – 2018
Native Vegetation Council Trained Arborist 2019

Definitions

Circumference: trunk circumference measured at one metre above ground level. This measurement is used to determine the status of the tree in relation to the *Planning, Development and Infrastructure Act 2016*.

Diameter at Breast Height (DBH): trunk diameter measured at 1.4 metres above ground level used to determine the Tree Protection Zone as described in Australian Standard AS4970-2009 *Protection of trees on development sites*.

Diameter at Root Buttress (DRB): trunk diameter measured just above the root buttress as described in Australian Standard AS4970-2009 *Protection of trees on development sites* and is used to determine the Structural Root Zone.

Tree Damaging Activity Tree damaging activity includes those activities described within the *Planning, Development and Infrastructure Act 2016* such as removal, killing, lopping, ringbarking or topping or any other substantial damage such as mechanical or chemical damage, filling or cutting of soil within the TPZ. Can also include forms of pruning above and below the ground.

Tree Protection Zone (TPZ): area of root zone that should be protected to prevent substantial damage to the tree's health.

Structural Root Zone (SRZ): calculated area within the tree's root zone that is considered essential to maintain tree stability.

Project Arborist A person with the responsibility for carrying out a tree assessment, report preparation, consultation with designers, specifying tree protection measures, monitoring and certification. The Project Arborist must be competent in arboriculture, having acquired through training, minimum Australian Qualification Framework (AQTF) Level 5, Diploma of Horticulture (Arboriculture) and/or equivalent experience, the knowledge and skills enabling that person to perform the tasks required by this standard.

Important: The following definition of important was described by Commissioner Nolan of the Environment, Resource and Development Court in the case of Savoy Developments Pty Ltd v Town of Gawler [2013] SAERDC 32.

"In my view, for habitat to be raised to the level of 'important' (as sought by Objective 2(d)), it must be beyond that likely to be expected in any mature tree of indigenous origins – that is, it is beyond the normal level that might be expected or that it is so unique or special that it may be considered important. From the evidence before me I do not consider the trees to provide "important habitat for native fauna"."

This definition of important, whilst in this case relating to Habitat Value, has been related when looking at all Objectives that use the term "*Important*".

Notable: The *Planning, Development and Infrastructure Act 2016* and local Development Plan also use the term "notable" when assessing the visual contribution of a tree. The Environment, Resource and Development Court does not appear to have defined the term "notable" as applied in the *Planning, Development and Infrastructure Act 2016* however, when researching definitions it is clear that this term bears equal or similar weight as the term "important" and as such for a tree to be "notable" it has to have a similar level of attributes to an important tree. When compared to a typical example of the species for a tree to be described as "notable" it would also be considered to be a noteworthy, remarkable, outstanding, momentous, memorable, impressive, extraordinary or an exceptional example of the species or of greater importance in regard to its value as a visual element than other similar sized example of the species.

***PDI Act 2016*:** the *Planning, Development and Infrastructure Act 2016* and associated *Planning, Development and Infrastructure (General) Regulations 2017* includes provisions for the control of Regulated and Significant Trees within the 18 metropolitan Adelaide councils, townships in the Adelaide Hills Council and parts of the Mount Barker Council; these provisions do not apply in areas outside of these councils.

Regulated Tree: is recognised as any tree in the prescribed council areas with a trunk circumference of two metres or more. In the case of trees with multiple trunks, those with trunks with a total circumference of two metres or more and an average circumference 625 mm or more. The circumference is measured at a point one metre above natural ground level.

Significant Tree: *The Planning, Development and Infrastructure Act 2016* identifies a Significant Tree as any tree in Metropolitan Adelaide or townships in the Adelaide Hills Council or parts of the Mount Barker Council with a trunk circumference of three metres or more. In the case of trees with multiple trunks, those with trunks with a total circumference of three metres or more and an average circumference 625 mm or more. The circumference is measured at a point one metre above natural ground level.

Unregulated or Exempt Tree: unregulated and/or exempt trees have a trunk circumference of less than two metres and/or are excluded from control due to species, proximity to a structure or other reason as defined in the *Planning, Development and Infrastructure (General) Regulations 2017*.

***Native Vegetation Act 1991*:** Native vegetation refers to any naturally occurring local plant species that is indigenous to South Australia, from small ground covers and native grasses to large trees and water plants. It also includes naturally occurring regrowth and in certain circumstances, dead trees. In some circumstances, the management of native vegetation is protected by legislation.

References

Australian Standard AS4970–2009 ***Protection of trees on development sites***: Standards Australia.

Matheny N. Clark J. 1998: ***Trees and Development a Technical Guide to Preservation of Trees During Land Development***. International Society of Arboriculture, Champaign, Illinois, USA.

Dunster J.A., Smiley E.T., Metheny N. and Lilly S. 2013. ***Tree Risk Assessment Manual***. International Society of Arboriculture, Champaign, Illinois USA.

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Appendix A - Tree Assessment Methodology

Tree Assessment Form (TAF©)

Record	Description
Tree	In botanical science, a tree is a perennial plant which consists of one or multiple trunks which supports branches and leaves. Trees are generally taller than 5 metres and will live for more than ten seasons, with some species that live for hundreds or thousands of seasons.
Genus and Species	Botanical taxonomy of trees uses the binominal system of a genus and species, often there are subspecies and subgenus as well as cultivars. When identifying tree species, identification techniques such as assessing the tree's form, flower, stem, fruit and location are used. Identifying the right species is critical in assessing the tree's legalisation and environmental benefit. All efforts are made to correctly identify each tree to species level, where possible. Genus is the broader group to which the tree belongs e.g. *Eucalyptus, Fraxinus* and *Melaleuca*. Species identifies the specific tree within the genus e.g. *Eucalyptus camaldulensis*, *Fraxinus griffithi* or *Melaleuca styphelioides*. Trees will also be assigned the most commonly used Common Name. Common Names are not generally used for identification due to their nonspecific use, i.e. *Melia azedarach* is commonly known as White Cedar in South Australia but is also called Chinaberry Tree, Pride of India, Bead-tree, Cape Lilac, Syringa Berrytree, Persian Lilac, and Indian Lilac; equally similar common names can refer to trees from completely different Genus e.g. Swamp Oak, Tasmanian Oak and English Oak are from the *Casuarina, Eucalyptus* and *Quercus* genus's respectively.
Height	Tree height is estimated by the arborist at the time of assessment. Tree height is observed and recorded in the following ranges; <5m, 5-10m, 10-15m and >20m.
Spread	Tree crown spread is estimated by the arborist at the time of assessment and recorded in the following ranges <5m, 5-10m, 10-15m, 15-20m, >20m.
Health	Tree health is assessed using the Arborman Tree Solutions - Tree Health Assessment Method that is based on international best practice.
Structure	Tree structure is assessed using Arborman Tree Solutions - Tree Structure Assessment Method that is based on international best practice.
Tree Risk Assessment	Tree Risk is assessed using Tree Risk Assessment methodology. The person conducting the assessment has been trained in the International Society of Arboriculture Tree Risk Assessment Qualification (TRAQ), Quantified Tree Risk Assessment (QTRA) and/or VALID Tree Risk Assessment (VALID). Refer to the Methodology within the report for additional information.
Legislative Status	Legislation status is identified through the interpretation of the *Development Act 1993*, the *Natural Resource Management Act 2004*, the *Native Vegetation Act 1991* and/or any other legislation that may apply.
Mitigation	Measures to reduce tree risk, improve tree condition, remove structural flaws, manage other conditions as appropriate may be recommended in the form of pruning and is listed in the Tree Assessment Findings (Appendix B). Tree pruning is recommended in accordance with AS4373-2007 *Pruning amenity trees* where practicable. Where measures to mitigate risk is not possible and the risk is unacceptable, then tree removal or further investigation is recommended.

Useful Life Expectancy (ULE)

ULE Rating	Definition
Surpassed	The tree has surpassed its Useful Life Expectancy. Trees that achieve a surpassed ULE may do so due to poor health, structure or form. Additionally, trees that are poorly located such as under high voltage powerlines or too close to structures may also achieve a surpassed ULE. Trees that achieve this status will be recommended for removal as there are no reasonable options to retain them.
<10 years	The tree displays either or both Poor Health and/or Structure and is considered to have a short Useful Life Expectancy of less than ten years. Some short-lived species such as *Acacia sp.* may naturally achieve a short ULE.
>10 years	The tree displays Fair Health or Structure and Good Health or Structure and is considered to have a Useful Life Expectancy of ten years or more. Trees identified as having a ULE of >10, will require mitigation such as pruning, stem injections or soil amelioration to increase their ULE.
>20 years	The tree displays Good Health and Structure and is considered to have an extended Useful Life Expectancy of more than twenty years.

Maturity (Age)

Age Class	Definition
Senescent	The tree has surpassed its optimum growing period and is declining and/or reducing in size. May be considered as a veteran in relation to its ongoing management. Tree will have generally reached greater than 80% of its expected life expectancy.
Mature	A mature tree is one that has reached its expected overall size, although the tree's trunk is still expected to continue growing. Tree maturity is also assessed based on species; as some trees are much longer lived than others. Tree will have generally reached 20-80% of its expected life expectancy.
Semi Mature	A tree which has established but has not yet reached maturity. Normally tree establishment practices such as watering will have ceased. Tree will generally not have reached 20% of its expected life expectancy.
Juvenile	A newly planted tree or one which is not yet established in the landscape. Tree establishment practices such as regular watering will still be in place. Tree will generally be a newly planted specimen up to five years old; this may be species dependant.

Tree Health Assessment (THA©)

Category	Description
Good	Tree displays normal vigour, uniform leaf colour, no or minor dieback (<5%), crown density (>90%). When a tree is deciduous, healthy axillary buds and typical internode length is used to determine its health. A tree with good health would show no sign of disease and no or minor pest infestation was identified. The tree has little to no pest and/or disease infestation.
Fair	Tree displays reduced vigour abnormal leaf colour, a moderate level of dieback (<15%), crown density (>70%) and in deciduous trees, reduced axillary buds and internode length. Minor pest and/or disease infestation potentially impacting on tree health. Trees with fair health have the potential to recover with reasonable remedial treatments.
Poor	Tree displays an advanced state of decline with low or no vigour, chlorotic or dull leaf colour, with high crown dieback (>15%), low crown density (<70%) and/or in deciduous trees, few or small axillary buds and shortened internode length. Pest and or disease infestation is evident and/or widespread. Trees with poor health are highly unlikely to recover with any remedial treatments; these trees have declined beyond the point of reversal.
Dead	The tree has died and has no opportunity for recovery.

Tree Structural Assessment (TSA©)

Category	Description
Good	Little to no branch failure observed within the crown, well-formed unions, no included bark, good branch and trunk taper present, root buttressing and root plate are typical. Trees that are identified as having good health display expected condition for their age, species and location.
Fair	The tree may display one or more of the following a history of minor branch failure, included bark unions may be present however, are stable at this time, acceptable branch and trunk taper present, root buttressing and root plate are typical. Trees with fair structure will generally require reasonable remediation methods to ensure the tree's structure remains viable.
Poor	History of significant branch failure observed in the crown, poorly formed unions, unstable included bark unions present, branch and/or trunk taper is abnormal, root buttressing and/or root plate are atypical.
Failed	The structure of the tree has or is in the process of collapsing.

Tree Form Assessment (TFA©)

Category	Description
Good	Form is typical of the species and has not been altered by structures, the environment or other trees.
Fair	The form has minor impacts from structures, the environment or adjacent trees which has altered its shape. There may be slight phototropic response noted or moderate pruning which has altered the tree's form.
Poor	The tree's form has been substantially impacted by structures, the environment, pruning or other trees. Phototropic response is evident and unlikely to be corrected.
Atypical	Tree form is highly irregular due to structures or other trees impacting its ability to correctly mature. Extreme phototropic response is evident; or the tree has had a substantially failure resulting in its poor condition, or extensive pruning has altered the tree's form irreversibly.

Priority

Category	Description
Low	Identified works within this priority should be carried out within 12 months.
Medium	Identified works within this priority should be carried out within 6 months.
High	Identified works within this priority should be carried out within 3 months.
Urgent	Identified works within this priority should be carried out immediately. Works within this priority rating will be brought to attention of the responsible person at the time of assessment.

Tree Retention Rating (TRR)

The Tree Retention Rating is based on a number of factors that are identified as part of the standard tree assessment criteria including Condition, Size, Environmental, Amenity and Special Values. These factors are combined in a number of matrices to provide a Preliminary Tree Retention Rating and a Tree Retention Rating Modifier which combine to provide a Tree Retention Rating that is measurable, consistent and repeatable

Preliminary Tree Retention Rating

The Preliminary Tree Retention Rating is conducted assessing Tree Health and Structure to give an overall Condition Rating and Height and Spread to give an overall Size Rating. The following matrices identify how these are derived.

Condition Matrix				
Structure	Health			
	Good	Fair	Poor	Dead
Good	C1	C2	C3	C4
Fair	C2	C2	C3	C4
Poor	C3	C3	C4	C4
Failed	C4	C4	C4	C4

Size Matrix					
Spread	Height				
	>20	15-20	10-15	5-10	<5
>20	S1	S1	S1	S2	S3
15-20	S1	S1	S2	S3	S3
10-15	S1	S2	S2	S3	S4
5-10	S2	S3	S3	S4	S5
<5	S3	S3	S4	S5	S5

The results from the Condition and Size Matrices are then placed in the Preliminary Tree Retention Rating Matrix.

Preliminary Tree Retention Rating				
Size	Condition			
	C1	C2	C3	C4
S1	High	Moderate	Low	Low
S2	Moderate	Moderate	Low	Low
S3	Moderate	Moderate	Low	Low
S4	Moderate	Moderate	Low	Low
S5	Low	Low	Low	Low

The Preliminary Tree Retention Rating gives a base rating for all trees regardless of other environmental and/or amenity factors and any Special Value considerations. The Preliminary Tree Retention Rating can only be modified if these factors are considered to be of high or low enough importance to warrant increasing or, in a few cases, lowering the original rating.

Tree Retention Rating Modifier

The Preliminary Tree Retention Rating is then qualified against the recognised Environmental and Amenity benefits that trees present to the community thereby providing a quantitative measure to determine the overall Tree Retention Rating. Data is collected in relation to Environmental and Amenity attributes which are compared through a set of matrices to produce a Tree Retention Rating Modifier.

Environmental Matrix				
Origin	Habitat			
	Active	Inactive	Potential	No Habitat
Indigenous	E1	E1	E2	E3
Native	E1	E2	E3	E3
Exotic	E2	E3	E3	E4
Weed	E3	E3	E4	E4

Amenity Matrix				
Character	Aesthetics			
	High	Moderate	Low	None
Important	P1	P1	P2	P3
Moderate	P1	P2	P3	P3
Low	P2	P3	P3	P4
None	P3	P3	P4	P4

Tree Retention Rating Modifier				
Amenity	Environment			
	E1	E2	E3	E4
P1	High	High	Moderate	Moderate
P2	High	Moderate	Moderate	Moderate
P3	Moderate	Moderate	Moderate	Moderate
P4	Moderate	Moderate	Moderate	Low

Tree Retention Rating

The results of the Preliminary Tree Retention Rating and the Tree Retention Rating Modifier matrices are combined in a final matrix to give the actual Tree Retention Rating.

Tree Retention Rating Matrix			
Tree Retention Rating Modifier	Preliminary Tree Retention Rating		
	High	Moderate	Low
High	Important	High	Moderate
Moderate	High	Moderate	Low
Low	Moderate	Low	Low

Special Value Trees

There are potentially trees that have Special Value for reasons outside of normal Arboricultural assessment protocols and therefore would not have been considered in the assessment to this point; to allow for this a Special Value characteristic that can override the Tree Retention Rating can be selected. Special Value characteristics that could override the Tree Retention Rating would include factors such as the following:

Cultural Values

Memorial Trees, Avenue of Honour Trees, Aboriginal Heritage Trees, Trees planted by Dignitaries and various other potential categories.

Environmental Values

Rare or Endangered species, Remnant Vegetation, Important Habitat for rare or endangered wildlife, substantial habitat value in an important biodiversity area and various other potential categories.

Where a tree achieves one or more Special Value characteristics the Tree Retention Rating will automatically be overridden and assigned the value of Important.

Tree Retention Rating Definitions

Important These trees will in all instances be required to be retained within any future development/redevelopment. It is highly unlikely that trees that achieve this rating would be approved for removal or any other tree damaging activity. Trees will be either remnant, or naturally occurring species with environmental value, will have active hollows and be in good overall condition.

High These trees will in most instances be required to be retained within any future development/redevelopment. It is unlikely that trees that achieve this rating would be approved for removal or any other tree damaging activity. Trees will be either remnant, or naturally occurring species with environmental value but are starting to decline or will be a planted native and have active hollows and be in good condition. Or may provide a high aesthetic contribution to an area and be in good overall condition

Moderate Trees with a moderate retention rating provide limited environmental benefit and amenity to the area. These trees may be semi mature or exotic species with limited environmental value. Moderate trees may also be large trees that display fair overall condition.

Low These trees may not be considered suitable for retention in a future development/redevelopment. These trees will either be young trees that are easily replaced. or in poor overall condition. Trees in this category do not warrant special works or design modifications to allow for their retention. Trees in this category are likely to be approved for removal and/or other tree damaging activity in an otherwise reasonable and expected development. Protection of these trees, where they are identified to be retained, should be consistent with Australian Standard AS4970-2009 *Protection of trees on development sites.*

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Appendix B - Tree Assessment Findings

Eucalyptus sp. Tree No: 1

Gum Tree

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	<2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	4.80 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed eucalypts dominated by Eucalyptus camaldulensis.

Legislative Status	Unregulated

This tree does not achieve a regulated trunk circumference and therefore is not regulated by the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 2

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	5-10 metres
Health:	Good
Structure:	Fair
Form:	Poor
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	6.77 metres



Observations

This tree is considered to be in fair overall condition due to it having a moderate history of branch failure impacting its structural rating and therefore its overall condition.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus sp. Tree No: 3

Gum Tree

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	<2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	4.80 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed eucalypts dominated by Eucalyptus intertexta.

Legislative Status	Unregulated

This tree does not achieve a regulated trunk circumference and therefore is not regulated by the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis Tree No: 4

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	9.48 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus sp. Tree No: 5

Gum Tree

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	<2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	3.60 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed eucalypts.

Legislative Status	Unregulated

This tree does not achieve a regulated trunk circumference and therefore is not regulated by the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis Tree No: 6

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	5-10 metres
Health:	Fair
Structure:	Good
Form:	Good
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	8.04 metres



Observations

This tree is conidered to be in fair overall condition due to the moderate level of deadwood and reduced foliage density within crown.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus sp. Tree No: 7

Gum Tree

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	>3 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	3.60 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed eucalypts.

Legislative Status	Significant

This tree has a trunk circumference greater than three metres and is not subject to any exemption from regulation and therefore it is identified as a Significant Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus camaldulensis

Tree No: 8

River Red Gum

Inspected:	10 September 2021
Height:	>20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	>3 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	8.45 metres



Observations

This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.

Legislative Status	Significant

This tree has a trunk circumference greater than three metres and is not subject to any exemption from regulation and therefore it is identified as a Significant Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus sp. Tree No: 9

Gum Tree

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	<2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	3.60 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed eucalypts.

Legislative Status	Unregulated

This tree does not achieve a regulated trunk circumference and therefore is not regulated by the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 10

River Red Gum

Inspected:	10 September 2021
Height:	>20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	6.96 metres



Observations

This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Acacia sp. Tree No: 11

Wattle

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	<2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	3.60 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed trees dominated by Acacia salisina. Group 6.

Legislative Status	Unregulated

This tree does not achieve a regulated trunk circumference and therefore is not regulated by the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 12

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Poor
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	<10 years
Tree Protection Zone:	10.44 metres



Observations

This tree is consider to be in poor overall condition as evidenced by the elevated level of deadwood and dieback, and the reduced foliage density throughout the crown. Deadwood, Leaning trunk.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis Tree No: 13

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	5-10 metres
Health:	Good
Structure:	Fair
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	7.44 metres



Observations

This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus camaldulensis

Tree No: 14

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	6.30 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. Co-dominant tree.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Acacia salicina Tree No: 15

Native Willow

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	>3 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	7.00 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This tree has a co-dominant form impacting on its overall amenity value.

Legislative Status	Significant

This tree has a trunk circumference greater than three metres and is not subject to any exemption from regulation and therefore it is identified as a Significant Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Acacia sp. Tree No: 16

Wattle

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	<2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	3.60 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed eucalypts. Group 7.

Legislative Status	Unregulated

This tree does not achieve a regulated trunk circumference and therefore is not regulated by the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus sp. Tree No: 17

Gum Tree

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	5-10 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	8.64 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus sp.

Tree No: 18

Gum Tree

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	<2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	3.60 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed eucalypts and acacias.

Legislative Status	Unregulated

This tree does not achieve a regulated trunk circumference and therefore is not regulated by the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

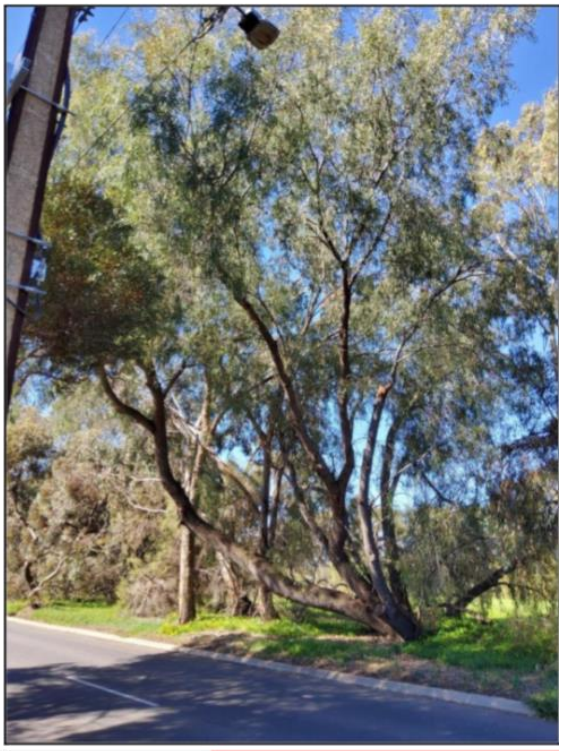
This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Acacia salicina Tree No: 19

Native Willow

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	10-15 metres
Health:	Good
Structure:	Fair
Form:	Poor
Trunk Circumference:	>3 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	8.74 metres



Observations

This tree is considered to be in fair overall condition due to the presence of a moderate level of decay and a currently stable included bark union in the primary trunk division. Co-dominant tree.

Legislative Status	Significant

This tree has a trunk circumference greater than three metres and is not subject to any exemption from regulation and therefore it is identified as a Significant Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus sp.

Tree No: 20

Gum Tree

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	<2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	3.60 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed eucalypts and acacias.

Legislative Status	Unregulated

This tree does not achieve a regulated trunk circumference and therefore is not regulated by the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 21

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Fair
Form:	Poor
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	7.47 metres



Observations

This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus sp.

Tree No: 22

Gum Tree

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	<2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	3.60 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed eucalypts and acacias.

Legislative Status	Unregulated

This tree does not achieve a regulated trunk circumference and therefore is not regulated by the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 23

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	8.40 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

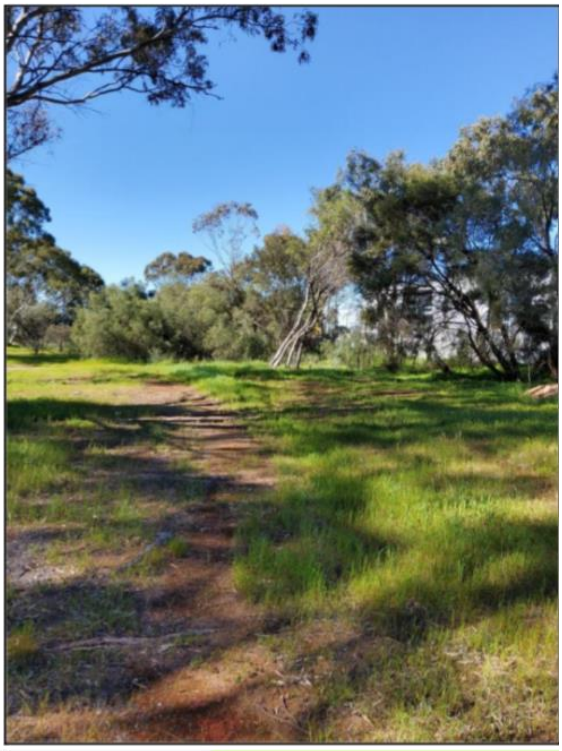
arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus sp.

Tree No: 24

Gum Tree

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	5-10 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	<2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	8.64 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed eucalypts and acacias.

Legislative Status	Unregulated

This tree does not achieve a regulated trunk circumference and therefore is not regulated by the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

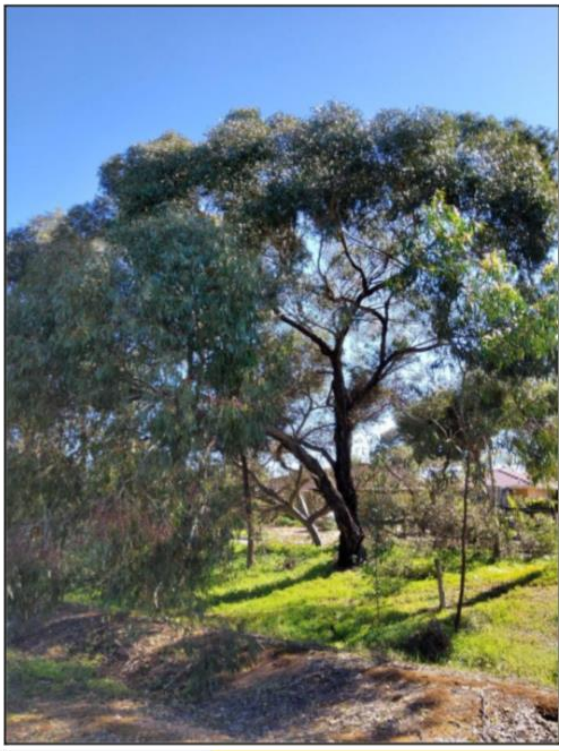
arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 25

River Red Gum

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	10-15 metres
Health:	Good
Structure:	Fair
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	7.10 metres



Observations

This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 26

River Red Gum

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	5-10 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	8.64 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of semi-mature River Red Gums.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis Tree No: 27

River Red Gum

Inspected:	10 September 2021
Height:	<5 metres
Spread:	<5 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	6.12 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. Co-dominant tree.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus camaldulensis

Tree No: 28

River Red Gum

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	5-10 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	<2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	4.80 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of semi-mature River Red Gums.

Legislative Status	Unregulated

This tree does not achieve a regulated trunk circumference and therefore is not regulated by the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 29

River Red Gum

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	5-10 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	<2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	4.80 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of semi-mature River Red Gums.

Legislative Status	Unregulated

This tree does not achieve a regulated trunk circumference and therefore is not regulated by the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

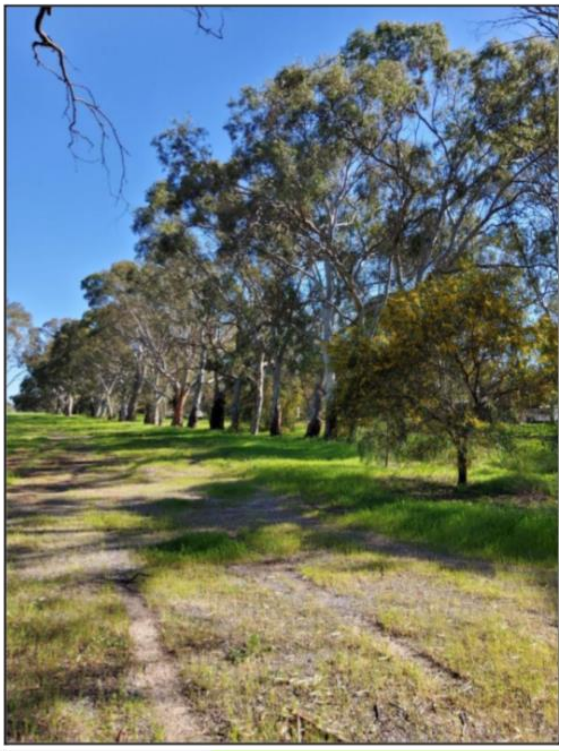
This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis Tree No: 30

River Red Gum

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	5-10 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	<2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	4.80 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of semi-mature River Red Gums, a number of the treesare regulatedhowever not all of them.

Legislative Status	Unregulated

This tree does not achieve a regulated trunk circumference and therefore is not regulated by the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Acacia salicina Tree No: 31

Native Willow

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	15-20 metres
Health:	Good
Structure:	Fair
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	11.80 metres



Observations

The tree is in good health, although it does retain an increased percentage of deadwood, and has a slightly reduced structure rating due to an included bark union in the primary structure.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus sp. Tree No: 32

Gum Tree

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	5-10 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	5.45 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus sp.

Tree No: 33

Gum Tree

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	10-15 metres
Health:	Good
Structure:	Fair
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	5.35 metres



Observations

This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus sp.

Tree No: 34

Gum Tree

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	10-15 metres
Health:	Good
Structure:	Fair
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	8.09 metres



Observations

This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus sp. Tree No: 35

Gum Tree

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	10-15 metres
Health:	Good
Structure:	Fair
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	5.78 metres



Observations

This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 36

River Red Gum

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	7.56 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus porosa

Tree No: 37

Mallee Box

Inspected:	10 September 2021
Height:	<5 metres
Spread:	<5 metres
Health:	Good
Structure:	Fair
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	8.16 metres



Observations

This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division. Co-dominant tree.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus camaldulensis

Tree No: 38

River Red Gum

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	5-10 metres
Health:	Good
Structure:	Fair
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	5.04 metres



Observations

This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division. Co-dominant tree.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus sp.

Tree No: 39

Gum Tree

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	5-10 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	5.83 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus camaldulensis

Tree No: 40

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	9.60 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus camaldulensis

Tree No: 41

River Red Gum

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	6.70 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 42

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Fair
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	8.88 metres



Observations

This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis Tree No: 43

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	6.48 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus camaldulensis — Tree No: 44

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Fair
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	7.08 metres



Observations

This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

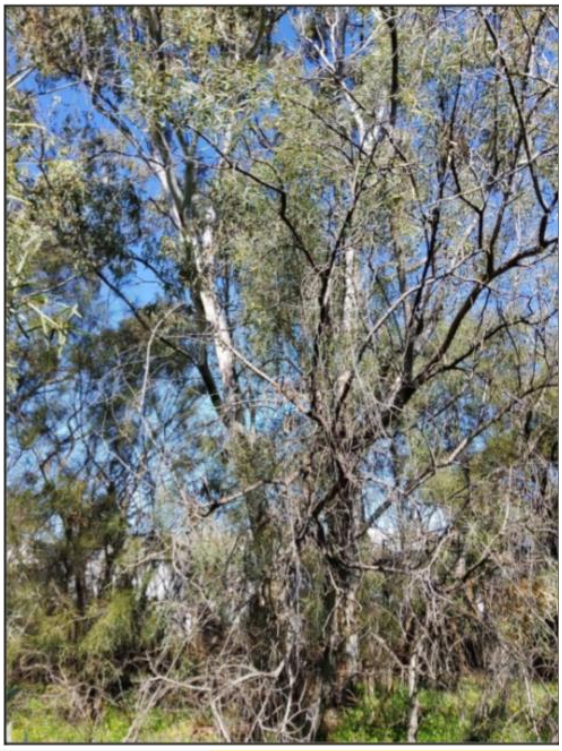
Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus camaldulensis

Tree No: 45

River Red Gum

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	5-10 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	5.01 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis Tree No: 46

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Fair
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	6.72 metres



Observations

This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

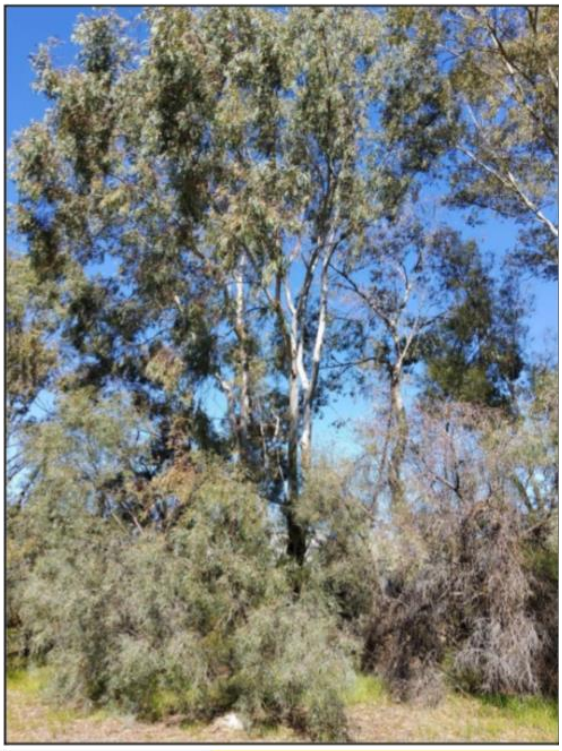
Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus camaldulensis

Tree No: 47

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	7.72 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

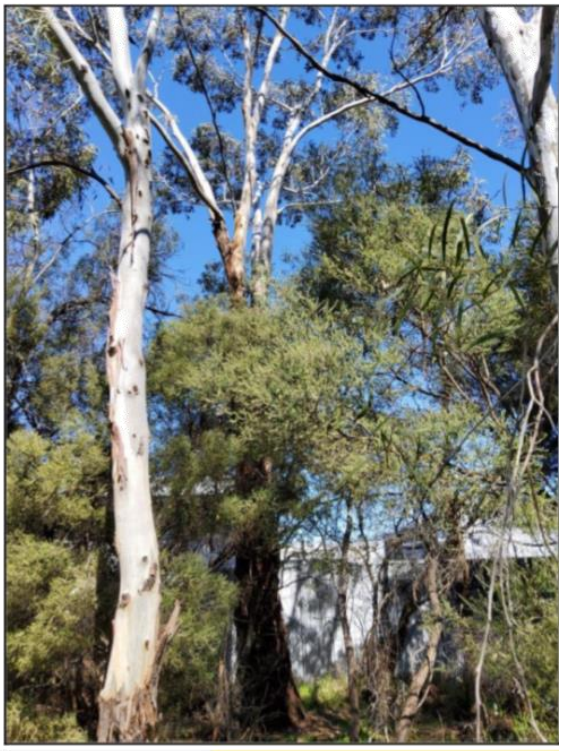
arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus camaldulensis Tree No: 48

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Fair
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	6.96 metres



Observations

This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

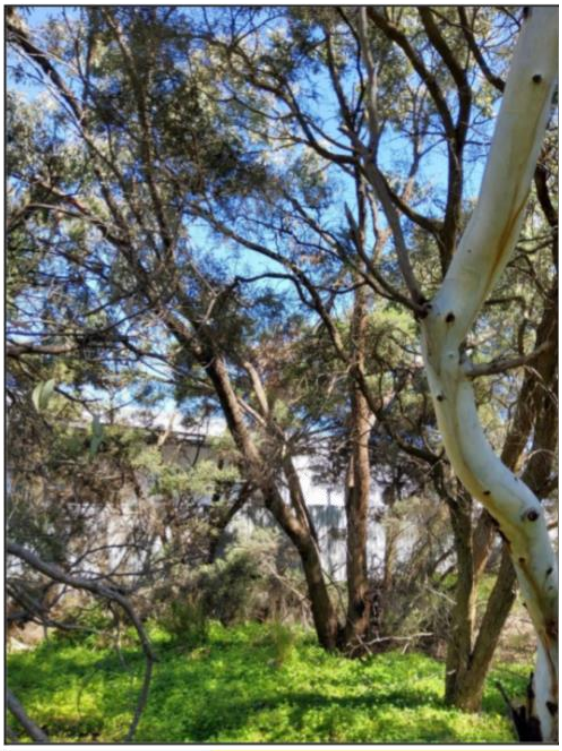
arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus porosa Tree No: 49

Mallee Box

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	5.06 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus camaldulensis

Tree No: 50

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	5-10 metres
Health:	Fair
Structure:	Good
Form:	Good
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	7.80 metres



Observations

This tree is considered to be in fair overall condition due to the volume of deadwood throughout the crown.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

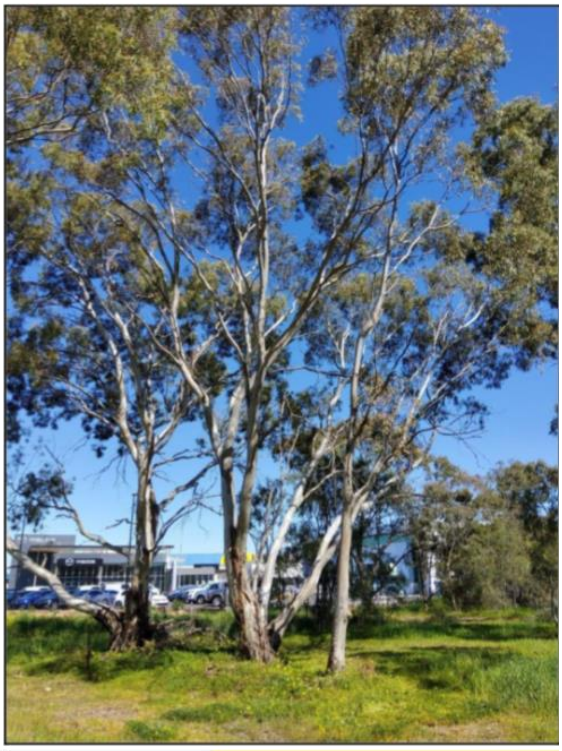
arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 51

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Fair
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	7.60 metres



Observations

This tree is conidered to be in fair overall condition due to the moderate level of deadwood and reduced foliage density within crown.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus camaldulensis

Tree No: 52

River Red Gum

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	5-10 metres
Health:	Good
Structure:	Fair
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	9.37 metres



Observations

This tree exhibits fair structure due to a history of branch failure, a moderate level of decay and a currently stable included union in the primary structure.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus camaldulensis

Tree No: 53

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	5-10 metres
Health:	Fair
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	8.62 metres



Observations

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus camaldulensis Tree No: 54

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Fair
Form:	Fair
Trunk Circumference:	>3 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	9.79 metres



Observations

This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.

Legislative Status	Significant

This tree has a trunk circumference greater than three metres and is not subject to any exemption from regulation and therefore it is identified as a Significant Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 55

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Fair
Form:	Fair
Trunk Circumference:	>3 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	14.28 metres



Observations

The tree is in good health, although it does retain an increased percentage of deadwood, and has a slightly reduced structure rating due to an included bark union in the primary structure.

Legislative Status	Significant

This tree has a trunk circumference greater than three metres and is not subject to any exemption from regulation and therefore it is identified as a Significant Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 56

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Fair
Structure:	Good
Form:	Fair
Trunk Circumference:	>3 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	10.22 metres



Observations

This tree is considered to be in fair overall condition due to the volume of deadwood throughout the crown.

Legislative Status	Significant

This tree has a trunk circumference greater than three metres and is not subject to any exemption from regulation and therefore it is identified as a Significant Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus camaldulensis

Tree No: 57

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	5-10 metres
Health:	Poor
Structure:	Good
Form:	Fair
Trunk Circumference:	>3 metres
Useful Life Expectancy:	<10 years
Tree Protection Zone:	10.62 metres



Observations

This tree is consider to be in poor overall condition as evidenced by the elevated level of deadwood and dieback, and the reduced foliage density throughout the crown.

Legislative Status	Significant

This tree has a trunk circumference greater than three metres and is not subject to any exemption from regulation and therefore it is identified as a Significant Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Low

This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site. Tree damaging activity, including removal, is likely to be approved as part of an otherwise reasonable development.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 58

River Red Gum

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	8.52 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 59

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Fair
Structure:	Good
Form:	Good
Trunk Circumference:	>3 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	9.76 metres



Observations

This tree is considered to be in fair overall condition due to the volume of deadwood throughout the crown.

Legislative Status	Significant

This tree has a trunk circumference greater than three metres and is not subject to any exemption from regulation and therefore it is identified as a Significant Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus camaldulensis

Tree No: 60

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	>3 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	15.00 metres



Observations

This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.

Legislative Status	Significant

This tree has a trunk circumference greater than three metres and is not subject to any exemption from regulation and therefore it is identified as a Significant Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis Tree No: 61

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	6.36 metres



Observations

This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 62

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	10.32 metres



Observations

This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus cladocalyx Tree No: 63

Sugar Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	10.92 metres



Observations

This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis Tree No: 64

River Red Gum

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	5-10 metres
Health:	Poor
Structure:	Fair
Form:	Good
Trunk Circumference:	>2 metres
Useful Life Expectancy:	<10 years
Tree Protection Zone:	9.24 metres



Observations

This tree is considered to be in poor overall condition due to the substantially reduced foliage density and significant volume of deadwood and dieback throughout the crown. Additionally, this tree has a moderate level of decay and hollowing in the primary structure.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus camaldulensis

Tree No: 65

River Red Gum

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	5-10 metres
Health:	Poor
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	<10 years
Tree Protection Zone:	8.40 metres



Observations

This tree is conidered to be in poor overall condition due to the substantial level of deadwood and significantly reduced foliage density throughout the crown.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Low

This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site. Tree damaging activity, including removal, is likely to be approved as part of an otherwise reasonable development.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

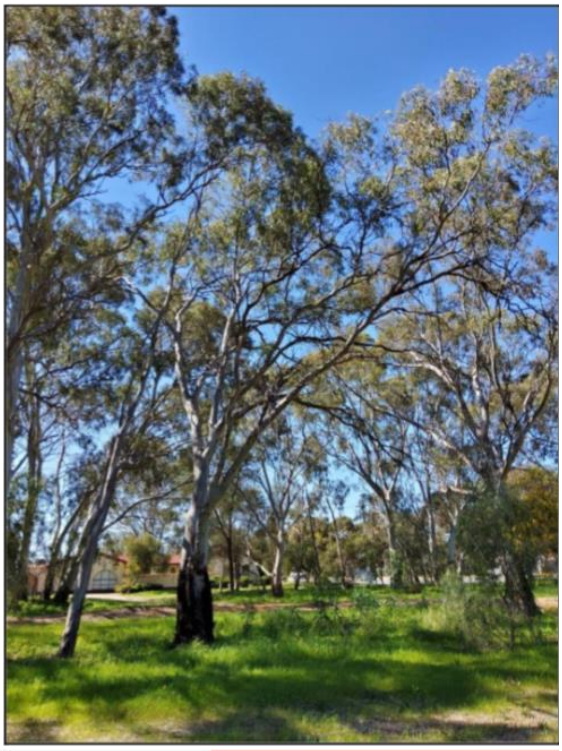
Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus camaldulensis

Tree No: 66

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Fair
Structure:	Fair
Form:	Fair
Trunk Circumference:	>3 metres
Useful Life Expectancy:	<10 years
Tree Protection Zone:	10.68 metres



Observations

Legislative Status	Significant

This tree has a trunk circumference greater than three metres and is not subject to any exemption from regulation and therefore it is identified as a Significant Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 67

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	5-10 metres
Health:	Fair
Structure:	Fair
Form:	Good
Trunk Circumference:	>2 metres
Useful Life Expectancy:	<10 years
Tree Protection Zone:	7.32 metres



Observations

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 68

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	6.96 metres



Observations

This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 69

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	5-10 metres
Health:	Fair
Structure:	Good
Form:	Fair
Trunk Circumference:	>3 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	11.16 metres



Observations

This tree is conidered to be in fair overall condition due to the moderate level of deadwood and reduced foliage density within crown.

Legislative Status	Significant

This tree has a trunk circumference greater than three metres and is not subject to any exemption from regulation and therefore it is identified as a Significant Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 70

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Fair
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	7.68 metres



Observations

This tree is conidered to be in fair overall condition due to the moderate level of deadwood and reduced foliage density within crown.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 71

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Fair
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	9.84 metres



Observations

This tree is conidered to be in fair overall condition due to the moderate level of deadwood and reduced foliage density within crown.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

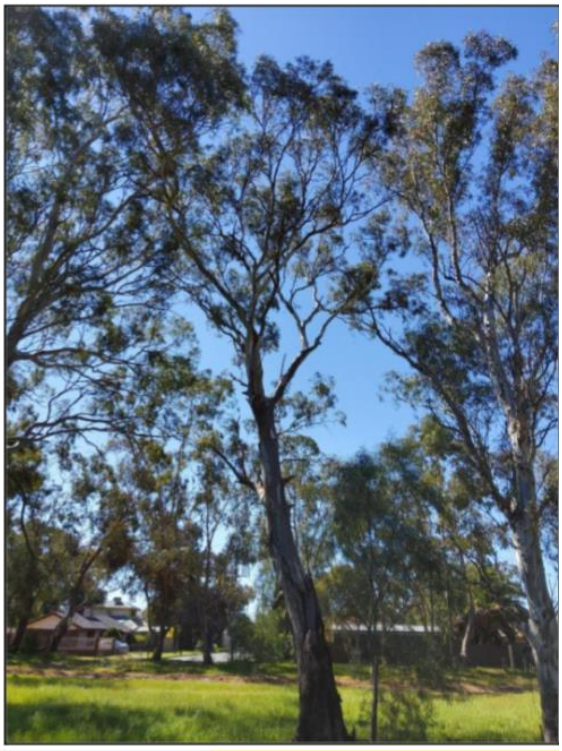
Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus camaldulensis

Tree No: 72

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	5-10 metres
Health:	Fair
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	8.40 metres



Observations

This tree is considered to be in fair overall condition as evidenced by the moderate levels of deadwood and necrosis. The trunk has a noticeable lean impacting on the form and aesthetic value of the tree.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis — Tree No: 73

River Red Gum

Inspected:	10 September 2021
Height:	>20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	>3 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	11.04 metres



Observations

This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.

Legislative Status	Significant

This tree has a trunk circumference greater than three metres and is not subject to any exemption from regulation and therefore it is identified as a Significant Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus camaldulensis

Tree No: 74

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	>3 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	9.72 metres



Observations

This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.

Legislative Status	Significant

This tree has a trunk circumference greater than three metres and is not subject to any exemption from regulation and therefore it is identified as a Significant Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 75

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	8.16 metres



Observations

This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health. The trunk has a noticeable lean impacting on the form and aesthetic value of the tree.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 76

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	8.76 metres



Observations

This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 77

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	>3 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	11.16 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

Legislative Status	Significant

This tree has a trunk circumference greater than three metres and is not subject to any exemption from regulation and therefore it is identified as a Significant Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 78

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	>3 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	11.88 metres



Observations

This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.

Legislative Status	Significant

This tree has a trunk circumference greater than three metres and is not subject to any exemption from regulation and therefore it is identified as a Significant Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis Tree No: 79

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	>3 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	13.80 metres



Observations

This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.

Legislative Status	Significant

This tree has a trunk circumference greater than three metres and is not subject to any exemption from regulation and therefore it is identified as a Significant Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 80

River Red Gum

Inspected:	10 September 2021
Height:	>20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	10.44 metres



Observations

This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Eucalyptus camaldulensis

Tree No: 81

River Red Gum

Inspected:	10 September 2021
Height:	15-20 metres
Spread:	5-10 metres
Health:	Fair
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	7.68 metres



Observations

This tree is conidered to be in fair overall condition due to the moderate level of deadwood and reduced foliage density within crown.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Moderate

This tree has a Moderate Retention Rating and could be considered for retention if it can be protected. It is likely that tree damaging activity, including removal, will only be approved if it is shown that alternative design solutions are not available.

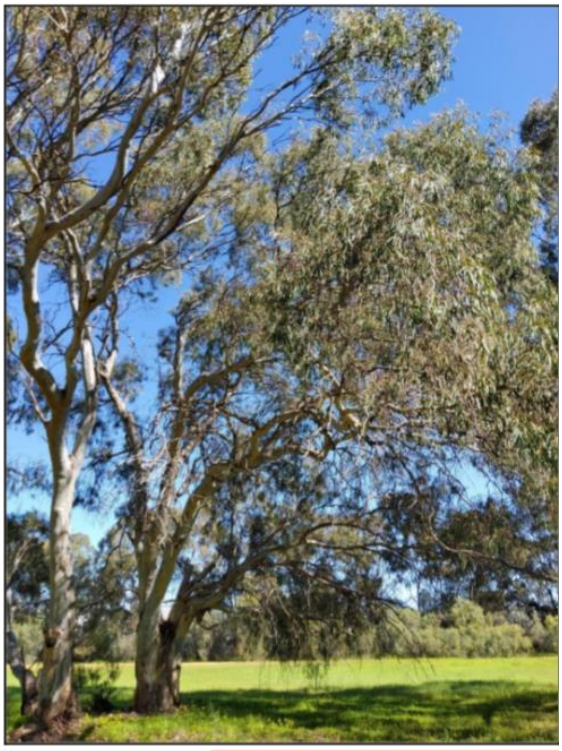
arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 82

River Red Gum

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	10-15 metres
Health:	Poor
Structure:	Fair
Form:	Fair
Trunk Circumference:	>3 metres
Useful Life Expectancy:	<10 years
Tree Protection Zone:	12.36 metres



Observations

This tree is considered to be in poor overall condition due to the significant volume of deadwood and the substantially reduced foliage density. Additionally, this tree has a moderate level of decay and history of branch failure.

Legislative Status	Significant

This tree has a trunk circumference greater than three metres and is not subject to any exemption from regulation and therefore it is identified as a Significant Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	Low

This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site. Tree damaging activity, including removal, is likely to be approved as part of an otherwise reasonable development.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 83

River Red Gum

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	5-10 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	8.16 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Eucalyptus camaldulensis

Tree No: 84

River Red Gum

Inspected:	10 September 2021
Height:	10-15 metres
Spread:	5-10 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	7.92 metres



Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. The trunk has a noticeable lean impacting on the form and aesthetic value of the tree.

Legislative Status	Regulated

This tree has a trunk circumference greater than two metres and is not subject to any exemption from regulation and therefore it is identified as a Regulated Tree as defined in the Planning, Development and Infrastructure Act 2016.

Retention Rating	High

This tree has a High Retention Rating and all reasonable design considerations should be employed to retain it wherever possible. It is unlikely that tree damaging activity, including removal, will be approved in relation to the management of this tree.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Appendix C - Mapping



Date: 1/10/2021
Ref: ATS5530-RyaRdSalHyPTA

Arborman Tree Solutions
23 Aberdeen Street
Port Adelaide SA 5015
0418 812 967
www.arborman.com.au

Preliminary Tree Assessment - Sheet Atlas

Ryans Road & Salisbury Highway, Greenfields

0 100 200 m

1:2,500 @ A3

arborman® tree solutions
PROFESSIONALS IN ARBORICULTURE



N

Legislative Status

S	Significant
R	Regulated
E	Exempt
U	Unregulated

Retention Rating

- Important
- High
- Moderate
- Low

Date: 1/10/2021
Ref: ATS5530-RyaRdSalHyPTA

Arborman Tree Solutions
23 Aberdeen Street
Port Adelaide SA 5015
0418 812 967
www.arborman.com.au

Preliminary Tree Assessment - Sheet 1

Ryans Road & Salisbury Highway, Greenfields

0 24 48 m

1:600 @ A3

arborman® tree solutions
PROFESSIONALS IN ARBORICULTURE



N

Legislative Status

S Significant
R Regulated
E Exempt
U Unregulated

Retention Rating

Important
High
Moderate
Low

Date: 1/10/2021
Ref: ATS5530-RyaRdSalHyPTA

Arborman Tree Solutions
23 Aberdeen Street
Port Adelaide SA 5015
0418 812 967
www.arborman.com.au

Preliminary Tree Assessment - Sheet 2

Ryans Road & Salisbury Highway, Greenfields

0 24 48 m

1:600 @ A3

arborman® tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape



N

Legislative Status

S Significant
R Regulated
E Exempt
U Unregulated

Retention Rating

Important
High
Moderate
Low

Date: 1/10/2021
Ref: ATS5530-RyaRdSalHyPTA

Arborman Tree Solutions
23 Aberdeen Street
Port Adelaide SA 5015
0418 812 967
www.arborman.com.au

Preliminary Tree Assessment - Sheet 3

Ryans Road & Salisbury Highway, Greenfields

0 24 48 m

1:600 @ A3

arborman® tree solutions
PROFESSIONALS IN ARBORICULTURE



N

Legislative Status

S Significant
R Regulated
E Exempt
U Unregulated

Retention Rating

Important
High
Moderate
Low

Date: 1/10/2021
Ref: ATS5530-RyaRdSalHyPTA

Arborman Tree Solutions
23 Aberdeen Street
Port Adelaide SA 5015
0418 812 967
www.arborman.com.au

Preliminary Tree Assessment - Sheet 4

Ryans Road & Salisbury Highway, Greenfields

0 24 48 m

1:600 @ A3

arborman® tree solutions
PROFESSIONALS IN ARBORICULTURE



Legislative Status

S Significant
R Regulated
E Exempt
U Unregulated

Retention Rating

- Important
- High
- Moderate
- Low

Date: 1/10/2021
Ref: ATS5530-RyaRdSalHyPTA

Arborman Tree Solutions
23 Aberdeen Street
Port Adelaide SA 5015
0418 812 967
www.arborman.com.au

Preliminary Tree Assessment - Sheet 5

Ryans Road & Salisbury Highway, Greenfields

0 24 48 m

1:600 @ A3

arborman® tree solutions
PROFESSIONALS IN ARBORICULTURE

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

Appendix D – Tree Assessment Summary

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Tree Assessment Summary

Tree Number	Botanic Name	Legislative Status	Retention Rating	TPZ Radius	Observations
1	*Eucalyptus sp.*	Unregulated	Moderate	4.80 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed eucalypts dominated by Eucalyptus camaldulensis.
2	*Eucalyptus camaldulensis*	Regulated	Moderate	6.77 metres	This tree is considered to be in fair overall condition due to it having a moderate history of branch failure impacting its structural rating and therefore its overall condition.
3	*Eucalyptus sp.*	Unregulated	Moderate	4.80 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed eucalypts dominated by Eucalyptus intertexta.
4	*Eucalyptus camaldulensis*	Regulated	High	9.48 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.
5	*Eucalyptus sp.*	Unregulated	Moderate	3.60 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed eucalypts.
6	*Eucalyptus camaldulensis*	Regulated	High	8.04 metres	This tree is conidered to be in fair overall condition due to the moderate level of deadwood and reduced foliage density within crown.
7	*Eucalyptus sp.*	Significant	Moderate	3.60 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed eucalypts.
8	*Eucalyptus camaldulensis*	Significant	High	8.45 metres	This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Tree Assessment Summary

Tree Number	Botanic Name	Legislative Status	Retention Rating	TPZ Radius	Observations
9	*Eucalyptus sp.*	Unregulated	Moderate	3.60 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed eucalypts.
10	*Eucalyptus camaldulensis*	Regulated	High	6.96 metres	This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.
11	*Acacia sp.*	Unregulated	Moderate	3.60 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed trees dominated by Acacia salisina. Group 6.
12	*Eucalyptus camaldulensis*	Regulated	Moderate	10.44 metres	This tree is consider to be in poor overall condition as evidenced by the elevated level of deadwood and dieback, and the reduced foliage density throughout the crown. Deadwood, Leaning trunk.
13	*Eucalyptus camaldulensis*	Regulated	Moderate	7.44 metres	This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.
14	*Eucalyptus camaldulensis*	Regulated	Moderate	6.30 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. Co-dominant tree.
15	*Acacia salicina*	Significant	Moderate	7.00 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This tree has a co-dominant form impacting on its overall amenity value.
16	*Acacia sp.*	Unregulated	Moderate	3.60 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed eucalypts. Group 7.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Tree Assessment Summary

Tree Number	Botanic Name	Legislative Status	Retention Rating	TPZ Radius	Observations
17	*Eucalyptus sp.*	Regulated	Moderate	8.64 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.
18	*Eucalyptus sp.*	Unregulated	Moderate	3.60 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed eucalypts and acacias.
19	*Acacia salicina*	Significant	Moderate	8.74 metres	This tree is considered to be in fair overall condition due to the presence of a moderate level of decay and a currently stable included bark union in the primary trunk division. Co-dominant tree.
20	*Eucalyptus sp.*	Unregulated	Moderate	3.60 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed eucalypts and acacias.
21	*Eucalyptus camaldulensis*	Regulated	Moderate	7.47 metres	This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.
22	*Eucalyptus sp.*	Unregulated	Moderate	3.60 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed eucalypts and acacias.
23	*Eucalyptus camaldulensis*	Regulated	Moderate	8.40 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.
24	*Eucalyptus sp.*	Unregulated	Moderate	8.64 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of mixed eucalypts and acacias.

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Tree Assessment Summary

Tree Number	Botanic Name	Legislative Status	Retention Rating	TPZ Radius	Observations
25	*Eucalyptus camaldulensis*	Regulated	Moderate	7.10 metres	This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.
26	*Eucalyptus camaldulensis*	Regulated	High	8.64 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of semi-mature River Red Gums.
27	*Eucalyptus camaldulensis*	Regulated	Moderate	6.12 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. Co-dominant tree.
28	*Eucalyptus camaldulensis*	Unregulated	High	4.80 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of semi-mature River Red Gums.
29	*Eucalyptus camaldulensis*	Unregulated	High	4.80 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of semi-mature River Red Gums.
30	*Eucalyptus camaldulensis*	Unregulated	High	4.80 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This is a group of semi-mature River Red Gums, a number of the treesare regulatedhowever not all of them.
31	*Acacia salicina*	Regulated	Moderate	11.80 metres	The tree is in good health, although it does retain an increased percentage of deadwood, and has a slightly reduced structure rating due to an included bark union in the primary structure.
32	*Eucalyptus sp.*	Regulated	Moderate	5.45 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Tree Assessment Summary

Tree Number	Botanic Name	Legislative Status	Retention Rating	TPZ Radius	Observations
33	*Eucalyptus sp.*	Regulated	Moderate	5.35 metres	This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.
34	*Eucalyptus sp.*	Regulated	Moderate	8.09 metres	This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.
35	*Eucalyptus sp.*	Regulated	Moderate	5.78 metres	This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.
36	*Eucalyptus camaldulensis*	Regulated	High	7.56 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.
37	*Eucalyptus porosa*	Regulated	Moderate	8.16 metres	This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division. Co-dominant tree.
38	*Eucalyptus camaldulensis*	Regulated	Moderate	5.04 metres	This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division. Co-dominant tree.
39	*Eucalyptus sp.*	Regulated	Moderate	5.83 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.
40	*Eucalyptus camaldulensis*	Regulated	High	9.60 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.
41	*Eucalyptus camaldulensis*	Regulated	High	6.70 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.
42	*Eucalyptus camaldulensis*	Regulated	High	8.88 metres	This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Tree Assessment Summary

Tree Number	Botanic Name	Legislative Status	Retention Rating	TPZ Radius	Observations
43	*Eucalyptus camaldulensis*	Regulated	Moderate	6.48 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.
44	*Eucalyptus camaldulensis*	Regulated	Moderate	7.08 metres	This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.
45	*Eucalyptus camaldulensis*	Regulated	Moderate	5.01 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.
46	*Eucalyptus camaldulensis*	Regulated	Moderate	6.72 metres	This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.
47	*Eucalyptus camaldulensis*	Regulated	Moderate	7.72 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.
48	*Eucalyptus camaldulensis*	Regulated	Moderate	6.96 metres	This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.
49	*Eucalyptus porosa*	Regulated	Moderate	5.06 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.
50	*Eucalyptus camaldulensis*	Regulated	High	7.80 metres	This tree is considered to be in fair overall condition due to the volume of deadwood throughout the crown.
51	*Eucalyptus camaldulensis*	Regulated	Moderate	7.60 metres	This tree is conidered to be in fair overall condition due to the moderate level of deadwood and reduced foliage density within crown.

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Tree Assessment Summary

Tree Number	Botanic Name	Legislative Status	Retention Rating	TPZ Radius	Observations
52	*Eucalyptus camaldulensis*	Regulated	Moderate	9.37 metres	This tree exhibits fair structure due to a history of branch failure, a moderate level of decay and a currently stable included union in the primary structure.
53	*Eucalyptus camaldulensis*	Regulated	Moderate	8.62 metres	
54	*Eucalyptus camaldulensis*	Significant	Moderate	9.79 metres	This tree is considered to be in fair overall condition due to the presence of stable included bark in the primary trunk division.
55	*Eucalyptus camaldulensis*	Significant	Moderate	14.28 metres	The tree is in good health, although it does retain an increased percentage of deadwood, and has a slightly reduced structure rating due to an included bark union in the primary structure.
56	*Eucalyptus camaldulensis*	Significant	Moderate	10.22 metres	This tree is considered to be in fair overall condition due to the volume of deadwood throughout the crown.
57	*Eucalyptus camaldulensis*	Significant	Low	10.62 metres	This tree is consider to be in poor overall condition as evidenced by the elevated level of deadwood and dieback, and the reduced foliage density throughout the crown.
58	*Eucalyptus camaldulensis*	Regulated	Moderate	8.52 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.
59	*Eucalyptus camaldulensis*	Significant	High	9.76 metres	This tree is considered to be in fair overall condition due to the volume of deadwood throughout the crown.
60	*Eucalyptus camaldulensis*	Significant	High	15.00 metres	This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Tree Assessment Summary

Tree Number	Botanic Name	Legislative Status	Retention Rating	TPZ Radius	Observations
61	*Eucalyptus camaldulensis*	Regulated	High	6.36 metres	This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.
62	*Eucalyptus camaldulensis*	Regulated	High	10.32 metres	This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.
63	*Eucalyptus cladocalyx*	Regulated	High	10.92 metres	This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.
64	*Eucalyptus camaldulensis*	Regulated	Moderate	9.24 metres	This tree is considered to be in poor overall condition due to the substantially reduced foliage density and significant volume of deadwood and dieback throughout the crown. Additionally, this tree has a moderate level of decay and hollowing in the primary structure.
65	*Eucalyptus camaldulensis*	Regulated	Low	8.40 metres	This tree is conidered to be in poor overall condition due to the substantial level of deadwood and significantly reduced foliage density throughout the crown.
66	*Eucalyptus camaldulensis*	Significant	Moderate	10.68 metres	
67	*Eucalyptus camaldulensis*	Regulated	High	7.32 metres	
68	*Eucalyptus camaldulensis*	Regulated	High	6.96 metres	This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Tree Assessment Summary

Tree Number	Botanic Name	Legislative Status	Retention Rating	TPZ Radius	Observations
69	*Eucalyptus camaldulensis*	Significant	Moderate	11.16 metres	This tree is conidered to be in fair overall condition due to the moderate level of deadwood and reduced foliage density within crown.
70	*Eucalyptus camaldulensis*	Regulated	Moderate	7.68 metres	This tree is conidered to be in fair overall condition due to the moderate level of deadwood and reduced foliage density within crown.
71	*Eucalyptus camaldulensis*	Regulated	Moderate	9.84 metres	This tree is conidered to be in fair overall condition due to the moderate level of deadwood and reduced foliage density within crown.
72	*Eucalyptus camaldulensis*	Regulated	Moderate	8.40 metres	This tree is considered to be in fair overall condition as evidenced by the moderate levels of deadwood and necrosis. The trunk has a noticeable lean impacting on the form and aesthetic value of the tree.
73	*Eucalyptus camaldulensis*	Significant	Moderate	11.04 metres	This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.
74	*Eucalyptus camaldulensis*	Significant	Moderate	9.72 metres	This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.
75	*Eucalyptus camaldulensis*	Regulated	Moderate	8.16 metres	This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health. The trunk has a noticeable lean impacting on the form and aesthetic value of the tree.
76	*Eucalyptus camaldulensis*	Regulated	High	8.76 metres	This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Tree Assessment Summary

Tree Number	Botanic Name	Legislative Status	Retention Rating	TPZ Radius	Observations
77	*Eucalyptus camaldulensis*	Significant	High	11.16 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.
78	*Eucalyptus camaldulensis*	Significant	High	11.88 metres	This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.
79	*Eucalyptus camaldulensis*	Significant	High	13.80 metres	This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.
80	*Eucalyptus camaldulensis*	Regulated	Moderate	10.44 metres	This tree is considered to be in good overall condition, whilst there is a moderate volume of deadwood in the crown this is species typical and does not indicate a reduction in health.
81	*Eucalyptus camaldulensis*	Regulated	Moderate	7.68 metres	This tree is conidered to be in fair overall condition due to the moderate level of deadwood and reduced foliage density within crown.
82	*Eucalyptus camaldulensis*	Significant	Low	12.36 metres	This tree is considered to be in poor overall condition due to the significant volume of deadwood and the substantially reduced foliage density. Additionally, this tree has a moderate level of decay and history of branch failure.
83	*Eucalyptus camaldulensis*	Regulated	High	8.16 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.
84	*Eucalyptus camaldulensis*	Regulated	High	7.92 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. The trunk has a noticeable lean impacting on the form and aesthetic value of the tree.

Item 1.1.1 - Attachment 10 - Code Amendment attach D4 - landscape

City of Salisbury – Drainage Review

Ryans Road Land Parcel - Drainage Review (Version 2)

David Pezzaniti, Senior Stormwater Engineer.

Date: 1st November, 2021.

Drainage system

The Ryans Road land parcel consists of drainage infrastructure that manages a significant catchment area of approximately 120 Ha. Drainage infrastructure on the site consists of reinforced concrete pipes, junction boxes and an open earth channel (see Figure 1). The open earth channel is 2.5m deep, existing between and opposite to McDonald road and Rosalie Terrace. A past drainage drawing (see Figure 2) for the site indicates a 750mm RCP previously existed where the open earth channel is located, suggesting that the purpose of the channel was to provide a hydraulic relief during extreme storm events. The recently produced Q100 flood maps (see Figure 3) show that the open earth channel does surcharge stormwater to the surrounding land. The map also shows several residential properties on the other side of Ryans Road are inundated by stormwater. The total volume of stormwater above the surface at these locations is estimated to be 850 m^3.

Stormwater management requirements

Should the land parcel be elevated and/or the open channel be replaced with a pipe, storage of 850m^3 will be required below a level of RL 5.9. The storage can be located anywhere on the parcel of land, provided a suitable connection between the pipe and storage exists during a surcharge event. Should the open channel be replaced with a pipe it is recommended the pipe should be 900mm RCP or greater. Development of the land will still need to satisfy conditions set by Council's Development Services.

Easement width

The minimum width of an easement is typically 3m for 'shallow' pipe systems. For deeper systems (i.e. greater than 1.5m) such as those at Ryan Road, the width should be at least twice the distance of depth to the pipe invert (from the surface) plus the width of the pipe. For the open channel, a minimum width of 3 meters along one side will be required for Council maintenance vehicle access and one metre on the other side for maintenance staff access. Based on the pipe size, pipe invert, and surface level, the minimum width for the easements are:

- 300mm RCP: 4.3m
- 450mm RCP: 4.5m
- 525mm RCP: 4.6m
- 1200mm RCP: 5.2m
- Open earth channel: 6+1+3 = 10m

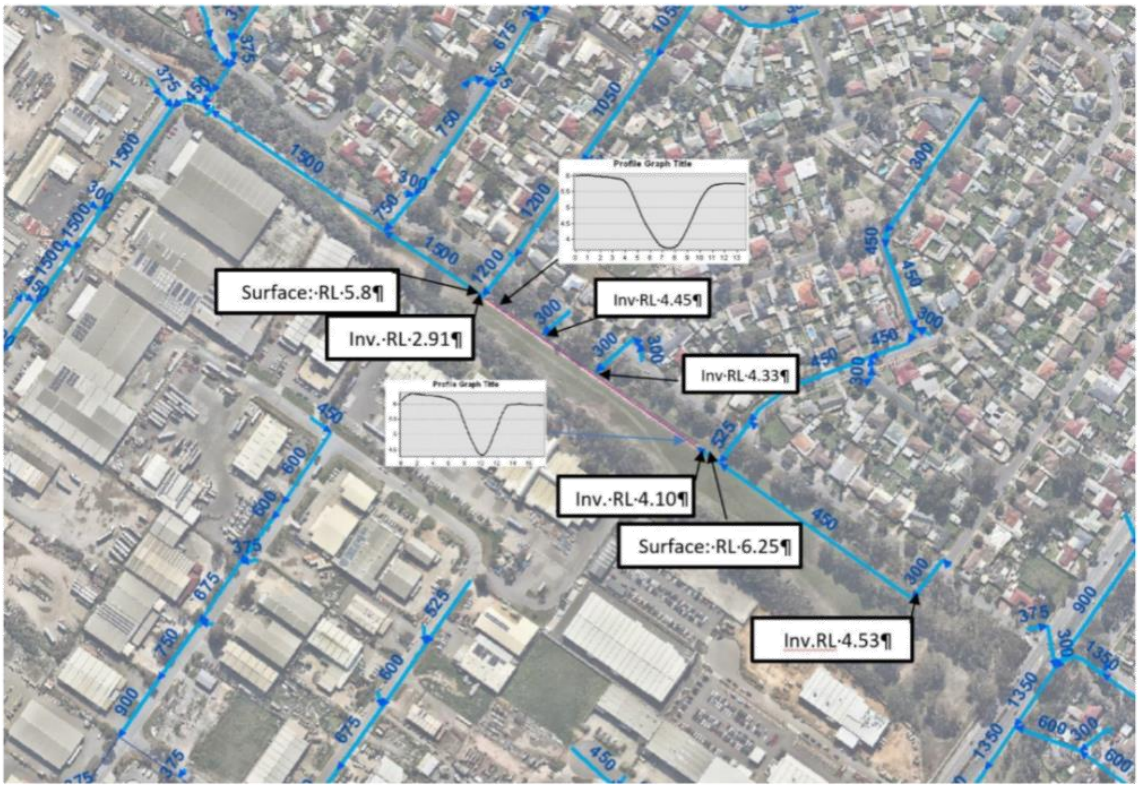


Figure 1: Drainage system at Ryans Rd land parcel

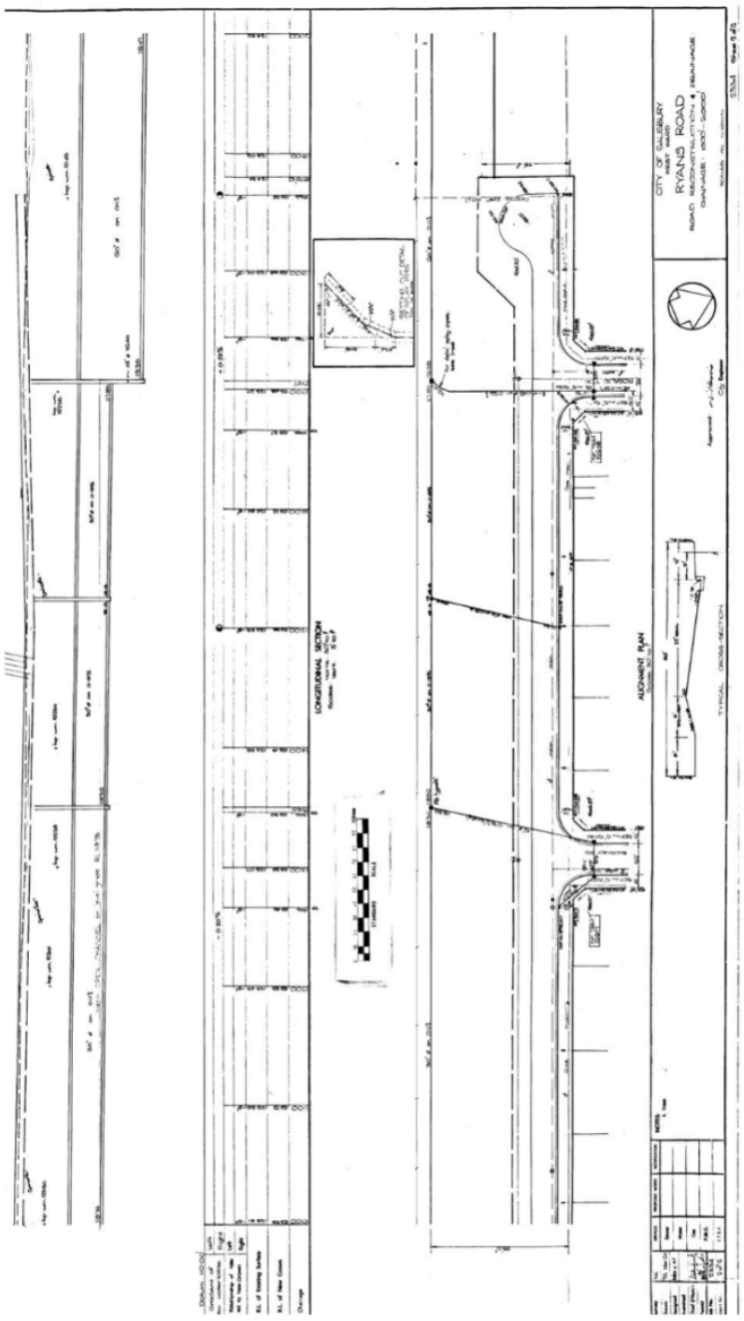


Figure 2: Design drainage system for Ryans Rd land parcel (1964)



Figure 3: Flood map for Ryans Road land region

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

GREENCAP
Going Further in Managing Risk

12 Greenhill Road
Wayville SA 5034
Australia

PRELIMINARY SITE INVESTIGATION

November 2021
J175012

City of Salisbury

Corner Ryans Road & Salisbury Highway, Greenfields

greencap.com.au

ABN 76 006 318 010

GREENCAP
Going Further in Managing Risk

Statements of Limitation

All and any Services proposed by Greencap to the Client were subject to the Terms and Conditions listed on the Greencap website at: https://www.greencap.com.au/terms-conditions Unless otherwise expressly agreed to in writing and signed by Greencap, Greencap does not agree to any alternative terms or variation of these terms if subsequently proposed by the Client. The Services were carried out in accordance with the current and relevant industry standards of testing, interpretation and analysis. The Services were carried out in accordance with Commonwealth, State, Territory or Government legislation, regulations and/or guidelines. The Client was deemed to have accepted these Terms when the Client signed the Proposal (where indicated) or when the Company commenced the Services at the request (written or otherwise) of the Client.

The services were carried out for the Specific Purpose, outlined in the body of the Proposal. To the fullest extent permitted by law, Greencap, its related bodies corporate, its officers, consultants, employees and agents assume no liability, and will not be liable to any person, or in relation to, any losses, damages, costs or expenses, and whether arising in contract, tort including negligence, under statute, in equity or otherwise, arising out of, or in connection with, any matter outside the Specific Purpose.

The Client acknowledged and agreed that proposed investigations were to rely on information provided to Greencap by the Client or other third parties. Greencap made no representation or warranty regarding the completeness or accuracy of any descriptions or conclusions based on information supplied to it by the Client, its employees or other third parties during provision of the Services. Under no circumstances shall Greencap have any liability for, or in relation to, any work, reports, information, plans, designs, or specifications supplied or prepared by any third party, including any third party recommended by Greencap. The Client releases and indemnifies Greencap from and against all Claims arising from errors, omissions or inaccuracies in documents or other information provided to Greencap by the Client, its employees or other third parties.

The Client was to ensure that Greencap had access to all information, sites and buildings as required by or necessary for Greencap to undertake the Services. Notwithstanding any other provision in these Terms, Greencap will have no liability to the Client or any third party to the extent that the performance of the Services was not able to be undertaken (in whole or in part) due to access to any relevant sites or buildings being prevented or delayed due to the Client or their respective employees or contractors expressing safety or health concerns associated with such access.

Unless otherwise expressly agreed to in writing and signed by Greencap, Greencap, its related bodies corporate, its officers, employees and agents assume no liability and will not be liable for lost profit, revenue, production, contract, opportunity, loss arising from business interruption or delay, indirect or consequential loss or loss to the extent caused or contributed to by the Client or third parties, suffered or incurred arising out of or in connection with our Proposals, Reports, the Project or the Agreement. In the event Greencap is found by a Court or Tribunal to be liable to the Client for any loss or damage arising in connection with the Services, the Client's entitlement to recover damages from Greencap shall be reduced by such amount as reflects the extent to which any act, default, omission or negligence of the Client, or any third party, caused or contributed to such loss or damage. Unless otherwise agreed in writing and signed by both parties, Greencap's total aggregate liability will not exceed the total consulting fees paid by the client in relation to this Proposal. For further detail, see Greencap's Terms and Conditions available at https://www.greencap.com.au/terms-conditions

The Report is provided for the exclusive use of the Client and for this Project only, in accordance with the Scope and Specific Purpose as outlined in the Agreement, and only those third parties who have been authorized in writing by Greencap. It should not be used for other purposes, other projects or by a third party unless otherwise agreed and authorized in writing by Greencap. Any person relying upon this Report beyond its exclusive use and Specific Purpose, and without the express written consent of Greencap, does so entirely at their own risk and without recourse to Greencap for any loss, liability or damage. To the extent permitted by law, Greencap assumes no responsibility for any loss, liability, damage, costs or expenses arising from interpretations or conclusions made by others, or use of the Report by a third party. Except as specifically agreed by Greencap in writing, it does not authorize the use of this Report by any third party. It is the responsibility of third parties to independently make inquiries or seek advice in relation to their particular requirements and proposed use of the site.

The conclusions, or data referred to in this Report, should not be used as part of a specification for a project without review and written agreement by Greencap. This Report has been written as advice and opinion, rather than with the purpose of specifying instructions for design or redevelopment. Greencap does not purport to recommend or induce a decision to make (or not make) any purchase, disposal, investment, divestment, financial commitment or otherwise in relation to the site it investigated.

This Report should be read in whole and should not be copied in part or altered. The Report as a whole set outs the findings of the investigations. No responsibility is accepted by Greencap for use of parts of the Report in the absence (or out of context) of the balance of the Report.

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

Document Control

Document Quality Management Details		
Report Name:	Preliminary Site Investigation	
Site Details:	Corner Ryans Road & Salisbury Highway, Greenfields	
Project Number:	J175012	
Client Name:	City of Salisbury	
Signatures:	Prepared By:  **Isaac Axford** Environmental Consultant	Authorised By:  **Andrew Durand** Principal Environmental Engineer

Issue Status

Version No.	Status	Date	Author	Reviewer
0	Draft	October 2021	Isaac Axford	Peter Spiers
1	Final	November 2021	Isaac Axford	Peter Spiers

Document Circulation

Version	Type	Issued to:
0	Digital	City of Salisbury
1	Digital	City of Salisbury

greencap.com.au

Adelaide | Auckland | Brisbane | Canberra | Darwin | Melbourne | Newcastle | Perth | Sydney | Wollongong

EXECUTIVE SUMMARY

Greencap Pty Ltd was commissioned by the City of Salisbury to undertake a Preliminary Site Investigation for the site located at corner of Ryans Road and Salisbury Highway, South Australia. The objective was to assess the potential for site contamination issues in terms of the possible sale of the site re development for a range of potential land uses.

The available historical information indicates that up until at least the late 1960s most of the site was likely used for broad acre farming purposes except for the northern strip of land which appears to have been a road. While there are some questions around the ownership of some portions of the land, in the 1960s at least some of the site appears to have been owned by the City of Salisbury and by the mid-1980s all the land was under the same ownership. The road in the northern portion of the site appears to have been realigned by the late 1970s. Since this time, the site has remained largely vacant, but there is evidence of some activities onsite including the construction of a stormwater swale and other underground services and dumping of fill and other waste materials (construction and demolition waste), possibly illegally.

The identified activities of interest associated with past and present site uses include the use of pesticides, herbicides and fertilisers for broadacre farming purposes or general maintenance, illegal dumping (including soil and construction waste, with some fragments of asbestos identified) and historical use of fill from unknown sources.

Several activities of interest were also identified on adjacent properties during the historical review, including a plastic moulding and manufacturing facility and chemical/oil storage on adjacent the site to the south / south west and a service station approximately 80m south of the site.

The preliminary site investigation has identified that site contamination may exist as a result of activities on the site and adjacent land. Generally, the risk of significant contamination associated with onsite activities classed under the State Planning Commission's Practice Direction 14 is considered low. The presence of fill and other waste (including asbestos) on the site warrants further consideration in terms of any proposed site redevelopment.

Preliminary Site Investigation

City of Salisbury

Corner Ryans Road and Salisbury Highway, Greenfields SA

Table of Contents

EXECUTIVE SUMMARY ii
1 INTRODUCTION 1
2 SITE DETAILS 2
2.1 Site Identification 2
2.2 Site Description and Current Land Use of the Site 2
2.3 Proposed Site Use and Users 4
3 SITE HISTORY 5
3.1 Historical Maps, Plans and Aerial Photographs 5
3.2 Previous Owners and occupiers of the site 7
3.3 Previous activities/uses 8
3.4 Services to the property 8
3.5 Previous and present building and structures 8
3.6 Industrial processes carried out on site and the products manufactured 8
3.7 Chemical storage and transfer areas 8
3.8 Raw Materials Used 8
3.9 Products spills, losses, incidents, and accidents (including fire) 8
3.10 Government Searches 8
3.11 Discharges to land and water 9
3.12 Wastes Produced 9
3.13 Power generation 9
3.14 Waste disposal and imported fill 10
3.15 Earthmoving activities carried out on the site 10
3.16 Sources of information 10
4 ENVIRONMENTAL SETTING 11
4.1 Geology 11
4.2 Hydrogeology 11
5 SITE INSPECTION 12
6 SUMMARY OF POTENTIALLY CONTAMINATING ACTIVITIES 18
7 CONCEPTUAL SITE MODEL 20
7.1 Potentially Contaminating Activities 20
7.2 Potential Receptors 20
7.3 Potential Exposure Pathways 20
7.4 Source-Pathway-Receptor Linkages 21
8 CONCLUSIONS 22

Appendix A Certificate of Title I
Appendix B Lotsearch Report (Maps, Aerial, Historic Business Records, Etc) II
Appendix C Historic Certificates of Title III
Appendix D EPA Section 7 Response IV

Report Figures

Figure 1: Site Location 1
Figure 2: Aerial image showing site and surrounds 3

Report Tables

Table 1: Site Details 2
Table 2: Site Description 2
Table 3: Summary of Aerial Photograph Observations 5
Table 4: Site Inspection Observations 12
Table 5: Details of Potentially Contaminating Activities 18

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

1 INTRODUCTION

Greencap Pty Ltd (Greencap) was commissioned by the City of Salisbury to undertake a Preliminary Site Investigation (PSI) for the site located at the corner of Ryans Road and Salisbury Highway, Greenfields. The approximate location of the site is presented in Figure 1.



Figure 1: Site Location

Greencap understands the site is to be placed on the market for sale and an environmental investigation was requested such that information could be included as part of the sale documentation. The future use of the site is not known but based on the zoning, a range of potential development options may be considered by a potential purchaser.

The objective of the investigation was to provide an assessment of whether site contamination exists, may exist or is unlikely to exist in the context of various potential development options, including residential.

The scope of the PSI has comprised:

- A desktop study to identify site characteristics - site location, site layout, building construction, geological and the hydrogeological setting.
- A site history - identifying historical owners/operators/occupiers, land uses and activities.
- A site inspection - to validate anecdotal evidence or historical information and to identify additional evidence of potential site contamination.

This PSI has been prepared with reference to industry standards and guidelines including the National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) (NEPM), SA EPA publication 'Guidelines for the assessment and remediation of site contamination', as revised November 2019 and Australian Standard 'Guide to the investigation and sampling of potentially contaminated soil'; AS4482.1-2005.

2 SITE DETAILS

2.1 Site Identification

The site details are summarised in Table 1. A copy of the Certificate of Title and South Australian Property and Planning Atlas report is presented in Appendix A.

Table 1: Site Details

Item	Details
Certificate of Title and allotment details	CT 6214/652 – Allotment 1001, Deposited Plan 119186 in the Areas named Green Fields and Parafield Gardens, Hundred of Yatala
Address	Corner of Ryans Road & Salisbury Highway, Greenfields
Owner	City of Salisbury
Municipality	City of Salisbury
Zoning	Employment, General Neighbourhood and Strategic Employment

2.2 Site Description and Current Land Use of the Site

A site inspection was conducted by an experienced Greencap consultant on 30 September 2021. Site details including the land use and that of neighbouring properties are presented in Table 2. A recent aerial image of the site (September 2021) is presented in Figure 2 and a series of photographs taken during the site inspection follow. Additional photographs are presented in Section 5.

Table 2: Site Description

Item	Detail
Current use of the site	Undeveloped publicly accessible vacant land
Proposed use of the site	Unknown
Site Occupier	Vacant
Site area (approximate)	5.066 hectares
Site Description	The site is an irregular shaped parcel of land, bordering Ryans Road to the north and Salisbury Highway to the east. Most of the site has grass and weed cover with sections of exposed gravelly fill material evident on the ground surface in some areas, particularly in the eastern portion. An unsealed access road also enters the site from Ryans Road in the north western portion of the site. A stormwater swale is present in the northern portion of the site parallel to Ryans Road. The remainder of the site is essentially vacant with some vegetated areas.
Neighbouring land uses	North – Ryans Road, beyond which are residential properties. East – Salisbury Highway, beyond which are residential properties, with the Gawler-Adelaide rail line and Parafield Gardens airstrip further to the east. South and west – Various commercial / industrial business including car dealerships, mechanics / wreckers, a service station, transport companies, plastic manufacturers, and others.



Figure 2: Aerial image showing site and surrounds



Photo 1: View looking north across the site from south eastern boundary

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment



Photo 2: View looking north west from the eastern site boundary (inferred former road)



Photo 3: View of the grassed central portion of the site

2.3 Proposed Site Use and Users

The proposed future site use is not known. As discussed in Section 1, It is understood that the client is looking to put the site on sale and the site may be developed for a range of potential uses including commercial and industrial and residential.

3 SITE HISTORY

The history of the site has been researched to identify characteristics including the environmental setting, historic activities, and current uses of the site. A property report for the site and surrounding area from a historic land use database was provided by LotSearch Pty Ltd. This report, which is included in Appendix B, provides the supporting information for much of the discussion in this section and should be referred to where relevant.

3.1 Historical Maps, Plans and Aerial Photographs

The approximate location of the site is indicated on a series of plans dating back to 1896, provided Appendix B. These plans appear to indicate that the alignment of the present day Ryans Road originally ran along the northern boundary of the site.

In the earliest plan, the site is shown on portions of three former allotments (2248, 2247, 2261). There are no other significant features evident within a 1km radius of the site on earlier plans. The 1937 plan shows the land to the south of the site as marshland, or similar based on the features shown. The 1982 plan indicates the presence of glasshouses to the north of the site.

Aerial Photographs

Aerial photographs of the site dating from 1935 in approximate 5 to 10-year intervals have been reviewed by Greencap. Copies of the aerial photographs viewed are presented in Appendix B. A summary of the observations made from these photographs is provided in Table 3.

Table 3: Summary of Aerial Photograph Observations

Year	Observations
1935	The image shows a road along the northern portion of the site, consistent with the historical plan referenced above. This suggests the present-day Ryans Road was previously located south of its current location. A line of trees is visible along the southern boundary of this road in the eastern and western portions of the site. The balance of the site appears to be part of two larger parcels of land, used for broadacre farming purposes. The surrounding areas appear to also be used for broad acre farming purposes, with no significant features evident. To the south of the site, there is some evidence of low-lying ground with possible water evident on the ground surface and the potential indication of marshy ground.
1949	There are no significant changes evident to the site since the 1935 aerial photograph, except for additional vegetation along the road in the northern portion of the site. The road also appears less defined that in the 1935 image. There are also no significant changes evident on surrounding properties.
1959	There are no significant changes evident on the site or surrounding properties since the 1949 image.
1968	There is evidence that that road in the northern portion of the site has been re-graded, or a surface cover has been imported as it is more defined than in 1959. The trees in the eastern portion of the site remain, but they have been cleared from the western portion of the site. There is a secondary linear feature evident adjacent the southern side of the road, but it is not possible to determine what this is. Residential development has commenced to the north / north east of the site. There are also some structures no evident to the south west of the site.
1979	The road that ran through the northern portion of the site has been moved north to its current position and sealed. There is some evidence of earthworks along the northern site boundary that

Year	Observations
	may be a result of the removal of the former road. The remainder of the site remains essentially vacant and still part of larger parcels of land. Development to the north of the site has continued with most of this area now appearing as residential properties. To the west of the site, commercial / industrial development appears to have commences with several structures visible on land in this area.
1989	Several new roads/tracks are visible on the site connecting Salisbury Highway and the realigned Ryans Road with a property offsite to the south being developed. Soil disturbance is evident in the western portion of the site and across the central portion of the site that may be related to this development. A cleared area inferred to be a carpark is visible on the site near Salisbury Highway. The drainage swale observed during a site inspection (refer Section 2.2) appears to have been constructed or is under construction. Other earthworks visible may also be related to drainage or similar. Commercial / industrial development has or is occurring on several of the properties to the south.
1999	There are no significant changes to the use of the site and it remains essentially vacant. There are some areas of possible disturbance or illegal dumping evident in the central portion of the site and in the western portion of the site. The eastern portion of the site still has an area apparently used for access / parking. There is one vehicle visible on the site in this portion of the site. Trees have been planted along the southern boundary. The surrounding areas continue to be developed with additional residential development to the south east and some additional commercial / industrial development to the south west. The construction of two significant buildings has been completed on the land immediately to the south.
2006	While there is no significant changes evident to the site, there are areas of disturbance evident, including a new stockpile to the west of the stormwater swale. There are also several vehicles or other items visible in the eastern portion of the site Additional development has occurred on the industrial allotments to the south-south west of the site. Various stockpiles are also visible on the empty parcel of land to the south of site. Development appears to have commenced on the land to the south east across Salisbury highway.
2011	No significant changes are evident to the site. The stockpile visible in the 2006 photograph appears to have been removed but there are additional stockpiles of soil visible closer to Ryans Road. Extensive residential development has occurred to the south east along with further commercial / industrial development to the south / south west. The stockpiles on the adjacent lot visible in the 2006 image are no longer visible, but additional stockpiles are now visible adjacent the eastern half of the southern site boundary. The present-day service station building to the south of the site has now been constructed.
2016	The are no significant changes evident on the site or surrounding properties.
2021	The site appears in its present-day layout with no features of interest other than the stormwater swale running through the middle of the site. Based on a review of nearmap imagery, in late 2020 some trees in the south eastern portion of site were removed and fill material may have been deposited on the area during development of the site immediately to the south. There are no significant changes evident on adjacent properties other than the completion of the car dealerships immediately adjacent to the south eastern boundary.

3.2 Previous Owners and occupiers of the site

Certificate of Titles Searches

A historical ownership search was conducted on the current Certificate of Title.

As discussed in Section 3.1, the site appears to have originally been part of three Allotments of Land: 2247, 2248 and 2261. The historical ownership search was not entirely clear as the parent titles do not align to the inferred parcels of land. As such, Greencap undertook additional searches based on the allotments to the south of the site (which also historically formed part of Allotments 2247 and 2261. A summary of the ownership of each allotment based on Greencap's interpretation follows:

- Lot 2247 was originally owned by William H. Neal (farmer) from 1905. The allotment appears to have changed hands in 1907 to another farmer before being owned by Rob E. Rippon (carpenter) from 1955 until 1971. The land was then purchased by Theodore Xenophou (builder) in 1971. Other owners after this time included the Sims family and the Australian Land Company Pty Ltd up until 1984, when the land appears to have been vested as a public road in the City of Salisbury.
- Lot 2248 was originally owned by Edward W. Pitts (Gentleman) from 1872. The site appears to have been transferred to the South Australian Adult Deaf and Dumb Mission, Yarafield Home for Aged and Infirm Deaf Mutes Incorporated in 1900 before being transferred to the Dayspring Development Company Limited in 1959. It appears to be around this same time that the road alignment changed, and the site was vested in the District Council of Salisbury.
- Lot 2261 was originally owned by Frederick W. Mant (sheep farmer) from the early 1900s before being transferred to George H. Ryan (chaff merchant) in 1916. The land was later passed to by Fredrick G. Ryan in 1948 up until 1969 when the land appears to have been purchased by the Corporation of the City of Salisbury for road purposes.

Copies of the historical Certificates of Title are presented as Appendix C

Historical Business Directory Searches

A search of the Universal Business Directory (UBD) and Sands and McDougall South Australian Street, Trade, Professional and Municipal Directory was conducted between 1910 and 1991. This information is presented in Appendix B. There were no listings identified for the site.

Within a search radius of 150m from the site boundary, business activities of interest identified included plastic goods manufacturing and/or distributers and moulders (adjacent site to the south/south west in 1991), aquarium supplies (11m east, 1973), solid plasterers (51m east, 1973), furniture and cabinet makers and supplies (76m north west, 1991), scrap metal merchants (132m west, 1984), building contractors (141m west, 1991), flour millers/merchants (141m west, 1991) and transport and freight services (145m west, 1991.

In a broader search radius (500m) for dry cleaners, motor garages or service stations, there were no listings from the historical business directories.

There were also several road matchings for Salisbury Highway, with no listed address for a variety of businesses (including service stations and garages), but it is difficult to determine many of their locations due to the length of the Salisbury Highway. Based on aerial imagery, there does not appear to be any sites obviously used for service stations or similar in the 1960s and 1970s. Further detail on current and EPA licensed service stations is provided in Section 3.10.

Along Ryans Road there was a garage and pre-fab building manufacturer/distributer (1991), while on George Street there were roofing and fencing manufacturer/distribution (1991), tank makers (1984), insulation, roofing and cold storage contractors (1984).

3.3 Previous activities/uses

Prior to between 1979 - 1989, aerial imagery shows the site as part of larger parcels of essentially vacant land which appears to have been used primarily for broad acre farming or grazing purposes. The 1989 aerial imagery suggests areas adjacent to the site (particularly in the south and west) had been redeveloped for commercial/industrial purposes.

3.4 Services to the property

During the site walkover, underground services noted to be located on or adjacent the site included telecom, gas, electricity (above and below ground) and stormwater. A search of Location SA (https://location.sa.gov.au/viewer/) indicates that services and utilities running through the site (particularly in the far north, west and east) include water mains, SAPN high voltage overhead lines, SAPN transmission and high voltage underground cables.

3.5 Previous and present building and structures

There are no existing buildings located on the site. The only infrastructure on-site is the abovementioned services and their installations, a large stormwater swale and associated pipework and some other more minor earthworks, particularly in the eastern portion of the site.

3.6 Industrial processes carried out on site and the products manufactured

No evidence was found of industrial processes or manufacturing of products being undertaken at the site.

3.7 Chemical storage and transfer areas

No chemical storage areas were noted during the site inspection.

There was no evidence of any incidents/spillages identified through this investigation.

3.8 Raw Materials Used

The use, storage and/or production of raw materials on the site are unlikely based on previous site activities.

3.9 Products spills, losses, incidents, and accidents (including fire)

None identified.

3.10 Government Searches

EPA Section 7

The South Australia Environment Protection Authority (EPA) has a statutory obligation under the *Land and Business (Sale and Conveyancing) Act, 1994* to provide information relating to environment protection. As such, a search was conducted of the EPA database for information relating to the subject land in accordance with Section 7 of the *Land and Business (Sale and Conveyancing) Act, 1994*. The EPA holds records of issues associated with:

- particulars of mortgages, charges, prescribed encumbrances affecting the land; or
- particulars relating to environmental protection including:
  - environmental assessments.
  - waste depots.
  - production of certain waste; and
  - waste on land.

The search found that the EPA holds no records of the above particulars / activities being undertaken at the site. A copy of the EPA's written response is presented in Appendix D.

EPA Site Contamination Index

The EPA's on-line Site Contamination Index provides information relating to notifications and reports received by the EPA since 1 July 2009 under *the Act*. The Index provides information relating to Contamination and Audit notifications and reports that relate to specific suburbs or towns.

The notifications/reports within an approximate one-kilometre radius of the site are summarised in Appendix B. There were no notifications or reports relating directly to the site.

The nearest listing is related to a Section 83A notification, 80m to the south of the site, where the activities were listed as storage of listed substances (service station). Section 83A notifications are for notification of site contamination that affects or threatens underground water.

There is also a listing for Section 83A and 109 notifications associated with the Parafield Airport approximately 475m east. All other listings were greater than 500m from the property and not considered further.

EPA Environment Protection and Clean Up Orders

There were two listings for Environment Protection Orders within 500m of the site. One was issued for concrete production carried on without a licence (383m west), and the other issued for crushing of rock material without the correct licence (458m west).

Other Information

There are several EPA licences for properties in the vicinity of the site. Details are provided in Appendix B and these can be summarised as follows:

- A surrendered licence for the reception or storage of listed waste 68m west of the site, 8-12 George Street.
- A licence for a petrol station (and 'National Liquid Fuel Facility') is listed for 569 Salisbury Highway, approximately 80m south of site.
- A licence for chemical storage and warehousing facilities 132m west of the site, 14-18 George Street.
- A licence application for a waste recovery/waste for transport/recycling business 140m southwest of the site, 15 Watervale Drive.
- A licence issued for a waste recycling depot 195m northwest of site, 372 Martins Rd.

The other licenced listed are for properties more than 500m from the site and have not been considered further.

3.11 Discharges to land and water

None identified.

3.12 Wastes Produced

None identified.

3.13 Power generation

None identified.

3.14 Waste disposal and imported fill

There was evidence of illegal dumping activities on the site, particularly in the south eastern portion and along the northern site boundary. This type of illegal dumping is not uncommon in publicly accessible areas. Most of the rubbish and stockpiles observed appeared to be inert and there was no evidence of large chemical containers or odorous / stained soils. However, potential asbestos containing material (ACM) was also observed. This appeared in several different forms (discussed further in Section 5.

During the site inspection, the presence of fill material was observed on the site, but the landform did not suggest significant filling across the entire site.

3.15 Earthmoving activities carried out on the site

Earthmoving activities have been carried out on site, most notably the stormwater swale present in the central portion of the site and the trenching and fill works for the underground services in the east, north and west of site.

3.16 Sources of information

- South Australian Property Planning Atlas – Information on zoning, titles, and others.
- Historical Land Use Database (Lotsearch –20 September 2021) –Various data sources refer page 2 of Appendix B for full list and currency – summary as follows:
    - Department of Agriculture, Fisheries and Forestry and CSIRO –Provision of acid sulphate soil information
    - Department for Environment, Water & Natural Resources, South Australia –Provision of aerial photographs, soils and groundwater information
    - Former Department of Mines and Energy –Provision of Groundwater and Geology information
    - Department for water, land, and biodiversity conservation – Provision of Groundwater Information
    - Nearmap.com and Google Maps – provision of recent site aerial photographs and maps
    - South Australian Environment Protection Authority –Information on any known environmental issues on the site
    - South Australian Resources Information Gateway –Provision of geology and hydrogeology at the site
    - State Library of South Australia –Information on past occupancy (Sands and McDougall Information)
    - Government of South Australia Location SA Portal –Surface water information
- South Australian Environment Protection Authority – Information on any known environmental issues on the site.

4 ENVIRONMENTAL SETTING

The site is located within an area zoned Employment, General Neighbourhood, and Strategic Employment as outlined in Section 2.

The nearest potential sensitive ecological receptors identified during this preliminary investigation are surface water bodies on the eastern side of Salisbury Highway, and the George Street Wetland, southwest approximately 600m from site. The closest groundwater dependent system is a wetland located 940m south (refer Appendix B). Stormwater from site and surrounds appears to discharge to these groundwater and surface receptors, particularly the George St. wetland (from location SA – stormwater drains and nodes).

Preliminary information relating to the geology and hydrogeology is provided in the following sections.

4.1 Geology

Item	Detail
Surface Geology (DEWNR SA)	Pooraka Formation – Clay, sand and carbonate earth, silty with gravel lenses. Late Pleistocene.
Soil Units and classifications (Atlas of Australian Soils)	Rudosol - Coastal dunes and plains with some swamps: dunes of calcareous and siliceous sands, plains of various saline soils and lesser areas of brown calcareous earths.
Acid Sulphate soil potential (Australian Soil Resource Information System)	Extremely low probability of occurrence.

4.2 Hydrogeology

Details of registered groundwater bores within a 2km search radius of the site from publicly available Department for Environment and Water information are provided in Appendix B.

The groundwater aquifer that the site is located on is of Sedimentary Rocks - basins include limestone, often cavernous, sandstone, sand shale and clay

No onsite wells or drillholes are recorded. The closest offsite well with depth and standing water level information is 200m to the northwest and was drilled for unknown purposes to a depth of 9.14m with a standing water level of 2.44m. According to Location SA the standing water level for the area is 2-5m below ground level (bgl), with a total dissolved solids of 0-1500mg/L.

5 SITE INSPECTION

A site inspection was conducted on 30 September 2021 with the objective of validating anecdotal and historical information and to locate and identify additional evidence of potential contamination including:

- structures and storage areas such as underground tanks, waste pits, lagoons, hazardous materials storage, electrical transformers, hydraulic equipment, asbestos products, septic tanks, drain fields, etc; and
- obvious visual contamination indicators such as disturbed vegetation, discoloured, oily or disturbed soil and / or the presence of any odours.

A summary of the site inspection findings is presented in Table 4, and photos of selected site features noted during the inspection follow.

Table 4: Site Inspection Observations

Item	Details
Current uses of the site and surrounding land	The site is a vacant allotment, with public access. Commercial properties exist to the south and west of the site, with residential properties to the north and east.
Disturbed, coloured or stained soil	No obvious signs of stained or discoloured soils. Soils have been disturbed by trenchworks, filling, and vehicle traffic in various areas of the site.
Bare soil patches	Most of the site was covered with either grass or weeds. There are patches of bare gravelly fill, particularly in the west of the site for trenchworks and in the south western corner of site where areas may have been cleared for historical roads and tracks.
Disturbed or distressed vegetation	Weeds appear to have been sprayed over portions of the site, otherwise vegetation is in good condition.
Unusual odour	None identified.
Quality of surface water	Surface water was noted in the base of the stormwater swale. The water was observed to be dark and stagnant, with plastic and other rubbish in it and appears in generally poor quality.
Sheens on water surfaces	None identified.
Site Topography and surface water drainage	Generally flat, with a slight fall to the centre of the site. As discussed, a stormwater swale is present on the site, with other smaller drainage pathways evident on the eastern portion of the site and to the west of the main stormwater swale.
Presence and type of groundwater bores on the site and adjacent landholdings	None identified.
Conditions of building, roads, infrastructure etc.	No buildings were present onsite. Recently installed services and other infrastructure evident in the north western portion of site. the historical road (northern site boundary) and vehicle tracks overgrown and disused.

Item	Details
Presence of asbestos on the ground surface	Potential ACM was identified at several locations across the site. This generally appeared to be associated with illegal dumping activities or the presence of stockpiled material/soil.
Presence of stockpiles, fill containment areas, sumps, drains, waste disposal areas, etc.	Small stockpiles of soil and construction and demolition waste were present in several areas of the site with largest number and quantity located in the southern portion of the site. As discussed above, in several of these areas suspected ACM was identified.
Evidence of cut and fill activities	Fill material was observed across the ground surface, particularly in the southern portion of the site, where the site appears to have been raised by fill material. Fill also appears to be used around the former road along the northern site boundary. Trenching and excavations have occurred onsite and there is some evidence of fill material in these areas. A large portion of the site has no indication of cut and fill activities.
Presence and condition of chemical containers holding tanks, bunds, etc	None identified onsite. The neighbouring property to the south west had what appeared to be hydraulic oil stored in several IBC containers. These were stored on concrete and generally appeared to be in good condition.
Presence and condition of any underground storage tanks (USTs) and associated infrastructure	None identified.
Underground structures that may be associated with sub-surface contamination	None identified.
Condition of materials storage and handling facilities and any solid or liquid waste disposal areas	None identified onsite.
Any evidence of on-site spillage of dangerous goods and/or off-site migration.	None identified.

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment



Photo 4: View looking west of the stormwater swale (30 September 2021)



Photo 5: Example of a waste stockpile near the southern boundary - soils and concrete



Photo 6: Soils on top of suspected asbestos cement sheeting near the southern boundary of site



Photo 7: Potential ACM piping, northern boundary of site

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment



Photo 8: Example of potential ACM near the northern boundary



Photo 9: Example of rubbish, potential ACM and gravelly fill material (northern boundary of site)

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment



Photo 10: Chemical storage (possible hydraulic oil) offsite (southern boundary of site)

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

6 SUMMARY OF POTENTIALLY CONTAMINATING ACTIVITIES

The historical site review has revealed several potentially contaminating activities (PCAs) across the site. Table 5 details the activities of interest, associated chemicals and their persistence / mobility, potentially affected media and commentary regarding the identified PCA and 'Class' activity as defined in Practice Direction 14 - Site Contamination Assessment 2021 issued by the State Planning Commission.

Table 5: Details of Potentially Contaminating Activities

PCA and location	PCA Class	Chemicals of Interest	Potentially Affected Media	Comments regarding the PCAs
Use of pesticides, herbicides and fertilisers (including previous site use for broadacre farming or for general maintenance)	Class 3 - Agricultural activities (including horticulture)	Arsenic, OCP, OPP & herbicides (including triazines), TRH	Soil	The site appears to have been used for low intensity broadacre farming purposes. No areas of intensive application of chemicals were identified. Any impacts would likely be limited to near surface soils. Agricultural activities are specifically excluded in the Environment Protection Regulations 2009, for routine spraying, in accordance with manufacturers' instructions, of pesticides used in broadacre farming. This exclusion is considered to apply to the subject site. Since the site was developed for open space, herbicides may have been used for general weed control. Any impacts would likely be limited to near surface soils.
Illegal dumping on the site	-	Asbestos (but possibly also various other)	Soil and air	Some illegal dumping was observed at the time of Greencap's inspection. Most appeared to be predominantly inert, but fragments of asbestos containing material were present, along with other construction and demolition wastes and soil.
Historical use of fill from various unknown sources brought onto the site.	-	Heavy metals, OCPs, PAHs, TRH & BTEX	Soil	Fill material was observed across the ground surface, particularly in the southern portion of the site, where the site appears to have been raised by fill material. Fill also appears to be used around the former road along the northern site boundary. Trenching and excavations have occurred onsite and there is some evidence of fill material in these areas. Fill or soil importation is not a potentially contaminating activity for the purposes of the State Planning Commission Practice Direction 14 - Site Contamination Assessment but remains a potentially contaminating activity under the Environment Protection Regulations 2009.

BTEX = benzene, toluene, ethylbenzene, xylenes OCP = organochlorine pesticides PAH = polycyclic aromatic hydrocarbons TRH = total recoverable hydrocarbons

OPP = organophosphorus pesticides PFAS = per- and polyfluoroalkyl substances

Several activities of interest were identified on adjacent or nearby properties during the historical review:

- A property immediately south of the site is occupied by Precimax Plastics (plastic moulding and manufacturing). Operation of works for manufacture (including blending, mixing and formulation) of plastics or plastic components (excluding processing and moulding of plastics manufactured elsewhere) is considered a Class 1 activity under the Practice Direction 14. However, the nature of activities undertaken at this site are not clear based on the available information. There was also evidence of the potential storage of greater than 500 litres of chemicals/oil on one of the sites to the south / south west during the site inspection.
- A Section 83A notification exists for a service station located approximately 80 metres south of the site. Service stations are considered a Class 1 activity, noting this property is greater than 60 metres from the site (the threshold distance for Class 1 activities based on EPA advice). The nature and extent of any site contamination which triggered this notification is not known.
- A Section 83A and 109 notifications exist for the Parafield Gardens Airport located approximately 475m east of the site. 109 notifications pertain to information submitted to the EPA in relation to serious or material environmental harm. Airports are considered a class 2 activity under the Practice Direction 14 and a primary chemical of interest associated with airports are PFAS, which can migrate long distances.

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

7 CONCEPTUAL SITE MODEL

7.1 Potentially Contaminating Activities

A summary of the potentially contaminating activities, both onsite and offsite is presented in Section 6, and the reader is directed to this section for relevant information.

7.2 Potential Receptors

The site may be redeveloped for a range of potential uses, including commercial/industrial and residential. The potential human receptors identified include:

- The future occupiers of the site, site workers and visitors to the site.
- Construction / maintenance workers.
- Offsite users of extracted groundwater.

The nearest environmental receptor is the George St. wetland located 700m south of the site.

7.3 Potential Exposure Pathways

Exposure in relation to site contamination means an exposure pathway that a chemical substance takes from its source to reach a human population, such as incidental ingestion of surface soil or indoor dust, indoor and outdoor inhalation of dust, or consumption of home grown produce. Potential exposure pathways considered relevant for the site are:

Human

- Indoor inhalation of dust.
- Outdoor inhalation of dust.
- Dermal contact with shallow soil and dust.
- Incidental ingestion of shallow soil and dust.
- Ingestion of home-grown vegetables and fruit.
- Ingestion of home-grown poultry and/or eggs.
- Indoor Inhalation of vapours from soil.
- Outdoor inhalation of vapour from soil.
- Contact or ingestion of groundwater.

Ecological

- Direct contact/uptake of contaminated airborne particles, soil, sediment, surface water, surface water run-off or groundwater
- Ingestion of contaminated flora or fauna

7.4 Source-Pathway-Receptor Linkages

The only potentially contaminating activity identified (as defined in Practice Direction 14) is use of the site for agricultural activities. This is a low risk (Class 3) activity. Furthermore, agricultural activities are specifically excluded in the Environment Protection Regulations 2009, for routine spraying, in accordance with manufacturers' instructions, of pesticides used in broadacre farming which is considered the case for the subject site.

Several other on-site activities of interest were identified in the site history review, most notably the dumping and stockpiling of soil and rubbish, but these are not considered potentially contaminating activities as defined in Practice Direction 14.

Potential ACM has been identified amongst stockpiles and on the ground surface across the site but based on the extent Greencap would not consider this to be asbestos disposal undertaken in the course of a business. While further consideration may be warranted in terms of site redevelopment, this does not constitute a 'classed' potentially contaminating activity.

Some potential offsite sources of contamination were identified, including Class 1 activities were identified to have occurred on adjacent land (i.e. within 60 metres of the site).

Based on the identified activities of interest the potential for complete source-pathway-receptor linkages in terms of the proposed use of the site for residential and / or commercial purposes cannot be ruled out.

8 CONCLUSIONS

The available historical information indicates that up until at least the late 1960s most of the site was likely used for broad acre farming purposes except for the northern strip of land which appears to have been a road. While there are some questions around the ownership of some portions of the land, in the 1960s at least some of the site appears to have been owned by the City of Salisbury and by the mid-1980s all the land was under the same ownership. The road in the northern portion of the site appears to have been realigned by the late 1970s. Since this time, the site has remained largely vacant, but there is evidence of some activities onsite including the construction of a stormwater swale and other underground services and dumping of fill and other waste materials (construction and demolition waste), possibly illegally.

The identified activities of interest associated with past and present site uses include:

- Use of pesticides, herbicides and fertilisers (including previous site use for broadacre farming or for general maintenance). No specific areas of intensive application of chemicals were identified. Agricultural activities are defined as a Class 3 (low risk) potentially contaminating activity in Practice Direction 14.
- Illegal dumping has occurred on site. While most of the rubbish observed by Greencap appeared to be inert, fragments of asbestos) were identified in several portions of the site.
- Historical use of fill from various unknown sources brought onto the site for levelling purposes, service installation and road construction along with illegal dumping. Fill or soil importation is not a potentially contaminating activity for the purposes of Practice Direction 14 but remains a potentially contaminating activity under the Environment Protection Regulations 2009.

Several activities of interest were identified on adjacent properties during the historical review, including a plastic moulding and manufacturing facility adjacent the site to the south (possible Class 1 activity, but details of the activities at this site are not known), chemical/oil storage on an adjacent site to the south west and a service station approximately 80m south of the site.

The preliminary site investigation has identified that site contamination may exist as a result of activities on the site and adjacent land. Generally, the risk of significant contamination associated with onsite activities classed under the State Planning Commission's Practice Direction 14 is considered low. The presence of fill and other waste (including asbestos) on the site warrants further consideration in terms of any proposed site redevelopment.

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

Preliminary Site Investigation
City of Salisbury
Corner Ryans Road and Salisbury Highway, Greenfields SA

APPENDIX A CERTIFICATE OF TITLE

greencap.com.au
Adelaide | Auckland | Brisbane | Canberra | Darwin | Melbourne | Newcastle | Perth | Sydney | Wollongong

LAND SERVICES SA

Product	Register Search (CT 6214/652)
Date/Time	06/09/2021 01:38PM
Customer Reference	Ryans Road Reserve
Order ID	20210906007034

REAL PROPERTY ACT, 1886
South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.

Certificate of Title - Volume 6214 Folio 652

Parent Title(s) CT 6212/334

Creating Dealing(s) RTD 12968154

Title Issued 17/10/2018 **Edition** 1 **Edition Issued** 17/10/2018

Estate Type

FEE SIMPLE

Registered Proprietor

CITY OF SALISBURY
OF PO BOX 8 SALISBURY SA 5108

Description of Land

ALLOTMENT 1001 DEPOSITED PLAN 119186
IN THE AREAS NAMED GREEN FIELDS AND PARAFIELD GARDENS
HUNDRED OF YATALA

Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED G ON D119186 FOR GAS SUPPLY PURPOSES TO AUSTRALIAN GAS NETWORKS (SA) LTD. (RTD 12968154)

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED P ON D119186 FOR THE TRANSMISSION OF ELECTRICITY BY OVERHEAD CABLE TO DISTRIBUTION LESSOR CORPORATION (SUBJECT TO LEASE 8890000) (RTD 12968154)

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED S ON D119186 FOR SEWERAGE PURPOSES TO SOUTH AUSTRALIAN WATER CORPORATION (RTD 12968154)

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED U ON D119186 FOR THE TRANSMISSION OF ELECTRICITY BY UNDERGROUND CABLE TO DISTRIBUTION LESSOR CORPORATION (SUBJECT TO LEASE 8890000) (RTD 12968154)

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED W ON D119186 FOR WATER SUPPLY PURPOSES TO SOUTH AUSTRALIAN WATER CORPORATION (RTD 12968154)

Schedule of Dealings

NIL

Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL

Land Services SA Page 1 of 1

SAPPA Parcel Report

Date Created: October 20, 2021

The South Australian Property and Planning Atlas is available at the Plan SA website https://sappa.plan.sa.gov.au/



Address Details

Unit Number:	
Street Number:	
Street Name:	SALISBURY
Street Type:	HWY
Suburb:	GREEN FIELDS
Postcode:	5107

Property Details:

Council:	CITY OF SALISBURY
State Electorate:	PORT ADELAIDE (2014), PLAYFORD (2018), PLAYFORD (2022)
Federal Electorate:	PORT ADELAIDE (2013), PORT ADELAIDE (2016), MAKIN (2019)
Hundred:	YATALA
Valuation Number:	4443217207

Scale ≈ 1:4514 (on A4 page)

200 metres≈

The information provided, is not represented to be accurate, current or complete at the time of printing this report.

The Government of South Australia accepts no liability for the use of this data, or any reliance placed on it.

This report and its contents are (c) copyright Government of South Australia.

Title Reference: CT6214/652

Plan No. Parcel No.: D119186A1001

Zoning details next page

Government of South Australia
Attorney-General's Department

Zone Details

Zones

Employment (Z1501) - E

General Neighbourhood (Z2102) - GN

Strategic Employment (Z5720) - SE

Overlays

Aircraft Noise Exposure (O0301) - ANEF 20

The Aircraft Noise Exposure Overlay seeks to ensure development sensitive to aircraft noise is designed to minimise noise intrusion and provide appropriate interior acoustic amenity.

Airport Building Heights (Regulated) (O0303) - All structures over 15 metres

The Airport Building Heights (Regulated) Overlay seeks to ensure building height does not pose a hazard to the operation and safety requirements of commercial and military airfields.

Airport Building Heights (Regulated) (O0303) - All structures over 45 metres

The Airport Building Heights (Regulated) Overlay seeks to ensure building height does not pose a hazard to the operation and safety requirements of commercial and military airfields.

Affordable Housing (O0306)

The Affordable Housing Overlay seeks to ensure the integration of a range of affordable dwelling types into residential and mixed use development.

Building Near Airfields (O0601)

The Building Near Airfields Overlay seeks to ensure development does not pose a hazard to the operational and safety requirements of commercial and military airfields.

Defence Aviation Area (O1202) - All structures over 90 metres

The Defence Aviation Area Overlay seeks to ensure building height does not pose a hazard to the operational and safety requirements of Defence Aviation Areas.

Hazards (Flooding) (O2403)

The Hazards (Flooding) Overlay seeks to minimise flood hazard risk to people, property, infrastructure and the environment.

Hazards (Flooding - General) (O2414)

The Hazards (Flooding - General) Overlay seeks to minimise impacts of general flood risk through appropriate siting and design of development.

Prescribed Wells Area (O4804)

The Prescribed Wells Area Overlay seeks to ensure sustainable water use in prescribed wells areas.

Regulated and Significant Tree (O5404)

The Regulated and Significant Tree Overlay seeks to mitigate the loss of regulated trees through appropriate development and redevelopment.

Stormwater Management (O5710)

The Stormwater Management Overlay seeks to ensure new development incorporates water sensitive urban design techniques to capture and re-use stormwater.

Traffic Generating Development (O6001)

The Traffic Generating Development Overlay aims to ensure safe and efficient vehicle movement and access along urban transport routes and major urban transport routes.

Urban Transport Routes (O6301)

The Urban Transport Routes Overlay seeks to ensure safe and efficient vehicle movement and access along urban transport routes.

Urban Tree Canopy (O6302)

The Urban Tree Canopy Overlay seeks to preserve and enhance urban tree canopy through the planting of new trees and retention of existing mature trees where practicable.

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

Preliminary Site Investigation

City of Salisbury

Corner Ryans Road and Salisbury Highway, Greenfields SA

APPENDIX B LOTSEARCH REPORT (MAPS, AERIAL, HISTORIC BUSINESS RECORDS, ETC)

greencap.com.au

Adelaide | Auckland | Brisbane | Canberra | Darwin | Melbourne | Newcastle | Perth | Sydney | Wollongong

LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

Address: Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

Date: 17 Sep 2021 21:04:44

Reference: LS024313 EP

Disclaimer:
The purpose of this report is to provide an overview of some of the site history, environmental risk and planning information available, affecting an individual address or geographical area in which the property is located. It is not a substitute for an on-site inspection or review of other available reports and records. It is not intended to be, and should not be taken to be, a rating or assessment of the desirability or market value of the property or its features.
You should obtain independent advice before you make any decision based on the information within the report.
The detailed terms applicable to use of this report are set out at the end of this report.

Dataset Listing

Datasets contained within this report, detailing their source and data currency:

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
Cadastre Boundaries	PSMA Australia Limited	01/08/2021	01/08/2021	Quarterly	-	-	-	-
EPA Site Contamination Index	EPA South Australia	16/09/2021	16/09/2021	Monthly	1000	0	1	16
EPA Environmental Protection Orders	EPA South Australia	16/09/2021	16/09/2021	Monthly	1000	0	0	26
EPA Environmental Authorisations	EPA South Australia	16/09/2021	16/09/2021	Monthly	1000	0	6	32
EPA Assessment Areas	EPA South Australia	21/06/2021	21/06/2021	Quarterly	1000	0	0	0
Defence PFAS Investigation & Management Program - Investigation Sites	Department of Defence	02/08/2021	02/08/2021	Monthly	2000	0	0	0
Defence PFAS Investigation & Management Program - Management Sites	Department of Defence	02/08/2021	02/08/2021	Monthly	2000	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	06/09/2021	06/09/2021	Monthly	2000	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Department of Defence	19/08/2021	19/08/2021	Quarterly	2000	0	0	0
National Waste Management Facilities Database	Geoscience Australia	12/05/2021	07/03/2017	Annually	1000	0	0	1
EPA Collection Depots	EPA South Australia	06/09/2021	06/09/2021	Quarterly	1000	0	0	1
National Liquid Fuel Facilities	Geoscience Australia	15/02/2021	15/03/2012	Annually	1000	0	0	2
Historical Business Directories (Premise & Intersection Matches)	Hardie Grant, Sands & McDougall			Not required	150	0	11	20
Historical Business Directories (Road & Area Matches)	Hardie Grant, Sands & McDougall			Not required	150	-	18	19
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant, Sands & McDougall			Not required	500	0	0	0
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant, Sands & McDougall			Not required	500	-	3	3
Mines and Mineral Deposits	Department for Energy and Mining	29/07/2021	29/07/2021	Quarterly	1000	0	0	0
Groundwater Aquifers	Department for Environment and Water	29/03/2021	01/01/2008	Annually	1000	1	1	1
Drillholes	Department for Environment and Water	16/07/2021	02/07/2021	Quarterly	2000	0	2	328
Surface Geology 1:100,000	Department for Energy and Mining	12/07/2018	01/07/2018	As required	1000	1	1	2
Geological Linear Structures 1:100,000	Department for Energy and Mining	12/07/2018	01/07/2018	As required	1000	0	0	0
Atlas of Australian Soils	ABARES	19/05/2017	17/02/2011	As required	1000	1	1	2
Soil Types	Department for Environment and Water	12/07/2018	01/07/2009	As required	1000	1	1	1
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000	1	1	1
Acid Sulfate Soil Potential	Department for Environment and Water	30/03/2021	03/06/2016	Annually	1000	1	1	1

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
Soil Salinity - Watertable Induced	Department for Environment and Water	19/03/2021	01/07/2009	Annually	1000	1	1	1
Soil Salinity - Non-watertable	Department for Environment and Water	19/03/2021	01/07/2009	Annually	1000	1	1	1
Soil Salinity - Non-watertable (magnesia patches)	Department for Environment and Water	19/03/2021	01/07/2009	Annually	1000	1	1	1
Planning and Design Code - Zones	Department of Planning, Transport and Infrastructure	02/08/2021	01/07/2021	Monthly	1000	3	4	20
Planning and Design Code - Subzones	Department of Planning, Transport and Infrastructure	02/08/2021	19/03/2021	Monthly	1000	0	0	1
Land Use Generalised 2019	Department of Planning, Transport and Infrastructure	20/08/2020	12/08/2020	Annually	1000	3	10	16
Commonwealth Heritage List	Australian Government Department of Agriculture, Water and the Environment	18/05/2021	20/11/2019	Annually	1000	0	0	0
National Heritage List	Australian Government Department of Agriculture, Water and the Environment	18/05/2021	20/11/2019	Annually	1000	0	0	0
State Heritage Areas	Department for Environment and Water	30/03/2021	10/11/2004	Annually	1000	0	0	0
SA Heritage Places	Department for Environment and Water	29/07/2021	13/01/2021	Quarterly	1000	0	0	0
Aboriginal Land	Department for Energy and Mining	30/03/2021	08/04/2018	Annually	1000	0	0	0
Bushfire Protection Areas	Department of Planning, Transport and Infrastructure	04/09/2018	20/02/2018	Annually	1000	1	1	1
Bushfires and Prescribed Burns History	Department for Environment and Water	29/03/2021	03/02/2021	Annually	1000	0	0	0
Groundwater Dependent Ecosystems Atlas	Bureau of Meteorology	14/08/2017	15/05/2017	Annually	1000	0	0	1
Ramsar Wetland Areas	Department for Environment and Water	01/03/2021	18/02/2020	Annually	1000	0	0	0

Site Diagram

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Legend

- Site Boundary
- Internal Parcel Boundaries

Total Area: 50676m²

Total Perimeter: 1770m

Disclaimers:

Measurements are approximate only and may have been simplified or smaller lengths removed for readability.

Parcels that make up a small percentage of the total site area have not been labelled for increased legibility.

Scale:

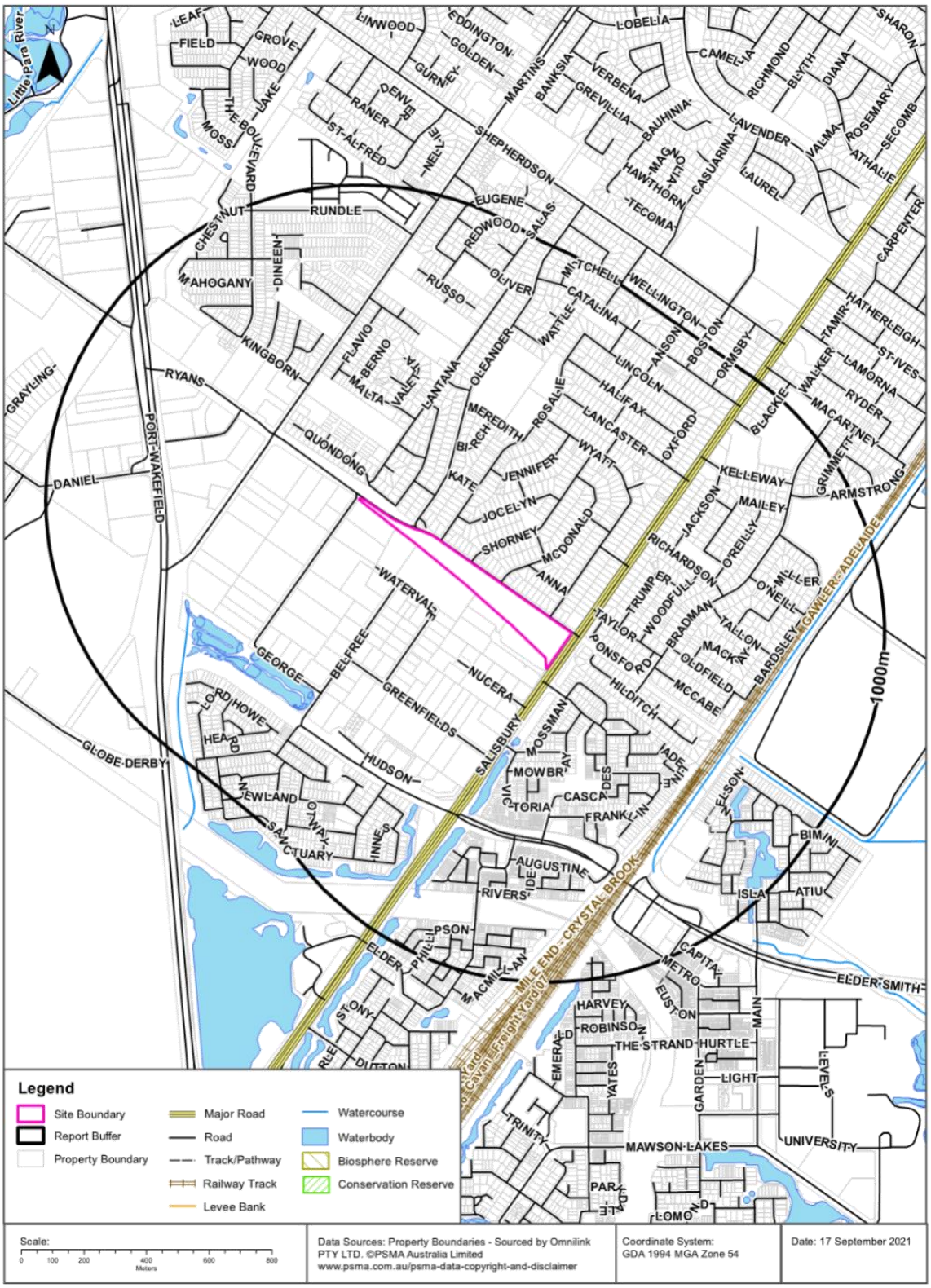
Data Sources: Aerial Imagery © Aerometrex Pty Ltd

Coordinate System: GDA 1994 MGA Zone 54

Date: 17 September 2021

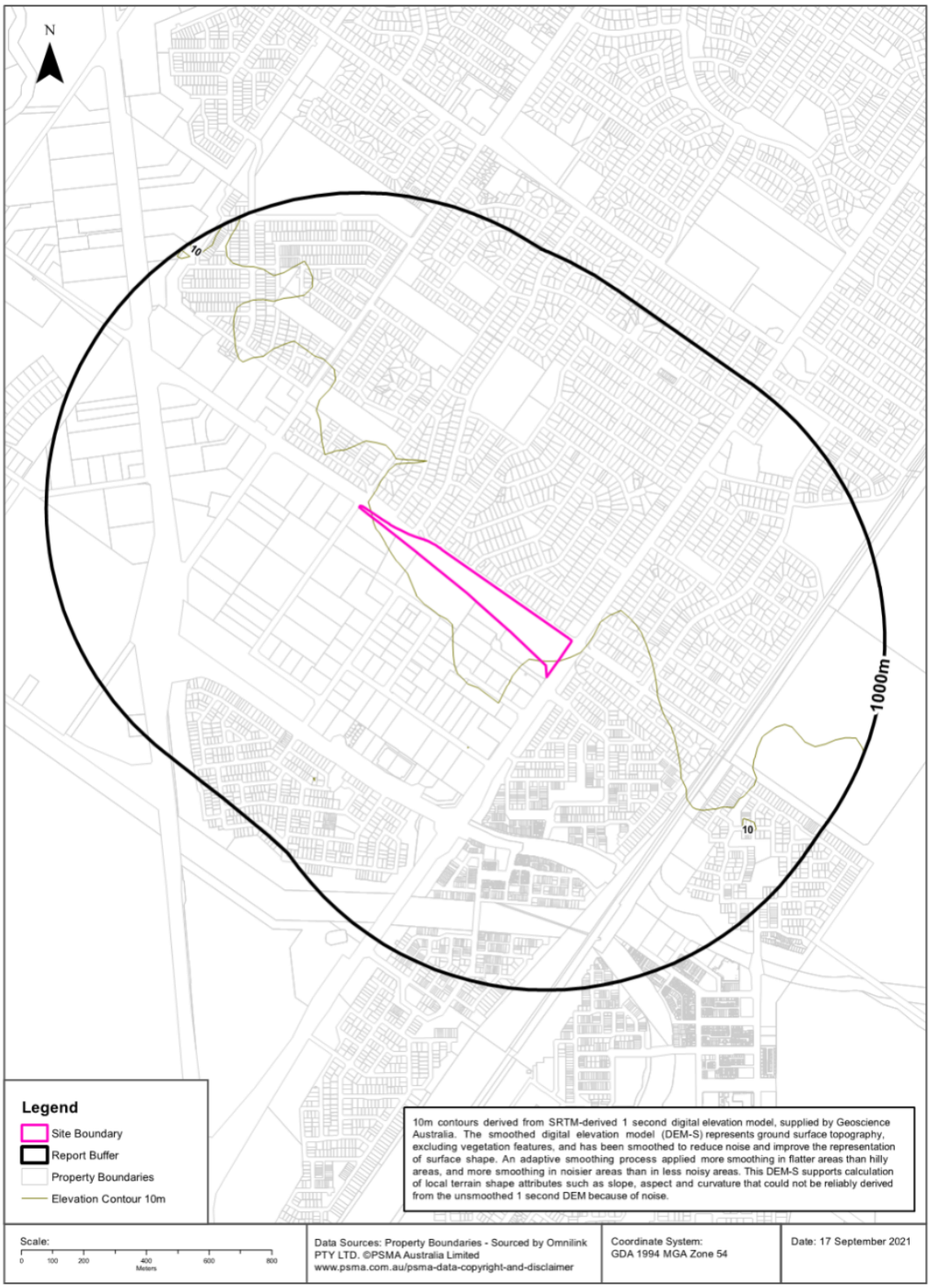
Topographic Features

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



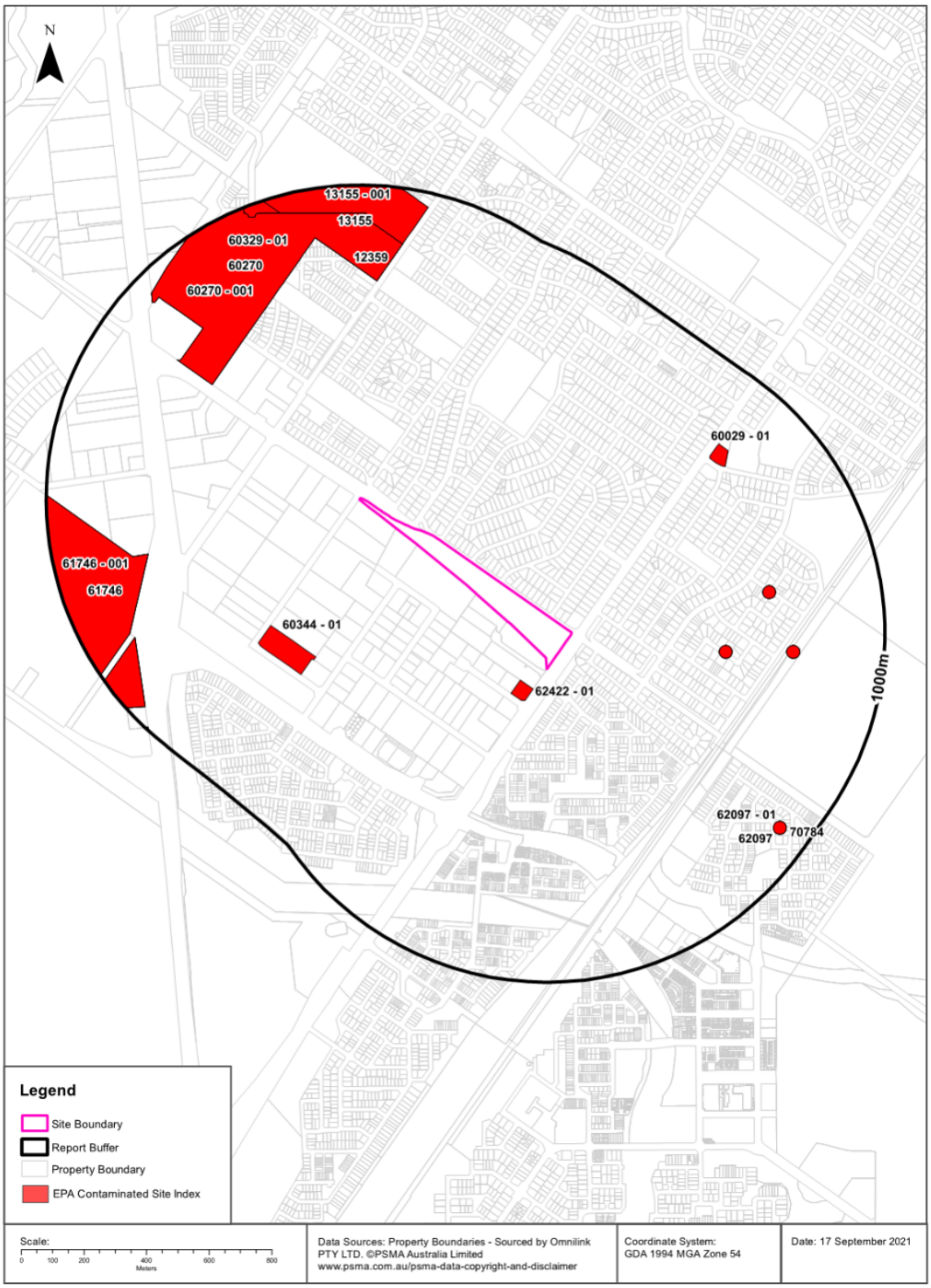
Elevation Contours

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



EPA Site Contamination Index

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



EPA Contaminated Land

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

EPA Site Contamination Index

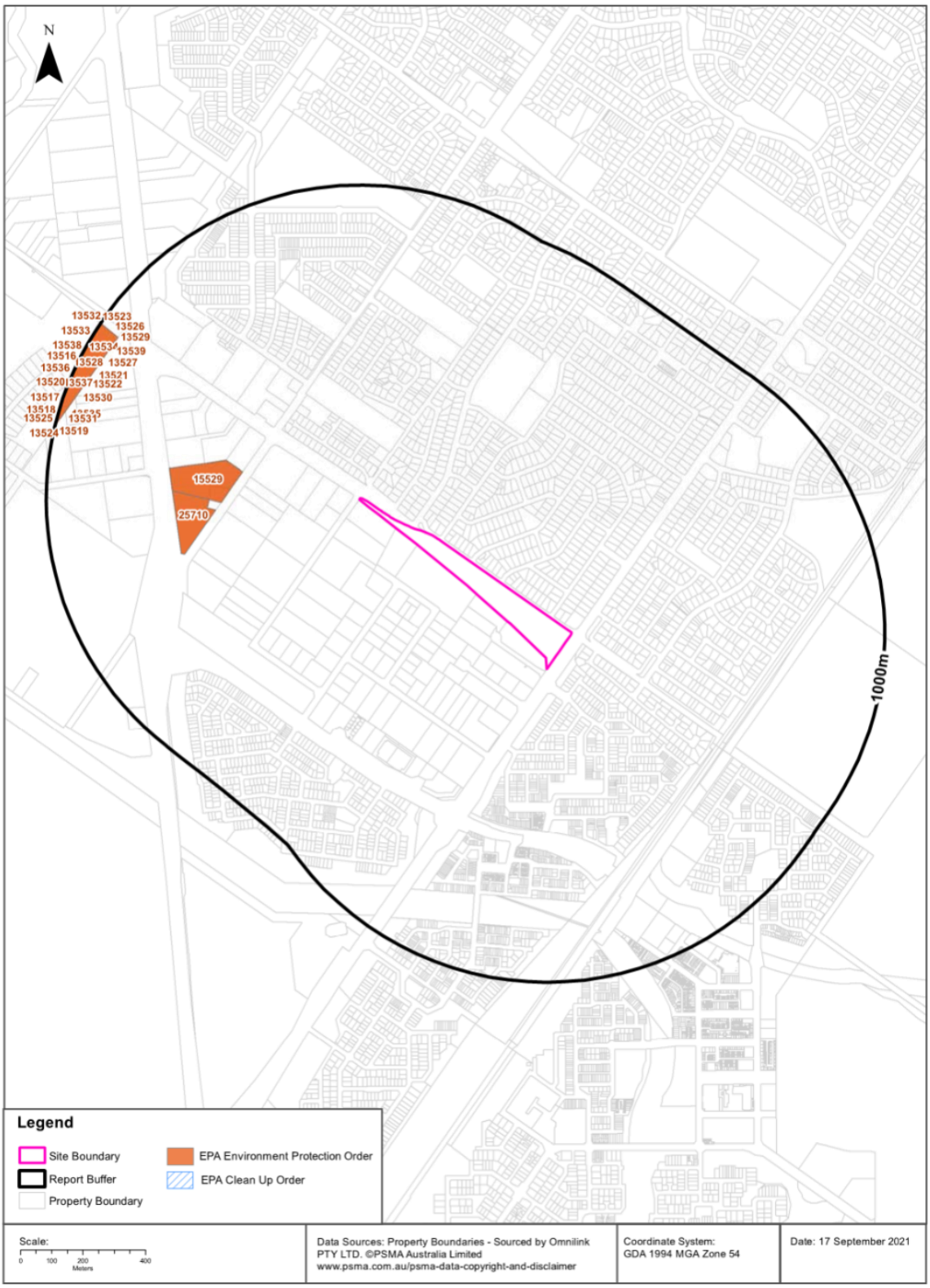
Sites on the EPA Contamination Index within the dataset buffer:

Notification No	Type	Address	Activity	Status	LocConf	Dist	Dir
62422 - 01	S83A Notification	569 Salisbury Highway GREEN FIELDS SA 5107	Listed Substances (storage); Service stations	Current EPA List	Premise Match	78m	South
70784	109 Notification	Various Off-site Monitoring Wells PARAFIELD SA 5106	Not recorded	Previous EPA List	Premise Match	475m	East
62097	109 Notification	Various Off-site Monitoring Wells PARAFIELD SA 5106	Airports, aerodromes or aerospace industry; Fire stations; Fire training areas	Current EPA List	Premise Match	475m	East
62097 - 01	S83A Notification	Various Off-site Monitoring Wells PARAFIELD SA 5106	Airports, aerodromes or aerospace industry; Fire stations; Fire training areas	Previous EPA List	Premise Match	475m	East
60344 - 01	S83A Notification	Lots 1, 2, 3 & 4 George Street GREEN FIELDS SA 5107	Abrasive blasting	Current EPA List	Premise Match	482m	West
60270	Audit Notification	692-694 & 722-726 Port Wakefield Rd, 141 & 147-149 Ryans Rd & 289-299 Martins Rd PARAFIELD GARDENS SA 5107	Not recorded	Current EPA List	Premise Match	596m	North West
60270	Audit Termination	692-694 & 722-726 Port Wakefield Rd, 141 & 147-149 Ryans Rd & 289-299 Martins Rd PARAFIELD GARDENS SA 5107	Not recorded	Current EPA List	Premise Match	596m	North West
60270 - 001	Audit Report	692-694 & 722-726 Port Wakefield Rd, 141 & 147-149 Ryans Rd & 289-299 Martins Rd PARAFIELD GARDENS SA 5107	Not recorded	Current EPA List	Premise Match	596m	North West
60329 - 01	S83A Notification	Lot 501 & 141 Ryans Road; Lot 502 Rundle Road; 692-694 & 722 Port Wakefield Rd; 289-299 Martins Road PARAFIELD GARDENS SA 5107	Not recorded	Current EPA List	Premise Match	596m	North West
12359	SAHC	289 - 299 Martins Road PARAFIELD GARDENS SA 5107	Drum reconditioning or recycling works	Current EPA List	Premise Match	696m	North
13155	Pre 1 July 2009 Audit Notification	Allotments 50 and 51 Martins Road PARAFIELD GARDENS SA 5107	Not recorded	Current EPA List	Premise Match	696m	North
13155 - 001	Pre 1 July 2009 Audit Report	Allotments 50 and 51 Martins Road PARAFIELD GARDENS SA 5107	Not recorded	Current EPA List	Premise Match	696m	North
61746	Audit Notification	WATERLOO CORNER SA 5110	Not recorded	Current EPA List	Premise Match	697m	West
61746	Audit Termination	WATERLOO CORNER SA 5110	Not recorded	Current EPA List	Premise Match	697m	West
61746 - 001	Audit Report	WATERLOO CORNER SA 5110	Not recorded	Current EPA List	Premise Match	697m	West
60029 - 01	S83A Notification	492 Salisbury Highway PARAFIELD GARDENS SA 5107	Service stations	Current EPA List	Premise Match	710m	North East

Site Contamination Index Data Source: EPA South Australia

EPA Environment Protection and Clean Up Orders

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



EPA Public Register

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

EPA Environment Protection and Clean Up Orders

EPA Environment Protection and Clean Up Orders, within the dataset buffer:

Record No.	Record Type	Record Status	Entity	Site Address	Activity	EPA Register Status	LocConf	Dist	Dir
15529	ENVIRONMENT PROTECTION ORDER	ISSUED	A.C. Knowledge Pty Ltd	Martins Road, Green Fields SA 5107	Concrete production at a level that requires licensing was carried out on the site without an environmental authorisation (licence).	Current EPA Register	Premise Match	382 m	West
25710	ENVIRONMENT PROTECTION ORDER	ISSUED	SA Demolition and Salvage Pty Ltd	Martins Road, Green Fields SA 5107	Conducted crushing operations which process an amount of rock material exceeding 1000 tonnes per year without an environmental authorisation (licence).	Current EPA Register	Premise Match	458 m	West
13532	ENVIRONMENT PROTECTION ORDER	COMPLIED		Alabar Crescent, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West
13522	ENVIRONMENT PROTECTION ORDER	COMPLIED		Grayling Avenue, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West
13539	ENVIRONMENT PROTECTION ORDER	COMPLIED		Alabar Crescent, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West
13524	ENVIRONMENT PROTECTION ORDER	COMPLIED		Grayling Avenue, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West
13529	ENVIRONMENT PROTECTION ORDER	COMPLIED		Daniel Avenue, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West
13519	ENVIRONMENT PROTECTION ORDER	COMPLIED		Grayling Avenue, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West
13536	ENVIRONMENT PROTECTION ORDER	COMPLIED		Alabar Crescent, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West
13531	ENVIRONMENT PROTECTION ORDER	COMPLIED		Alabar Crescent, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West

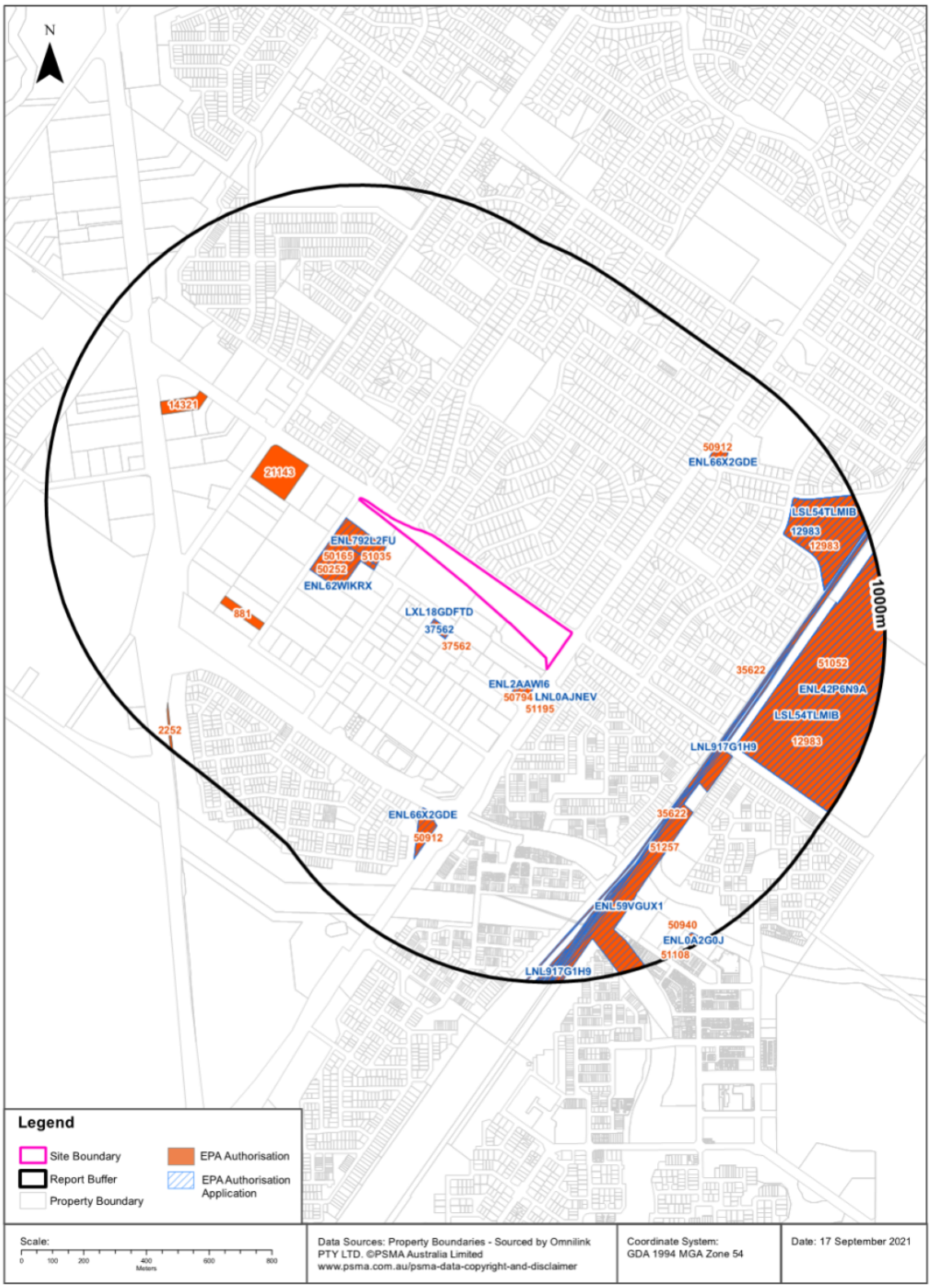
Record No.	Record Type	Record Status	Entity	Site Address	Activity	EPA Register Status	LocConf	Dist	Dir
13527	ENVIRONMENT PROTECTION ORDER	ISSUED		Daniel Avenue, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West
13520	ENVIRONMENT PROTECTION ORDER	COMPLIED		Grayling Avenue, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West
13538	ENVIRONMENT PROTECTION ORDER	REVOKED		Alabar Crescent, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West
13521	ENVIRONMENT PROTECTION ORDER	COMPLIED		Grayling Avenue, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West
13518	ENVIRONMENT PROTECTION ORDER	COMPLIED		Grayling Avenue, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West
13535	ENVIRONMENT PROTECTION ORDER	COMPLIED		Alabar Crescent, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West
13533	ENVIRONMENT PROTECTION ORDER	ISSUED		Alabar Crescent, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West
13537	ENVIRONMENT PROTECTION ORDER	COMPLIED		Alabar Crescent, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West
13530	ENVIRONMENT PROTECTION ORDER	COMPLIED		Daniel Avenue, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West
13528	ENVIRONMENT PROTECTION ORDER	ISSUED		Daniel Avenue, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West
13525	ENVIRONMENT PROTECTION ORDER	ISSUED		Daniel Avenue, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West
13526	ENVIRONMENT PROTECTION ORDER	ISSUED		Daniel Avenue, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West
13523	ENVIRONMENT PROTECTION ORDER	ISSUED		Grayling Avenue, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West

Record No.	Record Type	Record Status	Entity	Site Address	Activity	EPA Register Status	LocConf	Dist	Dir
13534	ENVIRONMENT PROTECTION ORDER	COMPLIED		Alabar Crescent, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West
13516	ENVIRONMENT PROTECTION ORDER	REVOKED		Globe Derby Park SA 5110	Caused horse manure and stable litter to be stockpiled or stored on the site without protection from rain and surface water run-off.	Current EPA Register	Premise Match	927 m	North West
13517	ENVIRONMENT PROTECTION ORDER	COMPLIED		Grayling Avenue, Globe Derby Park SA 5110	Failed to comply with the general environmental duty outlined in the Environment Protection Act 1993.	Current EPA Register	Premise Match	927 m	North West

Authorisations Data Source: EPA South Australia

EPA Authorisations and Applications

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



EPA Public Register

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

EPA Authorisations and Applications

EPA Authorisations and Authorisation Applications within the dataset buffer:

Record No.	Record Type	Record Status	Entity	Site Address	Activity	EPA Register Status	LocConf	Dist	Dir
51035	LICENCE	Surrendered	NBN CO LIMITED	8-12 George Street, GREEN FIELDS SA 5107	Reception or storage of listed waste	Current EPA Register	Premise Match	68m	West
ENL792L2FU	LICENCE APPLICATION	Authorisation Updated	NBN CO LIMITED	8-12 George Street, GREEN FIELDS SA 5107	Reception or storage of listed waste	Current EPA Register	Premise Match	68m	West
50794	LICENCE	Issued	EG FUELCO (AUSTRALIA) LIMITED	569 Salisbury Highway, GREEN FIELDS SA 5107	Petrol stations	Current EPA Register	Premise Match	78m	South
51195	LICENCE	Issued	ANDRASH GREENFIELDS PTY LTD	569 Salisbury Highway, GREEN FIELDS SA 5107	Petrol stations	Current EPA Register	Premise Match	78m	South
ENL2AAWI6	LICENCE APPLICATION	Authorisation Updated	EG FUELCO (AUSTRALIA) LIMITED	569 Salisbury Highway, GREEN FIELDS SA 5107	Petrol stations	Current EPA Register	Premise Match	78m	South
LNL0AJNEV	LICENCE APPLICATION	Authorisation Updated	ANDRASH GREENFIELDS PTY LTD	569 Salisbury Highway, GREEN FIELDS SA 5107	Petrol stations	Current EPA Register	Premise Match	78m	South
50165	LICENCE	Transferred	W. & S. MCNEILL & SONS PTY. LTD.	14-18 George Street, GREEN FIELDS SA 5107	Chemical storage and warehousing facilities	Current EPA Register	Premise Match	132m	West
ENL62WIKRX	LICENCE APPLICATION	Proceed To Authorisation	W. & S. MCNEILL & SONS PTY. LTD.	14-18 George Street, GREEN FIELDS SA 5107	Chemical storage and warehousing facilities	Current EPA Register	Premise Match	132m	West
50252	LICENCE	Issued	FREIGHT SPECIALISTS PTY LTD	14-18 George Street, GREEN FIELDS SA 5107	Chemical storage and warehousing facilities	Current EPA Register	Premise Match	132m	West
LXL18GDFTD	LICENCE APPLICATION	Withdrawn	CLUB ASSIST PTY LTD			Current EPA Register	Premise Match	142m	South West
37562	LICENCE APPLICATION	Proceed To Authorisation	Club Assist Pty Ltd	15 Watervale Drive, Green Fields SA 5107	Waste recycling depot (waste for resource recovery or transfer),Waste transport business (category A)	Current EPA Register	Premise Match	142m	South West
37562	LICENCE	Surrendered	CLUB ASSIST PTY LTD	15 Watervale Drive Greenfields and Various Locations Throughout South Australia, SA	Recycling depot (battery recycling only)	Current EPA Register	Premise Match	142m	South West
21143	LICENCE	Issued	RICK"S RUBBISH REMOVALS PTY. LTD.	372 Martins Road, GREEN FIELDS SA 5107	Waste recycling depot (waste for resource recovery or transfer)	Current EPA Register	Premise Match	195m	North West
881	LICENCE	Issued	PLASCLEAN RECYCLERS PTY. LTD.	Allotment 26, George Street, GREEN FIELDS SA 5107	Activities producing listed wastes,Drum reconditioning works,Waste recycling depot (waste for resource recovery or transfer)	Current EPA Register	Premise Match	499m	West
35622	LICENCE	Surrendered	LAING O'ROURKE AUSTRALIA CONSTRUCTION PTY LTD	Various Locations Along The Adelaide Metropolitan Rail Network, SA	Railway operations	Current EPA Register	Network of Features	583m	South
LNL917G1H9	LICENCE APPLICATION	Authorisation Updated	BOWMANS RAIL PTY LTD	Various Locations across Inner and Outer Harbour of the Port of Adelaide	Railway operations	Current EPA Register	Network of Features	583m	South
ENL66X2GDE	LICENCE APPLICATION	Authorisation Updated	WEEROONA HOLDINGS PTY. LIMITED	603-615 Salisbury Highway, MAWSON LAKES SA 5095	Petrol stations	Current EPA Register	Premise Match	585m	South

Record No.	Record Type	Record Status	Entity	Site Address	Activity	EPA Register Status	LocConf	Dist	Dir
50912	LICENCE	Issued	WEEROONA HOLDINGS PTY. LIMITED	603-615 Salisbury Highway, MAWSON LAKES SA 5095	Petrol stations	Current EPA Register	Premise Match	585m	South
14321	LICENCE	Issued	SCOUT ASSOCIATION OF AUSTRALIA (SA BRANCH)	Allotment 74, Port Wakefield Road, GREEN FIELDS SA 5107	Waste recycling depot (waste for resource recovery or transfer)	Current EPA Register	Premise Match	586m	North West
ENL59 VGUX1	LICENCE APPLICATION	Authorisation Updated	COLEMAN RAIL PTY LTD	Mawson Lakes Drain Bridge - Rail Corridor MAWSON LAKES SA 5095	Dredging - for each day on which dredging occurs during the licence period	Current EPA Register	Premise Match	593m	South East
51257	LICENCE	Issued	COLEMAN RAIL PTY LTD	Mawson Lakes Drain Bridge - Rail Corridor MAWSON LAKES SA 5095	Dredging - for each day on which dredging occurs during the licence period	Current EPA Register	Premise Match	593m	South East
51052	LICENCE	Issued	STARK AVIATION PTY LTD	169 Anderson Drive, PARAFIELD AIRPORT SA 5106	Petrol stations	Current EPA Register	Premise Match	635m	East
LSL54T LMIB	LICENCE APPLICATION	Authorisation Updated	THE CITY OF SALISBURY			Current EPA Register	Premise Match	635m	East
ENL42 P6N9A	LICENCE APPLICATION	Authorisation Updated	STARK AVIATION PTY LTD	169 Anderson Drive, PARAFIELD AIRPORT SA 5106	Petrol stations	Current EPA Register	Premise Match	635m	East
12983	LICENCE	Issued	THE CITY OF SALISBURY	Parafield ASR Project Parafield Drainage Reserve, Adjacent Railway Station Greenfields, GREEN FIELDS, SA and Allotment 464, Bradman Road PARAFIELD GARDENS, SA	Discharge during the licence period of stormwater to underground aquifers from a stormwater drainage system situated in metropolitan Adelaide -	Current EPA Register	Premise Match	635m	East
50912	LICENCE	Issued	WEEROONA HOLDINGS PTY. LIMITED	492 Salisbury Highway, PARAFIELD GARDENS SA 5107	Petrol stations	Current EPA Register	Premise Match	710m	North East
ENL66 X2GDE	LICENCE APPLICATION	Authorisation Updated	WEEROONA HOLDINGS PTY. LIMITED	492 Salisbury Highway, PARAFIELD GARDENS SA 5107	Petrol stations	Current EPA Register	Premise Match	710m	North East
12983	LICENCE APPLICATION	Proceed To Authorisation	City of Salisbury	Allotment 464 Bradman Road, Parafield Gardens SA 5107	Discharge during the licence period of stormwater to underground aquifers from a stormwater drainage system situated in metropolitan Adelaide -	Current EPA Register	Premise Match	747m	East
2252	LICENCE	Issued	CITY OF SALISBURY	Green Fields Wetlands, Allotment 50, Salisbury Highway, MAWSON LAKES SA 5095	Discharge during the licence period of stormwater to underground aquifers from a stormwater drainage system situated in metropolitan Adelaide -	Current EPA Register	Premise Match	892m	South West
ENL0A 2G0J	LICENCE APPLICATION	Authorisation Updated	SHAHIN ENTERPRISES PTY. LTD.	7-9 Central Link, MAWSON LAKES SA 5095	Petrol stations	Current EPA Register	Premise Match	961m	South East
51108	LICENCE	Issued	ON THE RUN PTY LTD	7-9 Central Link, MAWSON LAKES SA 5095	Petrol stations	Current EPA Register	Premise Match	961m	South East
50940	LICENCE	Transferred	SHAHIN ENTERPRISES PTY. LTD.	7-9 Central Link, MAWSON LAKES SA 5095	Petrol stations	Current EPA Register	Premise Match	961m	South East

Authorisations Data Source: EPA South Australia

EPA Assessment Areas

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

EPA Assessment Areas

EPA Assessment Areas within the dataset buffer:

Map Id	Supplied Ref	Area Name	Map Link	Status	Location Confidence	Distance	Direction
N/A	No records in buffer						

Assessment Areas Data Source: EPA South Australia

PFAS Investigation and Management Programs

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

Defence PFAS Investigation and Management Program Investigation Sites

Sites being investigated by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Location Confidence	Distance	Direction
N/A	No records in buffer				

Defence PFAS Investigation and Management Program Data Source: Department of Defence, Australian Government

Defence PFAS Investigation and Management Program Management Sites

Sites being managed by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Location Confidence	Distance	Direction
N/A	No records in buffer				

Defence PFAS Investigation and Management Program Data Source: Department of Defence, Australian Government

Airservices Australia National PFAS Management Program

Sites being investigated or managed by Airservices Australia for PFAS contamination within the dataset buffer:

Map ID	Site Name	Impacts	Location Confidence	Distance	Direction
N/A	No records in buffer				

Airservices Australia National PFAS Management Program Data Custodian: Airservices Australia

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

Defence Sites

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

Defence 3 Year Regional Contamination Investigation Program

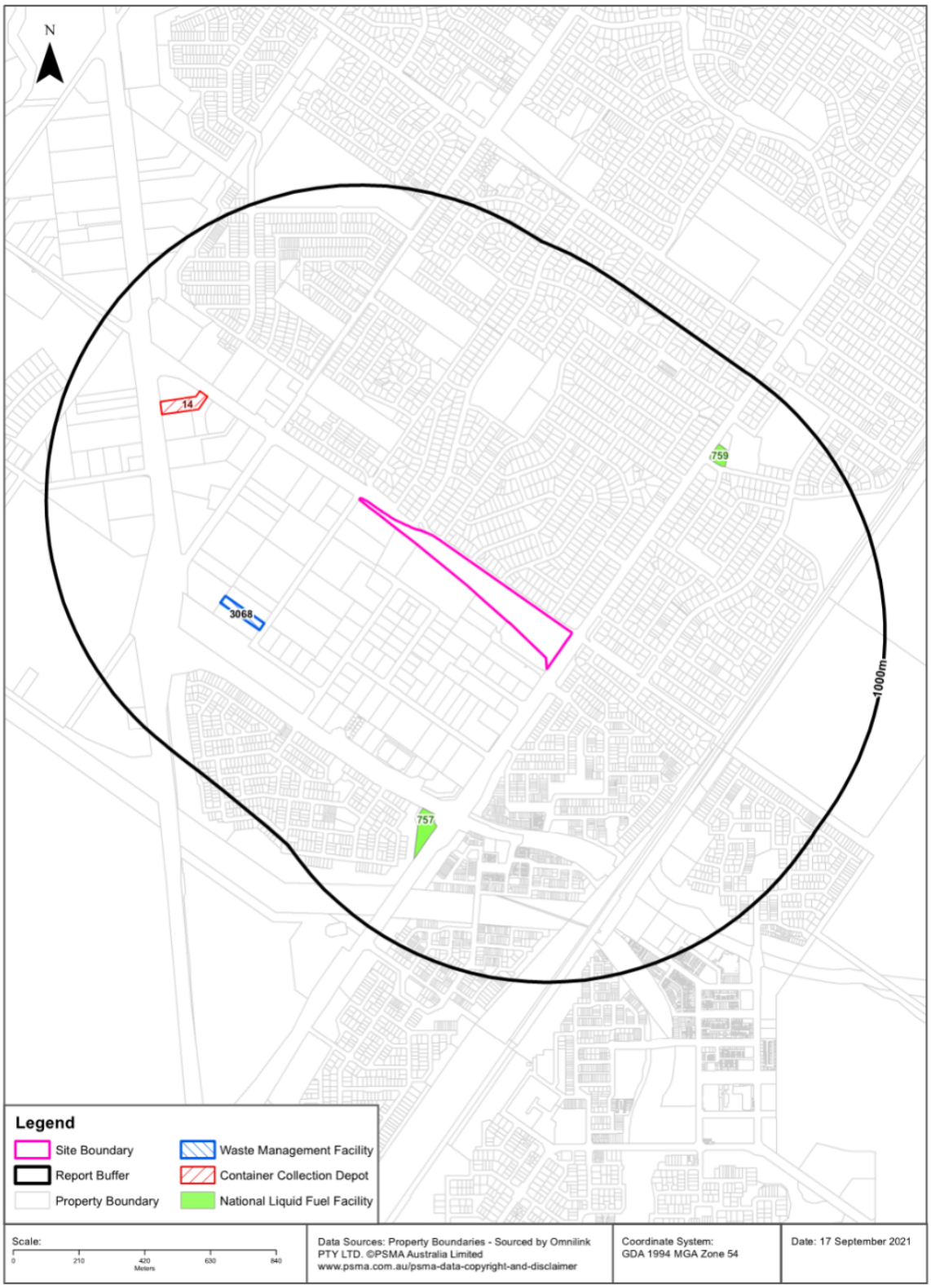
Sites which have been assessed as part of the Defence 3 Year Regional Contamination Investigation Program within the dataset buffer:

Property ID	Base Name	Address	Known Contamination	Loc Conf	Dist	Dir
N/A	No records in buffer					

Defence 3 Year Regional Contamination Investigation Program, Data Custodian: Department of Defence, Australian Government

Waste Management & Liquid Fuel Facilities

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Waste Management and Liquid Fuel Facilities

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

National Waste Management Site Database

Sites on the National Waste Management Site Database within the dataset buffer:

Site Id	Owner	Name	Address	Suburb	Class	Revised Date	Location Confidence	Distance	Direction
3068	SA Drum Recyclers Pty Ltd	SA Drum Recyclers	Lot 26 George Street	Green Fields	Reprocessing	08/04/2016	Premise Match	499m	West

Waste Management Facilities Data Source: Australian Government Geoscience Australia
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

EPA Approved Container Collection Depots

EPA approved container collection depots within the dataset buffer:

MapId	Name	Address	Suburb	Loc Conf	Distance	Direction
14	Scout Recycling Centre Green Fields	Lot 74 Port Wakefield Road	GREEN FIELDS	Premise Match	586m	North West

Collection Depot Data Source: EPA South Australia

National Liquid Fuel Facilities

National Liquid Fuel Facilties within the dataset buffer:

Map Id	Owner	Name	Address	Suburb	Class	Operational Status	Operator	Revision Date	Loc Conf	Dist (m)	Dir
757	BP	BP Mawson Lakes	603-615 Salisbury Highway	Mawson Lakes	Petrol Station	Operational		25/07/2011	Premise Match	585m	South
759	BP	BP Parafield Gardens	492 Salisbury Highway	Parafield Gardens	Petrol Station	Operational		25/07/2011	Premise Match	710m	North East

National Liquid Fuel Facilities Data Source: Geoscience Australia
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Historical Business Directories

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Historical Business Directories

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

Business Directory Records 1910-1991
Premise or Road Intersection Matches

Universal Business Directory and Sands & McDougall Directory records, from years 1991, 1984, 1973, 1965, 1955, 1950, 1940, 1930, 1920 & 1910, mapped to a premise or road intersection within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection (m)	Direction
1	Plastic Goods Mfrs &/or Imps &/or Dists	Precimax Tolling Plastics Pty. Ltd., 37 Watervale Dr., Green Fields. 5107.	30672	1991	Premise Match	0m	North West
	Plastic Moulders	Precimax Tolling Plastics Pty. Ltd., 37 Watervale Dr., Green Fields. 5107.	30744	1991	Premise Match	0m	North West
2	AQUARIUMS & SUPPLIES	Betta Aquariums 19 Ryans rd Parafield Gdns	16131	1973	Premise Match	11m	East
3	SOLID PLASTERERS	Pelle G 12 Anna st Parafield Gardens	38305	1973	Premise Match	51m	East
4	SOLID PLASTERERS	Saraullo A 10 Anna st Paraflield Gardens	38869	1973	Premise Match	51m	East
5	Chair Mfrs &/or Dists	D.C. & M. Products, 5 George St., Green Fields. 5107.	40458	1991	Premise Match	76m	North West
	Furniture &/or Cabinet Makers Supplies	D.C. & M. Products., 5 George St., Green Fields. 5107	22069	1991	Premise Match	76m	North West
	Furniture Mfrs &/or W/salers - Dining Room	D.C. & M. Products., 5 George St., Green Fields. 5107	22326	1991	Premise Match	76m	North West
	Furniture Mfrs &/or W/salers - Dining Room	D.C. & M. PRODUCTS., 5 George Street, Green Fields 5107	22321	1991	Premise Match	76m	North West
	Furniture Mfrs &/or W/salers - General	Ery-Rest Recliners., 5 George St., Green Fields. 5107.	22383	1991	Premise Match	76m	North West
	Furniture Mfrs &/Or W/salers- Hospital	Ezy-Rest Recliners., 5 George St.. Green Fields. 5107.	22462	1991	Premise Match	76m	North West
6	Marine Supplies	Auto Scrap, 16 George St, Greenfields 5107	16893	1984	Premise Match	132m	West
	Scrap Metal Merchants	Auto Scrap, 16 George St., Greenfields. 5107.	22836	1984	Premise Match	132m	West
7	Builders &/or Building Contractors	Baulderstone Pty. Ltd., 17 George St. Green Fields. 5107.	38884	1991	Premise Match	141m	West
8	Flour Millers &/or Merchants	Defiance Milling, 1 Belfree Dr., Green Fields. 5107	21675	1991	Premise Match	145m	West
	Baggage Agents	White Line Transport (Aust) Pty Ltd, 1 Belfree Dr, Green Fields 5107	37793	1991	Premise Match	145m	West
	Transport Depots &/or Terminals	White Line Transport (Aust) Pty Ltd, 1 Bellree Dr, Green Fields 5107	35494	1991	Premise Match	145m	West
	Carriers &/or Cartage Contractors	White Line Transport (Aust.) Pty. Ltd., 1 Belfree Dr. , Green Fields. 5107.	40199	1991	Premise Match	145m	West
	Road Transport Services - Interstate	White Line Transport Oust) Pty Ltd, 1 Betties Dr, Green Fields 5107	32483	1991	Premise Match	145m	West
	Carriers &/or Cartage Contractors	WHITE LINETRANSPORT PTY. LTD., 1 Belfree Drive, Green Fields, 5107	39985	1991	Premise Match	145m	West

Business Directory Content reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018 and Sands & McDougall's Directory of South Australia

Business Directory Records 1910-1991
Road or Area Matches

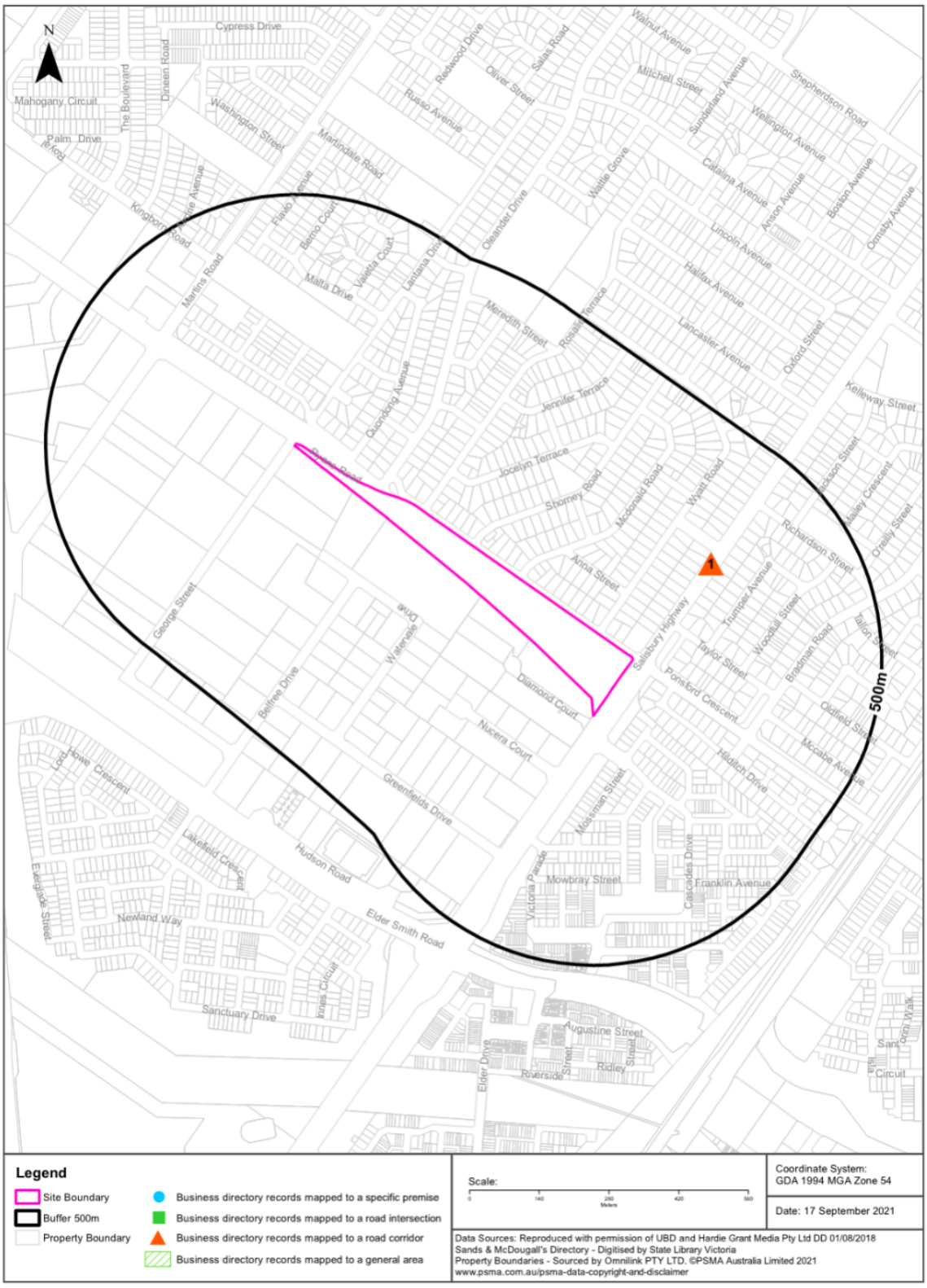
Universal Business Directory and Sands & McDougall Directory records, from years 1991, 1984, 1973, 1965, 1955, 1950, 1940, 1930, 1920 & 1910, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area (m)
9	Garage Mfrs &/or Dists &/or Installers	Galeprufe Conshmelions Pty. Ltd., Ryans Rd., Parafield Gardens. 5107	22780	1991	Road Match	0m
	Buildings - Pre-Fabricated, Portable &/Or Modular Mfrs &/Or Dists &/Or Erectors	Galeprufe Constructions Pty. Ltd., Ryans Rd., Parafield Gardens. 5107	39337	1991	Road Match	0m
	Carport &/or Awning Mfrs &/or Erectors	Geleprufe Constructions Pty Ltd Ryans Rd. Parafield Gardens. 5107	39947	1991	Road Match	0m
10	Roofing Material Mfrs &/Or Dists.	KH Stramit Ltd George St, Green Fields 5107	32605	1991	Road Match	7m
	Fencing Material Mfrs &/or Dists	KH Stramit Ltd., George St.. Green Fields., 5107.	21253	1991	Road Match	7m
	Carriers &/or Cartage Contractors	Poole, B. D. Transport. George St.. Green Fields. 5107.	40146	1991	Road Match	7m
	Tank Makers - Iron &/or Steel	AllJay Tanks George St Green Fields 5107	24667	1984	Road Match	7m
	Roofing Material Mfrs. &/or Dists.	Stramit Industries Ltd., George St., Greenfields. 5107	22442	1984	Road Match	7m
	Insulating Material Mfrs. &/or Dists	Stramit Industries Ltd., George St., Greenfields. 5107.	15595	1984	Road Match	7m
	Insulation &/or Cold Storage Contractors	Stramit Industries Ltd., George St., Greenfields. 5107.	15604	1984	Road Match	7m
	Roofing Contractors &/or Repairers	Stramit Industries Ltd., George St., Greenfields. 5107.	22430	1984	Road Match	7m
11	Pipe &/or Pipe Fittings Mfrs &/or Dists	A.S.T.M. Lot 129 Salisbury H'way., Green Fields. 5107.	30454	1991	Road Match	12m
	Hydraulic Equipment Mfrs &/or Imps &/or Dists	ASTM, Lot 129, Salisbury H'way., Green Fields. 5107.	23819	1991	Road Match	12m
	Pipe &/or Pipe Fittings Mfrs &/or Dists	ASTM, Lot 129, Salisbury H'way., Green Fields. 5107.	30461	1991	Road Match	12m
12	Motor Garages &/or Engineers &/or Service Stations	BP Service Station Parafield Gardens, Salisbury H'way, Parafield Gardens 5107	18245	1984	Road Match	14m
	Motor Garages &/or Engineers &/or Service Stations	Shell Service Station Parafield Gardens, Salisbury H'way., Parafield Gardens. 5107.	18518	1984	Road Match	14m
	FISHMONGERS & POULTERERS	Bettison W A & Son Salisbury hwy Parafield Gardens	14756	1973	Road Match	14m
	MOTOR GARAGES & SERVICE STATIONS	BP Parafield Gdns Serv Stn 446 Salisbury hwy Parafield Gardens	14345	1973	Road Match	14m
13	Steel Fabricators	Dover Engineering Pty Ltd, Lot 17 Belfree Dr, Green Fields 5107	34222	1991	Road Match	132m

Business Directory Content reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018 and Sands & McDougall's Directory of South Australia

Dry Cleaners, Motor Garages & Service Stations

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Historical Business Directories

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

Dry Cleaners, Motor Garages & Service Stations 1930-1991 Premise or Road Intersection Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories and Sands & McDougall's Directories, from years 1991, 1984, 1973, 1965, 1955, 1950, 1940 & 1930, mapped to a premise or road intersection, within the dataset buffer.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection (m)	Direction
	No records in buffer						

Business Directory Content reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018 and Sands & McDougall's Directory of South Australia

Historical Business Directories

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

Dry Cleaners, Motor Garages & Service Stations 1930-1991 Road or Area Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories and Sands & McDougall's Directories, from years 1991, 1984, 1973, 1965, 1955, 1950, 1940 & 1930, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area (m)
1	Motor Garages &/or Engineers &/or Service Stations	BP Service Station Parafield Gardens, Salisbury H'way, Parafield Gardens 5107	18245	1984	Road Match	14m
	Motor Garages &/or Engineers &/or Service Stations	Shell Service Station Parafield Gardens, Salisbury H'way., Parafield Gardens. 5107.	18518	1984	Road Match	14m
	MOTOR GARAGES & SERVICE STATIONS	BP Parafield Gdns Serv Stn 446 Salisbury hwy Parafield Gardens	14345	1973	Road Match	14m

Business Directory Content reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018 and Sands & McDougall's Directory of South Australia

Aerial Imagery 2021

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Aerial Imagery 2016

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Aerial Imagery 2011

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Aerial Imagery 2006

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Aerial Imagery 1999

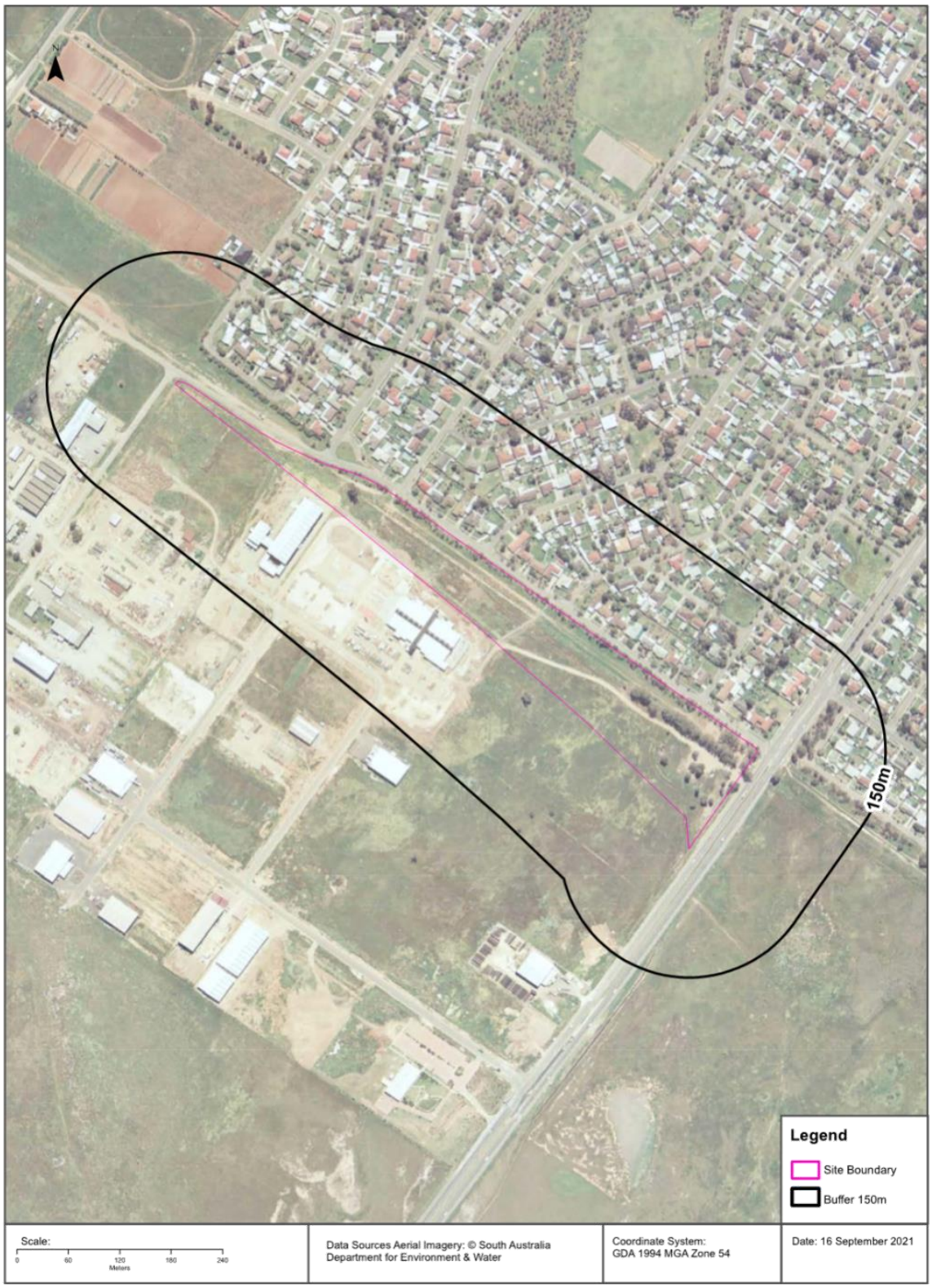
Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

Aerial Imagery 1989

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

Aerial Imagery 1979

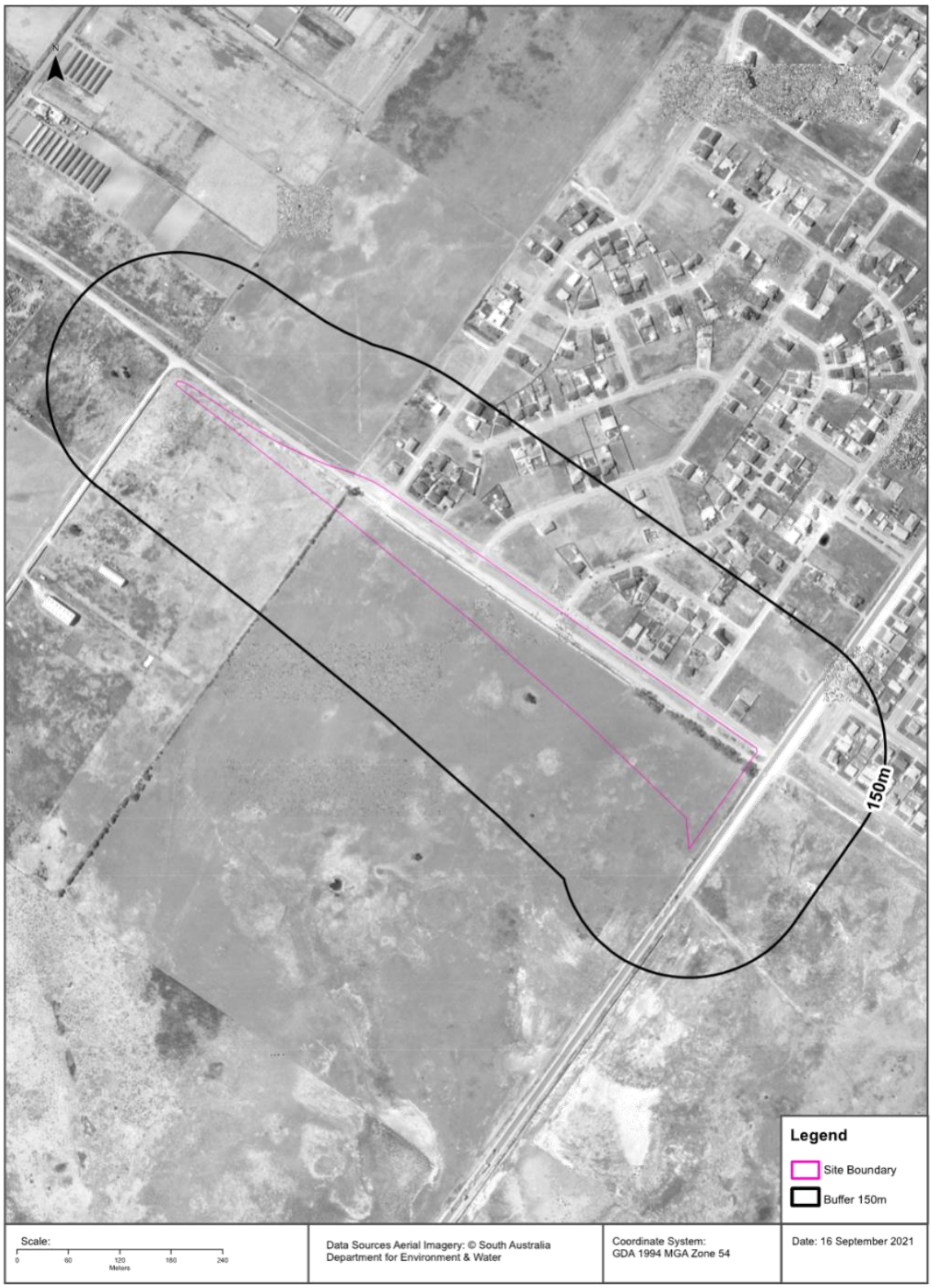
Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

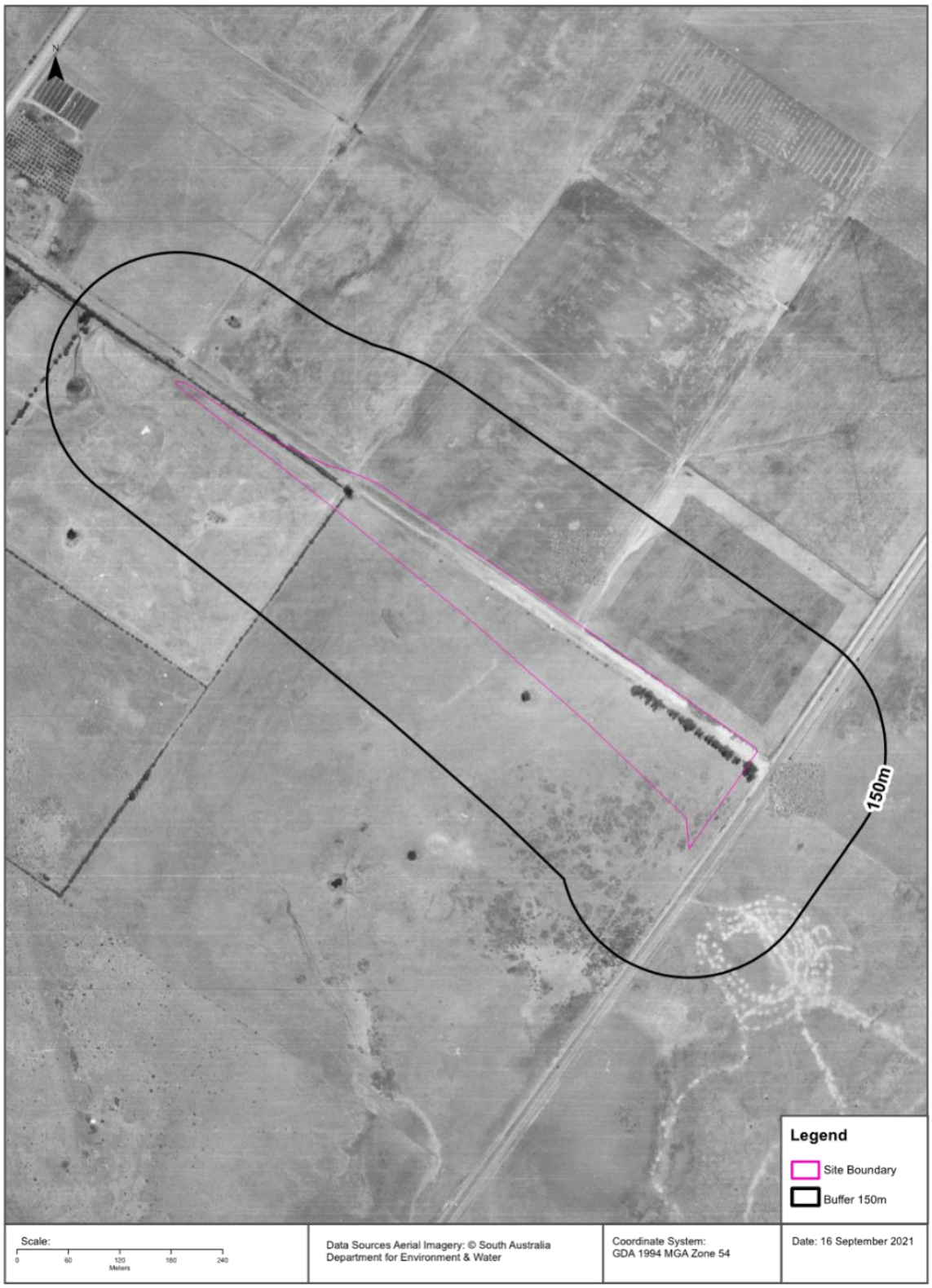
Aerial Imagery 1968

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Aerial Imagery 1959

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



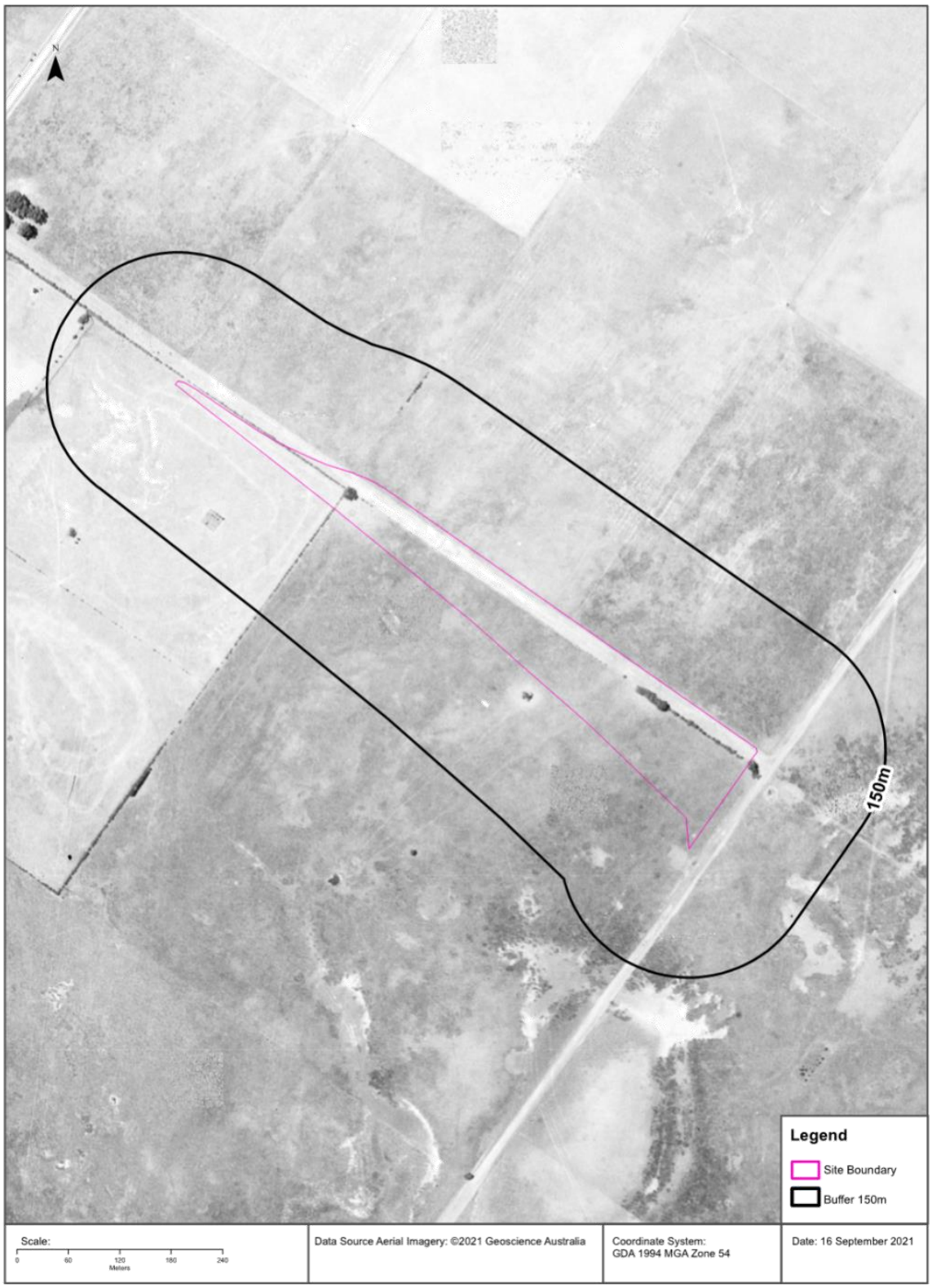
Aerial Imagery 1949

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



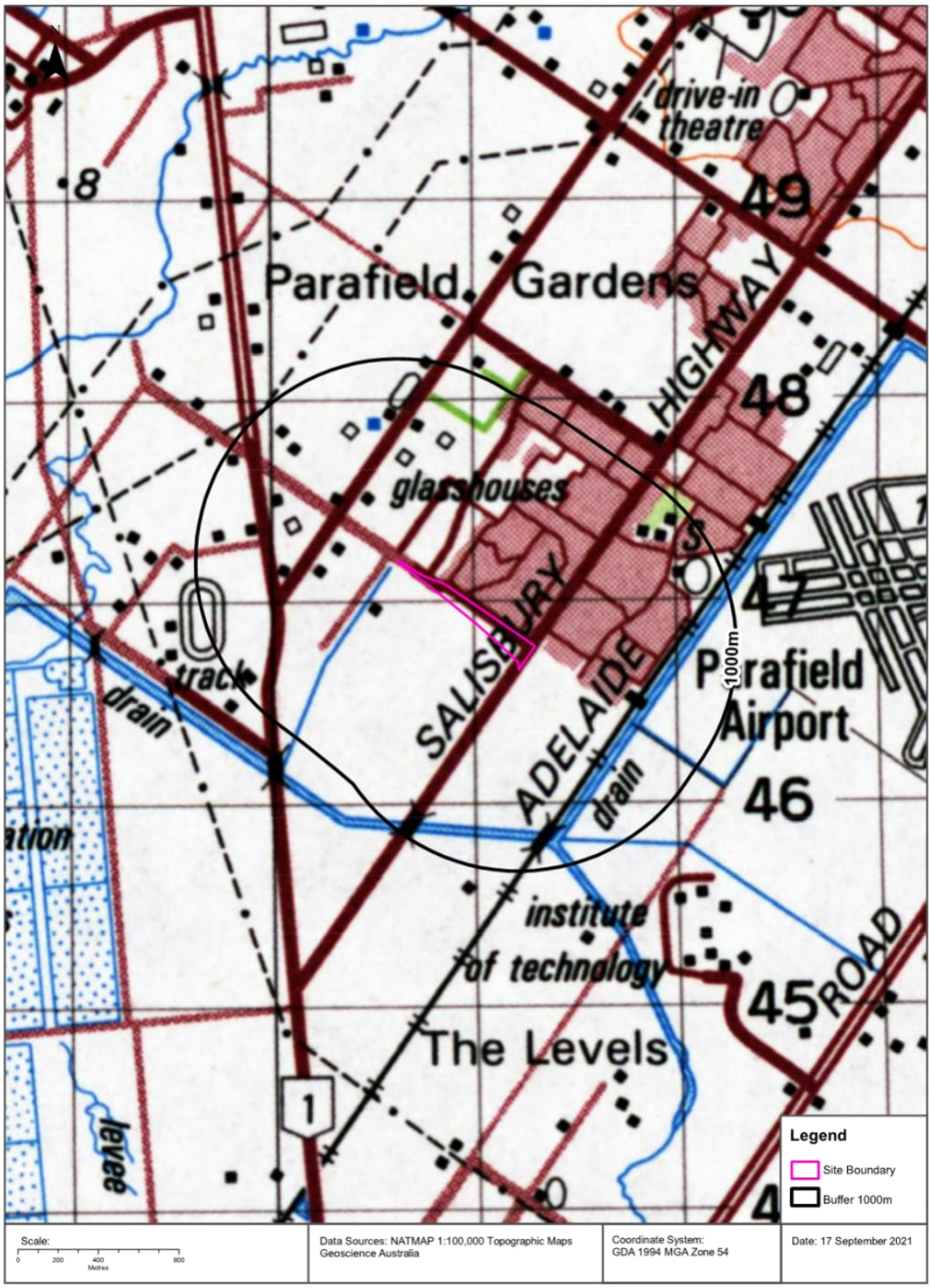
Aerial Imagery 1935

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



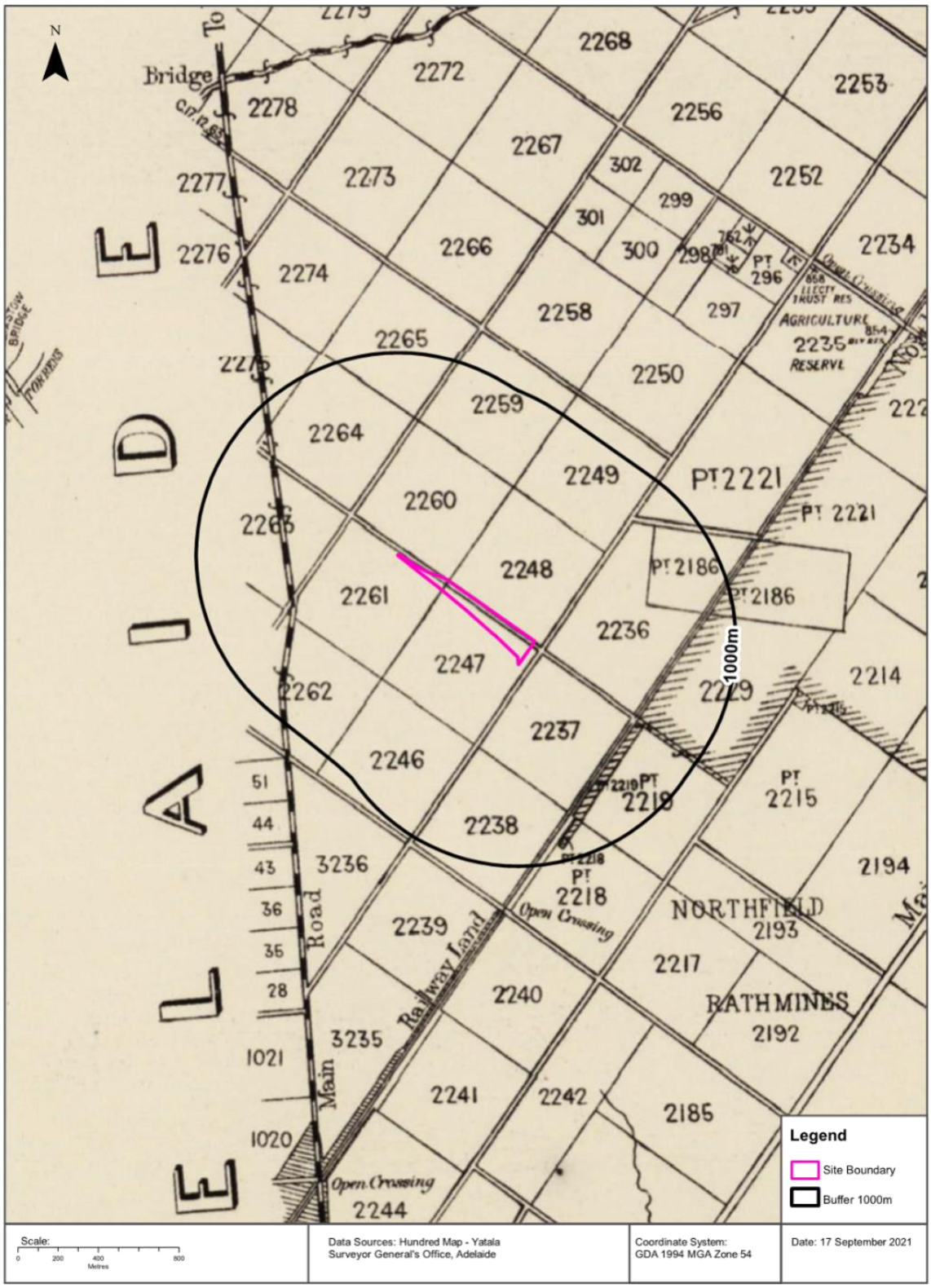
Historical Map 1982

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



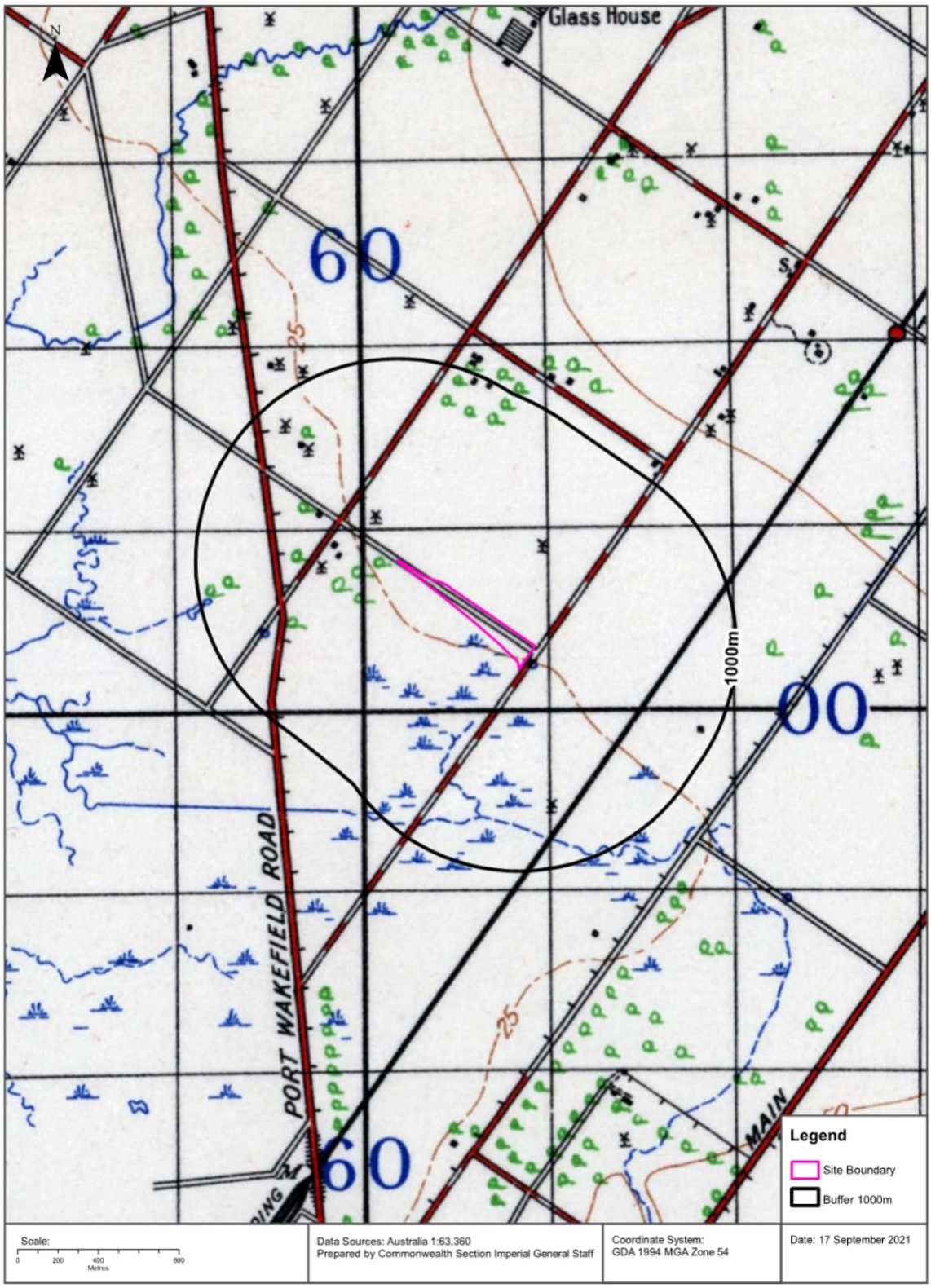
Historical Map 1957

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



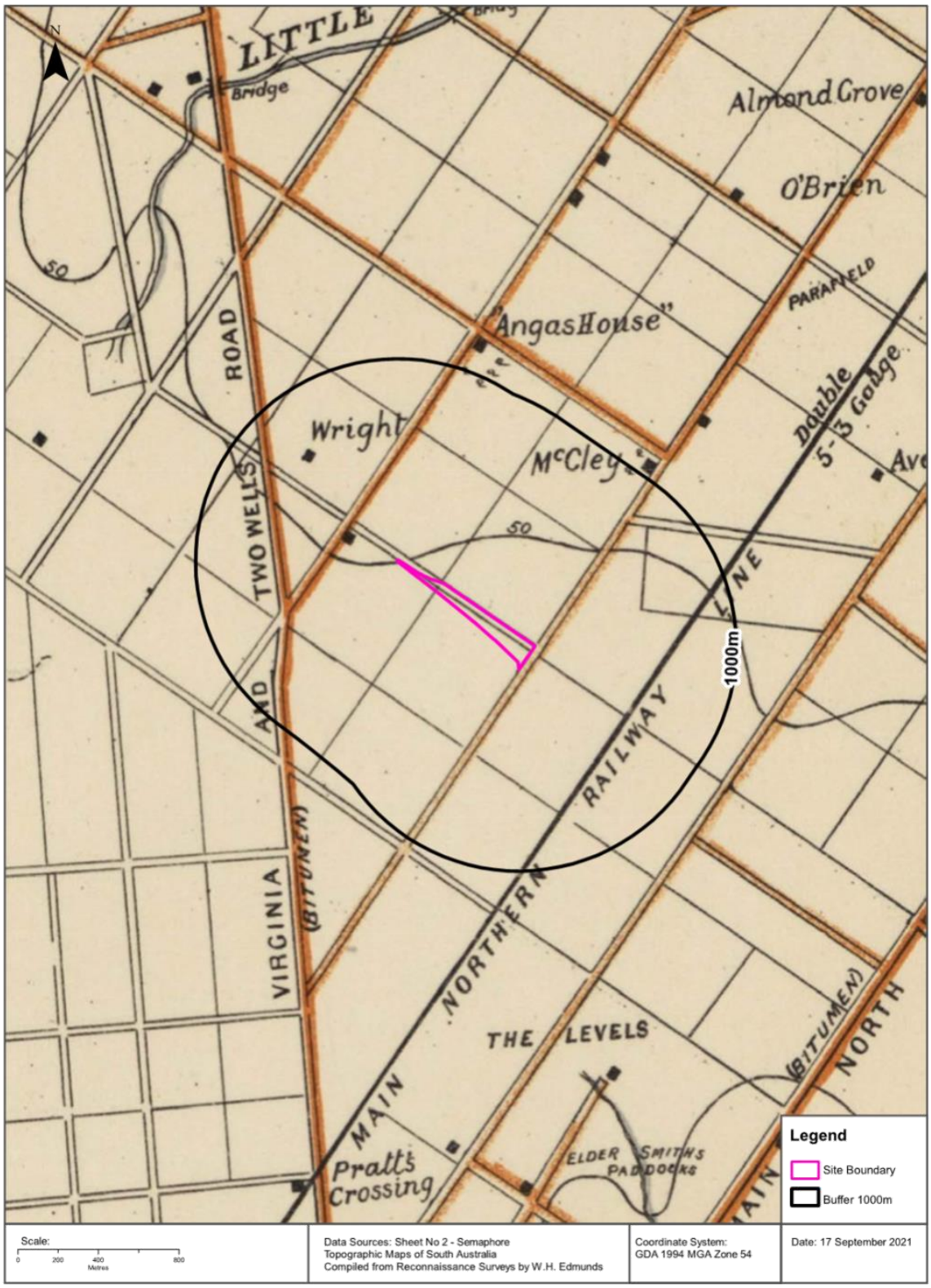
Historical Map c.1937

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



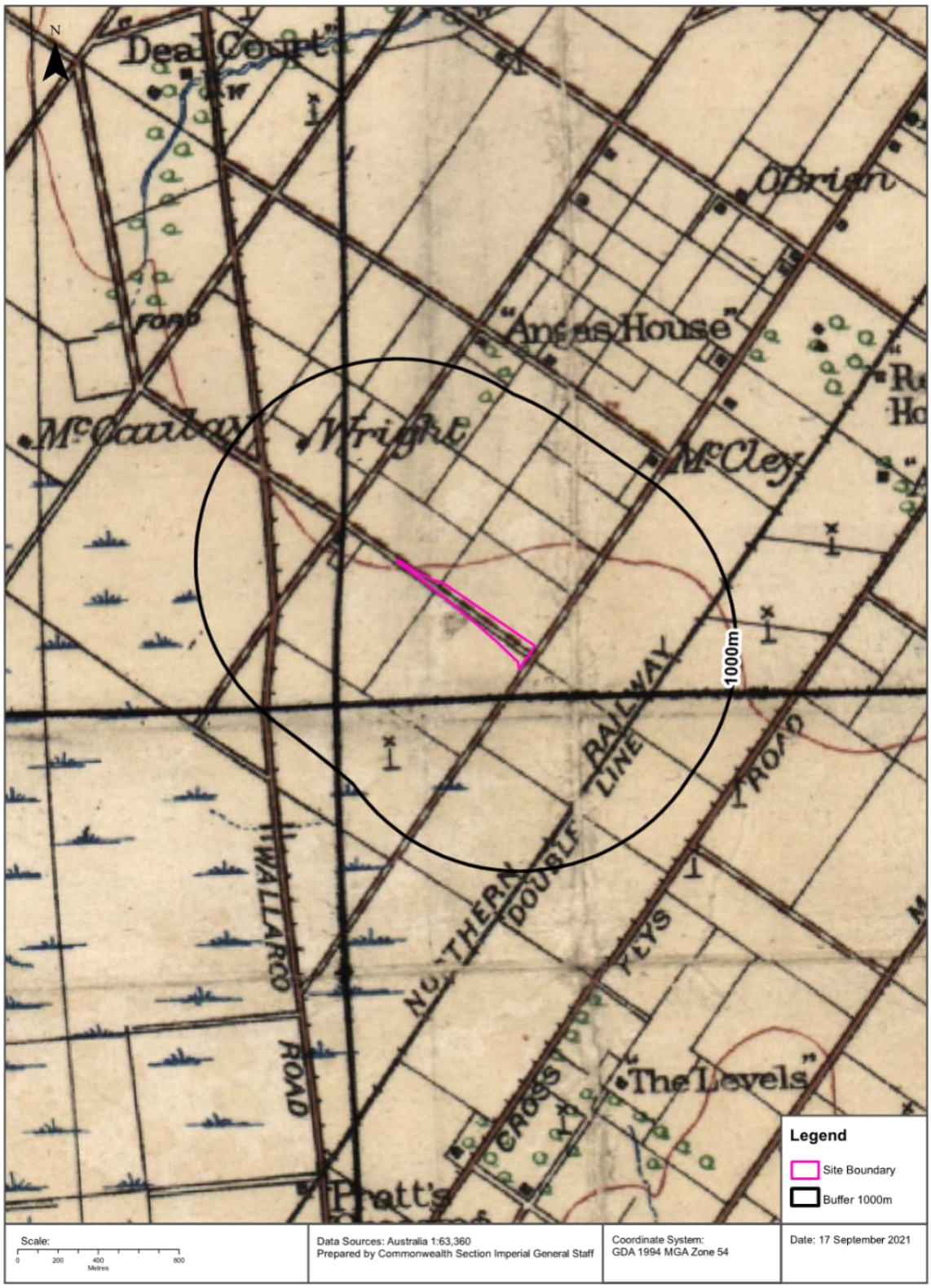
Historical Map 1926

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



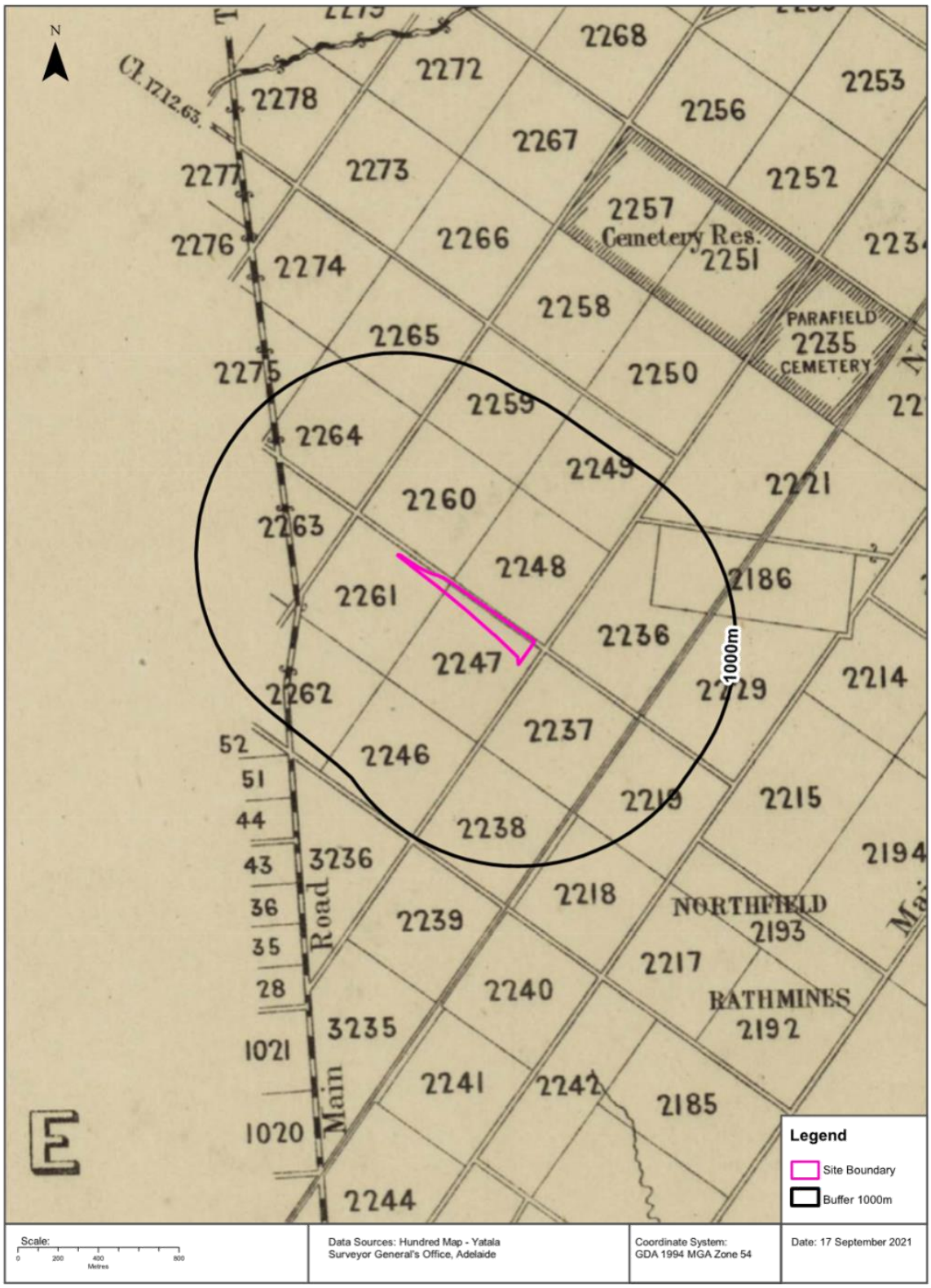
Historical Map c.1914

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Historical Map 1896

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Mining

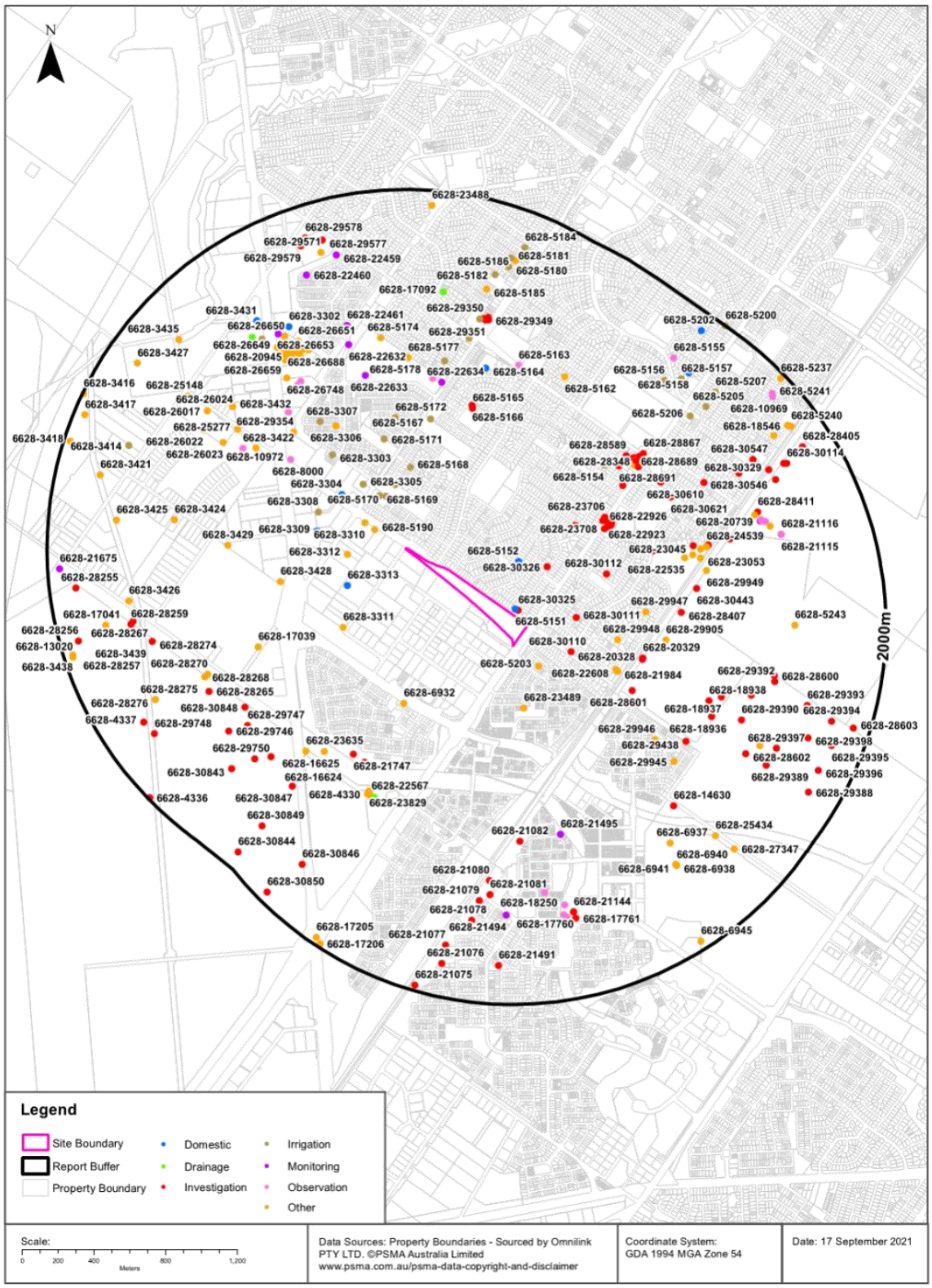
Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

Mines and Mineral Deposits

Mines and mineral deposits within the dataset buffer:

Deposit No.	Name	Class	Status	Commodity	Year	Description	Dist	Dir'n
N/A	No records in buffer							

All Mines and Mineral Deposits Data Source: Dept. of State Development, Resources and Energy - South Australia
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en


Drillholes
Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107
N
2000m
Legend
Site Boundary
Report Buffer
Property Boundary
Domestic
Drainage
Investigation
Irrigation
Monitoring
Observation
Other
Scale:
0 200 400 800 1,200
Meters
Data Sources: Property Boundaries - Sourced by Omnilink PTY LTD. ©PSMA Australia Limited
www.psma.com.au/psma-data-copyright-and-disclaimer
Coordinate System:
GDA 1994 MGA Zone 54
Date: 17 September 2021

Groundwater and Drillholes

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

Groundwater Aquifers

Groundwater aquifers within the dataset buffer:

Aquifer Code	Description	Distance	Direction
20	Sedimentary Rocks - basins include limestone, often cavernous, sandstone, sand shale and clay	0m	Onsite

Groundwater Aquifers Data Source: Dept. of Environment, Water and Natural Resources - South Australia
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Drillholes

Drillholes within the dataset buffer:

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir'n
6628-5151	52120			Domestic; Irrigation		32.31	8.00			1690	3047	0.6300				33m	East
6628-30325	325441			Investigation	2019-08-26	9.50										38m	East
6628-5203	52172							5.84								183m	South East
6628-5190	52159					9.14	7.00						2.44	2.44	4.56	201m	North West
6628-5152	52121			Domestic		27.43	8.00			1443	2605	5.6800				261m	North East
6628-3310	50279					91.44	6.00			1099	1991	2.5256	0.00	0.00	6.00	268m	North West
6628-30111	315783			Investigation	2019-01-29	6.00										276m	East
6628-30110	315782			Investigation	2019-01-29	6.00										285m	South East
6628-5170	52139	SZ 88	Backfilled	Irrigation	1971-09-24	106.68	7.00		7.30	1005	1820	5.0500				310m	North West
6628-5169	52138		Operational	Irrigation	1967-01-01	41.15	8.00		7.60	2807	5020	5.0500				325m	North West
6628-3312	50281		Abandoned			12.19	5.00			1719	3099	6.3140				326m	West
6628-30326	325442			Investigation	2019-08-26	6.00										329m	North East
6628-23489	238424	MAWSON LAKES			2008-02-08	132.00		5.05		2596	4650	12.0000	11.00	11.00	-5.95	351m	South
6628-17267	150951		Operational	Irrigation	1994-12-12	106.60		6.57		1088	1970	15.1537				357m	North West
6628-3313	50282		Operational	Domestic; Irrigation; Stock		18.29	5.00			2515	4509	3.7900	9.14	9.14	-4.14	384m	West
6628-3305	50274		Backfilled	Irrigation; Observation	1956-11-17	112.78	5.00		8.00	1010	1830	12.6281	3.27	3.27	1.73	428m	North West
6628-5168	52137		Backfilled	Irrigation	1960-01-01	81.38	8.00		7.70	617	1120	0.6300				451m	North West
6628-3304	50273		Abandoned	Domestic; Irrigation; Stock		8.53	6.00			1476	2665	0.6314				465m	North West
6628-3309	50278			Domestic		3.96	4.00			2015	3625		1.22	1.22	2.78	503m	North West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir'n
6628-29948	314524			Environmental	2018-11-28	6.00										511m	East
6628-30112	315784			Investigation	2019-01-29	6.00										526m	East
6628-3308	50277		Unknown	Irrigation	1962-01-01	143.26	4.00			1127	2040	6.3140	2.44	2.44	1.56	527m	North West
6628-22608	218917		Backfilled			198.25		5.69								554m	South East
6628-3311	50280					100.58	4.00					1.8942	0.00	0.00	4.00	560m	West
6628-21984	202958		Not In Use	Managed Aquifer Recharge (incl ASR); Observation	2004-09-18	222.00		5.77		477	867	90.0000	-4.00	-4.00	9.77	565m	South East
6628-8000	54969		Rehabilitated		1976-08-17	142.00		4.98	7.30	1136	2056	12.6280	15.00	15.00	-10.02	589m	North West
6628-30327	325443			Investigation	2019-08-26	6.00										609m	North East
6628-5171	52140		Operational	Irrigation	1959-01-01	144.78	8.00		6.00	1130	2046	16.4200				619m	North West
6628-3303	50272			Irrigation; Stock		8.53	5.00						3.35	3.35	1.65	662m	North West
6628-29947	314523			Environmental	2018-11-28	6.00										665m	East
6628-20328	182169		Operational as required	Investigation; Managed Aquifer Recharge (incl ASR); Observation	2000-09-15	212.00	8.15	7.41		1939	3490	10.0000	9.20	8.46	-1.05	669m	East
6628-20329	182170		Not In Use	Investigation; Observation	2000-09-21	145.00	8.59	7.61		1228	2220	10.0000	4.63	3.64	3.96	671m	East
6628-6932	53901					3.05	4.00			14308	23904	0.3800	2.13	2.13	1.87	675m	South West
6628-23708	241371	GMW 15		Investigation	2008-04-16	7.00		10.38					5.40	5.40	4.98	688m	North East
6628-28601	290340	P 9		Investigation	2016-08-08	6.00							2.00	2.00		689m	South East
6628-22925	230991	MW 10		Investigation	2007-04-05	7.00		10.45					5.30	5.30	5.15	710m	North East
6628-22927	230993	MW 8		Investigation	2007-04-07	7.00		10.40					5.30	5.30	5.10	711m	North East
6628-22926	230992	MW 9		Investigation	2007-04-06	7.00		10.42					5.30	5.30	5.12	713m	North East
6628-23707	241370	MW 14		Investigation	2008-04-16	7.00		10.61								718m	North East
6628-3428	50397						3.00						0.00	0.00	3.00	722m	West
6628-22923	230989	MW 12		Investigation	2007-04-05	7.00		10.55					5.30	5.30	5.25	728m	North East
6628-22924	230990	MW 11		Investigation	2007-04-05	7.00		10.48					5.30	5.30	5.18	729m	North East
6628-5172	52141		Backfilled	Irrigation	1955-01-01	141.43	8.00		6.50	972	1761	15.1500	30.48	30.48	-22.48	729m	North West
6628-5167	52136			Irrigation	1958-01-01	141.73	9.00		7.30	1218	2203	15.1500	12.24	12.24	-3.24	732m	North
6628-23706	241369	GMW 13		Investigation	2008-04-16	7.00		10.71					5.40	5.40	5.31	741m	North East
6628-22928	230994	MW 7		Investigation	2007-04-08	7.00		10.57					5.30	5.30	5.27	742m	North East
6628-23709	241372	GMW 16		Investigation	2008-04-16	7.00		10.67					5.30	5.30	5.37	755m	North East
6628-29905	314363			Environmental	2018-11-29	5.50										778m	East
6628-3306	50275					21.34	6.00									784m	North West
6628-10972	57941			Observation	1979-07-19	20.00		4.71	7.40	2653	4750					811m	North West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir'n
6628-30113	315785			Investigation	2019-01-30	6.00										814m	East
6628-3307	50276		Backfilled	Irrigation	1958-01-01	149.35	5.00		7.70	1151	2083	12.6300	2.74	2.74	2.26	852m	North West
6628-5165	52134			Investigation		7.01	10.00					0.5100	4.57	4.57	5.43	861m	North
6628-28407	289393	GWP3 PFC		Investigation	2016-05-23	6.50							3.80	3.80		862m	East
6628-5166	52135			Investigation		22.86	10.00			1444	2607	0.3800	7.62	7.62	2.38	875m	North
6628-29354	306540			Environmental	2018-03-06	6.00										900m	North West
6628-5153	52122		Abandoned	Investigation		20.73	12.00									941m	North East
6628-22634	219173	GMW 3		Monitoring	2006-02-13	7.50		9.46		1552	2800		5.77	5.77	3.69	946m	North
6628-29946	314522			Environmental	2018-11-28	6.00										951m	South East
6628-22535	215371	ASR BORE 9	Operational as required	Managed Aquifer Recharge (incl ASR)	2006-05-22	182.00		10.04		2097	3770	12.5000	5.00	5.00	5.04	956m	East
6628-5176	52145		Backfilled	Observation		145.39	10.13		8.30	816	1480	12.6300	36.58	36.58	-26.45	957m	North
6628-30443	326410		Dry	Investigation	2019-07-03	6.00										967m	East
6628-5154	52123			Irrigation; Stock	1947-09-26	152.40	10.71			1386	2504	8.8400	1.22	1.22	9.49	975m	North East
6628-22633	219172	GMW 2		Monitoring	2006-02-13	6.00		7.80		2239	4020		3.69	3.69	4.11	988m	North West
6628-17039	148209	SZ 53				2.89	0.20									989m	West
6628-3429	50398			Industrial; Stock	1965-01-07	132.59	3.00		7.90	1101	1992	11.3652	3.05	3.05	-0.05	991m	West
6628-18499	164859			Observation	1996-09-25	6.00		4.97				0.0100	3.00	3.00	1.97	1002 m	North West
6628-22532	215364	ASR BORE 8	Operational	Managed Aquifer Recharge (incl ASR)	2006-05-12	180.00		9.90		2075	3730	12.5000	4.00	4.00	5.90	1004 m	East
6628-3422	50391		Abandoned		1934-01-01	101.50	4.00			2302	4132	1.1365				1004 m	North West
6628-5175	52144			Domestic; Irrigation; Stock		13.41	9.00			1363	2463	1.7700				1007 m	North
6628-28691	290954	MW 12		Investigation	2016-06-17	9.00							4.80	4.80		1020 m	North East
6628-23045	234138	ASR IW4	Operational	Investigation; Managed Aquifer Recharge (incl ASR)	2007-02-05	184.00		10.09		1917	3450	18.0000	10.50	10.50	-0.41	1027 m	East
6628-23053	234158	ASR BORE 5	Operational	Managed Aquifer Recharge (incl ASR)	2007-01-22	184.00		9.89		1917	3450	18.0000	10.50	10.50	-0.61	1036 m	East
6628-29949	314525			Environmental	2018-11-29	6.00										1045 m	East
6628-21748	200237			Investigation	2004-01-28	4.00		4.95								1053 m	South West
6628-22533	215365	ASR RW1	Operational as required	Managed Aquifer Recharge (incl ASR)	2006-05-29	183.00		10.41		2097	3770	12.5000	4.40	4.40	6.01	1055 m	East
6628-28588	290320	MW 14			2016-08-10	8.00							4.90	4.90		1059 m	North East
6628-5177	52146			Stock		91.44	9.00			701	1273	7.5800	1.52	1.52	7.48	1060 m	North
6628-5178	52147					133.50	9.00					1.5200				1063 m	North

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir'n
6628-5179	52148		Operational	Irrigation	1951-05-10	144.17	10.00		7.50	1045	1892	7.5800	0.00	0.00	10.00	1064 m	North
6628-3423	50392		Backfilled	Observation	1925-01-01	101.50	3.45		7.50	331	601	0.1263	17.06	17.06	-13.61	1066 m	North West
6628-30621	334441		Dry	Investigation	2020-02-18	7.00										1072 m	North East
6628-28690	290953	MW 11			2016-06-17	8.00							5.01	5.01		1072 m	North East
6628-21747	200236			Investigation	2004-01-28	3.50		4.95								1074 m	South West
6628-28349	289029	MW 6		Investigation	2015-10-13	8.00							5.00	5.00		1079 m	North East
6628-21495	198099			Monitoring	2003-07-11	3.50		4.76								1084 m	South
6628-28589	290321	MW 13		Investigation	2016-08-10	8.00							5.00	5.00		1089 m	North East
6628-30620	334440			Investigation	2020-02-18	7.00										1090 m	North East
6628-24538	245286	ASTR P 2		Managed Aquifer Recharge (incl ASR); Monitoring	2008-07-31	171.00		10.87		171	311	2.0000	3.80	3.80	7.07	1091 m	East
6628-24539	245287	ASTR P 3		Managed Aquifer Recharge (incl ASR); Monitoring	2008-07-18	228.00		10.87		2352	4220	1.5000	4.10	4.10	6.77	1091 m	East
6628-18459	164671	Q1 1		Observation	1997-04-15	23.00		5.51					2.98	2.98	2.53	1091 m	North West
6628-21082	195390			Investigation	2002-12-18	6.00		4.48								1091 m	South
6628-24537	245285	ASTR P 1		Managed Aquifer Recharge (incl ASR); Monitoring	2008-07-25	171.50		10.87		338	614	3.0000	3.00	3.00	7.87	1091 m	East
6628-5164	52133		Backfilled	Domestic		108.89	11.00		7.50	3423	6100	6.3100	3.66	3.66	7.34	1095 m	North
6628-29438	307003			Investigation	2018-04-16	5.50										1096 m	South East
6628-28347	289027	MW 4		Investigation	2015-10-13	8.00							5.30	5.30		1096 m	North East
6628-18458	164670	Q2 1		Observation	1997-05-05	30.00		5.70					2.97	2.97	2.73	1097 m	North West
6628-18938	168811	P 3		Investigation	1997-10-16	5.60		7.39					2.04	2.04	5.35	1097 m	South East
6628-28688	290951	MW 9			2016-06-16	8.00							5.14	5.14		1099 m	North East
6628-28689	290952	MW 10		Investigation	2016-06-15	8.70							5.00	5.00		1102 m	North East
6628-23047	234140	ASR IW1	Operational	Investigation; Managed Aquifer Recharge (incl ASR)	2007-01-15	184.00		10.96		1883	3390	18.0000	10.50	10.50	0.46	1105 m	East
6628-29945	314521			Environmental	2018-11-28	6.00										1106 m	South East
6628-28348	289028	MW 5		Investigation	2015-10-13	8.00							5.60	5.60		1114 m	North East
6628-28350	289030	MW 7		Investigation	2015-10-13	8.00							5.20	5.20		1130 m	North East
6628-28687	290856	MW 8		Investigation	2016-06-16	8.00							4.90	4.90		1131 m	North East
6628-23829	241721	ASR	Operational	Managed Aquifer Recharge (incl ASR)	2008-11-13	146.00		3.63		2251	4040		12.00	12.00	-8.37	1140 m	South West
6628-31343	357156			Drainage	2021-05-22	192.00				1990	3580	80.0000	7.00	7.00		1145 m	South West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir'n
6628-18936	168809	P 1		Investigation	1997-10-16	5.60		6.92					1.99	1.99	4.93	1148 m	South East
6628-25277	256207	ASR BORE 2	Operational	Managed Aquifer Recharge (incl ASR)		198.00				3448	6140	80.0000	9.00	9.00		1148 m	North West
6628-28867	295062	MW 15		Investigation	2017-05-30	8.00							5.40	5.40		1154 m	North East
6628-22567	218368	ASR BORE 16	Backfilled	Managed Aquifer Recharge (incl ASR)	2005-04-26	96.00		3.61		2041	3670	18.7500	12.00	12.00	-8.39	1154 m	South West
6628-18937	168810	P 2	Backfilled	Investigation	1997-10-16	5.60		8.02					2.00	2.00	6.02	1155 m	East
6628-4330	51299						2.00			1837	3309	15.1500	1.60	1.60	0.40	1158 m	South West
6628-26748	274687		Backfilled			6.00										1158 m	North West
6628-16625	141911	ASR 2	Abandoned	Managed Aquifer Recharge (incl ASR)	1994-07-25	145.00	4.00	4.00	7.60	470	855	10.1200	10.57	10.57	-6.57	1169 m	South West
6628-22632	219171	GWM 1		Monitoring	2006-02-13	6.00		7.76		1401	2530		4.65	4.65	3.11	1177 m	North West
6628-26023	266482	ASR BORE 3	Operational	Managed Aquifer Recharge (incl ASR)	2011-03-17	200.00				4158	7370	50.0000	8.00	8.00		1177 m	North West
6628-5174	52143		Abandoned			37.19	9.00					0.5100				1179 m	North
6628-5163	52132		Unknown	Observation	1969-05-26	64.01	10.06		8.70	539	980	0.8800	10.64	10.64	-0.58	1193 m	North
6628-29680	312575			Investigation	2018-04-17	6.00										1205 m	North West
6628-26656	273130	MW 10	Backfilled		2012-09-21	6.00	6.53	6.57								1212 m	North West
6628-26681	273160	Q1 32	Backfilled		2012-09-21	14.21	6.45	6.50								1213 m	North West
6628-16624	141910	ASR BORE 17	Operational	Managed Aquifer Recharge (incl ASR)	1994-05-13	148.30	4.00	4.00	7.10	694	1260	8.9000	10.92	10.92	-6.92	1217 m	South West
6628-29679	312574			Investigation	2018-04-16	8.00										1220 m	North West
6628-5173	52142		Abandoned	Irrigation; Stock	1949-04-14	7.92	12.00			1417	2560	0.5000				1220 m	North
6628-30442	326409			Investigation	2019-07-03	6.00										1227 m	East
6628-20944	193396	Q1 10	Abandoned	Monitoring	2002-06-07	22.00		5.79								1229 m	North West
6628-23635	240193	ASR	Operational	Managed Aquifer Recharge (incl ASR)	2009-05-02	147.00		3.35		2171	3900	0.0253	18.00	18.00	-14.65	1230 m	South West
6628-26678	273157	Q1 29	Backfilled		2012-09-21	16.66	6.31	6.43								1230 m	North West
6628-27643	284499		Backfilled		2012-09-21	33.00										1230 m	North West
6628-26658	273132	MW 12	Backfilled		2012-09-21	6.03	6.23	6.27								1231 m	North West
6628-26657	273131	MW 11	Backfilled		2012-09-21	5.98	6.70	6.77								1231 m	North West
6628-26682	273161	Q1 33	Backfilled		2012-09-21	17.80	6.68	6.74								1232 m	North West
6628-27641	284497		Backfilled		2012-09-21	24.00										1244 m	North West
6628-27642	284498		Backfilled		2012-09-21	26.00										1245 m	North West
6628-26654	273128	MW 8	Backfilled		2012-09-21	5.84	5.83	5.99								1245 m	North West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir'n
6628-26680	273159	Q1 31	Backfilled		2012-09-21	16.01	5.96	6.01								1246 m	North West
6628-26653	273127	MW 7	Backfilled		2012-09-21	5.56	6.25	6.28								1246 m	North West
6628-26677	273156	Q1 28	Backfilled		2012-09-21	17.47	6.49	6.69								1246 m	North West
6628-26652	273126	MW 6	Backfilled		2012-09-21	6.08	6.52	6.70								1247 m	North West
6628-26679	273158	Q1 30	Backfilled		2012-09-21	17.64	6.19	6.29								1248 m	North West
6628-3432	50401		Backfilled			27.43	4.00		7.50	7401	12867					1248 m	North West
6628-26673	273147	Q1 21R	Backfilled		2012-09-21	13.38	6.16	6.19								1254 m	North West
6628-5162	52131		Operational	Stock		15.85	13.00		6.50	2251	4043		2.74	2.74	10.26	1256 m	North
6628-30848	345981		Dry	Investigation	2020-06-11	2.50										1259 m	South West
6628-25724	263552	EX 3 B	Backfilled	Investigation	2010-12-13	16.00	6.19	6.29					5.60	5.70	0.59	1263 m	North West
6628-14630	61599	GH 150	Abandoned	Investigation	1985-01-31	10.50	6.50									1264 m	South East
6628-26660	273134	SGW 1	Backfilled		2012-09-21	4.50	6.11	6.17								1265 m	North West
6628-26659	273133	MW 13	Backfilled		2012-09-21	5.27	5.67	5.86								1265 m	North West
6628-30610	333233			Investigation	2019-12-06	6.00										1266 m	North East
6628-20945	193397	Q1 11			2002-06-10	23.50		5.73								1266 m	North West
6628-26684	273163	Q1 36	Backfilled		2012-09-21	15.97	5.77	5.90								1266 m	North West
6628-26669	273143	QO 4	Backfilled		2012-09-21	9.27	6.10	6.17								1266 m	North West
6628-26689	274150	EX 9B	Backfilled		2011-01-10	19.06										1267 m	North West
6628-26666	273140	QO 1	Backfilled		2012-09-21	10.57	6.24	6.34								1267 m	North West
6628-26661	273135	SGW 2	Backfilled		2012-09-21	4.50	6.21	6.30								1267 m	North West
6628-26671	273145	Q1 3R	Backfilled		2012-09-21	16.90	6.38	6.39								1267 m	North West
6628-26662	273136	SGW 3	Backfilled		2012-09-21	4.80	6.30	6.39								1269 m	North West
6628-26665	273139	SGW 6	Backfilled		2012-09-21	4.50	6.27	6.40								1269 m	North West
6628-25726	263555	EX 5B	Backfilled	Investigation	2010-12-14	15.00							5.60	5.60		1269 m	North West
6628-25725	263553	EX 7B	Backfilled	Investigation	2010-12-14	15.00							5.60	5.60		1269 m	North West
6628-26655	273129	MW 9	Backfilled		2012-09-21	5.90	6.00	6.05								1270 m	North West
6628-26686	274147	EX 5	Backfilled		2011-01-10	18.60										1270 m	North West
6628-26668	273142	QO 3	Backfilled		2012-09-21	9.27	6.00	6.14								1271 m	North West
6628-26664	273138	SGW 5	Backfilled		2012-09-21	4.60	6.39	6.47								1272 m	North West
6628-26663	273137	SGW 4	Backfilled		2012-09-21	4.50	6.34	6.51								1273 m	North West
6628-26687	274148	EX 7	Backfilled		2011-01-10	18.78										1274 m	North West
6628-26670	273144	Q1 1R	Backfilled		2012-09-21	23.16	5.98	6.04								1277 m	North West
6628-26667	273141	QO 2	Backfilled		2012-09-21	9.76	5.95	6.04								1277 m	North West
6628-26648	273097	MW 1R	Backfilled		2012-11-07	6.00	6.46	6.49								1283 m	North West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir'n
6628-26688	274149	EX 8B	Backfilled		2011-01-10	19.54										1284 m	North West
6628-22461	214177	GW 3		Monitoring	2006-01-12	14.00		8.08					11.00	11.00	-2.92	1284 m	North West
6628-26674	273153	Q1 23R	Backfilled		2012-11-07	14.37	6.45	6.49								1287 m	North West
6628-21117	195601			Observation	2003-02-14	4.00		11.90		1457	2630					1289 m	East
6628-25727	263556	EX 8C	Backfilled	Investigation	2010-12-15	19.00							5.90	5.90		1294 m	North West
6628-21118	195602			Observation	2003-02-14	22.00		11.95		1990	3580		2.30	2.30	9.65	1298 m	East
6628-3424	50393			Stock	1962-01-01	147.83	2.00					0.6314				1298 m	West
6628-26651	273125	MW 5	Backfilled		2012-09-21	6.52	6.48	6.51								1299 m	North West
6628-26683	273162	Q1 34	Backfilled		2012-11-07	17.57	6.28	6.30								1300 m	North West
6628-26672	273146	Q1 20	Backfilled		2012-11-07	16.20	6.25	6.24								1302 m	North West
6628-29390	306716	MWP 24		Investigation	2017-11-28	5.20							1.40	1.40		1305 m	South East
6628-28270	288826	GW 10			2015-10-23	0.80										1306 m	West
6628-26022	266477	ASR BORE 4	Operational	Managed Aquifer Recharge (incl ASR)	2011-04-15	200.00				4158	7370	60.0000	7.00	7.00		1309 m	North West
6628-29391	306717	MW P 25		Investigation		5.20							1.40	1.40		1310 m	East
6628-21080	195388			Investigation	2002-12-17	3.50		4.74								1315 m	South
6628-29747	313350			Investigation	2018-10-12	4.50										1324 m	South West
6628-26649	273123	MW 2	Backfilled			5.11	6.00	6.08								1327 m	North West
6628-28268	288824	GW 9			2015-10-23	0.90							0.30	0.30		1328 m	West
6628-26675	273154	Q1 24	Backfilled		2012-09-21	17.99	5.99	6.09								1329 m	North West
6628-5183	52152			Irrigation; Observation		101.50	12.00		9.20	705	1280	15.1500	3.27	3.27	8.73	1341 m	North
6628-26017	266470	ASR BORE 6	Operational	Managed Aquifer Recharge (incl ASR)	2011-06-22	200.00				3846	6830	60.0000	6.00	6.00		1345 m	North West
6628-3430	50399		Operational	Irrigation			5.00		7.80	746	1352					1345 m	North West
6628-29351	306501			Investigation	2018-03-07	11.30										1347 m	North
6628-29350	306500			Investigation	2018-03-07	11.30										1350 m	North
6628-29413	306741			Investigation	2018-03-22	11.30										1351 m	North
6628-28265	288819	GW 7		Investigation	2015-10-23	3.00							1.63	1.63		1355 m	West
6628-26650	273124	MW 4	Backfilled		2012-09-21	5.00	6.34	6.40								1358 m	North West
6628-26676	273155	Q1 25	Backfilled		2012-09-21	16.71	6.35	6.40								1358 m	North West
6628-30609	333232			Investigation	2019-12-06	6.00										1362 m	North East
6628-29349	306499			Investigation	2018-03-07	10.00										1364 m	North
6628-29749	313352			Investigation	2018-10-12	5.00										1376 m	South West
6628-18251	164069		Backfilled	Observation	1996-12-07	212.00		5.06		1714	3090	6.0000	3.20	3.20	1.86	1387 m	South

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir'n
6628-20946	193398	Q1 12		Monitoring	2002-06-12	21.00		5.54								1390 m	North West
6628-21081	195389			Investigation	2002-12-16	4.50		4.88					2.00	2.00	2.88	1393 m	South
6628-3302	50271		Operational	Domestic; Industrial		28.96	6.00		8.00	1415	2556	0.9100	4.57	4.57	1.43	1395 m	North West
6628-6937	53906	LEVELS 1966 5	Unknown		1966-10-18	12.22	7.00									1405 m	South East
6628-28600	290339			Investigation	2016-08-08	4.00							1.00	1.00		1407 m	East
6628-20943	193326	ASR BORE 4	Operational	Managed Aquifer Recharge (incl ASR)	2002-05-02	180.00		11.95		2008	3610					1409 m	East
6628-28602	290341	P 10		Investigation	2016-08-08	2.70							0.70	0.70		1414 m	South East
6628-3433	50402		Operational	Irrigation; Observation	1973-01-12	123.44	5.68	5.08	8.00	934	1692	12.6281	4.36	3.76	1.32	1415 m	North West
6628-29392	306718	MW P 26		Investigation	2017-11-28	5.00							2.50	2.50		1416 m	East
6628-29746	313349			Investigation	2018-10-12	5.00										1417 m	South West
6628-20739	188567			Monitoring	2001-12-18	20.50		12.01		2545	4560		2.71	2.71	9.30	1424 m	East
6628-30847	345980		Dry	Investigation	2020-06-10	4.00										1430 m	South West
6628-28411	289397	GWP2 PFC		Investigation	2016-05-23	7.50							2.90	2.90		1431 m	East
6628-20741	188569			Observation	2001-12-06	216.00		12.06		175	319	6.0000	4.54	4.54	7.52	1431 m	East
6628-21114	195598			Observation	2003-02-12	4.00		12.05		3782	6720	0.0000	2.30	2.30	9.75	1432 m	East
6628-21079	195387	GW 3		Investigation	2002-12-16	5.00		4.59					1.40	1.40	3.19	1434 m	South
6628-29750	313353			Investigation	2018-10-12	4.50										1442 m	South West
6628-17092	148635			Drainage	1995-02-08	15.00		11.10	7.60	1743	3140					1443 m	North
6628-20742	188570	T1 OBS		Observation	2001-12-11	150.00		12.18		2290	4110	6.0000	7.00	7.00	5.18	1448 m	East
6628-30546	332939			Investigation	2019-10-25	6.50										1454 m	North East
6628-16401	135496			Drainage	1993-10-12	13.00		4.79	7.10	2835	5070					1454 m	North West
6628-17013	148179	SZ 17				2.50	9.00									1461 m	South East
6628-20743	188572	ASR 5	Operational	Managed Aquifer Recharge (incl ASR)	2001-12-12	198.00		12.39		187	340	5.0000	4.50	4.50	7.89	1463 m	East
6628-30545	332938			Investigation	2019-10-25	6.50										1472 m	North East
6628-18250	164068			Observation	1996-12-01	207.00		4.99					3.50	3.50	1.49	1474 m	South
6628-5206	52175			Irrigation; Stock		24.38	14.00					5.0000				1477 m	North East
6628-25148	254836	ASR BORE	Operational	Managed Aquifer Recharge (incl ASR)	2010-02-05	204.00				4152	7360	80.0000	9.00	9.00		1481 m	North West
6628-5243	52212				1934-01-01	6.10	12.00			3084	5507					1492 m	East
6628-26024	266483	ASR BORE 5	Operational	Managed Aquifer Recharge (incl ASR)	2011-06-02	198.00				4031	7150	60.0000	8.00	8.00		1496 m	North West
6628-21494	198098			Monitoring	2003-07-11	3.70		5.28								1503 m	South
6628-21115	195599			Observation	2003-02-12	4.00		12.47		827	1501		2.40	2.40	10.07	1504 m	East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir'n
6628-21116	195600			Observation	2003-02-13	24.00		12.48		2014	3620	1.0000	2.40	2.40	10.08	1505 m	East
6628-28274	288830	GW 5		Investigation	2015-10-23	4.50										1505 m	West
6628-5185	52154		Backfilled			10.67	12.00		6.50	971	1760		3.05	3.05	8.95	1510 m	North
6628-3431	50400		Unknown	Domestic; Irrigation	1962-01-01	134.00	5.00		8.40	750	1360	12.6281	24.38	24.38	-19.38	1515 m	North West
6628-6942	53911	LEVELS 1969	Unknown		1969-11-14	9.14	7.00									1521 m	South East
6628-17760	155941			Investigation	1996-06-22	212.00		5.96	7.20	1194	2160	4.0000	4.40	4.40	1.56	1523 m	South
6628-21144	195838					200.00		5.46								1523 m	South
6628-6940	53909	LEVELS 1969	Unknown		1969-11-14	10.97	7.00									1526 m	South East
6628-6938	53907	LEVELS 1969	Unknown		1969-11-14	12.19	7.00									1526 m	South East
6628-6941	53910	LEVELS 1969	Unknown		1969-11-14	8.84	7.00									1526 m	South East
6628-6939	53908	LEVELS 1969	Unknown		1969-11-14	12.19	7.00									1526 m	South East
6628-18249	164067			Observation	1996-11-25	184.00		5.51		2064	3710	1.0000	3.50	3.50	2.01	1527 m	South
6628-18248	164066			Observation	1996-11-20	205.00		5.56				1.0000	3.20	3.20	2.36	1540 m	South
6628-29389	306715	MW P 23		Investigation	2017-11-28	5.70							1.45	1.45		1544 m	South East
6628-21078	195386	GW 5		Investigation	2002-12-17	3.00		4.57								1547 m	South
6628-25434	259441		Operational	Managed Aquifer Recharge (incl ASR)	2010-09-16	210.00				1647	2970		1.00	1.00		1548 m	South East
6628-29397	306723	MW P 31		Investigation	2017-11-29	5.00							1.65	1.65		1550 m	South East
6628-5156	52125			Irrigation; Stock		15.95	13.00		7.00	1900	3420	11.3700	4.27	4.27	8.73	1555 m	North East
6628-17761	155961			Investigation	1996-06-30	155.00		5.90	7.80	2100	3760	5.0000	14.20	14.20	-8.30	1559 m	South
6628-30547	332940			Investigation	2019-10-25	6.50										1561 m	North East
6628-30843	345976		Dry	Investigation	2020-06-11	1.50										1565 m	South West
6628-3426	50395	BOLIVAR 84	Unknown	Exploration	1960-12-08	4.27	0.89									1570 m	West
6628-28267	288822	GW 8		Investigation		1.40							1.63	1.63		1572 m	West
6628-5205	52174			Irrigation; Stock	1962-01-01	36.58	15.00		8.00	2471	4430	8.0000				1573 m	North East
6628-28259	288813	GW 4		Investigation	2015-10-23	7.00							5.70	5.70		1590 m	West
6628-28257	288811	GW 3A		Investigation	2015-10-22	5.25							2.10	2.10		1590 m	West
6628-28258	288812	GW 3B		Investigation	2015-10-22	5.25							3.30	3.30		1592 m	West
6628-30329	325445			Investigation	2019-08-27	6.50										1601 m	North East
6628-5182	52151		Operational	Irrigation		12.24	13.00			1580	2851					1602 m	North
6628-30441	326408			Investigation	2019-07-03	6.00										1605 m	North East
6628-5157	52126		Abandoned	Irrigation	1955-05-09	151.18	14.00			959	1738	5.8100	0.00	0.00	14.00	1617 m	North East
6628-3425	50394	BOLIVAR 72	Unknown	Exploration	1960-11-25	4.27	0.77									1620 m	West
6628-22460	214176	GW 2		Monitoring	2006-01-12	11.00		7.91					4.00	4.00	3.91	1620 m	North West

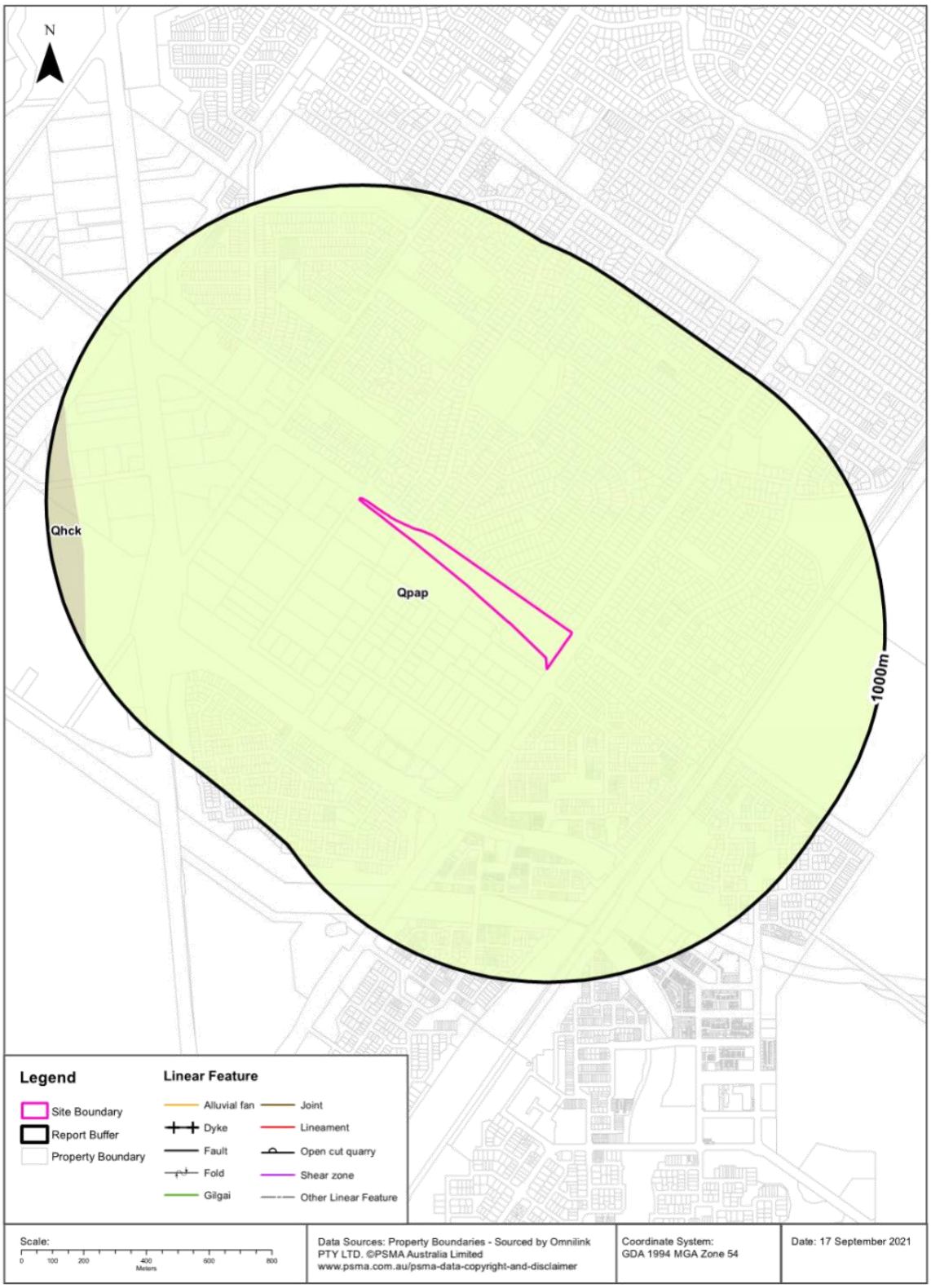
Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir'n
6628-29393	306719	MW P 27		Investigation	2017-11-28	5.00							2.60	2.60		1625 m	East
6628-28276	288832	GW 6	Dry		2015-10-23	4.50										1630 m	West
6628-28275	288831	GW 6			2015-10-23	4.50										1630 m	West
6628-3414	50383		Backfilled	Irrigation; Observation; Stock	1960-07-01	96.01	3.27	2.05		995	1802		2.38	1.16	0.89	1647 m	North West
6628-3439	50408	BOLIVAR 96	Unknown	Exploration	1961-01-17	3.35	0.56									1651 m	West
6628-5180	52149		Unknown	Irrigation; Stock		13.41	13.00					1.0100	5.49	5.49	7.51	1668 m	North
6628-5158	52127			Domestic; Irrigation; Stock		32.92	14.00			1002	1814	1.2600				1668 m	North East
6628-5207	52176			Irrigation; Stock		24.38	15.00					5.0000				1669 m	North East
6628-27347	280251		Operational	Managed Aquifer Recharge (incl ASR)		210.00				1541	2780	80.0000	1.00	1.00		1675 m	South East
6628-22459	214175	GW 1		Monitoring	2006-01-12	13.50		9.36					6.00	6.00	3.36	1679 m	North West
6628-29398	306724	MW P 32		Investigation	2017-11-29	5.00							1.90	1.90		1688 m	South East
6628-5155	52124			Observation		119.79	14.00			2111	3795		16.20	16.20	-2.20	1689 m	North East
6628-30440	326407			Investigation	2019-07-03	6.00										1692 m	North East
6628-30846	345979		Dry	Investigation	2020-06-10	1.50										1693 m	South West
6628-30114	315786			Investigation	2019-01-30	6.00										1705 m	North East
6628-30849	345982		Dry	Investigation	2020-06-11	3.10										1708 m	South West
6628-21077	195385	GW 6		Investigation	2002-12-17	3.50		4.39					1.40	1.40	2.99	1711 m	South
6628-5186	52155			Stock			13.00									1714 m	North
6628-29571	307565			Environmental	2018-06-07	8.50										1715 m	North West
6628-5181	52150		Operational	Irrigation		10.67	13.00		7.00	2175	3907		3.66	3.66	9.34	1718 m	North
6628-3435	50404	LITTLE PARA RIVER	Uncontrolled Flowing	River			5.00		7.80	1770	3190					1721 m	North West
6628-17041	148541	SITE 164	Unknown		1985-02-06	3.00	1.02									1727 m	West
6628-5204	52173					7.01	15.00			2137	3841	1.0000				1734 m	North East
6628-29748	313351			Investigation	2018-10-12	5.00										1741 m	West
6628-3421	50390	BOLIVAR 60	Unknown	Exploration	1960-11-23	4.88	1.05									1752 m	West
6628-4337	51306	BOLIVAR 108	Unknown	Investigation	1960-11-30	3.66	0.65									1753 m	West
6628-29577	307604	H453 MW 1		Investigation		10.20							5.70	5.70		1779 m	North West
6628-29394	306720	MW P 28		Investigation	2017-11-28	4.50							1.50	1.50		1780 m	East
6628-29579	307606	H453 MW 3		Investigation	2018-02-27	9.00							4.20	4.20		1783 m	North West
6628-21491	198095			Investigation	2003-07-11	4.00		6.23								1785 m	South
6628-5184	52153		Operational	Irrigation		21.34	14.00		7.00	1770	3190	1.1400	18.29	18.29	-4.29	1801 m	North
6628-29396	306722	MW P 30		Investigation	2017-11-29	5.20							1.90	1.90		1813 m	South East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir'n
6628-21076	195384	GW 7		Investigation	2002-12-17	3.00		4.49					1.40	1.40	3.09	1816 m	South
6628-29578	307605	H453 MW 2		Investigation	2018-02-27	9.00							4.50	4.50		1817 m	North West
6628-3427	50396		Abandoned				5.00									1818 m	North West
6628-29388	306713	MW P 22		Investigation	2017-11-29	5.70							2.00	2.00		1825 m	South East
6628-29395	306721	MW P 29		Investigation	2017-11-29	5.00							3.90	3.90		1826 m	East
6628-28405	289391	GWP1 PFC		Investigation	2016-05-23	9.50							6.50	6.50		1828 m	North East
6628-18546	165943	CITY OF SALISBURY	Not In Use	Managed Aquifer Recharge (incl ASR)	1997-06-15	186.50	15.00			1951	3510	8.0000	7.74	7.74	7.26	1829 m	North East
6628-5240	52209			Exploration; Investigation	1950-03-23	45.57	15.00									1842 m	North East
6628-28255	288809	GW 1		Investigation	2015-10-22	7.50										1851 m	West
6628-10969	57938		Backfilled	Observation	1979-05-15	81.00	15.14		7.40	661	1200		4.92	4.92	10.22	1868 m	North East
6628-5241	52210	LPR - E. W. S. DEPT. 1	Backfilled	Observation	1977-06-24	175.00	15.22	15.24	7.90	1467	2649	4.0000	14.80	14.82	0.42	1880 m	North East
6628-28256	288810	GW 2		Investigation		4.50							2.10	2.10		1895 m	West
6628-5202	52171			Domestic; Irrigation; Stock		39.62	15.00			596	1084	1.0100				1902 m	North East
6628-30844	345977		Dry	Investigation	2020-06-09	1.50										1905 m	South West
6628-28603	290342	P 11		Investigation	2016-08-09	4.00							1.50	1.50		1908 m	East
6628-23488	238423	ANDREW SMITH OVAL BORE 3			2008-02-01	138.00		12.57		733	1330	12.0000	17.00	17.00	-4.43	1916 m	North
6628-21675	199905		Operational	Monitoring	2004-06-10	140.00	2.40	2.30		1272	2300	4.0000	2.32	2.22	0.08	1933 m	West
6628-3417	50386	BOLIVAR 48	Unknown	Exploration	1960-11-22	5.79	1.81									1938 m	North West
6628-30850	345983		Dry	Investigation	2020-06-11	3.10										1941 m	South West
6628-3438	50407	PENRICE 5	Backfilled	Industrial; Observation	1968-03-18	140.21	1.21	1.21	7.00	1830	3297	12.5018	14.50	14.50	-13.30	1948 m	West
6628-13020	59989		Operational	Industrial; Observation	1984-07-24	149.00	1.83		7.08	1524	2750	12.1000				1951 m	West
6628-6945	53914	LEVELS 1966 3	Unknown		1966-10-06	18.32	7.00									1953 m	South East
6628-17205	150034	CONNECTOR 13	Unknown		1990-05-29	20.40	2.22									1962 m	South West
6628-3418	50387		Abandoned	Stock	1959-01-01		2.34			8685	14988		3.05	3.05	-0.71	1963 m	West
6628-21075	195383	GW 8		Investigation	2002-12-17	3.30		4.36					1.20	1.20	3.16	1971 m	South
6628-5237	52206				1969-01-01	7.62	17.00		9.00	2530	4536		4.57	4.57	12.43	1972 m	North East
6628-17206	150035	CONNECTOR 14	Unknown		1993-08-18	11.80	2.70									1980 m	South West
6628-4336	51305	BOLIVAR 120	Unknown	Investigation	1960-11-30	3.66	0.77									1992 m	South West
6628-3416	50385	BOLIVAR 44	Unknown	Exploration	1960-12-15	6.10	2.33									1994 m	North West
6628-5200	52169			Irrigation		30.50	16.00			890	1615	1.8900				1999 m	North East

Drillholes Data Source: Dept of Environment, Water and Natural Resources - South Australia
Creative Commons 4.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/4.0/

Geology 1:100,000

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Geology

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

Surface Geology 1:100,000

Surface Geology Units within the dataset buffer:

Map Unit Code	Name	Description	Parent Name	Province	Age	Min Age	Max Age	Distance
Qpap	Pooraka Formation	Clay, sand and carbonate earth, silty, with gravel lenses.	Unnamed GIS Unit - see description	ST VINCENT BASIN	PLEISTOCENE	Pleistocene, Late	Pleistocene, Late	0m
Qhck	Saint Kilda Formation	Coastal marine sediment: calcareous, fossiliferous sand and mud of iintertidal sand flats, beaches and tidal marshes; organic, gypseous clay of supratidal flats.	Unnamed GIS Unit - see description	ST VINCENT BASIN	HOLOCENE	Holocene	Holocene	895m

Geology Data Source: Dept of Environment, Water and Natural Resources - South Australia
Creative Commons 4.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/4.0/

Linear Structures 1:100,000

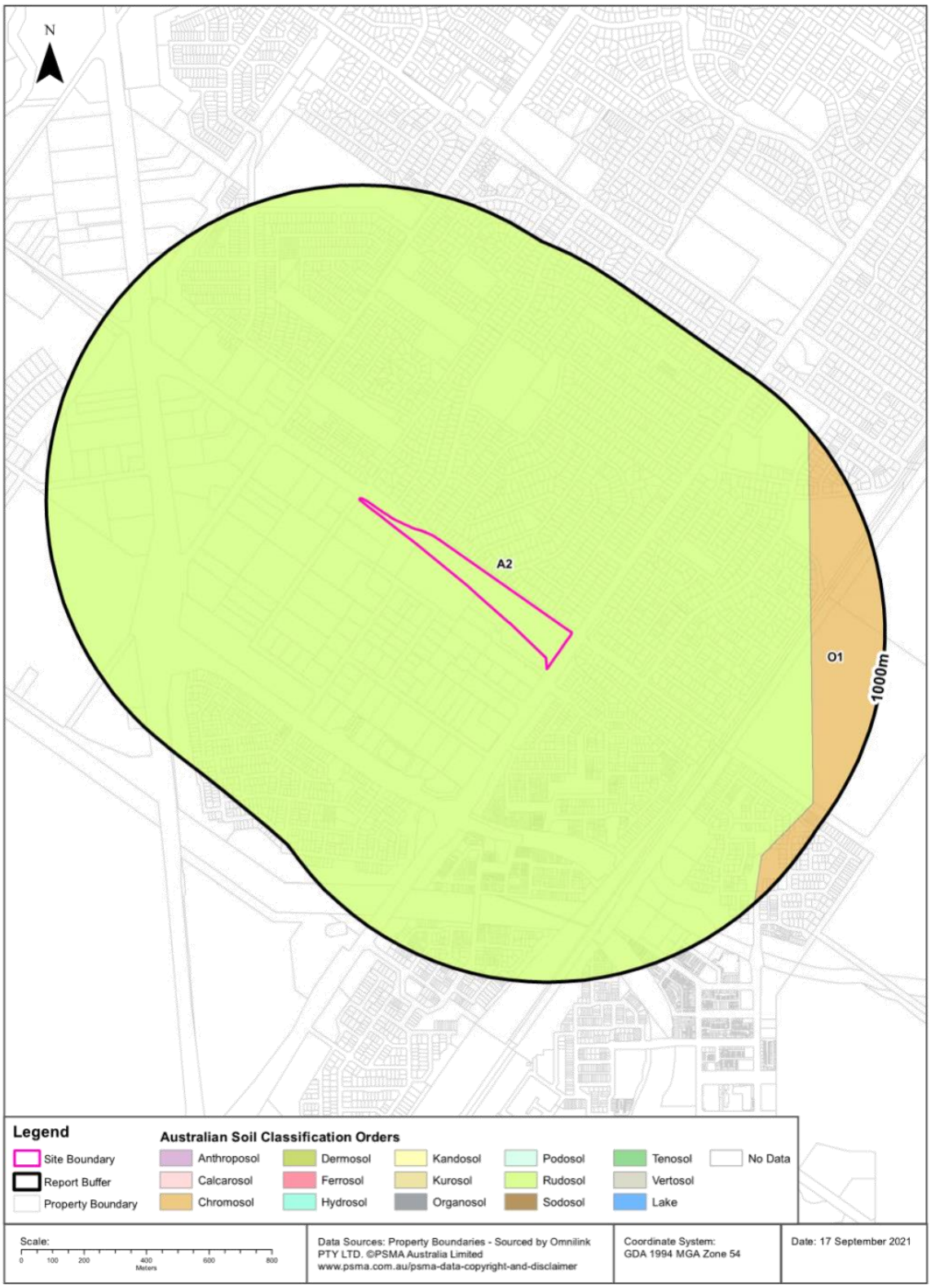
Linear geological structures within the dataset buffer:

Map Code	Description	Distance
N/A	No features in buffer	

Geology Data Source: Dept of Environment, Water and Natural Resources - South Australia
Creative Commons 4.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/4.0/

Atlas of Australian Soils

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Soils

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

Atlas of Australian Soils

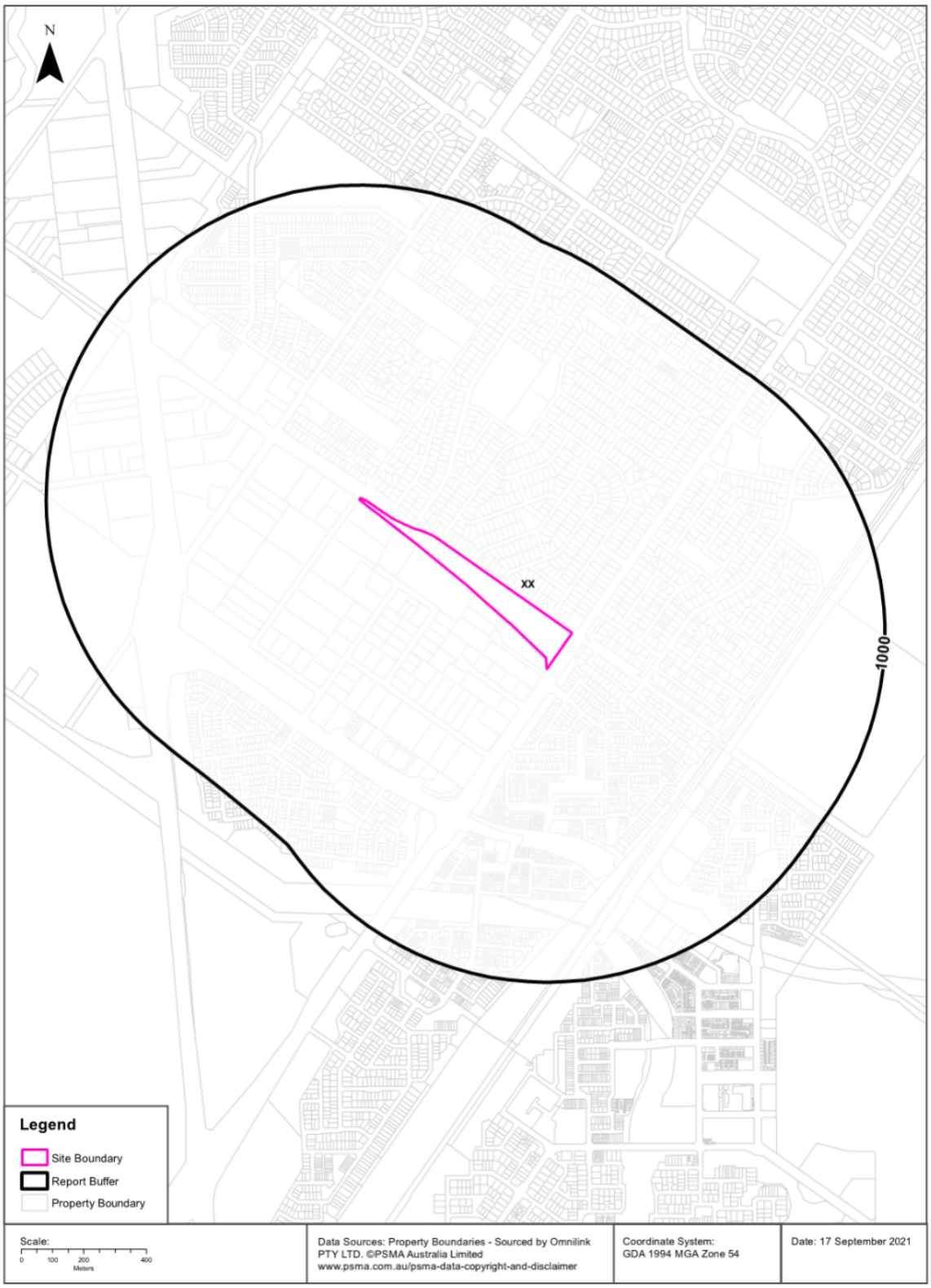
Soil mapping units and Australian Soil Classification orders within the dataset buffer:

Map Unit Code	Soil Order	Map Unit Description	Distance
A2	Rudosol	Coastal dunes and plains with some swamps: dunes of calcareous sands (Uc1.11) and also siliceous sands (Uc1.22); plains of various saline soils (unclassified) and lesser areas of brown calcareous earths (Gc1.1 and Gc1.2).	0m
O1	Chromosol	Outwash plains: hard alkaline red soils (Dr2.23 with small areas Dr2.33); small areas cracking clay soils (Ug5.15, Ug5.16, and Ug5.2), also hard alkaline yellow mottled soils (Dy3.43); minor areas (Um6.21) and (Uf6.11); various alluvial soils (unclassified) in the stream valleys.	764m

Atlas of Australian Soils Data Source: CSIRO
Creative Commons 4.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/4.0/au/deed.en

Soil Types

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Soils

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

Soil Types

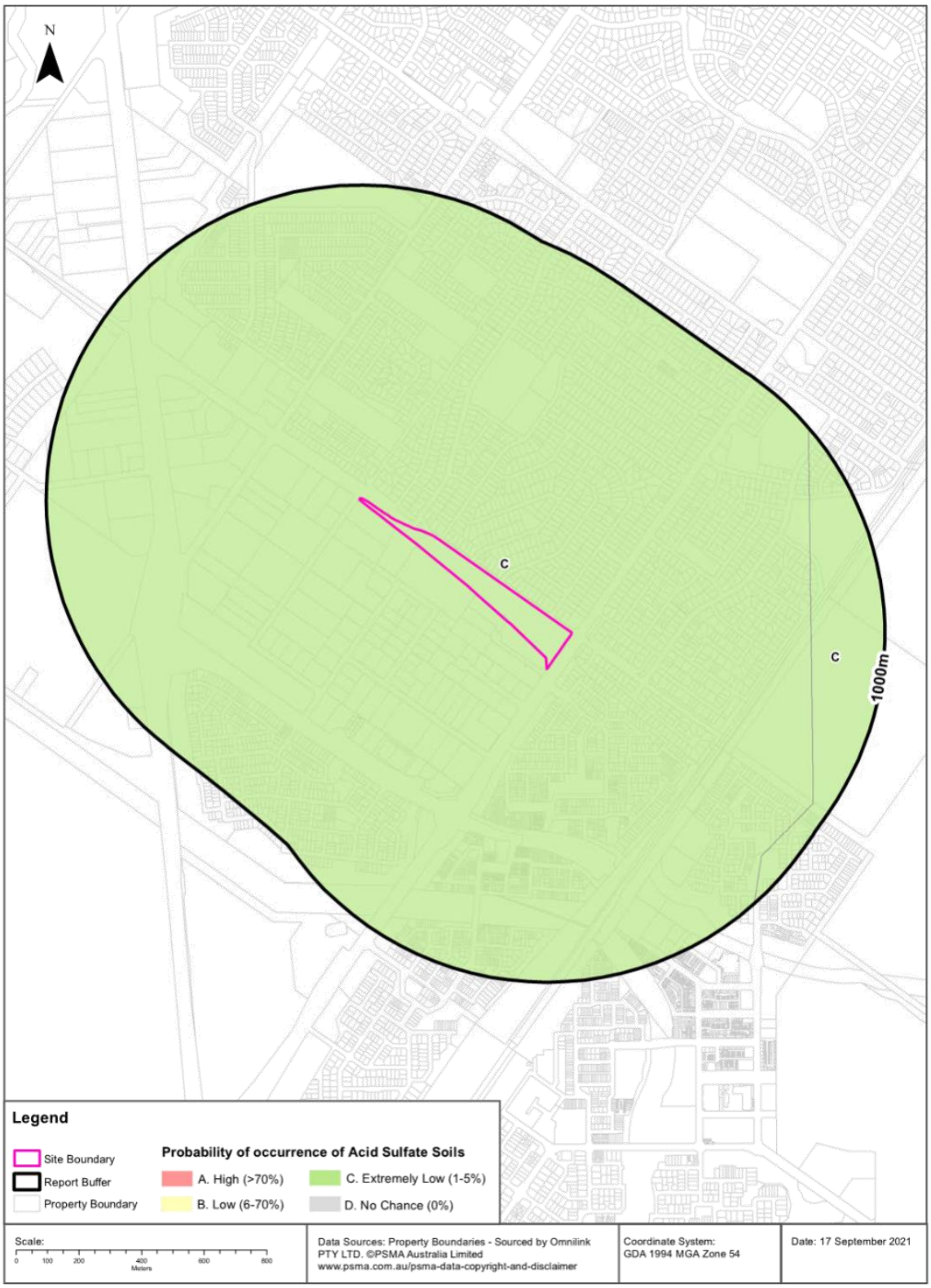
Soil types within the dataset buffer:

Map category code	Soil type description	Distance
XX	Not applicable - No assessment/analysis undertaken	0m

Soil Types Data Source: Dept of Environment, Water and Natural Resources - South Australia
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Atlas of Australian Acid Sulfate Soils

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

Acid Sulfate Soils

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

Atlas of Australian Acid Sulfate Soils

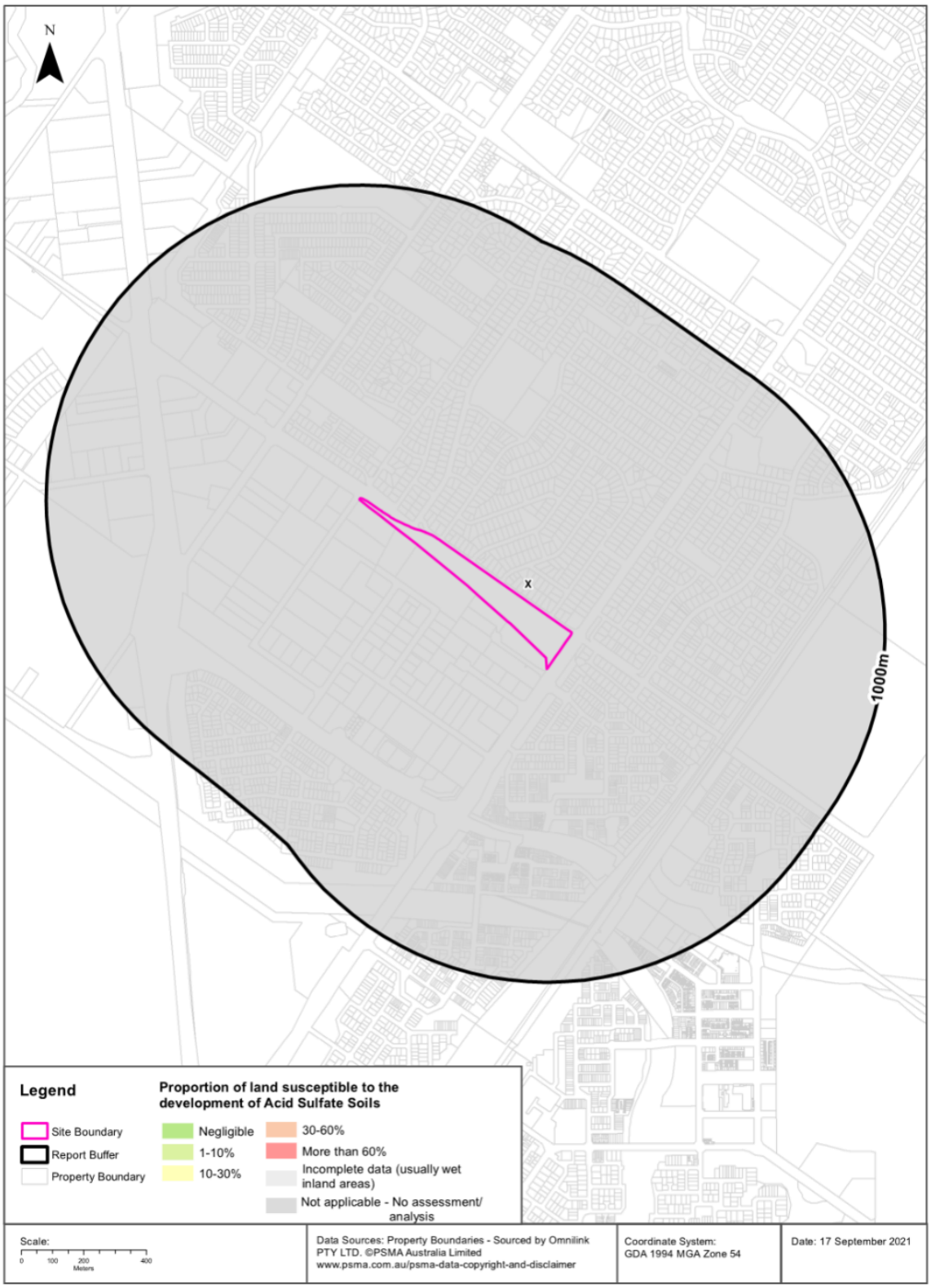
Atlas of Australian Acid Sulfate Soil categories within the dataset buffer:

Class	Description	Distance
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Acid Sulfate Soils Potential

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Acid Sulfate Soils

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

Acid Sulfate Soil Potential

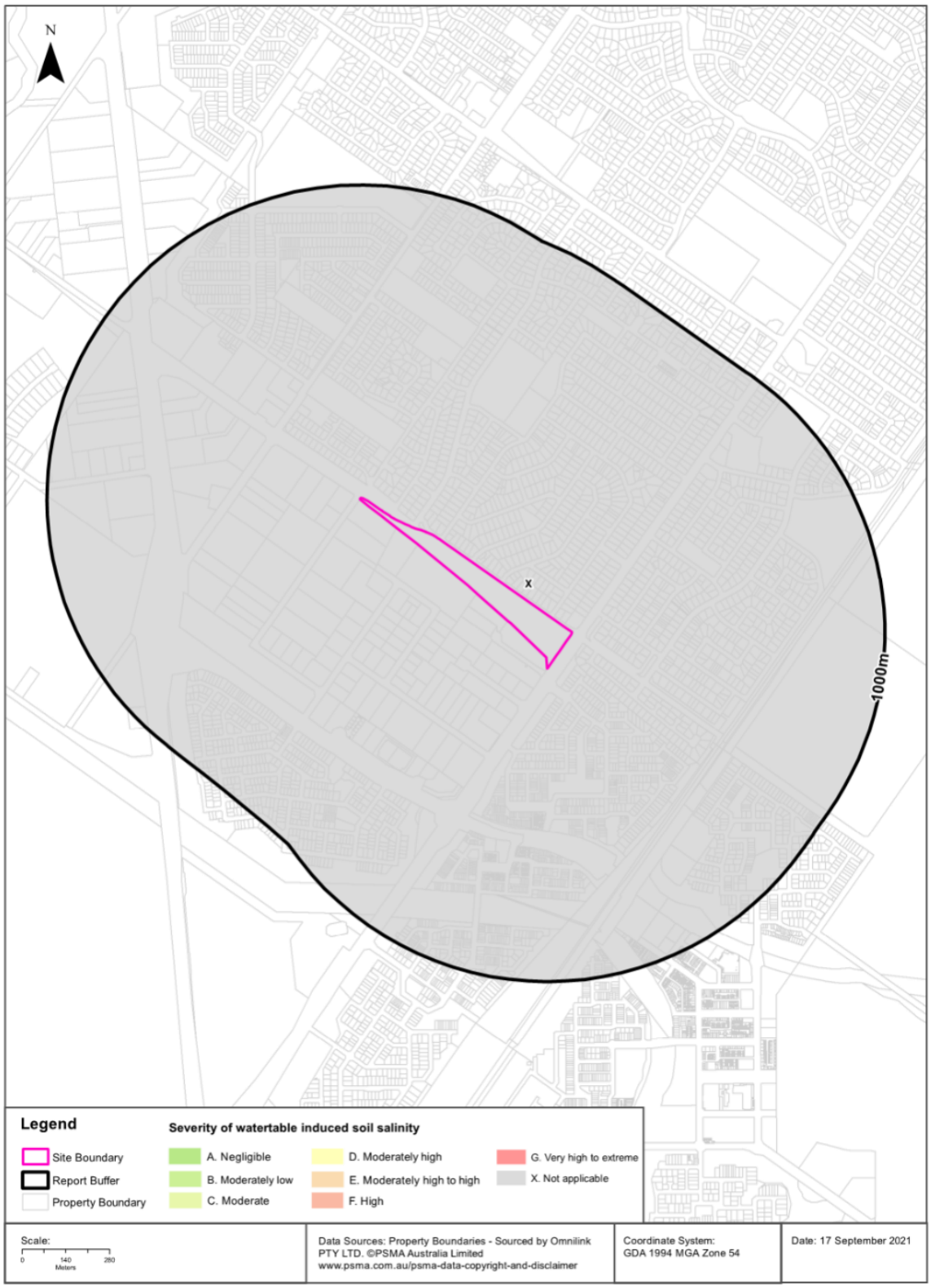
Acid sulfate soil potential within the dataset buffer:

Map category code	Proportion of land susceptible to the development of acid sulfate soils	Distance
X	Not applicable - No assessment/analysis undertaken	0m

Acid Sulfate Soils Data Source: Dept of Environment, Water and Natural Resources - South Australia
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

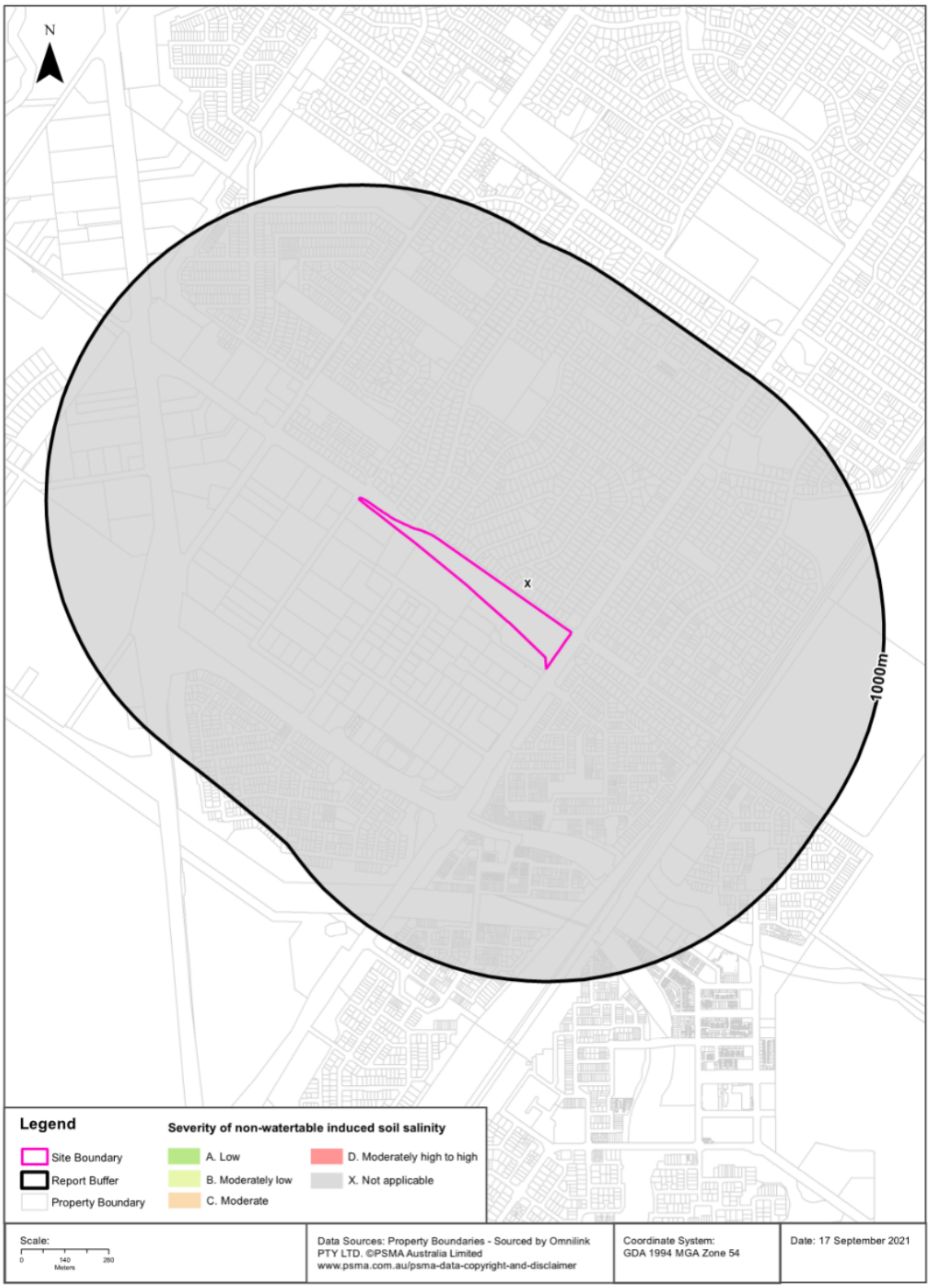
Soil Salinity - Watertable Induced

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



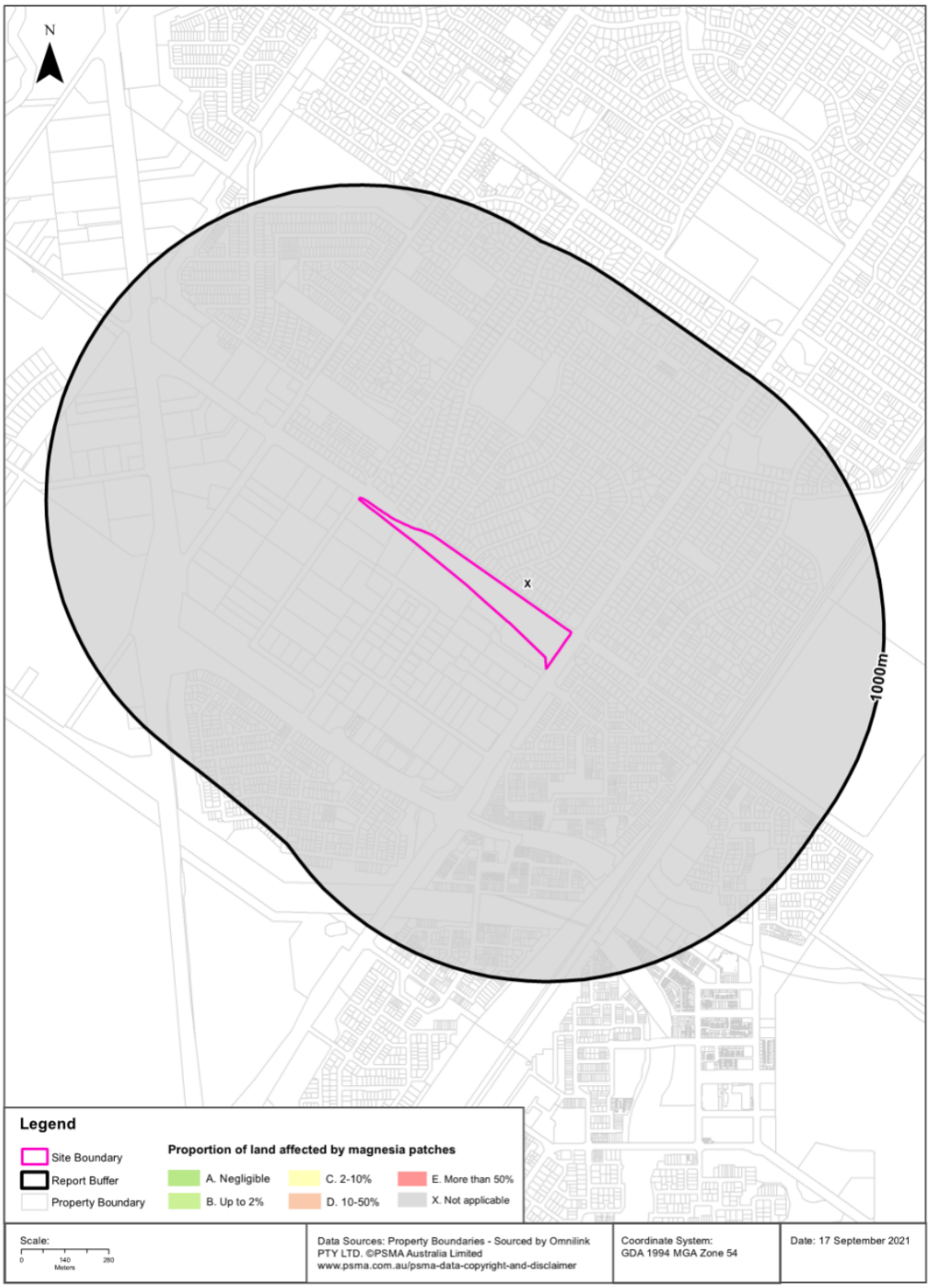
Soil Salinity - Non-watertable

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Soil Salinity - Non-watertable (Magnesia Patches)

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Soil Salinity

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

Soil Salinity - Watertable Induced

Watertable induced soil salinity within the dataset buffer:

Map category code	Severity description	Distance
X	Not applicable - No assessment/analysis undertaken	0m

Salinity Watertable Induced Data Source: Dept of Environment, Water and Natural Resources - South Australia
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Soil Salinity - Non-Watertable

Non-watertable soil salinity within the dataset buffer:

Map category code	Severity description	Surface ECe (dS/m)	Subsoil ECe (dS/m)	Distance
X	Not applicable - No assessment/analysis undertaken			0m

Salinity Non-Watertable Data Source: Dept of Environment, Water and Natural Resources - South Australia
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Soil Salinity - Non-Watertable (Magnesia Patches)

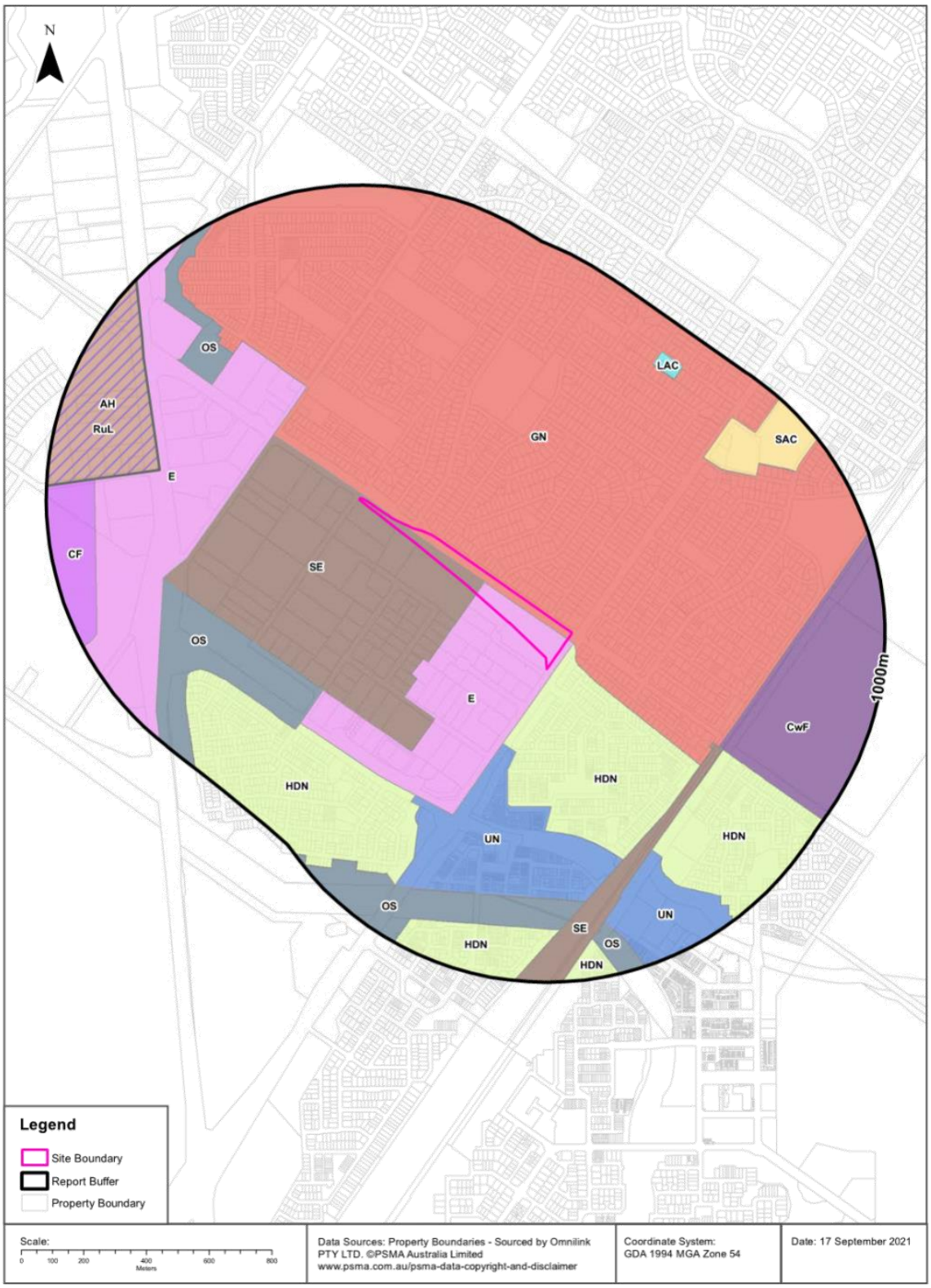
Magnesia patches within the dataset buffer:

Map category code	Proportion of land affected by magnesia patches	Distance
X	Not applicable - No assessment/analysis undertaken	0m

Salinity Non-Watertable (Magnesia Patches) Data Source: Dept of Environment, Water and Natural Resources - South Australia
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Planning and Design Code Zones

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Planning

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

Planning and Design Code - Zones

Planning and Design Code zones within the dataset buffer:

Map Id	Zone Code	Zone Name	Legal Start State	Status	Distance	Direction
E	Z1501	Employment	19/03/2021	0	0m	Onsite
GN	Z2102	General Neighbourhood	19/03/2021	0	0m	Onsite
SE	Z5720	Strategic Employment	19/03/2021	0	0m	Onsite
HDN	Z2404	Housing Diversity Neighbourhood	19/03/2021	0	22m	South East
UN	Z6306	Urban Neighbourhood	19/03/2021	0	276m	South
E	Z1501	Employment	19/03/2021	0	343m	West
OS	Z4501	Open Space	19/03/2021	0	549m	South West
SE	Z5720	Strategic Employment	19/03/2021	0	568m	South
HDN	Z2404	Housing Diversity Neighbourhood	19/03/2021	0	580m	South West
CwF	Z0913	Commonwealth Facilities	19/03/2021	0	592m	East
OS	Z4501	Open Space	19/03/2021	0	597m	North West
HDN	Z2404	Housing Diversity Neighbourhood	19/03/2021	0	608m	South East
RuL	Z5405	Rural Living	19/03/2021	0	644m	North West
UN	Z6306	Urban Neighbourhood	19/03/2021	0	667m	South East
SAC	Z5705	Suburban Activity Centre	19/03/2021	0	700m	North East
HDN	Z2404	Housing Diversity Neighbourhood	19/03/2021	0	825m	South
OS	Z4501	Open Space	19/03/2021	0	828m	South
CF	Z0903	Community Facilities	19/03/2021	0	843m	West
LAC	Z3603	Local Activity Centre	19/03/2021	0	851m	North East
HDN	Z2404	Housing Diversity Neighbourhood	19/03/2021	0	873m	South

Land Development Zones Data Source: Department of Planning, Transport and Infrastructure - South Australia
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Planning and Design Code - Subzones

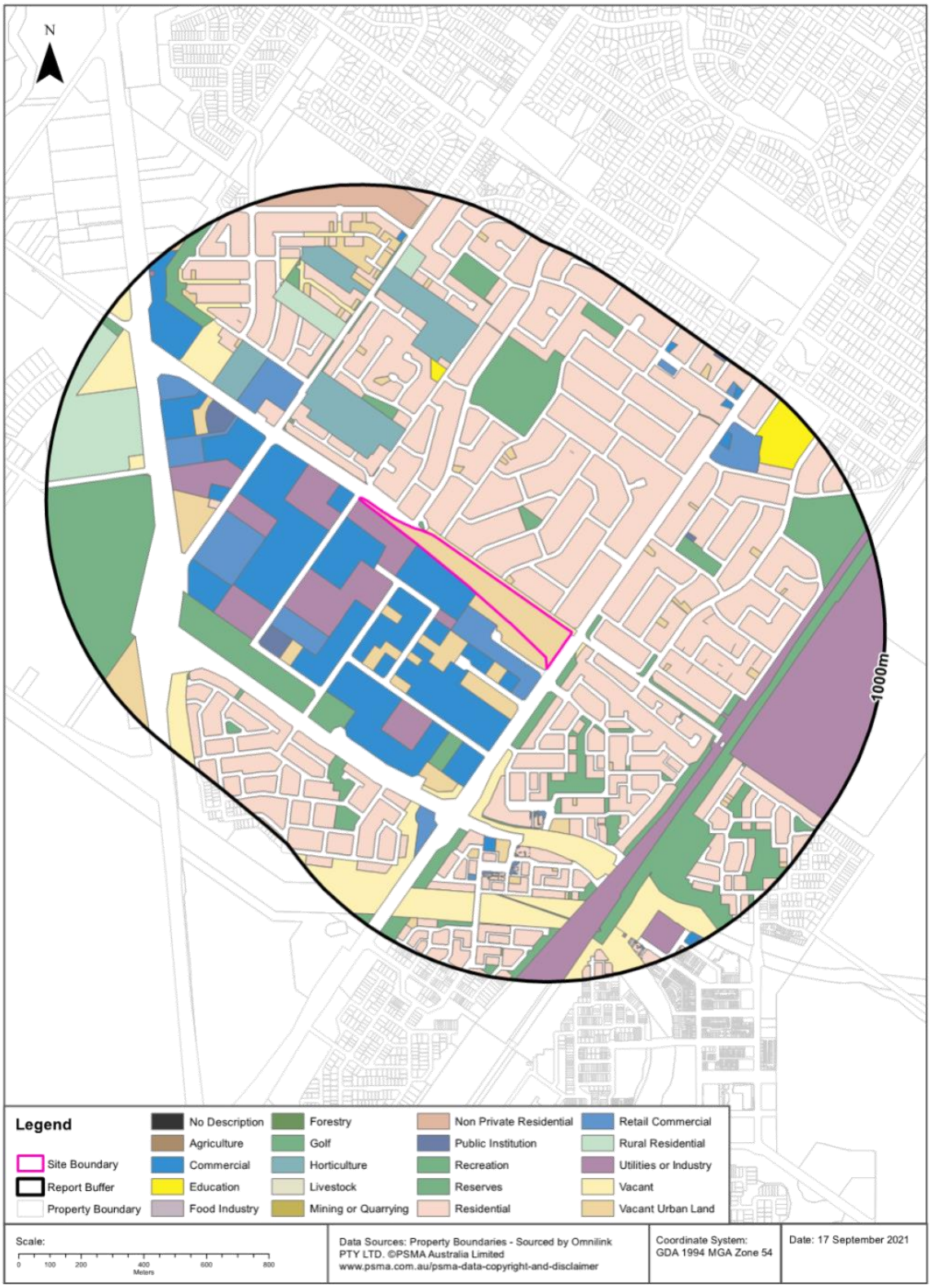
Planning and Design Code subzones within the dataset buffer:

Map Id	Subzone Code	Subzone Name	Legal Start State	Status	Distance	Direction
AH	S0303	Animal Husbandry	19/03/2021	0	644m	North West

Land Development Zones Data Source: Department of Planning, Transport and Infrastructure - South Australia
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Land Use Generalised 2019

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Planning

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

Land Use Generalised 2019

Land use classes within the dataset buffer:

Description	Distance	Direction
Vacant Urban Land	0m	Onsite
Commercial	0m	Onsite
Utilities or Industry	0m	Onsite
Vacant	0m	North East
Reserves	1m	North West
Residential	13m	East
Residential	13m	North
Residential	13m	North East
Residential	13m	North West
Retail Commercial	27m	South
Horticulture	125m	North West
Recreation	355m	South
Education	440m	North
Public Institution	474m	East
Rural Residential	509m	North West
Non Private Residential	875m	North

Land Use Generalised Data Source: Dept of Planning, Transport and Infrastructure - South Australia
Creative Commons 4.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/4.0/au/deed.en

Heritage

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

Commonwealth Heritage List

What are the Commonwealth Heritage List Items located within the dataset buffer?

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch
Creative Commons 3.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/3.0/au/deed.en

National Heritage List

What are the National Heritage List Items located within the dataset buffer?
Note. Please click on Place Id to activate a hyperlink to online website.

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch
Creative Commons 3.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/3.0/au/deed.en

State Heritage Areas

State Heritage Areas within the dataset buffer:

Heritage Id	Name	Distance	Direction
N/A	No records in buffer		

Heritage Areas Data Source: Dept of Environment, Water and Natural Resources - South Australia
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

SA Heritage Places

SA Heritage Places within the dataset buffer:

Heritage No	Location	Heritage Class	Australian Class	Details	Auth Date	Distance	Direction
N/A	No records in buffer						

Heritage Places Data Source: Dept of Environment, Water and Natural Resources - South Australia
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Aboriginal Land

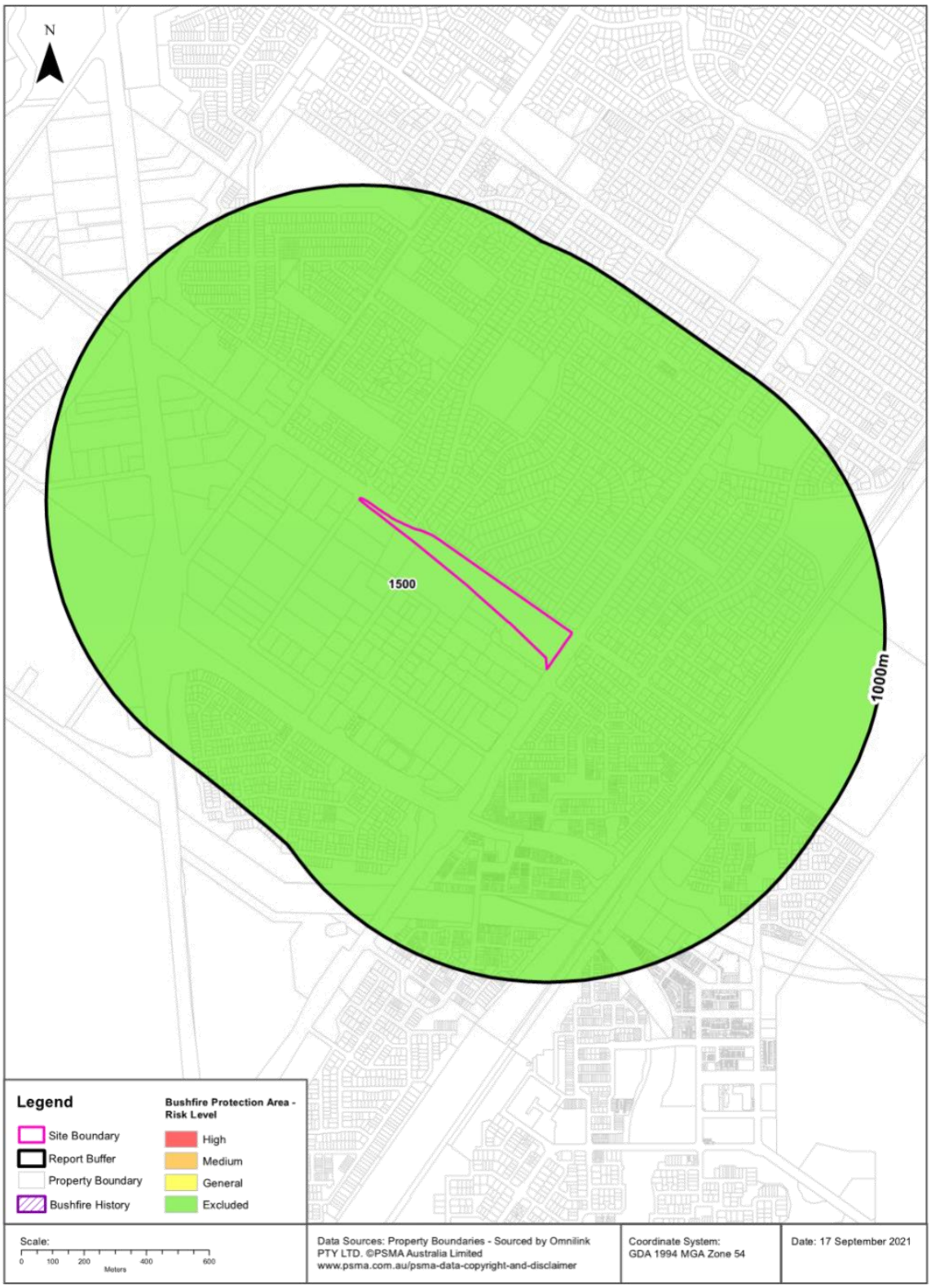
Aboriginal Land within the dataset buffer:

Map Id	Grant Date	Address	Locality	Description	Title	Distance	Direction
N/A	No records in buffer						

Aboriginal Land Data Source: Department of State Development, Resources and Energy - South Australia

Natural Hazards - Bushfire

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Natural Hazards

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

Bushfire Protection Areas

Bushfire Protection Areas within the dataset buffer:

Map Id	Bushfire Risk Code	Development Plan Code	Additional Development Criteria	Distance	Direction
1500	Excluded	SAL		0m	On-site

Bushfire Protection Areas Data Source: Dept of Planning, Transport and Infrastructure - South Australia
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Bushfires and Prescribed Burns History

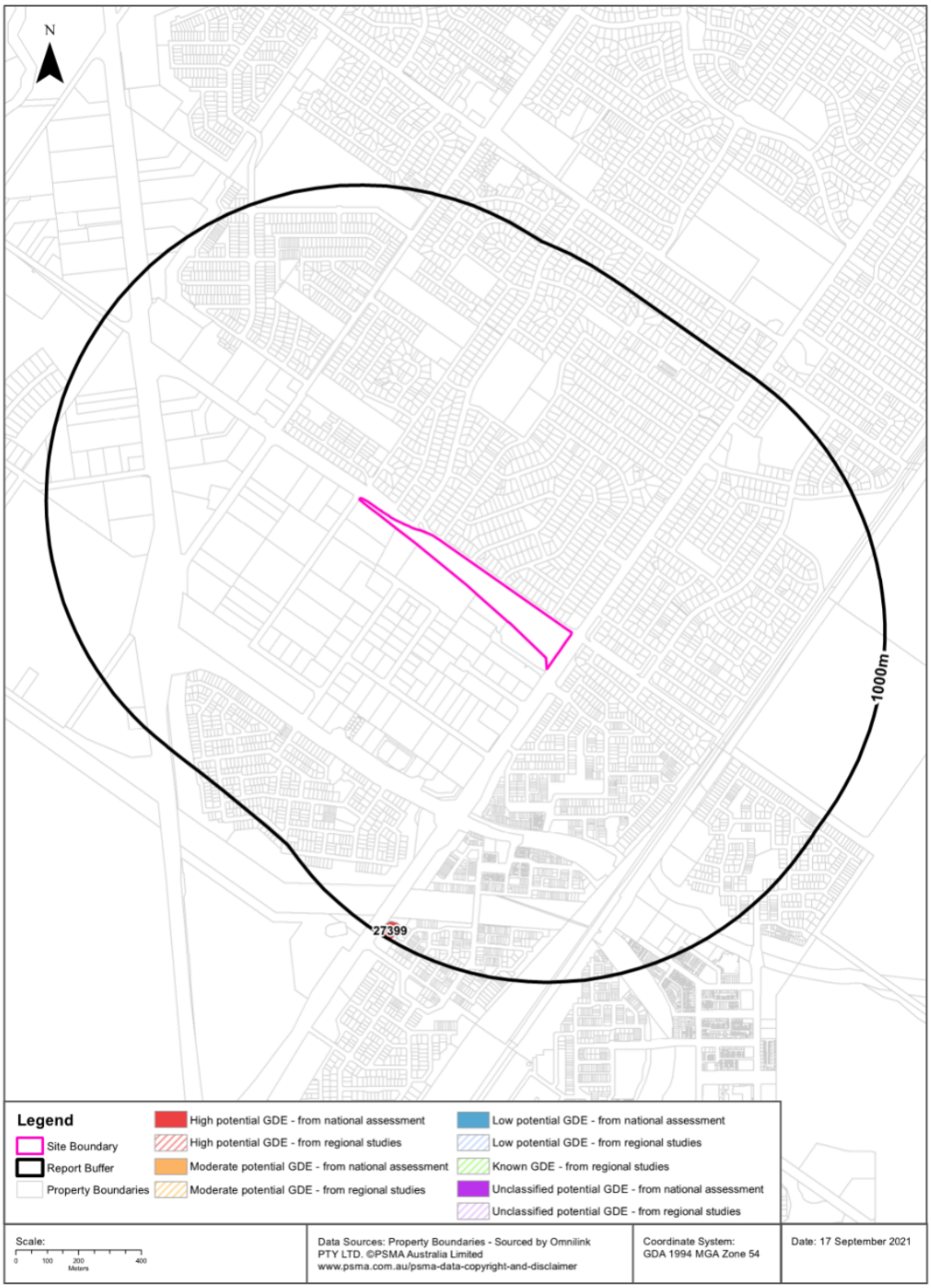
Bushfires and prescribed burns within the dataset buffer:

Map Id	Incident No.	Incident Name	Incident Type	Date of Fire	Area of Fire	Distance	Direction
N/A	No records in buffer						

Bushfires and Prescribed Burns History Data Source: Dept of Environment, Water and Natural Resources - South Australia
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Ecological Constraints - Groundwater Dependent Ecosystems Atlas

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107



Ecological Constraints

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

Groundwater Dependent Ecosystems Atlas

GDEs within the dataset buffer:

MapID	Type	Name	GDE Potential	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
27399	Aquatic		High potential GDE - from national assessment	10	Salt lake and bahadas in north; alluvial and littoral plains in south; north-west/south-east longitudinal dunes, mainly stabilized.	Wetland		939m

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Ecological Constraints

Corner of Ryans Road & Salisbury Highway, Greenfields, SA 5107

Ramsar Wetlands

Ramsar Wetlands within the dataset buffer:

Wetland	Distance	Direction
No records in buffer		

Ramsar Wetlands Data Source: Dept of Environment, Water and Natural Resources - South Australia
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

Location Confidences

Where Lotsearch has had to georeference features from supplied addresses, a location confidence has been assigned to the data record. This indicates a confidence to the positional accuracy of the feature. Where applicable, a code is given under the field heading “LC” or “LocConf”. These codes lookup to the following location confidences:

LC Code	Location Confidence
Premise match	Georeferenced to the site location / premise or part of site
General area or suburb match	Georeferenced with the confidence of the general/approximate area
Road match	Georeferenced to the road or rail
Road intersection	Georeferenced to the road intersection
Feature is a buffered point	Feature is a buffered point
Land adjacent to geocoded site	Land adjacent to Georeferenced Site
Network of features	Georeferenced to a network of features

USE OF REPORT - APPLICABLE TERMS

The following terms apply to any person (End User) who is given the Report by the person who purchased the Report from Lotsearch Pty Ltd (ABN: 89 600 168 018) (Lotsearch) or who otherwise has access to the Report (Terms). The contract terms that apply between Lotsearch and the purchaser of the Report are specified in the order form pursuant to which the Report was ordered and the terms set out below are of no effect as between Lotsearch and the purchaser of the Report.

1. End User acknowledges and agrees that:
   (a) the Report is compiled from or using content (**Third Party Content**) which is comprised of:
      (i) content provided to Lotsearch by third party content suppliers with whom Lotsearch has contractual arrangements or content which is freely available or methodologies licensed to Lotsearch by third parties with whom Lotsearch has contractual arrangements (**Third Party Content Suppliers**); and
      (ii) content which is derived from content described in paragraph (i);
   (b) Neither Lotsearch nor Third Party Content Suppliers takes any responsibility for or give any warranty in relation to the accuracy or completeness of any Third Party Content included in the Report including any contaminated land assessment or other assessment included as part of a Report;
   (c) the Third Party Content Suppliers do not constitute an exhaustive set of all repositories or sources of information available in relation to the property which is the subject of the Report (**Property**) and accordingly neither Lotsearch nor Third Party Content Suppliers gives any warranty in relation to the accuracy or completeness of the Third Party Content incorporated into the report including any contaminated land assessment or other assessment included as part of a Report;
   (d) Reports are generated at a point in time (as specified by the date/time stamp appearing on the Report) and accordingly the Report is based on the information available at that point in time and Lotsearch is not obliged to undertake any additional reporting to take into consideration any information that may become available between the point in time specified by the date/time stamp and the date on which the Report was provided by Lotsearch to the purchaser of the Report;
   (e) Reports must be used or reproduced in their entirety and End User must not reproduce or make available to other persons only parts of the Report;
   (f) Lotsearch has not undertaken any physical inspection of the property;
   (g) neither Lotsearch nor Third Party Content Suppliers warrants that all land uses or features whether past or current are identified in the Report;
   (h) the Report does not include any information relating to the actual state or condition of the Property;
   (i) the Report should not be used or taken to indicate or exclude actual fitness or unfitness of Land or Property for any particular purpose
   (j) the Report should not be relied upon for determining saleability or value or making any other decisions in relation to the Property and in particular should not be taken to be a rating or assessment of the desirability or market value of the property or its features; and
   (k) the End User should undertake its own inspections of the Land or Property to satisfy itself that there are no defects or failures
2. The End User may not make the Report or any copies or extracts of the report or any part of it available to any other person. If End User wishes to provide the Report to any other person or make extracts or copies of the Report, it must contact the purchaser of the Report before doing so to ensure the proposed use is consistent with the contract terms between Lotsearch and the purchaser.
3. Neither Lotsearch (nor any of its officers, employees or agents) nor any of its Third Party Content Suppliers will have any liability to End User or any person to whom End User provides the Report and End User must not represent that Lotsearch or any of its Third Party Content Suppliers accepts liability to any such person or make any other representation to any such person on behalf of Lotsearch or any Third Party Content Supplier.
4. The End User hereby to the maximum extent permitted by law:
   (a) acknowledges that the Lotsearch (nor any of its officers, employees or agents), nor any

of its Third Party Content Supplier have any liability to it under or in connection with the Report or these Terms;

(b) waives any right it may have to claim against Third Party Content Supplier in connection with the Report, or the negotiation of, entry into, performance of, or termination of these Terms; and

(c) releases each Third Party Content Supplier from any claim it may have otherwise had in connection with the Report, or the negotiation of, entry into, performance of, or termination of these Terms.

5. The End User acknowledges that any Third Party Supplier shall be entitled to plead the benefits conferred on it under clause 4, despite not being a party to these terms.
6. End User must not remove any copyright notices, trade marks, digital rights management information, other embedded information, disclaimers or limitations from the Report or authorise any person to do so.
7. End User acknowledges and agrees that Lotsearch and Third Party Content Suppliers retain ownership of all copyright, patent, design right (registered or unregistered), trade marks (registered or unregistered), database right or other data right, moral right or know how or any other intellectual property right in any Report or any other item, information or data included in or provided as part of a Report.
8. To the extent permitted by law and subject to paragraph 9, all implied terms, representations and warranties whether statutory or otherwise relating to the subject matter of these Terms other than as expressly set out in these Terms are excluded.
9. Subject to paragraph 6, Lotsearch excludes liability to End User for loss or damage of any kind, however caused, due to Lotsearch's negligence, breach of contract, breach of any law, in equity, under indemnities or otherwise, arising out of all acts, omissions and events whenever occurring.
10. Lotsearch acknowledges that if, under applicable State, Territory or Commonwealth law, End User is a consumer certain rights may be conferred on End User which cannot be excluded, restricted or modified. If so, and if that law applies to Lotsearch, then, Lotsearch's liability is limited to the greater of an amount equal to the cost of resupplying the Report and the maximum extent permitted under applicable laws.
11. Subject to paragraph 9, neither Lotsearch nor the End User is liable to the other for:
    (a) any indirect, incidental, consequential, special or exemplary damages arising out of or in relation to the Report or these Terms; or
    (b) any loss of profit, loss of revenue, loss of interest, loss of data, loss of goodwill or loss of business opportunities, business interruption arising directly or indirectly out of or in relation to the Report or these Terms,

    irrespective of how that liability arises including in contract or tort, liability under indemnity or for any other common law, equitable or statutory cause of action or otherwise.
12. These Terms are subject to New South Wales law.

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

Preliminary Site Investigation
City of Salisbury
Corner Ryans Road and Salisbury Highway, Greenfields SA

APPENDIX C HISTORIC CERTIFICATES OF TITLE

greencap.com.au
Adelaide | Auckland | Brisbane | Canberra | Darwin | Melbourne | Newcastle | Perth | Sydney | Wollongong

LAND SERVICES SA

Product	Register Search (CT 6214/652)
Date/Time	06/09/2021 01:38PM
Customer Reference	Ryans Road Reserve
Order ID	20210906007034

REAL PROPERTY ACT, 1886
South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.

Certificate of Title - Volume 6214 Folio 652

Parent Title(s) CT 6212/334

Creating Dealing(s) RTD 12968154

Title Issued 17/10/2018 **Edition** 1 **Edition Issued** 17/10/2018

Estate Type

FEE SIMPLE

Registered Proprietor

CITY OF SALISBURY
OF PO BOX 8 SALISBURY SA 5108

Description of Land

ALLOTMENT 1001 DEPOSITED PLAN 119186
IN THE AREAS NAMED GREEN FIELDS AND PARAFIELD GARDENS
HUNDRED OF YATALA

Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED G ON D119186 FOR GAS SUPPLY PURPOSES TO AUSTRALIAN GAS NETWORKS (SA) LTD. (RTD 12968154)

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED P ON D119186 FOR THE TRANSMISSION OF ELECTRICITY BY OVERHEAD CABLE TO DISTRIBUTION LESSOR CORPORATION (SUBJECT TO LEASE 8890000) (RTD 12968154)

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED S ON D119186 FOR SEWERAGE PURPOSES TO SOUTH AUSTRALIAN WATER CORPORATION (RTD 12968154)

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED U ON D119186 FOR THE TRANSMISSION OF ELECTRICITY BY UNDERGROUND CABLE TO DISTRIBUTION LESSOR CORPORATION (SUBJECT TO LEASE 8890000) (RTD 12968154)

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED W ON D119186 FOR WATER SUPPLY PURPOSES TO SOUTH AUSTRALIAN WATER CORPORATION (RTD 12968154)

Schedule of Dealings

NIL

Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL

South Australia

(CERTIFICATE OF TITLE)

Register Book,

Vol. 3025 *Folio* 114

New Certificate of Title from Vol.1016 Folio 59

FREDERICK GEORGE RYAN of Bolivar and Lower Light Grazier is the proprietor of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in THAT PIECE of land situated in the HUNDRED OF YATALA COUNTY OF ADELAIDE being the ALLOTMENT 22 of the subdivision of portion of Section 2261 laid out as GREEN FIELDS and bounded as appears in the plan in the margin hereof and in the plan deposited in the LANDS TITLES REGISTRATION OFFICE No.7089

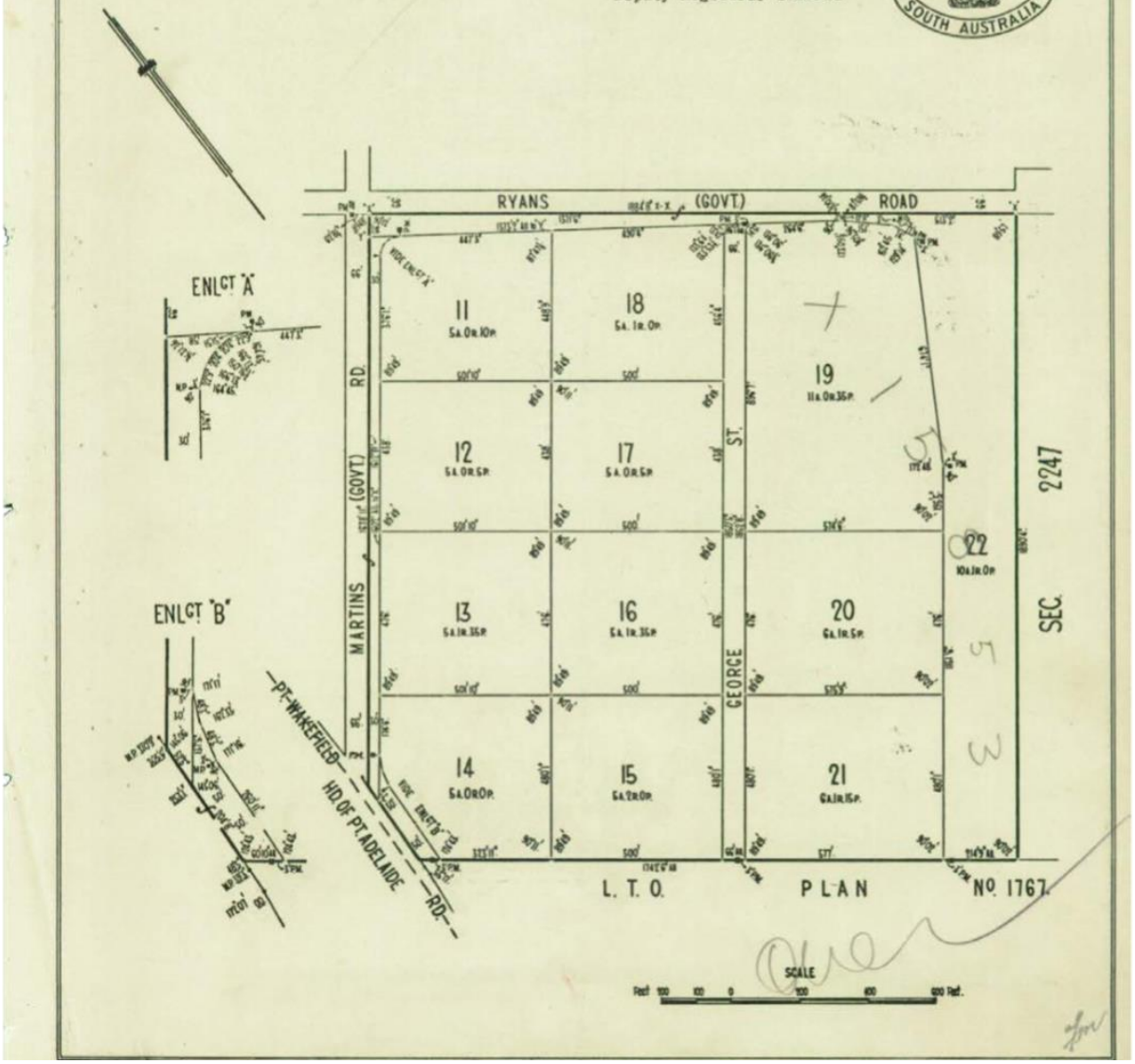
In witness whereof I have hereunto signed my name and affixed my seal this first day of December 1961

Signed the first day of December 1961, in the presence of

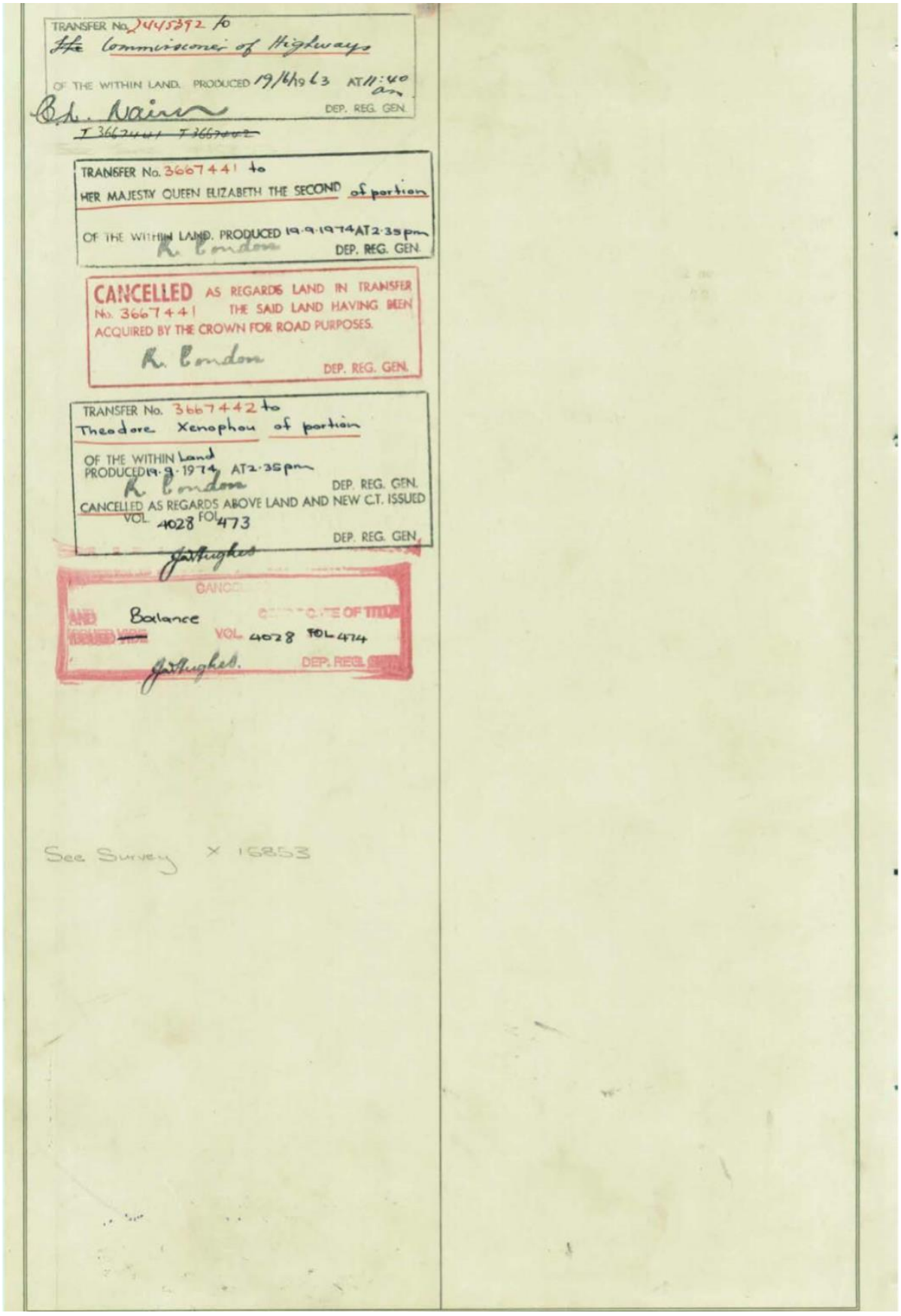
G.E. Oswell

Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA



Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment



TRANSFER No. 2445392 to
The Commissioner of Highways
OF THE WITHIN LAND. PRODUCED 19/6/1963 AT 11:40 am
DEP. REG. GEN.
I 3662441 I 3667442

TRANSFER No. 3667441 to
HER MAJESTY QUEEN ELIZABETH THE SECOND of portion
OF THE WITHIN LAND. PRODUCED 19.9.1974 AT 2.35 pm
R. London
DEP. REG. GEN.

CANCELLED AS REGARDS LAND IN TRANSFER No. 3667441 THE SAID LAND HAVING BEEN ACQUIRED BY THE CROWN FOR ROAD PURPOSES.
R. London
DEP. REG. GEN.

TRANSFER No. 3667442 to
Theodore Xenophou of portion
OF THE WITHIN Land PRODUCED 19.9.1974 AT 2.35 pm
R. London
DEP. REG. GEN.
CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED VOL. 4028 FOL. 473
DEP. REG. GEN.

CANCELLED
AND Balance CERTIFICATE OF TITLE
ISSUED VOL. 4028 FOL. 474
DEP. REG. GEN.

See Survey X 16853

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

ORIGINAL South Australia Register Book,

CERTIFICATE OF TITLE Volume 4028 Folio 473

(Comprising 2 Sheets)

Pursuant to Transfer 3667442 Registered on Vol.3025 Folio 114 and New Certificate for the balance of the Land in Vol.733 Folio 55

THEODORE XENOPHOU of 16 Karri Drive Dernancourt 5075 Builder is the proprietor of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in PORTION OF SECTION 2247 HUNDRED OF YATALA and PORTION OF ALLOTMENT 22 of portion of Section 2261 in the said Hundred laid out as GREEN FIELDS (L.T.R.O. Plan deposited No.7089) and delineated by bold black lines on the plan hereon

In witness whereof I have signed my name and affixed my seal this 30th day of October 1974

Signed the 30th day of October 1974, in the presence of A.A.Duthy

Resub. 259/81

RESUBDIVISION APPROVED
The within land has been redesignated as Lots 1,2,3,4 & 5 in F.P. 16679
(S.P.O. Docket 259 /1981)

C.L. Nairn

Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

MORTGAGE 3201003 to THE NATIONAL BANK OF AUSTRALASIA LIMITED of the within portion of Section 2247 Produced 7.5.1971 at 10.45 a.m.

C.L. Nairn
Dep.Reg.Genl.

M-3667445

MORTGAGE 3667445 to THE NATIONAL BANK OF AUSTRALASIA LIMITED of the within portion of Allotment 22 Produced 19.9.1974 at 2.35 p.m.

R. Bondarow
Dep.Reg.Genl.

D/M3842425-M3842426

P/A 3497409
The within land is discharged from Mortgages 3201003 and 3667445 vide 3842425 Produced 22.1.1976 at 10.15 a.m.

REGISTRAR-GENERAL SOUTH AUSTRALIA

MORTGAGE 3842426 to BANK OF NEW SOUTH WALES Produced 22.1.1976 at 10.15 a.m.

REGISTRAR-GENERAL SOUTH AUSTRALIA

CAVEAT 4311401 -----Lodged 21.12.78 at 12.30 p.m. 4479157

CAVEAT 4311401 lodged by VALLEY SECURITIES PTY. LIMITED over the within land Produced 21.12.1978 at 12.30 p.m. (Including other land)

REGISTRAR-GENERAL SOUTH AUSTRALIA

D/M4323495-D/M4323496-D/M4323497

CAVEAT 4311401 has been withdrawn vide 4323495 Produced 23.1.1979 at 11.30 a.m.

The within land is discharged from Mortgage 3842426 by endorsement thereon vide 4323496 Produced 23.1.1979 at 11.30 a.m.

REGISTRAR-GENERAL SOUTH AUSTRALIA

MORTGAGE 4323497 to BAGOT'S EXECUTOR AND TRUSTEE COMPANY LIMITED Produced 23.1.1979 at 11.30 a.m.

REGISTRAR-GENERAL SOUTH AUSTRALIA

M-4479716

MORTGAGE 4479716 to M. DALLWITZ TRUSTS PTY. LIMITED Produced 6.12.1979 at 2.50 p.m.

REGISTRAR-GENERAL SOUTH AUSTRALIA

OVER

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

VOL 4023 FOL 473

MORTGAGE 4499157 to THE NATIONAL BANK OF AUSTRALASIA LIMITED Produced 24.1.1980 at 11.10 a.m.

~~-xx- 4857045~~

REGISTRAR-GENERAL'S CAVEAT 4857045 over portion of the within land Entered 4.3.1982 at 10.55 a.m.

~~DOX 4881445 DM4890465 DM4890466 DM4890467 TV890468 TV890469 DM4890470 DM4890471 TV890472~~

Registrar-Generals Caveat 4857045 has been withdrawn vide 4881445 Entered 11.5.1982 at 11 a.m

P/A 4287699
The within land is discharged from Mortgage 4499157 vide 4890465 Produced 18.5.1982 at 3.05 p.m.

Mortgage 4323497 is discharged from the sum of $46 300 and PORTION of the within Part Section 2247 (Lot 3 F.P. 16670) and an Easement over PORTION of the within Part Section 2247 and PORTION of Part Lot 22 are thereby discharged vide 4890466 Produced 18.5.1982 at 3.05 p.m.

PORTION of the within Part Section 2247 (Lot 3 F.P. 16679) and an Easement over PORTION of the within Part Section 2247 and PORTION of Part Lot 22 are discharged from Mortgage 4479716 vide 4890467 Produced 18.5.1982 at 3.05 p.m.

TRANSFER 4890468 to MINISTER OF WATER RESOURCES of an Easement over PORTION of the within Part Section 2247 and PORTION of Part Lot 22 Produced 18.5.1982 at 3.05 p.m.

CANCELLED as regards above Land and new C.T. issued
Vol. 4195 Fol. 944

TRANSFER 4890469 to FRANCESCO DiMARIA *ANTONIO* DiMARIA GIORGIO DeCICCO and DOMENICO EVANGELISTA of PORTION of the within Part Section 2247 (Lot 3 F.P. 16679) AS TENANTS IN COMMON Produced 18.5.1982 at 3.05 p.m.

CANCELLED as regards above Land and new C.T. issued
Vol. 4195 Fol. 945

The BALANCE of the within Part Lot 22 and PORTION of Part Section 2247 (Lot 5 F.P. 16679) is discharged from Mortgage 4479716 vide 4890470 Produced 18.5.1982 at 3.05 p.m.

Mortgage 4323497 is discharged from the sum of $56 800 and the BALANCE of the within Part Lot 22 and PORTION of Part Section 2247 (Lot 5 F.P. 16679) is thereby discharged vide 4890471 Produced 18.5.1982 at 3.05 p.m.

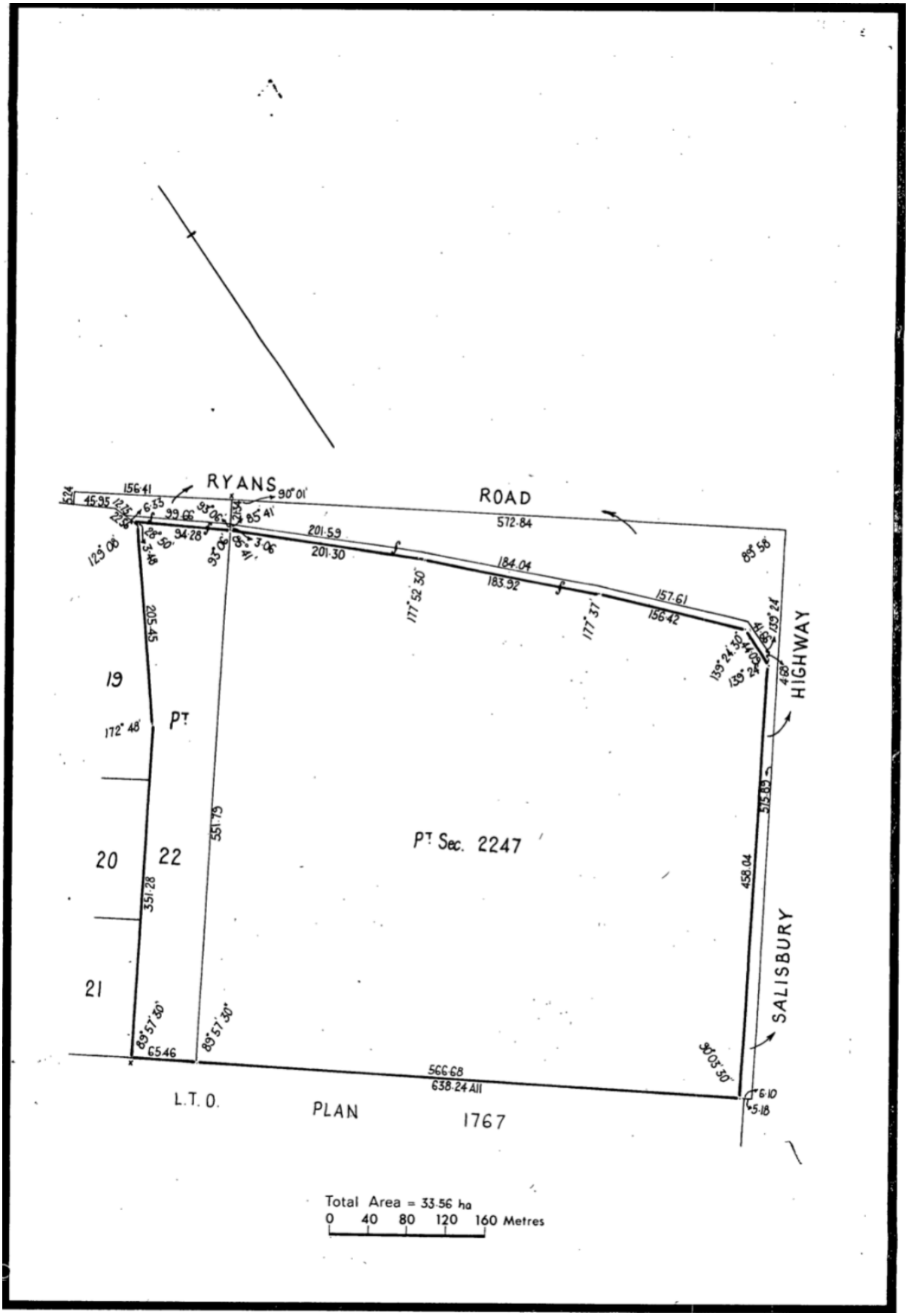
TRANSFER 4890472 to DAVID LINDSAY SIMS MARGARET JEAN SIMS ANTHONY McGREGOR SIMS and PHILOMENA MARY SIMS of the BALANCE of the within Part Lot 22 and PORTION of Part Section 2247 (Lot 5 F.P. 16679) Produced 18.5.1982 at 3.05 p.m.

CANCELLED as regards above Land and new C.T. issued
Vol. 4195 Fol. 946

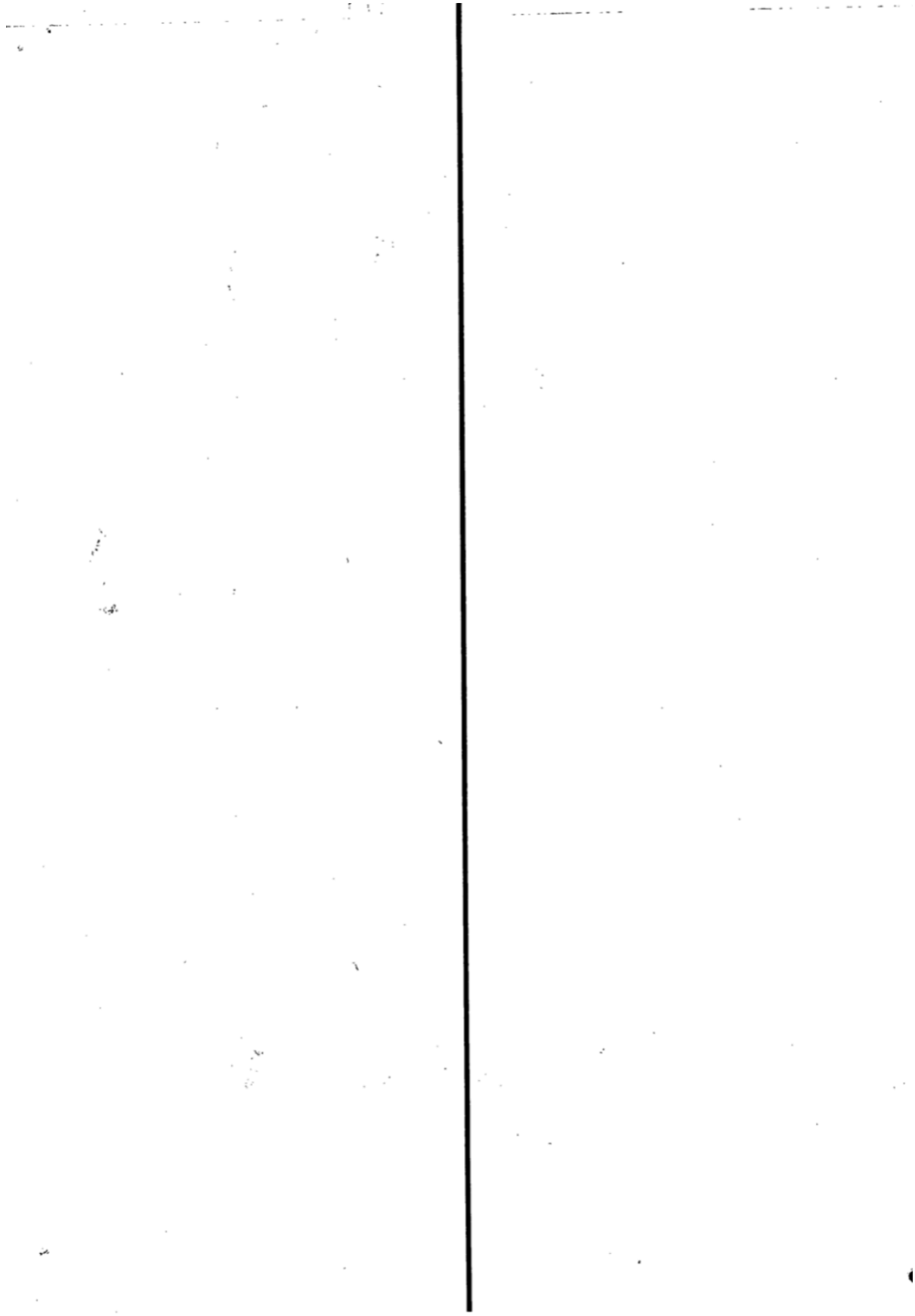
~~DM4926446 DM4926447 TV890448~~

CANCELLED
AND 2 NEW AND BALANCE CERTIFICATE OF TITLE
ISSUED VIDE 4890472 FILED PLAN No. 16679
VOL. 4195 FOL. 947 to 949 inc.

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment



Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment



Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,

Volume 4195 Folio 946

(Comprising 2 Sheets)

Pursuant to Transfer 4890472 Registered on Vol.4028 Folio 473

DAVID LINDSAY SIMS Company Director MARGARET JEAN SIMS his wife ANTHONY McGREGOR SIMS Company Director and PHILOMENA MARY SIMS his wife all of care of Post Office Box 370 Murray Bridge 5253 are the proprietors of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 5 of portion of Section 2247 and other land HUNDRED OF YATALA in the area named GREEN FIELDS (L.T.R.O. FILED PLAN No.16679) and delineated on the plan hereon by bold black lines SUBJECT to the easement to the Minister of Water Resources more particularly set forth in Transfer 4890468 in and over those portions marked A hereon

In witness whereof I have signed my name and affixed my seal this 18 day of August 1982

Signed the 18 day of August)
1982, in the presence of)

The land in this Certificate is
REDESIGNATED
as ALLOTMENT(S)115
in DEPOSITED PLAN 12568.

Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

~~T 4979961~~ ~~T 4979962~~

TRANSFER 4979961 to THE AUSTRALIAN LAND COMPANY PROPRIETARY LIMITED of 200 North Terrace Adelaide 5000 of the within land Produced 13.12.1982 at 11.20 a.m.

MORTGAGE 4979962 to COMMONWEALTH TRADING BANK OF AUSTRALIA Produced 13.12.1982 at 11.20 a.m.

~~X 5050353~~

REGISTRAR-GENERAL'S CAVEAT 5050353 over portion of the within land Entered 25.5.1983 at 1.05 p.m.

~~RT 5128334 D.P. 12708~~
~~DM 5197880 T 5197881~~ M 5197882 M 5197883

THE WHOLE OF THE WITHIN LAND IS NOW COMPRISED IN DEPOSITED PLAN 12708 VIDE APPLICATION R.T. 5128334

Caveat 5050353 is withdrawn this 21.3.1984 at 11 a.m.

P/A 4794436
The within land is discharged from Mortgage 4979962 vide 5197880 Produced 13.3.1984 at 3.40 p.m.

TRANSFER 5197881 to HER MAJESTY QUEEN ELIZABETH THE SECOND of PORTION of the within land (Lot 132 D.P. 12708) Produced 13.3.1984 at 3.40 p.m.

CANCELLED as regards land in Transfer 5197881 the said land having been acquired by the Crown for Road Purposes

OVER

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

VOL 4195 FOL 946

CANCELLED

AND New CERTIFICATE OF TITLE

ISSUED VIDE 5197881 DEPOSITED PLAN No. 12708

VOL. 4222 FOL. 611

REGISTRAR-GENERAL SOUTH AUSTRALIA

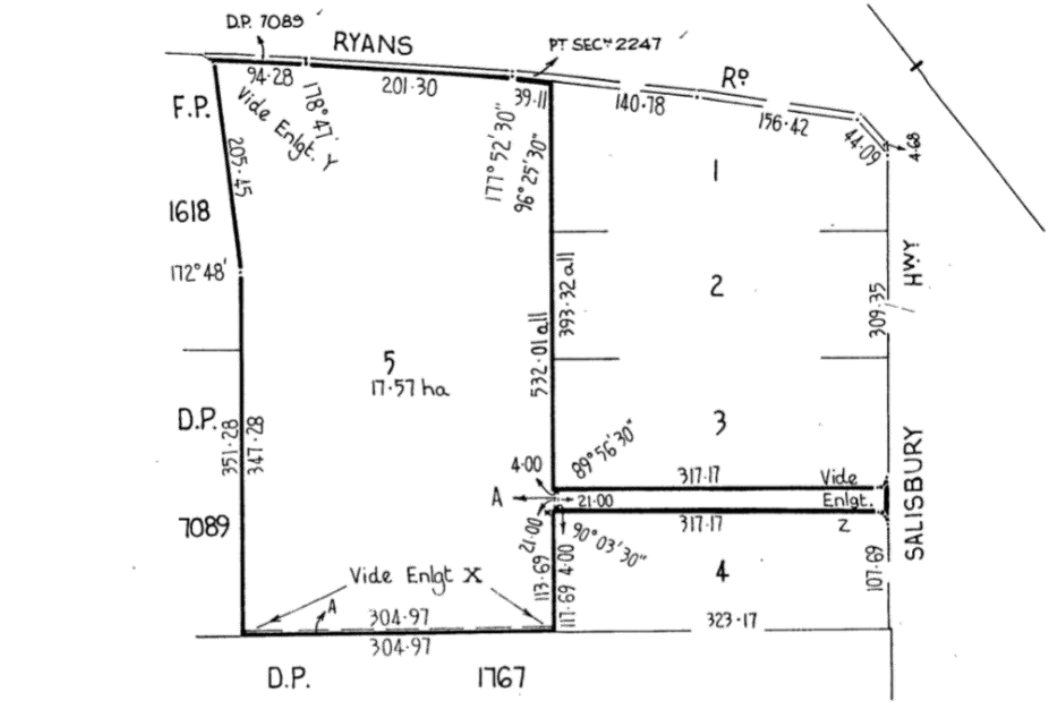
Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

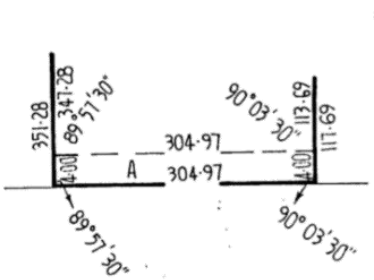
VOL 4193 FOL 945

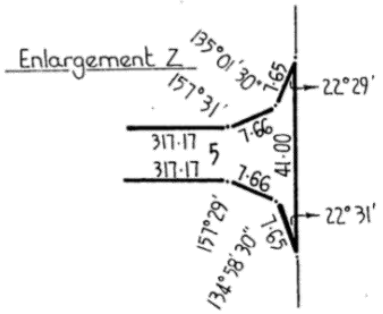
Sheet 2

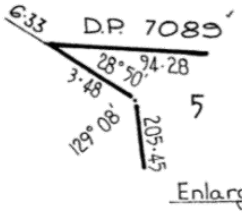
Abuttal vide Docket 283/1983

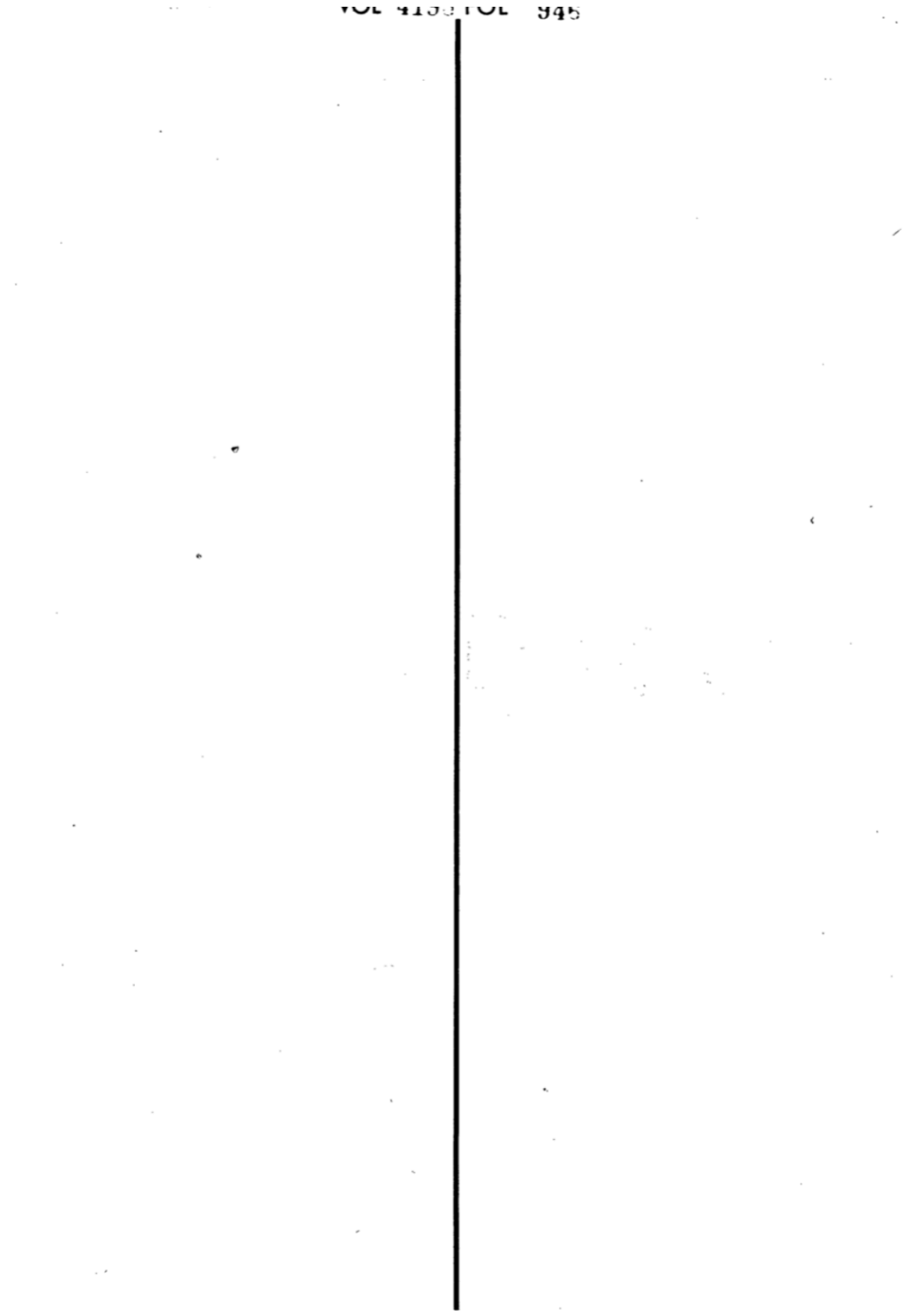
1·7·1983











Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,
Volume 4222 Folio 611

(Comprising 2 Sheets)

New Certificate for the whole of the Land in Vol.4195 Folio 946

THE AUSTRALIAN LAND COMPANY PROPRIETARY LIMITED of 200 North Terrace Adelaide 5000 is the proprietor of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 131 of portion of Section 2247 and other land HUNDRED OF YATALA in the area named GREEN FIELDS (L.T.R.O. DEPOSITED PLAN No.12708) and delineated on the plan hereon by bold black lines SUBJECT to the easement to the Minister of Water Resources more particularly set forth in Transfer 4890468 in and over those portions marked X hereon

In witness whereof I have signed my name and affixed my seal this 2nd day of May 1984

Signed the 2nd day of May 1984, in the presence of M Southwell

F.P. 21839
APPROVED

A.J. Sharman
Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

M5197882 M5197883

MORTGAGE 5197882 to WALLIS HOLDINGS (NO. 2) PTY LTD Produced 13.3.1984 at 3.40 p.m.

MORTGAGE 5197883 to HUGHIE McKENZIE WALLIS Produced 13.3.1984 at 3.40 p.m. (Including other land)

~~M5282354~~

MORTGAGE 5282354 to HUGHIE McKENZIE WALLIS Produced 10.8.1984 at 12.10 p.m.

DM5304249 M5304251 M5304252

M 5304251 and M 5304252 have been withdrawn vide L.T.O. Dkt 678/1984

DISCHARGE of Mortgages 5197883 and 5282354 vide 5304249 Produced 20.9.1984 at 11 a.m.

M5346982 M5346983

MORTGAGE 5346982 to HUGHIE McKENZIE WALLIS WALLIS HOLDINGS (NO. 2) PTY. LTD. and CINEMA INVESTMENTS PTY. LTD. AS TO THE AMOUNTS SPECIFIED THEREIN Produced 5.12.1984 at 11.25 a.m. (Including Other Land)

MORTGAGE 5346983 to MARSHALL & BROUGHAM PTY. LTD. Produced 5.12.1984 at 11.25 a.m. (Including Other Land)

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

~~T5 6222320 M6222321 M6222322~~ VOL 4222 FOL 611

TRANSFER 6222320 from Wallis Holdings (No. 2) Pty. Ltd. AS MORTGAGEE to BELFREE PTY. LTD. of 242D Magill Road Beulah Park 5067 of the within land Produced 18.7.1986 at 14:30

MORTGAGE 6222321 to WALLIS HOLDINGS NO. 2 PTY. LTD. Produced 18.7.1986 at 14:30

MORTGAGE 6222322 to CUSTOM CREDIT CORPORATION LIMITED Produced 18.7.1986 at 14:30

~~M 6270618~~

MORTGAGE 6270618 to AUSTRALIA AND NEW ZEALAND BANKING GROUP LIMITED Produced 4.11.1986 at 11:10

~~DM 6340449 DM 6340450~~

DISCHARGE of Mortgage 6222321 vide 6340449 Produced 13.4.1987 at 11:50

P/A 5369269
DISCHARGE of Mortgage 6222322 vide 6340450 Produced 13.4.1987 at 11:50

~~Dm 6394530 A 6394531 M 6394532~~
~~RT 6394533 DP 21573~~

P/A 4523763
The within land is discharged from Mortgage 5270618 vide 6394530 Produced 7.8.1987 at 15:00

APPLICATION 6394531 whereby an agreement dated 5.8.1987 pursuant to Section 61(2) of the Planning Act 1982 has been entered into with the City of Salisbury for the development of the within land Produced 7.8.1987 at 15:00

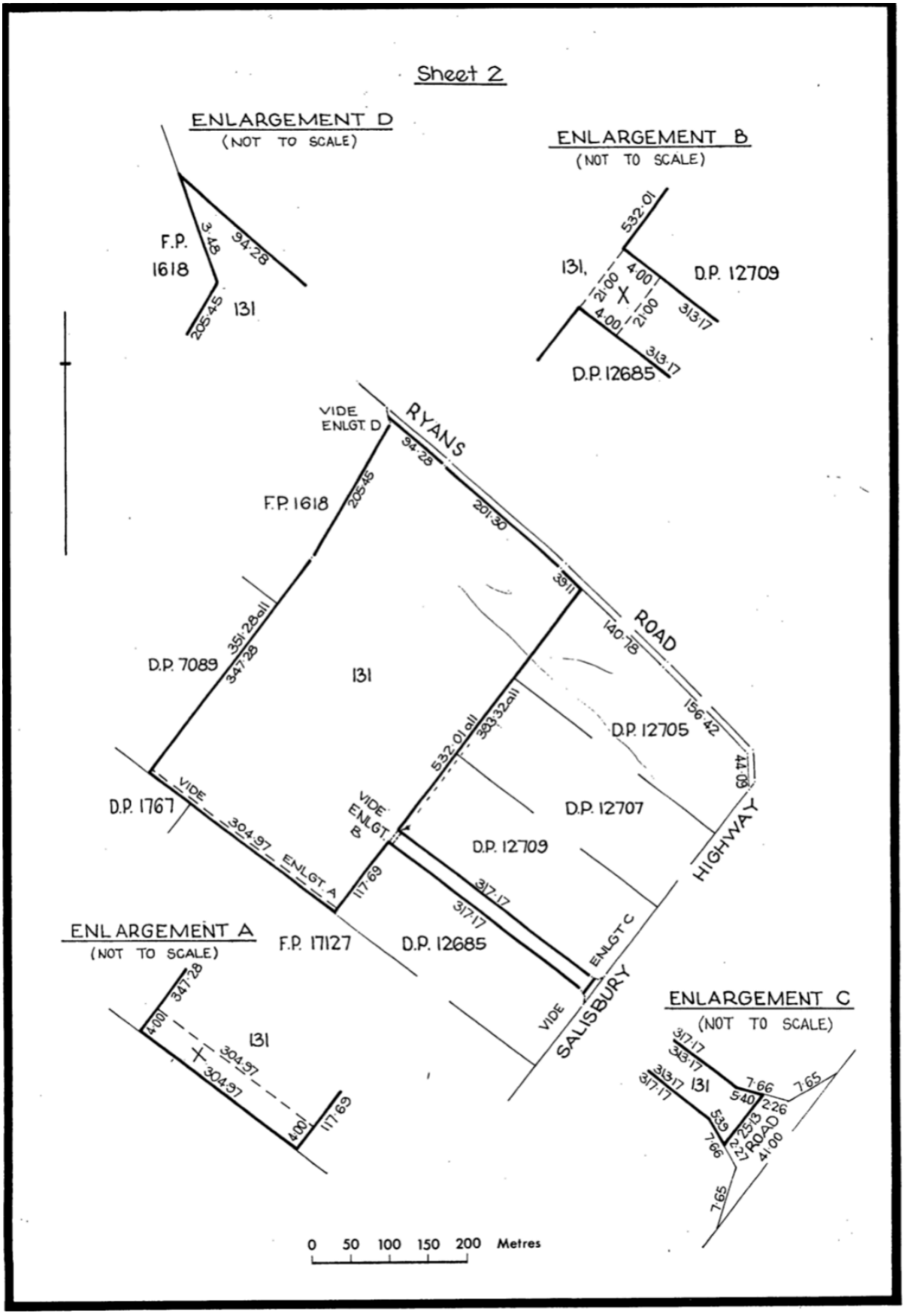
MORTGAGE 6394532 to AUSTRALIA AND NEW ZEALAND BANKING GROUP LIMITED Produced 7.8.1987 at 15:00

~~PM 6418608 TG 418609~~
~~PM 6418801 TG 418802~~

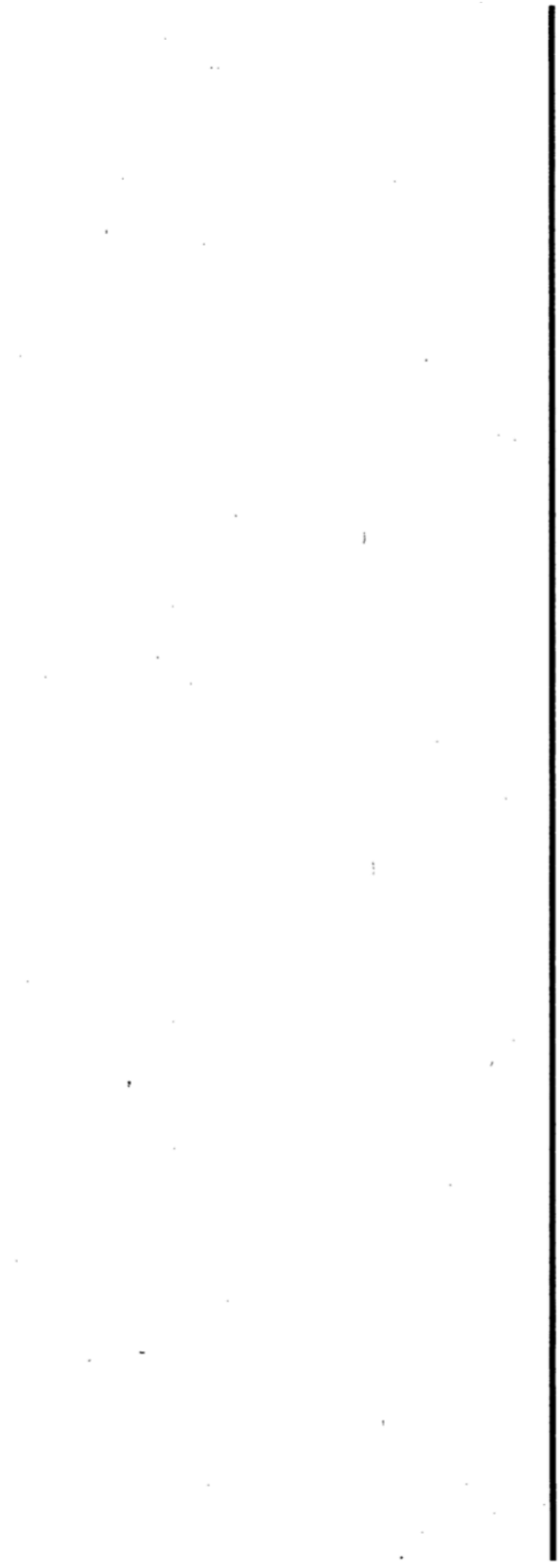
Cancelled as regards that portion of the within land comprised in Deposited Plan 21573 and new Certificates issued (R.T. 6394533)
Vol. 4303 Folios 775 to 812 incl.

~~Portion~~ Balance of the within land as is comprised in Allotments 39.40.41.42.43 and 44 in D.P. 21573 is vested as public road in ~~The~~ the City of Salisbury vide Sec. 223le of the Real Property Act 1886 as amended
CANCELLED AS REGARDS THE ABOVE LAND AND NEW CERTIFICATE OF TITLE ISSUED
Volume 4303 Folio 813

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment



Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment



Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,
Volume 4303 Folio 812

New Certificate for portion of the Land in Vol.4222 Folio 611

BELFREE PROPRIETARY LIMITED of 242D Magill Road Beulah Park 5067 is the proprietor of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 38 of portion of Section 2247 and other land HUNDRED OF YATALA in the area named GREEN FIELDS (L.T.R.O. DEPOSITED PLAN No.21573) and delineated on the plan hereon

In witness whereof I have signed my name and affixed my seal this 30th day of September 1987

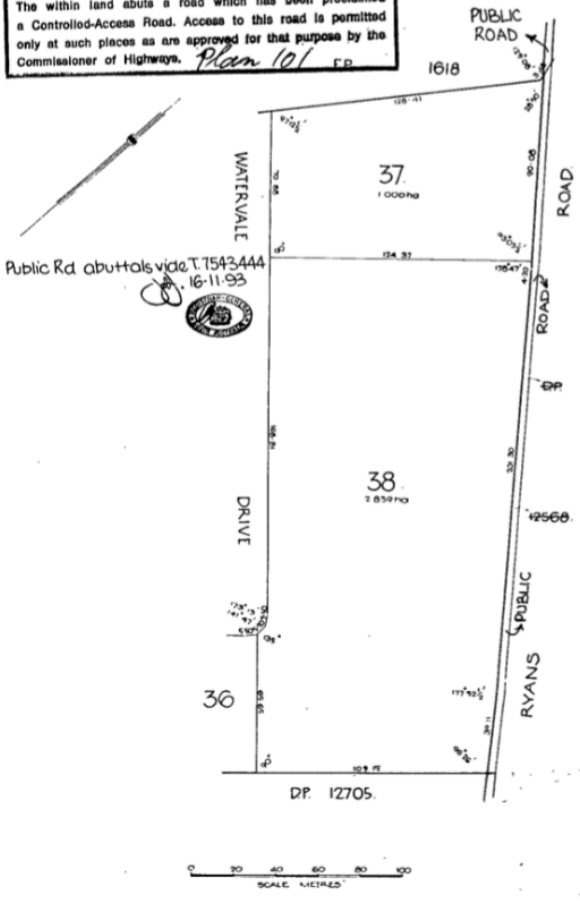
Signed the 30th day of September 1987, in the presence of L. Heathwood

Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

G.R.O. PLAN No. 706 of 1988
FOR LEASING PURPOSES DEPOSITED OVER WHOLE/~~PORTION~~ OF THE WITHIN LAND

The within land abuts a road which has been proclaimed a Controlled-Access Road. Access to this road is permitted only at such places as are approved for that purpose by the Commissioner of Highways. Plan 101 FP



APPLICATION 6394531 whereby an agreement dated 6.8.1987 pursuant to Section 61(2) of the Planning Act 1982 has been entered into with the City of Salisbury for the development of the within land Produced 7.8.1987 at 15:00

MORTGAGE 6394532 to AUSTRALIA AND NEW ZEALAND BANKING GROUP LIMITED Produced 7.8.1987 at 15:00 (Including other land)

P.A.4523763
The within land is discharged from Mortgage 6394532 vide 6750876 Produced 13.6.1989 at 15:10

TRANSFER 6750877 to SOUTH AUSTRALIAN HOUSING TRUST of 17 Angas Street Adelaide 5000 of the within land Produced 13.6.1989 at 15:10

OVER

VOL 4303 FOL 812

APPLICATION 6056274 The within land is vested in SOUTH AUSTRALIAN URBAN PROJECTS AUTHORITY of Adelaide 5000 by a Proclamation made pursuant to Clause 2(1) of Schedule 2 of the South Australian Housing Trust Act 1935 Produced 22.1.1996 at 11:15

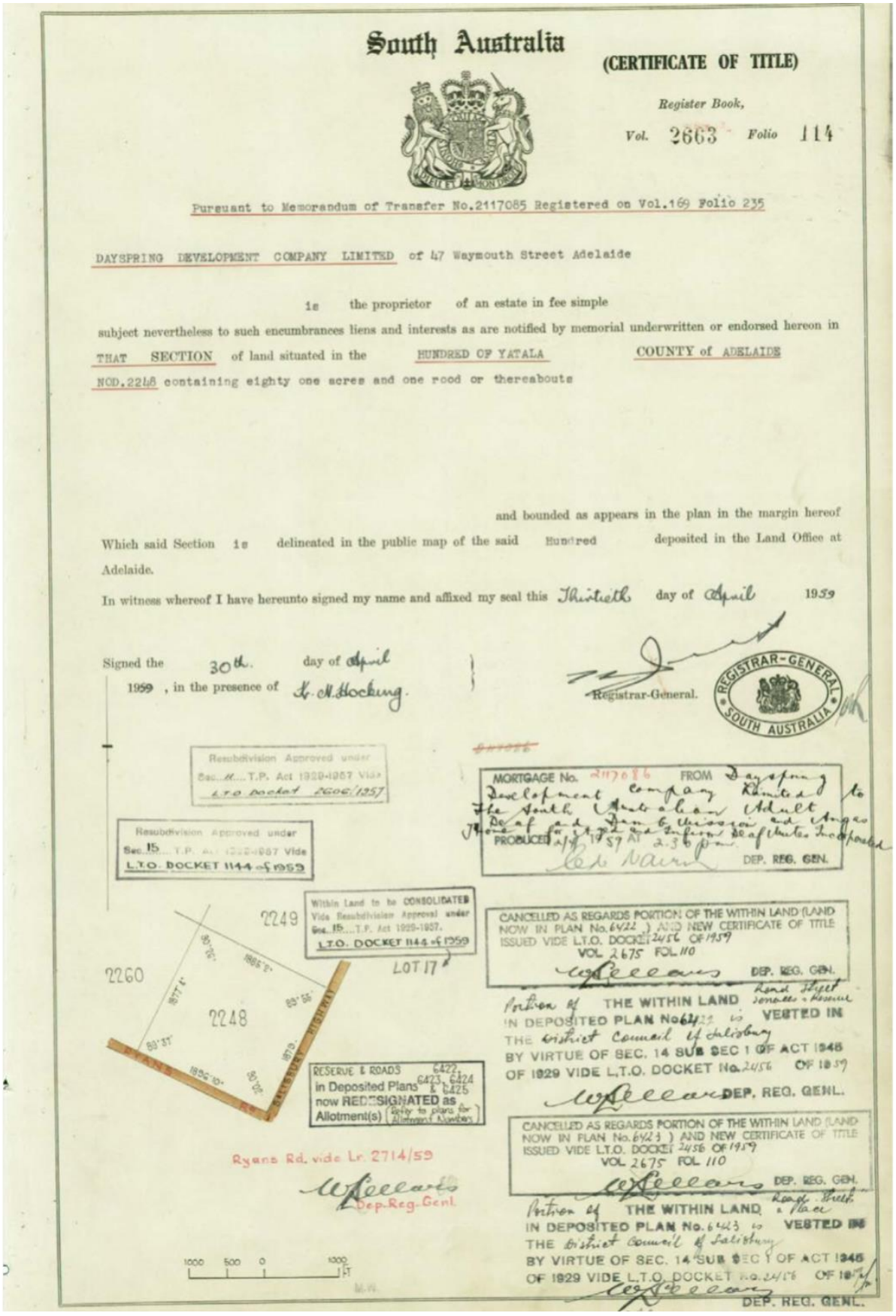
REGISTRAR-GENERAL SOUTH AUSTRALIA

CANCELLED

CONVERTED TO A COMPUTERISED TITLE

REGISTRAR-GENERAL SOUTH AUSTRALIA

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment



South Australia

(CERTIFICATE OF TITLE)

Register Book,

Vol. 2663 *Folio* 114

Pursuant to Memorandum of Transfer No.2117085 Registered on Vol.169 Folio 235

DAYSPRING DEVELOPMENT COMPANY LIMITED of 47 Waymouth Street Adelaide

is the proprietor of an estate in fee simple

subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in

THAT SECTION of land situated in the HUNDRED OF YATALA COUNTY of ADELAIDE

NOD.2248 containing eighty one acres and one rood or thereabouts

and bounded as appears in the plan in the margin hereof

Which said Section is delineated in the public map of the said Hundred deposited in the Land Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this Thirtieth day of April 1959

Signed the 30th. day of April 1959, in the presence of K. M. Hocking.

Registrar-General.

REGISTRAR-GENERAL SOUTH AUSTRALIA

Resubdivision Approved under Sec. ... T.P. Act 1929-1957 Vide L.T.O. Docket 2606/1957

Resubdivision Approved under Sec. 15 ... T.P. Act (1929-1957) Vide L.T.O. DOCKET 1144 of 1959

MORTGAGE No. 2117086 FROM Dayspring Development Company Limited to The South Australian Adult Deaf and Dumb Children's Welfare Association Incorporated PRODUCED 1/5/59 AT 2.36 p.m. DEP. REG. GEN.

Within Land to be CONSOLIDATED Vide Resubdivision Approval under Sec. 15 ... T.P. Act 1929-1957. L.T.O. DOCKET 1144 of 1959

2249 2260 2248 LOT 17 RYANS ROAD SALISBURY HIGHWAY

CANCELLED AS REGARDS PORTION OF THE WITHIN LAND (LAND NOW IN PLAN No.6422) AND NEW CERTIFICATE OF TITLE ISSUED VIDE L.T.O. DOCKET 2456 OF 1959 VOL. 2675 FOL. 110 DEP. REG. GEN.

Portion of THE WITHIN LAND IN DEPOSITED PLAN No.6422 is VESTED IN THE District Council of Salisbury BY VIRTUE OF SEC. 14 SUB SEC 1 OF ACT 1948 OF 1929 VIDE L.T.O. DOCKET No. 2456 OF 1959 DEP. REG. GENL.

RESERVE 6 ROADS 6422, 6423, 6424 & 6425 in Deposited Plans now REDESIGNATED as Allotment(s) (Refer to plans for Allotment Numbers)

Ryans Rd. vide Lr. 2714/59

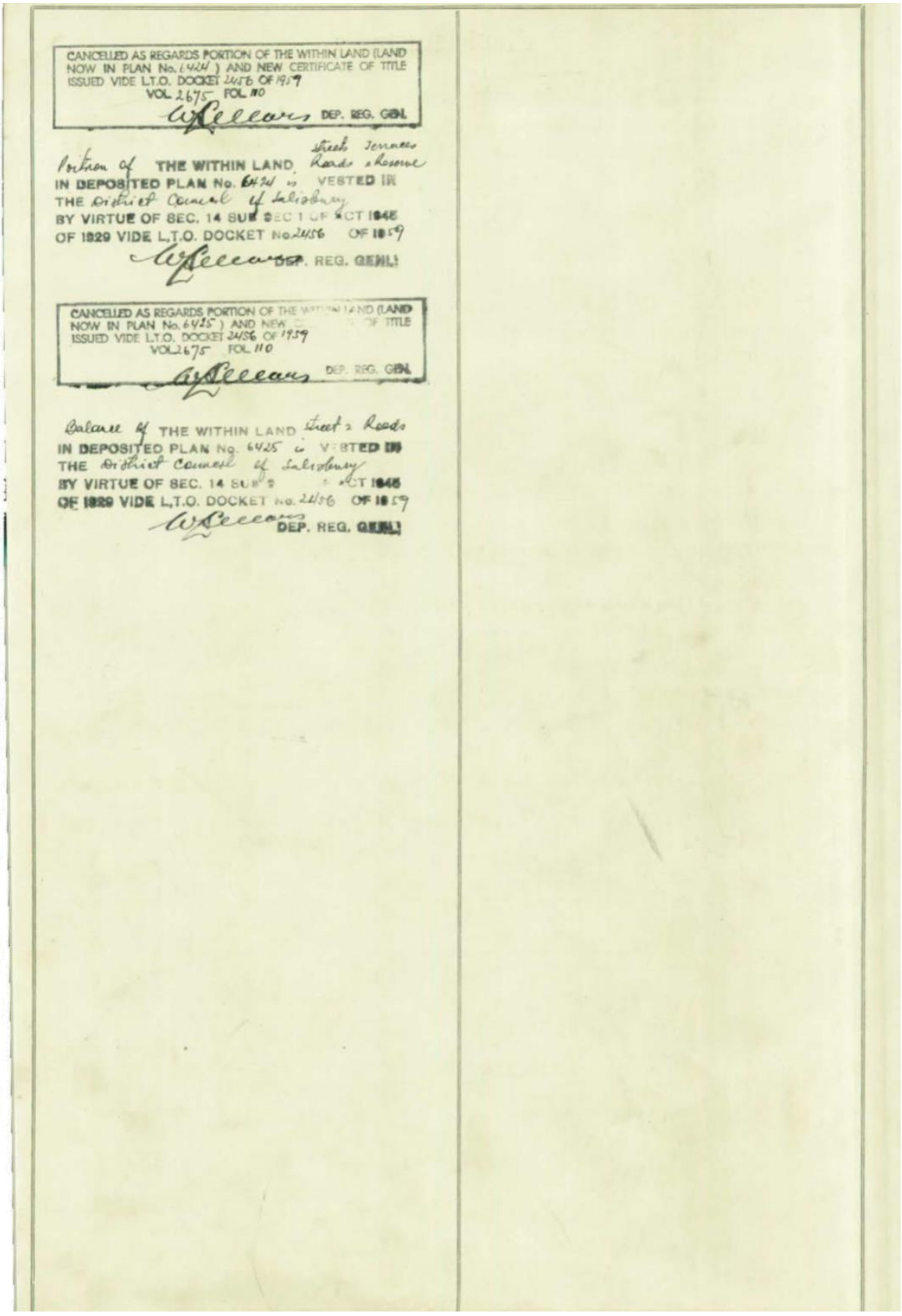
Dep. Reg. Genl.

CANCELLED AS REGARDS PORTION OF THE WITHIN LAND (LAND NOW IN PLAN No.6423) AND NEW CERTIFICATE OF TITLE ISSUED VIDE L.T.O. DOCKET 2456 OF 1959 VOL. 2675 FOL. 110 DEP. REG. GEN.

Portion of THE WITHIN LAND IN DEPOSITED PLAN No.6423 is VESTED IN THE District Council of Salisbury BY VIRTUE OF SEC. 14 SUB SEC 1 OF ACT 1948 OF 1929 VIDE L.T.O. DOCKET No.2456 OF 1959 DEP. REG. GENL.

1000 500 0 1000 FT

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

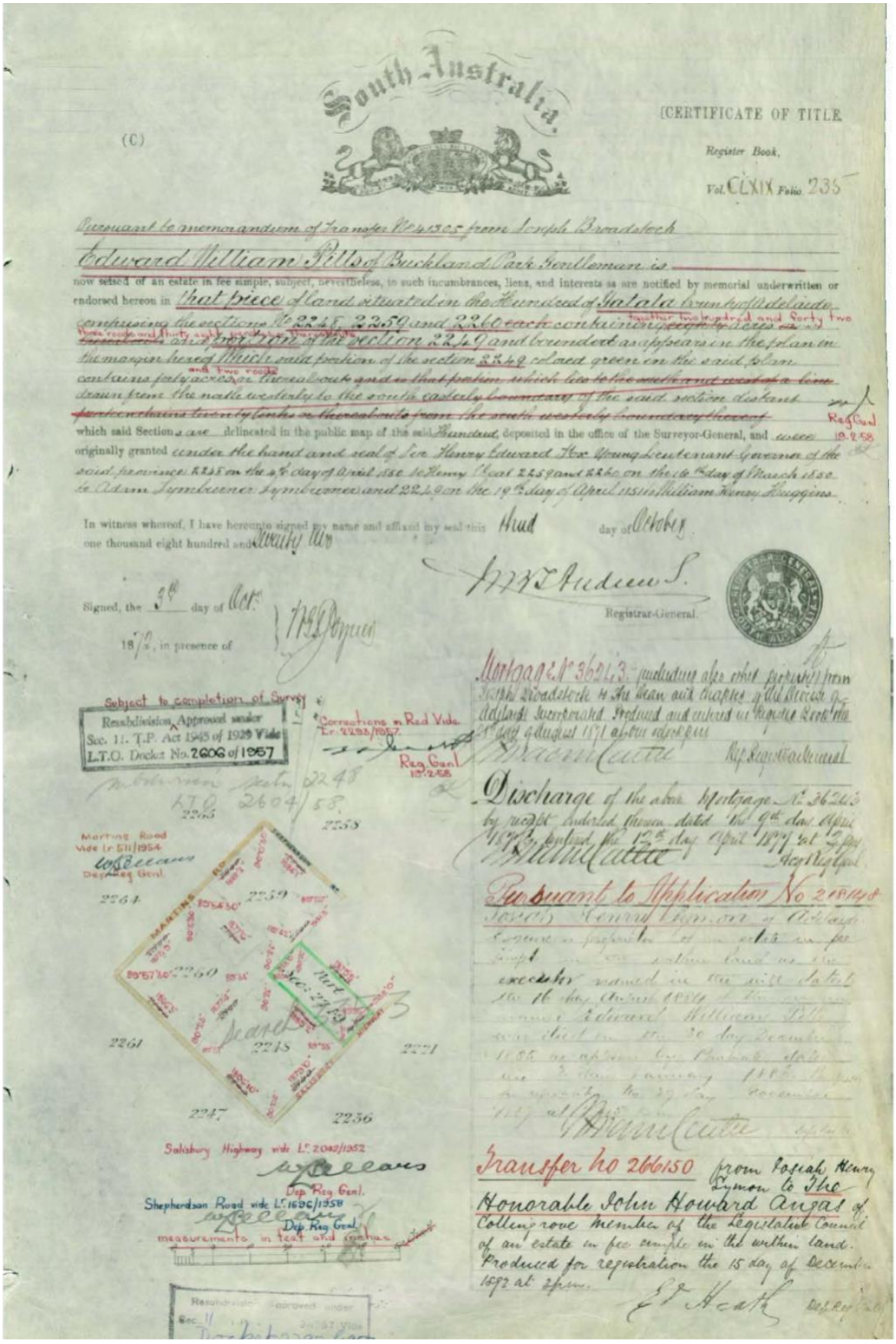


CANCELLED AS REGARDS PORTION OF THE WITHIN LAND (LAND NOW IN PLAN No. 6424) AND NEW CERTIFICATE OF TITLE ISSUED VIDE L.T.O. DOCKET 24/56 OF 1959
VOL. 2675 FOL. 110
DEP. REG. GEN.

Portion of THE WITHIN LAND street Terraces Roads & Reserve IN DEPOSITED PLAN No. 6424 is VESTED IN THE District Council of Salisbury BY VIRTUE OF SEC. 14 SUB SEC 1 OF ACT 1948 OF 1929 VIDE L.T.O. DOCKET No. 24/56 OF 1959
DEP. REG. GEN.

CANCELLED AS REGARDS PORTION OF THE WITHIN LAND (LAND NOW IN PLAN No. 6425) AND NEW CERTIFICATE OF TITLE ISSUED VIDE L.T.O. DOCKET 24/56 OF 1959
VOL. 2675 FOL. 110
DEP. REG. GEN.

Balance of THE WITHIN LAND Street & Roads IN DEPOSITED PLAN No. 6425 is VESTED IN THE District Council of Salisbury BY VIRTUE OF SEC. 14 SUB SEC 1 OF ACT 1948 OF 1929 VIDE L.T.O. DOCKET No. 24/56 OF 1959
DEP. REG. GEN.



South Australia

(C)

CERTIFICATE OF TITLE

Register Book,

Vol. CLXIX Folio 235

Pursuant to memorandum of Transfer No 41305 from Joseph Broadstock

Edward William Bills of Buckland Park Gentleman is

now seised of an estate in fee simple, subject, nevertheless, to such incumbrances, liens, and interests as are notified by memorial underwritten or endorsed hereon in that piece of land situated in the Hundred of Port Gawler in the Province of South Australia comprising the sections No 2245 2259 and 2260 each containing eighty acres and together two hundred and forty two acres one rood and thirty eight perches more or less and Section 2249 and bounded as appears in the plan in the margin hereof which said portion of the section 2249 colored green in the said plan contains forty acres or thereabouts and is that portion which lies to the north and west of a line drawn from the north westerly to the south easterly boundary of the said section distant one chain twenty links or thereabouts from the south westerly boundary thereof which said Sections are delineated in the public map of the said Hundred deposited in the office of the Surveyor-General, and were originally granted under the hand and seal of Sir Henry Edward Fox Young Lieutenant Governor of the said province 2245 on the 24th day of April 1850 to Henry Neal 2259 and 2260 on the 16th day of March 1850 to Adam Symbeconer Symbeconer and 2249 on the 19th day of April 1850 to William Kinsey Huggins

Reg Genl 19.2.58

In witness whereof, I have hereunto signed my name and affixed my seal this 22nd day of October one thousand eight hundred and Seventy Six

Signed, the 9th day of Oct. 1876, in presence of

Registrar-General.

Subject to completion of Survey
Resubdivision Approved under
Sec. 11. T.P. Act 1945 of 1929 Vide
L.T.O. Docket No. 2606 of 1957

Corrections in Red Vide Lr 2292/1957.
Reg Genl 19.2.58

Mortgage No 36263 including also other property from Joseph Broadstock to Sir Dean and Chapter of the Diocese of Adelaide Incorporated Produced and entered in Register Book the 9th day of August 1871 at 50 min past 4 pm

Rgr Registrar General

Discharge of the above Mortgage No 36263 by receipt endorsed thereon dated the 9th day April 1877 produced the 12th day April 1877 at 2 pm

Rgr Registrar General

Pursuant to Application No 266148

Joseph Henry Symon of Adelaide Esquire in pursuance of the [illegible] executor named in the will dated the 16 day August 1877 of the late Edward William Bills who died on the 30 day December 1876 as appears by Probate dated the 2 day January 1877 and as appointed by the said will dated the 29 day December 1875

Transfer No 266150 from Joseph Henry Symon to The Honorable John Howard Angas of Collingrove member of the Legislative Council of an estate in fee simple in the within land. Produced for registration the 15 day of December 1892 at 2 pm.

Dep Reg

Morning Road vide Lr 511/1954

Dep Reg Genl

Salisbury Highway vide Lr 2042/1952

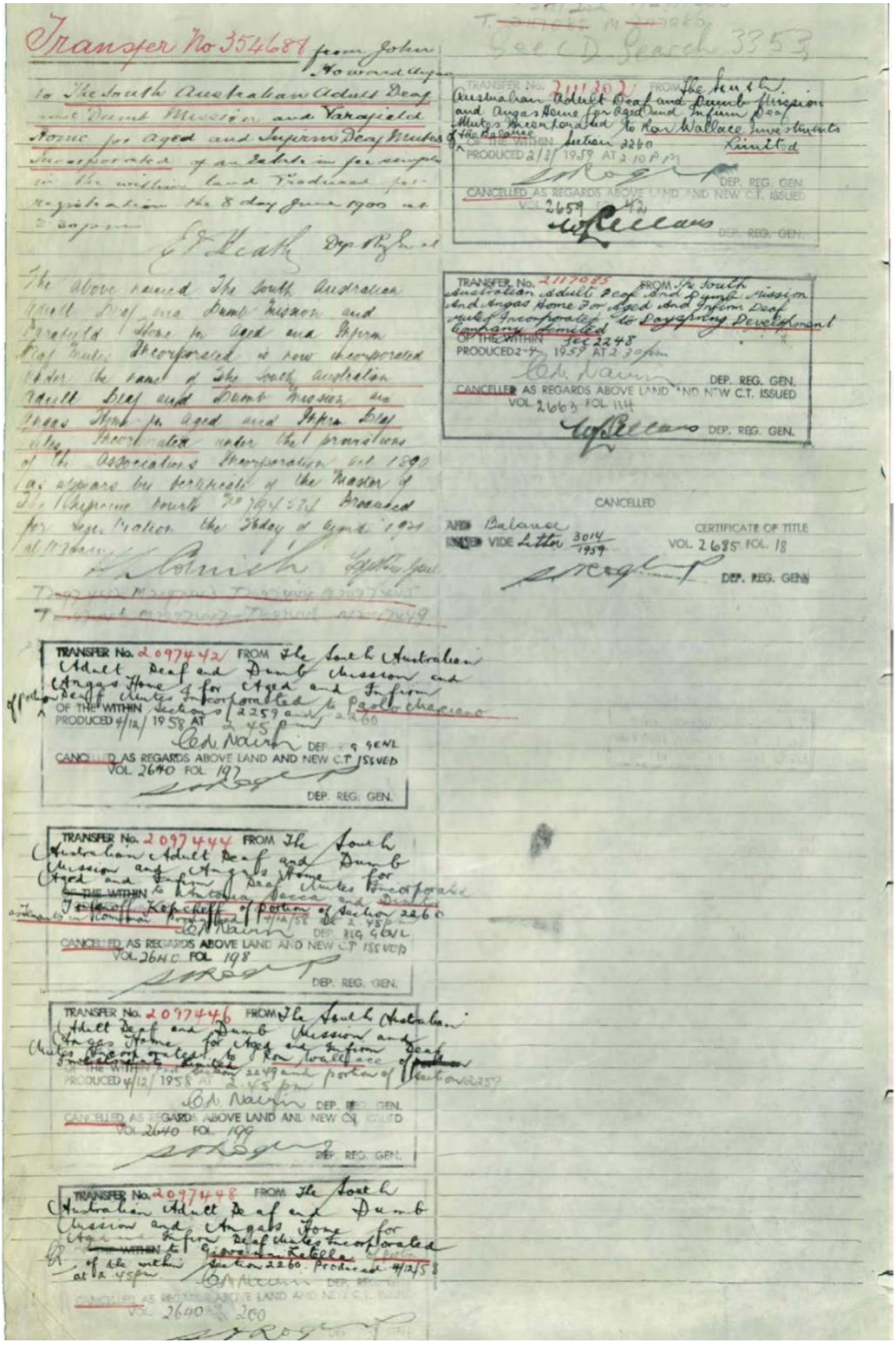
Dep. Reg Genl.

Shepherdson Road vide Lr 1636/1958

Dep. Reg Genl.

measurements in feet and inches

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment



Transfer No 354687 from John Howard Angas to The South Australian Adult Deaf and Dumb Mission and Paraquicha Home for Aged and Infirm Deaf Mutes Incorporated of an Estate in fee simple in the within land Produced for registration the 8 day June 1900 at 2 o'clock p.m.

E. T. Leath Dep. Reg. Genl

The above named The South Australian Adult Deaf and Dumb Mission and Paraquicha Home for Aged and Infirm Deaf Mutes Incorporated is now incorporated under the name of The South Australian Adult Deaf and Dumb Mission and Home for Aged and Infirm Deaf Mutes Incorporated under the provisions of the Associations Incorporation Act 1890 as appears by Certificate of the Master of the Supreme Court No 794 of 1901 Produced for registration the 3day of April 1901 at 12 o'clock noon

E. Leath Dep. Reg. Genl

TRANSFER No. 2111202 FROM The South Australian Adult Deaf and Dumb Mission and Angas Home for Aged and Infirm Deaf Mutes Incorporated to Hon Wallace Investments Limited OF THE WITHIN Section 2260 PRODUCED 2/3/1959 AT 2.10 P.M.

DEP. REG. GEN.

CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED VOL 2659 FOL 42

DEP. REG. GEN.

TRANSFER No. 2117085 FROM The South Australian Adult Deaf and Dumb Mission and Angas Home for Aged and Infirm Deaf Mutes Incorporated to Lochspring Development Company Limited OF THE WITHIN Sec 2248 PRODUCED 2-4-1959 AT 2.30 p.m.

DEP. REG. GEN.

CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED VOL 2663 FOL 114

DEP. REG. GEN.

CANCELLED

AND Balance VIDE Letter 3014/1959

CERTIFICATE OF TITLE VOL 2685 FOL 18

DEP. REG. GENL

TRANSFER No. 2097442 FROM The South Australian Adult Deaf and Dumb Mission and Angas Home for Aged and Infirm Deaf Mutes Incorporated to Paolo Marciano OF THE WITHIN Section 2259 and portion of Section 2260 PRODUCED 4/12/1958 AT 2.45 p.m.

DEP. REG. GENL

CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED VOL 2640 FOL 197

DEP. REG. GEN.

TRANSFER No. 2097444 FROM The South Australian Adult Deaf and Dumb Mission and Angas Home for Aged and Infirm Deaf Mutes Incorporated to Nicola Jacca and Domenico Kephalas Kepcheff of portion of Section 2260 OF THE WITHIN PRODUCED 4/12/58 at 2.45 p.m.

DEP. REG. GENL

CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED VOL 2640 FOL 198

DEP. REG. GEN.

TRANSFER No. 2097446 FROM The South Australian Adult Deaf and Dumb Mission and Angas Home for Aged and Infirm Deaf Mutes Incorporated to Hon Wallace of portion of Section 2259 and portion of Section 2260 PRODUCED 4/12/1958 AT 2.45 p.m.

DEP. REG. GEN.

CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED VOL 2640 FOL 199

DEP. REG. GEN.

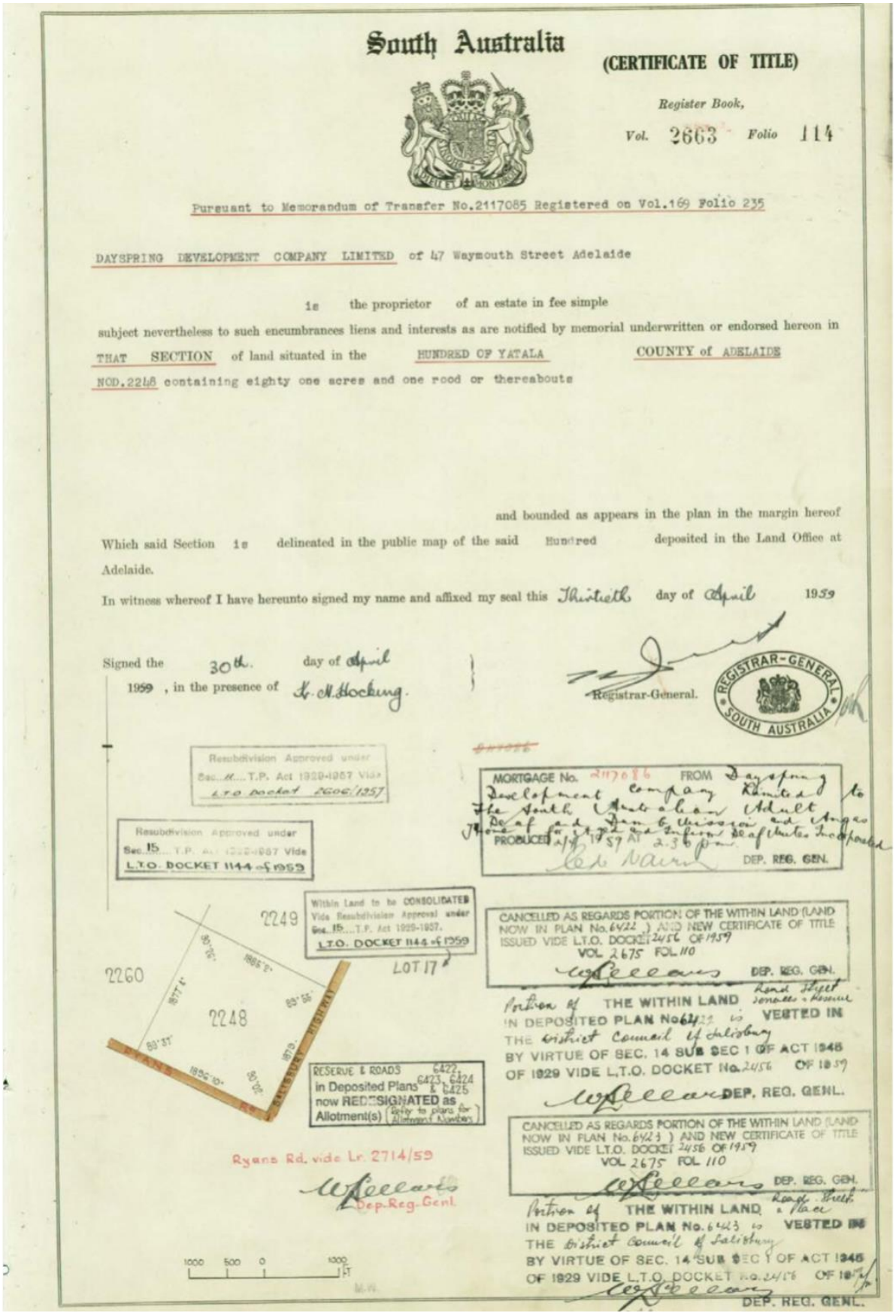
TRANSFER No. 2097448 FROM The South Australian Adult Deaf and Dumb Mission and Angas Home for Aged and Infirm Deaf Mutes Incorporated to Giovanni Fabella of the within Section 2260 Produced 4/12/58 at 2.45 p.m.

DEP. REG. GEN.

CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED VOL 2640 FOL 200

DEP. REG. GEN.

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment



South Australia

(CERTIFICATE OF TITLE)

Register Book,

Vol. 2663 *Folio* 114

Pursuant to Memorandum of Transfer No.2117085 Registered on Vol.169 Folio 235

DAYSPRING DEVELOPMENT COMPANY LIMITED of 47 Waymouth Street Adelaide

is the proprietor of an estate in fee simple

subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in

THAT SECTION of land situated in the HUNDRED OF YATALA COUNTY of ADELAIDE

NOD.2248 containing eighty one acres and one rood or thereabouts

and bounded as appears in the plan in the margin hereof

Which said Section is delineated in the public map of the said Hundred deposited in the Land Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this Thirtieth day of April 1959

Signed the 30th. day of April 1959, in the presence of K. M. Hocking.

Registrar-General.

REGISTRAR-GENERAL SOUTH AUSTRALIA

Resubdivision Approved under Sec. ... T.P. Act 1929-1957 Vide L.T.O. Docket 2606/1957

Resubdivision Approved under Sec. 15 ... T.P. Act (1929-1957) Vide L.T.O. DOCKET 1144 of 1959

MORTGAGE No. 2117086 FROM Dayspring Development Company Limited to The South Australian Adult Deaf and Dumb Children's Welfare Association Incorporated PRODUCED 1/5/59 AT 2.36 p.m. DEP. REG. GEN.

Within Land to be CONSOLIDATED Vide Resubdivision Approval under Sec. 15 ... T.P. Act 1929-1957. L.T.O. DOCKET 1144 of 1959

2249 2260 2248 LOT 17

CANCELLED AS REGARDS PORTION OF THE WITHIN LAND (LAND NOW IN PLAN No. 6422) AND NEW CERTIFICATE OF TITLE ISSUED VIDE L.T.O. DOCKET 2456 OF 1959 VOL. 2675 FOL. 110 DEP. REG. GEN.

Portion of THE WITHIN LAND IN DEPOSITED PLAN No. 6422 is VESTED IN THE District Council of Salisbury BY VIRTUE OF SEC. 14 SUB SEC 1 OF ACT 1948 OF 1929 VIDE L.T.O. DOCKET No. 2456 OF 1959 DEP. REG. GENL.

RESERVE & ROADS in Deposited Plans 6422, 6423, 6424 & 6425 now REDESIGNATED as Allotment(s) (Refer to plans for Allotment Numbers)

Ryans Rd. vide Lr. 2714/59

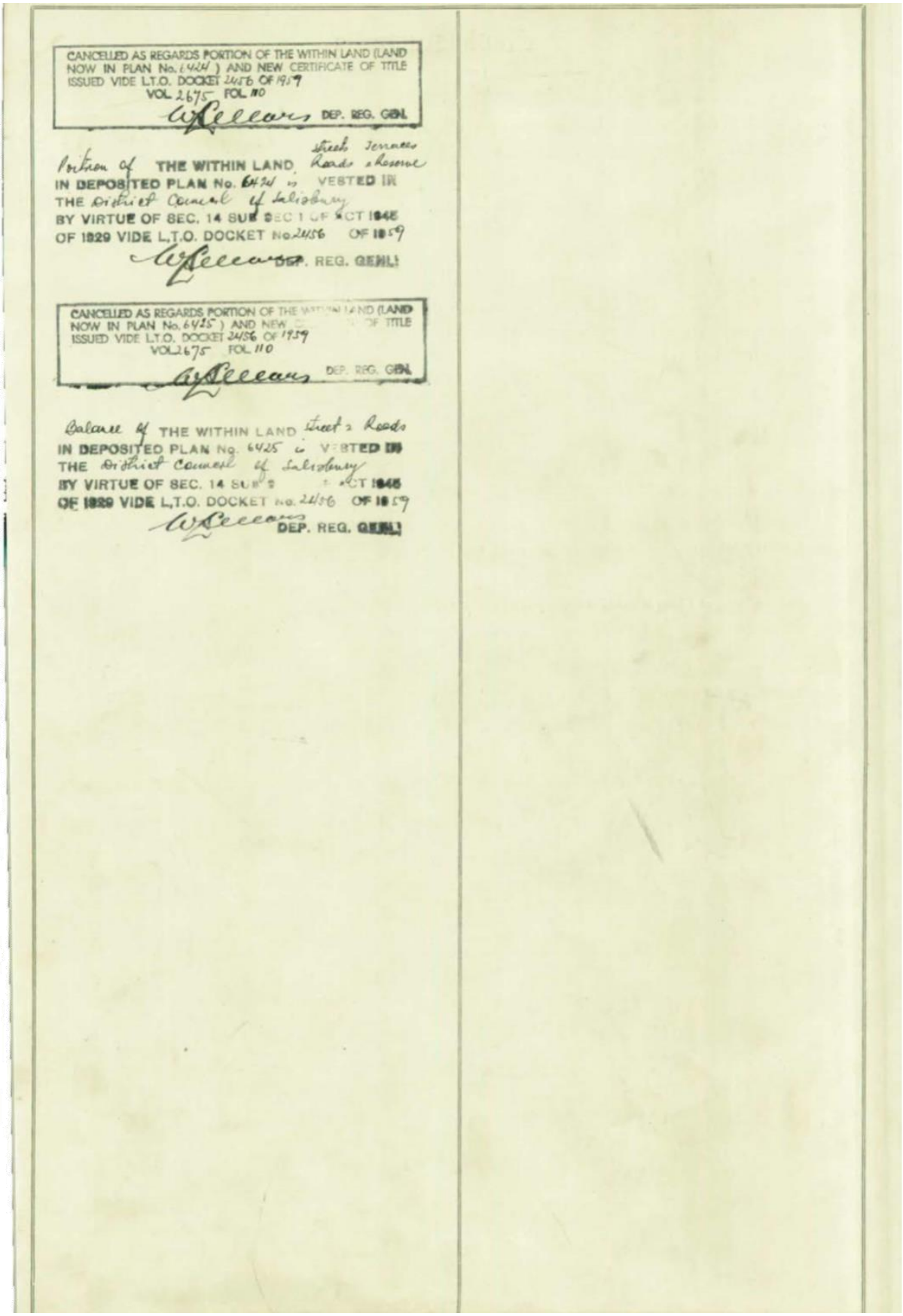
Dep. Reg. Genl.

CANCELLED AS REGARDS PORTION OF THE WITHIN LAND (LAND NOW IN PLAN No. 6423) AND NEW CERTIFICATE OF TITLE ISSUED VIDE L.T.O. DOCKET 2456 OF 1959 VOL. 2675 FOL. 110 DEP. REG. GEN.

Portion of THE WITHIN LAND IN DEPOSITED PLAN No. 6423 is VESTED IN THE District Council of Salisbury BY VIRTUE OF SEC. 14 SUB SEC 1 OF ACT 1948 OF 1929 VIDE L.T.O. DOCKET No. 2456 OF 1959 DEP. REG. GENL.

1000 500 0 1000 FT

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment



CANCELLED AS REGARDS PORTION OF THE WITHIN LAND (LAND NOW IN PLAN No. 6424) AND NEW CERTIFICATE OF TITLE ISSUED VIDE L.T.O. DOCKET 24/56 OF 1959
VOL. 2675 FOL. 110
DEP. REG. GEN.

Portion of THE WITHIN LAND street Terraces Roads & Reserve IN DEPOSITED PLAN No. 6424 is VESTED IN THE District Council of Salisbury BY VIRTUE OF SEC. 14 SUB SEC 1 OF ACT 1948 OF 1929 VIDE L.T.O. DOCKET No. 24/56 OF 1959
DEP. REG. GEN.

CANCELLED AS REGARDS PORTION OF THE WITHIN LAND (LAND NOW IN PLAN No. 6425) AND NEW CERTIFICATE OF TITLE ISSUED VIDE L.T.O. DOCKET 24/56 OF 1959
VOL. 2675 FOL. 110
DEP. REG. GEN.

Balance of THE WITHIN LAND Street & Roads IN DEPOSITED PLAN No. 6425 is VESTED IN THE District Council of Salisbury BY VIRTUE OF SEC. 14 SUB SEC 1 OF ACT 1948 OF 1929 VIDE L.T.O. DOCKET No. 24/56 OF 1959
DEP. REG. GEN.

LAND SERVICES SA

Product Child Parent Title Search
Date/Time 27/09/2021 02:21PM

Certificate of Title

Title Reference: CT 6212/334
Status: CANCELLED
Parent Title(s): CT 2663/114
Dealing(s) Creating Title: RT 12974103
Title Issued: 21/08/2018
Title Cancelled: 17/10/2018
Edition: 1

Child Titles

Title Reference	Status	Estate Type	Plan / Parcel	Proprietors/Lessees/ Custodians at time of issue
CT 6214/650	CURRENT	EASEMENT ONLY	D119186 ALLOTMENT 1001	DISTRIBUTION LESSOR CORPORATION
CT 6214/652	CURRENT	FEE SIMPLE	D119186 ALLOTMENT 1001	CITY OF SALISBURY
CT 6214/653	CURRENT	FEE SIMPLE (PUBLIC ROAD)	D119186 ALLOTMENT (ROAD) 2001 D6422 ALLOTMENT (ROAD) 1218 D6422 ALLOTMENT (ROAD) 1219 D6422 ALLOTMENT (ROAD) 1220 D6422 ALLOTMENT (ROAD) 1221 D6423 ALLOTMENT (ROAD) 144 D6423 ALLOTMENT (ROAD) 145 D6423 ALLOTMENT (ROAD) 146 D6423 ALLOTMENT (ROAD) 147 D6423 ALLOTMENT (ROAD) 148 D6423 ALLOTMENT (ROAD) 149 D6423 ALLOTMENT (ROAD) 150 D6423 ALLOTMENT (ROAD) 151	CITY OF SALISBURY

LAND SERVICES SA

Product Child Parent Title Search
Date/Time 27/09/2021 02:21PM

Title Reference	Status	Estate Type	Plan / Parcel	Proprietors/Lessees/ Custodians at time of issue
			D6424 ALLOTMENT (ROAD) 315 D6424 ALLOTMENT (ROAD) 316 D6424 ALLOTMENT (ROAD) 317 D6424 ALLOTMENT (ROAD) 318 D6424 ALLOTMENT (ROAD) 319 D6424 ALLOTMENT (ROAD) 320 D6424 ALLOTMENT (ROAD) 322 D6424 ALLOTMENT (ROAD) 323 D6425 ALLOTMENT (ROAD) 213 D6425 ALLOTMENT (ROAD) 214 D6425 ALLOTMENT (ROAD) 216	

Land Services SA Page 2 of 2

LAND SERVICES SA

Product Child Parent Title Search
Date/Time 27/09/2021 02:18PM

Certificate of Title

Title Reference:	CT 6214/652
Status:	CURRENT
Parent Title(s):	CT 6212/334
Dealing(s) Creating Title:	RTD 12968154
Title Issued:	17/10/2018
Edition:	1

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

South Australia

(CERTIFICATE OF TITLE)

Register Book,

Vol. 3025 *Folio* 114

New Certificate of Title from Vol.1016 Folio 59

FREDERICK GEORGE RYAN of Bolivar and Lower Light Grazier is the proprietor of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in THAT PIECE of land situated in the HUNDRED OF YATALA COUNTY OF ADELAIDE being the ALLOTMENT 22 of the subdivision of portion of Section 2261 laid out as GREEN FIELDS and bounded as appears in the plan in the margin hereof and in the plan deposited in the LANDS TITLES REGISTRATION OFFICE No.7089

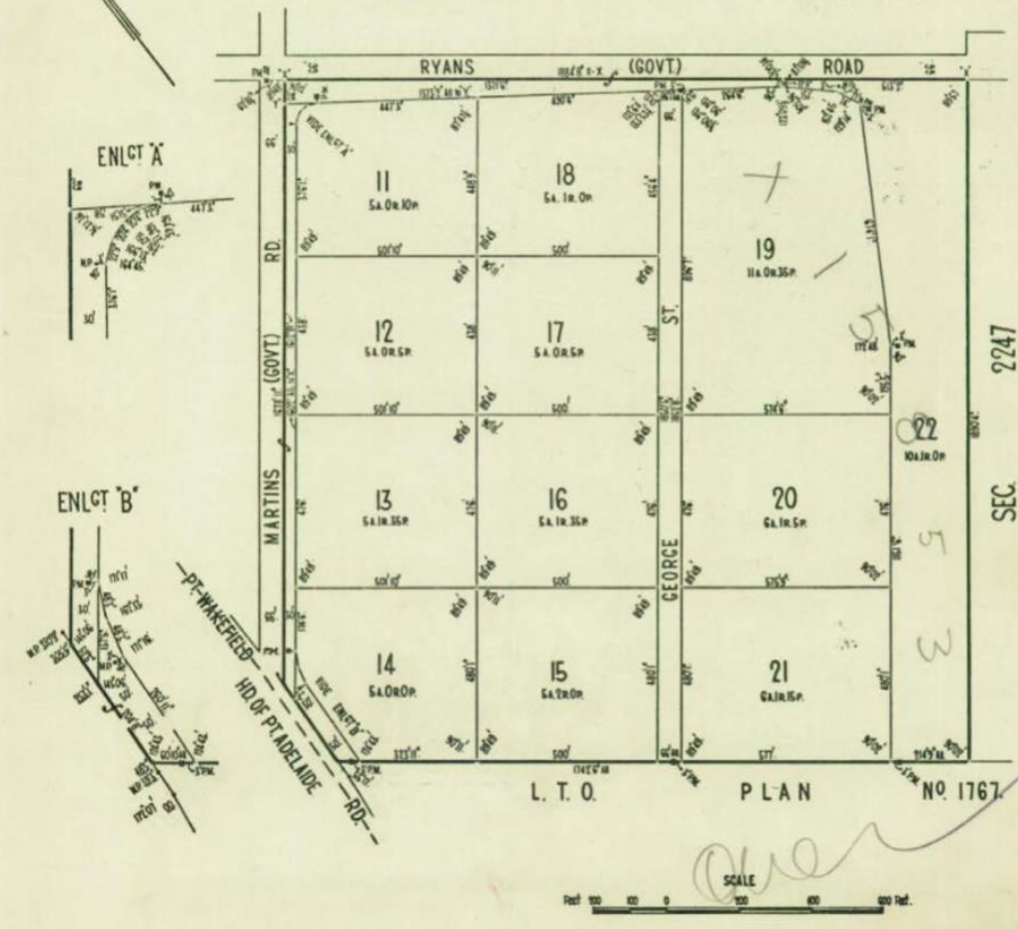
In witness whereof I have hereunto signed my name and affixed my seal this first day of December 1961

Signed the first day of December 1961, in the presence of

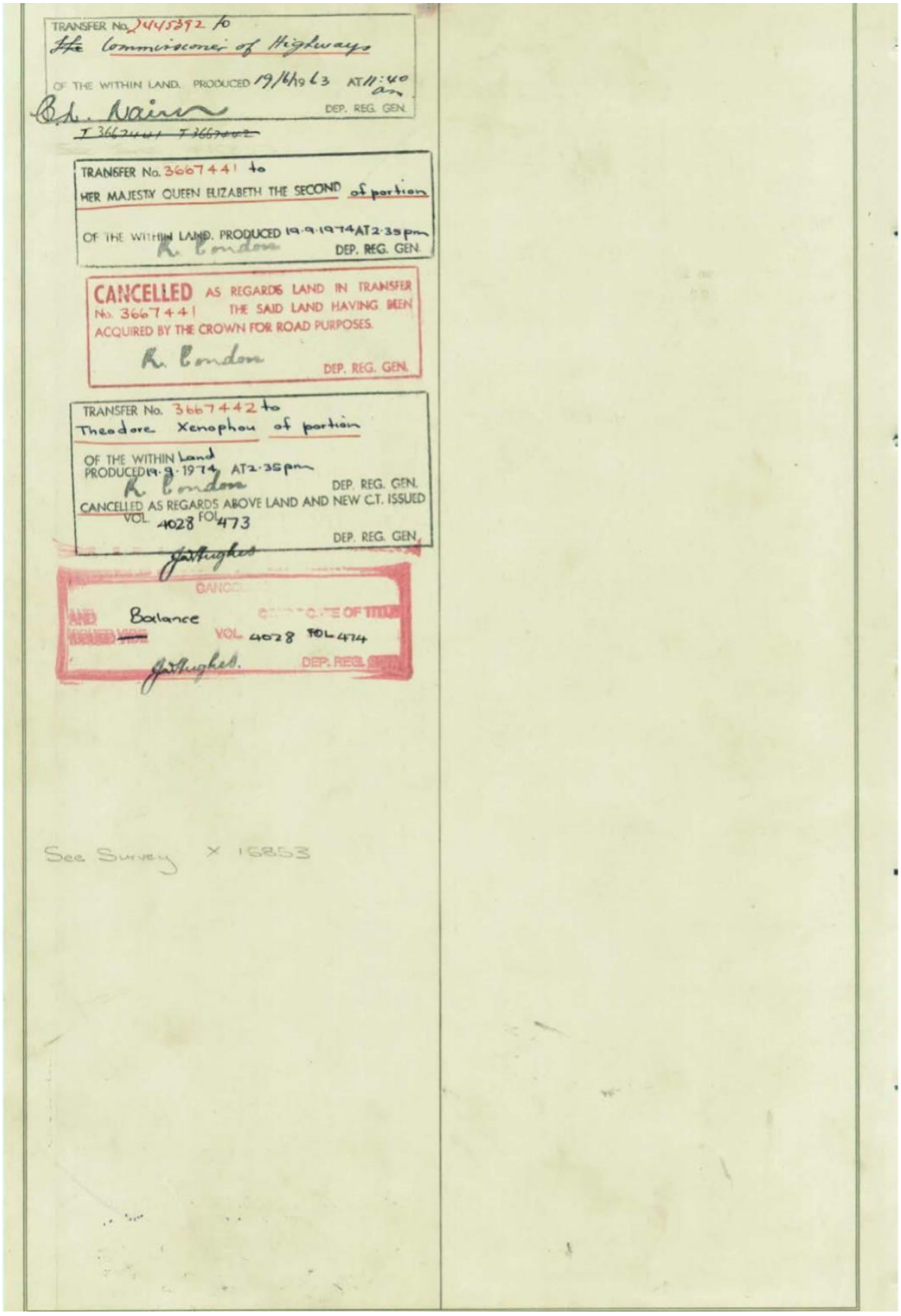
G.E. Oswell

Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA



Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment



TRANSFER No. 2445392 to
The Commissioner of Highways
OF THE WITHIN LAND. PRODUCED 19/6/1963 AT 11:40 am
DEP. REG. GEN.
I 3662441 I 3667442

TRANSFER No. 3667441 to
HER MAJESTY QUEEN ELIZABETH THE SECOND of portion
OF THE WITHIN LAND. PRODUCED 19.9.1974 AT 2.35 pm
R. London
DEP. REG. GEN.

CANCELLED AS REGARDS LAND IN TRANSFER No. 3667441 THE SAID LAND HAVING BEEN ACQUIRED BY THE CROWN FOR ROAD PURPOSES.
R. London
DEP. REG. GEN.

TRANSFER No. 3667442 to
Theodore Xenophou of portion
OF THE WITHIN Land PRODUCED 19.9.1974 AT 2.35 pm
R. London
DEP. REG. GEN.
CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED VOL. 4028 FOL. 473
DEP. REG. GEN.

CANCELLED
AND Balance CERTIFICATE OF TITLE
ISSUED VOL. 4028 FOL. 474
DEP. REG. GEN.

See Survey X 16853

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

South Australia (CERTIFICATE OF TITLE.)

Register Book.

Vol. 733 Folio 55

Pursuant to Memorandum of Transfer No. 122637

William Norswood Neal of Salisbury Farmer

is the proprietor of an estate in fee simple

subject nevertheless to such incumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in that SECTION of land situated in the Hundred of Yatala COUNTY of Adelaide No. 2247 containing eighty acres a there-about

and bounded as appears in the plan in the margin hereof which said Section is delineated in the public map of the said Hundred deposited in the office of the Surveyor-General.

In witness whereof I have hereunto signed my name and affixed my seal this Thirteenth day of May 1905

Signed the 13th day of May 1905 in the presence of

E.S. Playford

N. Giles Registrar-General.

Ryans Rd. vide Lr. 2714/59

Dep. Reg. Genl.

Salisbury Highway vide Lr. 2042/1952

W. Keeves Dep. Reg. Genl.

Transfer No. 462147 from William Norswood Neal to William Nicholas Shepherdson of Salisbury Farmer of an estate in fee simple in the within land produced for registration the 11 day of December 1917 at 9am

Vernon H. Edwards Dep. Reg. Genl.

Sub. SPO 2103/72



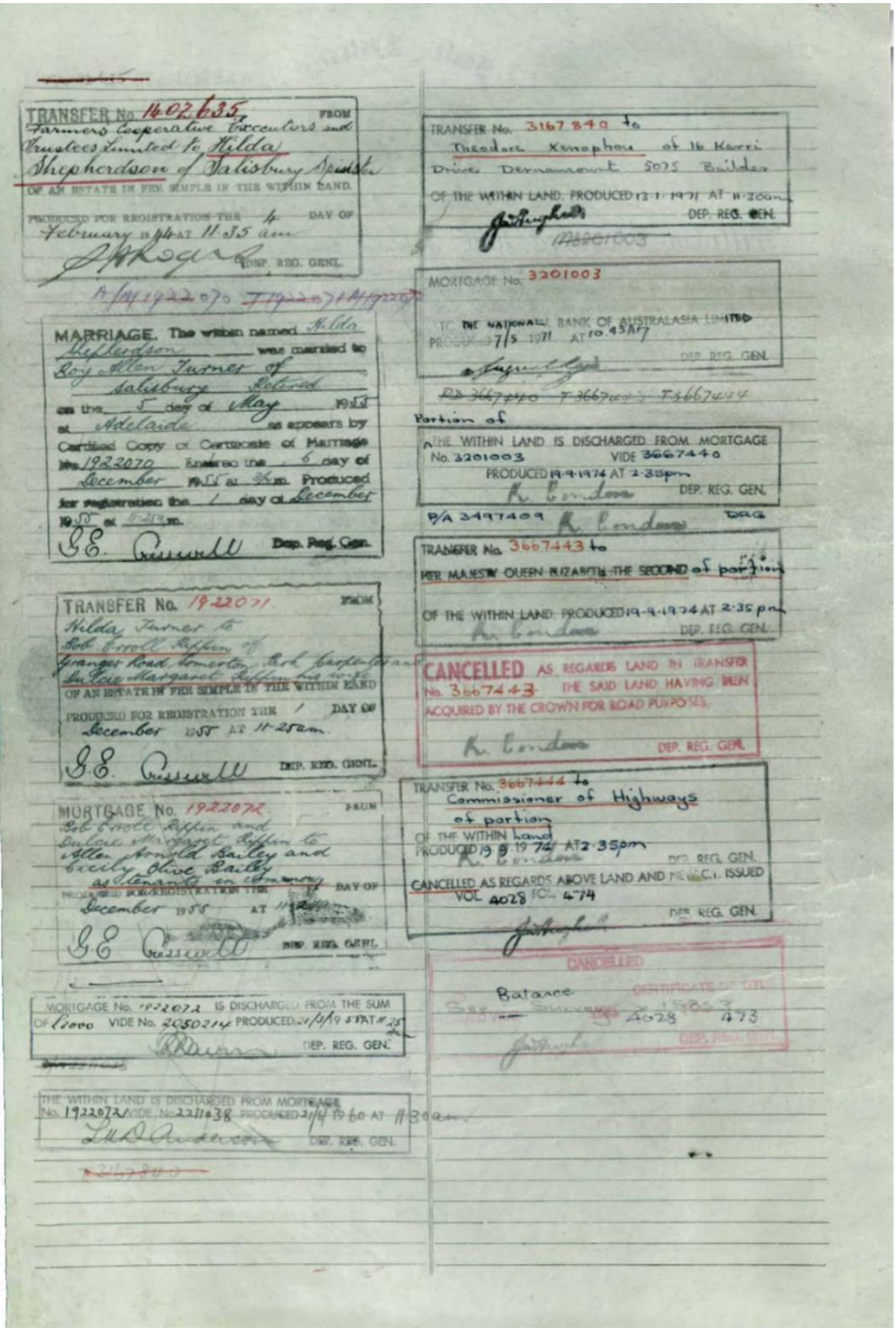
TRANSMISSION APPLICATION No. 140057

Lawson Co-operative Executors and Trustees Ltd of Franklin Street Adelaide

PROPRIETOR OF AN ESTATE IN FEE SIMPLE IN THE WITHIN LAND AS THE EXECUTOR OF NAMED IN THE WILL DATED THE 27 DAY OF April 1940 OF THE ABOVE NAMED William Nicholas Shepherdson WHO DIED ON THE 26 DAY OF May 1943 AS APPEARS BY PROBATE DATED THE 9 DAY OF August 1943 PRODUCED FOR REGISTRATION THE 17 DAY OF December 1943 AT 2.26 P.M.

W. Keeves DEP. REG. GENL.

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment



Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

ORIGINAL South Australia Register Book,

CERTIFICATE OF TITLE

Volume 4028 Folio 473

(Comprising 2 Sheets)

Pursuant to Transfer 3667442 Registered on Vol.3025 Folio 114 and New Certificate for the balance of the Land in Vol.733 Folio 55

THEODORE XENOPHOU of 16 Karri Drive Dernancourt 5075 Builder is the proprietor of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in PORTION OF SECTION 2247 HUNDRED OF YATALA and PORTION OF ALLOTMENT 22 of portion of Section 2261 in the said Hundred laid out as GREEN FIELDS (L.T.R.O. Plan deposited No.7089) and delineated by bold black lines on the plan hereon

In witness whereof I have signed my name and affixed my seal this 30th day of October 1974

Signed the 30th day of October 1974, in the presence of A.A.Duthy

Resub. 259/81

RESUBDIVISION APPROVED
The within land has been redesignated as Lots 1,2,3,4 & 5 in F.P. 16679
(S.P.O. Docket 259 /1981)

C.L. Nairn

Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

MORTGAGE 3201003 to THE NATIONAL BANK OF AUSTRALASIA LIMITED of the within portion of Section 2247 Produced 7.5.1971 at 10.45 a.m.

C.L. Nairn
Dep.Reg.Genl.

M-3667445

MORTGAGE 3667445 to THE NATIONAL BANK OF AUSTRALASIA LIMITED of the within portion of Allotment 22 Produced 19.9.1974 at 2.35 p.m.

R. Bondarow
Dep.Reg.Genl.

D/M3842425-M3842426

P/A 3497409
The within land is discharged from Mortgages 3201003 and 3667445 vide 3842425 Produced 22.1.1976 at 10.15 a.m.

REGISTRAR-GENERAL SOUTH AUSTRALIA

MORTGAGE 3842426 to BANK OF NEW SOUTH WALES Produced 22.1.1976 at 10.15 a.m.

REGISTRAR-GENERAL SOUTH AUSTRALIA

CAVEAT 4311401 ----- Lodged 21.12.78 at 12.30 p.m. 4479157

CAVEAT 4311401 lodged by VALLEY SECURITIES PTY. LIMITED over the within land Produced 21.12.1978 at 12.30 p.m. (Including other land)

REGISTRAR-GENERAL SOUTH AUSTRALIA

D/M4323495-D/M4323496-D/M4323497

CAVEAT 4311401 has been withdrawn vide 4323495 Produced 23.1.1979 at 11.30 a.m.

The within land is discharged from Mortgage 3842426 by endorsement thereon vide 4323496 Produced 23.1.1979 at 11.30 a.m.

REGISTRAR-GENERAL SOUTH AUSTRALIA

MORTGAGE 4323497 to BAGOT'S EXECUTOR AND TRUSTEE COMPANY LIMITED Produced 23.1.1979 at 11.30 a.m.

REGISTRAR-GENERAL SOUTH AUSTRALIA

M-4479716

MORTGAGE 4479716 to M. DALLWITZ TRUSTS PTY. LIMITED Produced 6.12.1979 at 2.50 p.m.

REGISTRAR-GENERAL SOUTH AUSTRALIA

OVER

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

VOL 4023 FOL 973

MORTGAGE 4499157 to THE NATIONAL BANK OF AUSTRALASIA LIMITED Produced 24.1.1980 at 11.10 a.m.

~~-xx-4857045-~~

REGISTRAR-GENERAL'S CAVEAT 4857045 over portion of the within land Entered 4.3.1982 at 10.55 a.m.

~~DX 4881445 DM4890465 DM4890466 DM4890467 TV890468 TV890469 DM4890470 DM4890471 TV890472~~

Registrar-Generals Caveat 4857045 has been withdrawn vide 4881445 Entered 11.5.1982 at 11 a.m

P/A 4287699
The within land is discharged from Mortgage 4499157 vide 4890465 Produced 18.5.1982 at 3.05 p.m.

Mortgage 4323497 is discharged from the sum of $46 300 and PORTION of the within Part Section 2247 (Lot 3 F.P. 16670) and an Easement over PORTION of the within Part Section 2247 and PORTION of Part Lot 22 are thereby discharged vide 4890466 Produced 18.5.1982 at 3.05 p.m.

PORTION of the within Part Section 2247 (Lot 3 F.P. 16679) and an Easement over PORTION of the within Part Section 2247 and PORTION of Part Lot 22 are discharged from Mortgage 4479716 vide 4890467 Produced 18.5.1982 at 3.05 p.m.

TRANSFER 4890468 to MINISTER OF WATER RESOURCES of an Easement over PORTION of the within Part Section 2247 and PORTION of Part Lot 22 Produced 18.5.1982 at 3.05 p.m.

CANCELLED as regards above Land and new C.T. issued
Vol. 4195 Fol. 944

TRANSFER 4890469 to FRANCESCO DiMARIA *ANTONIO* DiMARIA GIORGIO DeCICCO and DOMENICO EVANGELISTA of PORTION of the within Part Section 2247 (Lot 3 F.P. 16679) AS TENANTS IN COMMON Produced 18.5.1982 at 3.05 p.m.

CANCELLED as regards above Land and new C.T. issued
Vol. 4195 Fol. 945

The BALANCE of the within Part Lot 22 and PORTION of Part Section 2247 (Lot 5 F.P. 16679) is discharged from Mortgage 4479716 vide 4890470 Produced 18.5.1982 at 3.05 p.m.

Mortgage 4323497 is discharged from the sum of $56 800 and the BALANCE of the within Part Lot 22 and PORTION of Part Section 2247 (Lot 5 F.P. 16679) is thereby discharged vide 4890471 Produced 18.5.1982 at 3.05 p.m.

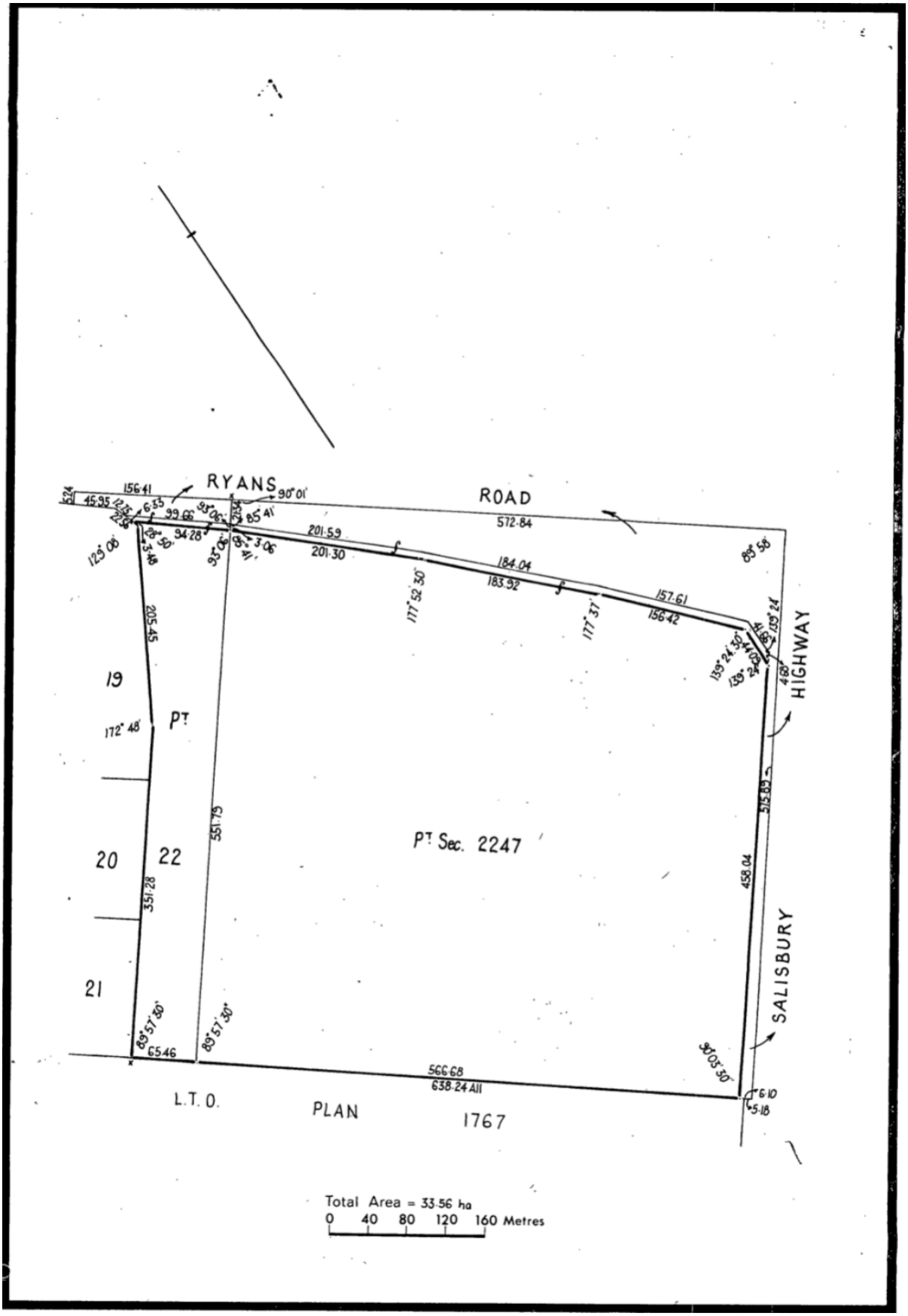
TRANSFER 4890472 to DAVID LINDSAY SIMS MARGARET JEAN SIMS ANTHONY McGREGOR SIMS and PHILOMENA MARY SIMS of the BALANCE of the within Part Lot 22 and PORTION of Part Section 2247 (Lot 5 F.P. 16679) Produced 18.5.1982 at 3.05 p.m.

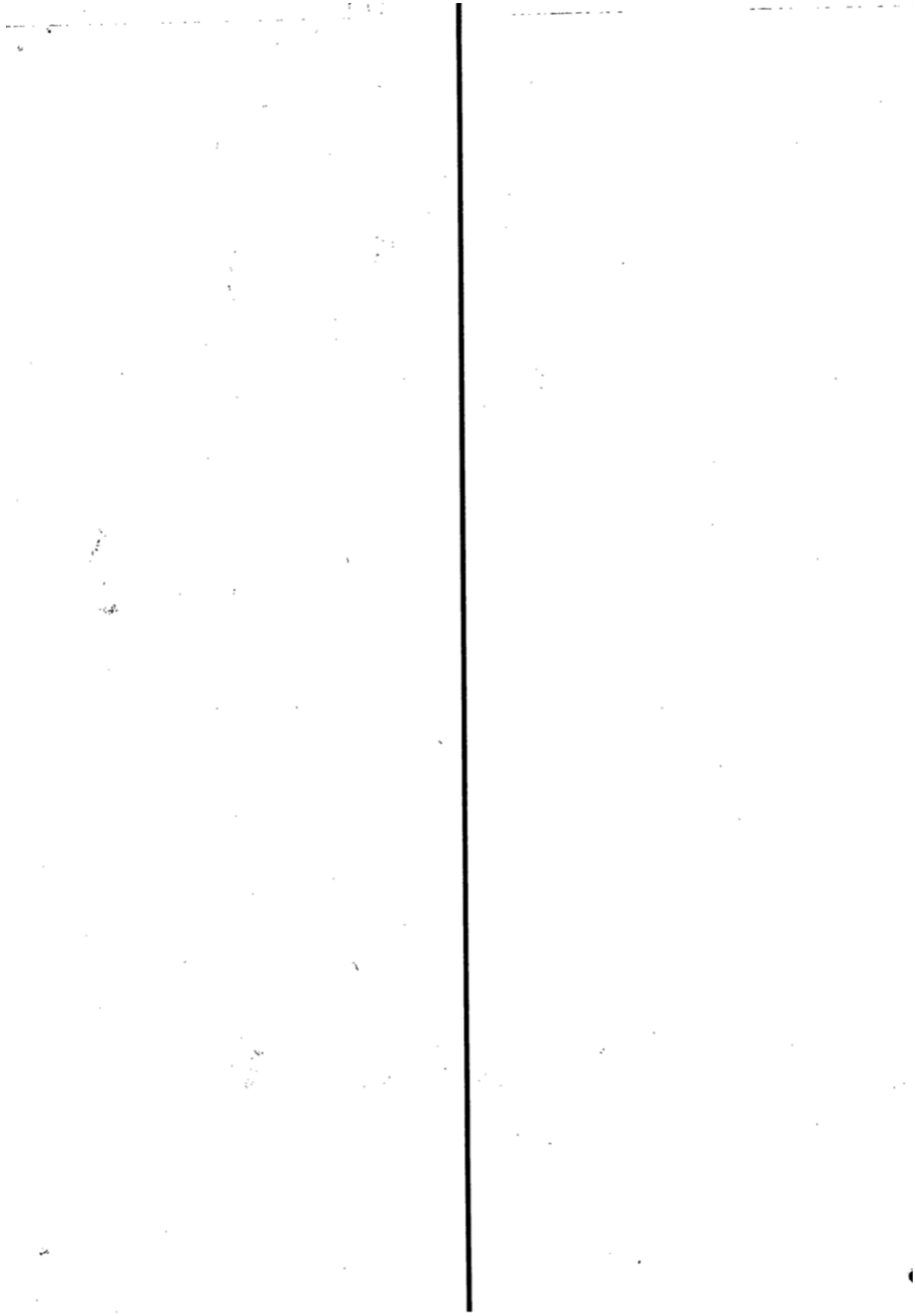
CANCELLED as regards above Land and new C.T. issued
Vol. 4195 Fol. 946

~~DM4926446 DM4926447 TV890448~~

CANCELLED
AND 2 NEW AND BALANCE CERTIFICATE OF TITLE
ISSUED VIDE 4890472 FILED PLAN No. 16679
VOL. 4195 FOL. 947 to 949 inc.

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment


RYANS ROAD
572·84
156·41
90° 01'
85° 41'
201·59
201·30
184·04
183·52
157·61
156·42
177° 52' 30"
177° 37'
89° 58'
139° 24'
139° 24' 30"
HIGHWAY
SALISBURY
205·45
172° 48'
19
PT
20
22
21
PT Sec. 2247
551·75
351·28
458·04
515·85
89° 57' 30"
65·46
566·68
638·24 All
90° 03' 50"
6·10
5·18
L.T.O. PLAN 1767
Total Area = 33·56 ha
0 40 80 120 160 Metres



Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,

Volume 4195 Folio 947

New Certificate for portion of the Land in Vol.4028 Folio 473

THEODORE XENOPHOU of 16 Karri Drive Dernancourt 5075 Builder is the proprietor of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 1 of portion of Section 2247 and other land HUNDRED OF YATALA in the area named GREEN FIELDS (L.T.R.O. FILED PLAN No.16679) and delineated on the plan hereon by bold black lines SUBJECT to the easement to the Minister of Water Resources more particularly set forth in Transfer 4890468 in and over that portion marked A hereon

In witness whereof I have signed my name and affixed my seal this 18 day of August 1982

Signed the 18 day of August 1982, in the presence of

The land in this Certificate is
REDESIGNATED
as ALLOTMENT(8)119
in DEPOSITED PLAN 12568.

Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

MORTGAGE 4323497 to BAGOT'S EXECUTOR AND TRUSTEE COMPANY LIMITED Produced 23.1.1979 at 11.30 a.m. (Including other land)

MORTGAGE 4479716 to M. DALLWITZ TRUSTS PTY. LIMITED Produced 6.12.1979 at 2.50 p.m. (Including other land)

~~BM 4926146~~

DISCHARGE of Mortgage 4323497 vide 4926146 Produced 6.8.1982 at 11.35 a.m.

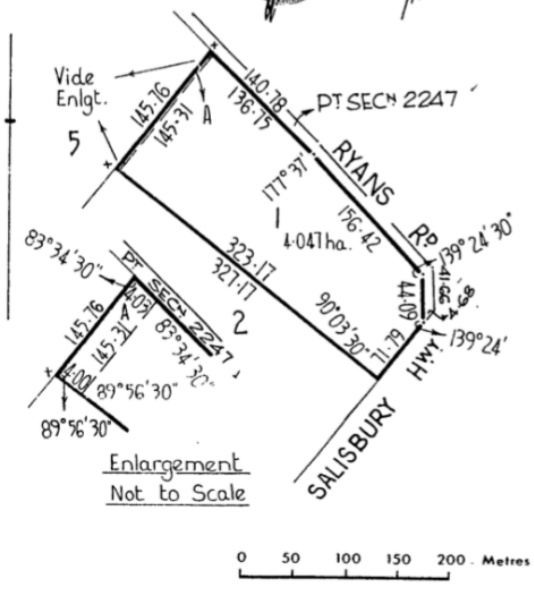
~~XX5050355~~

REGISTRAR-GENERAL'S CAVEAT 5050355 over portion of the within land Entered 25.5.1983 at 1.05 p.m.

~~DM 5122675 TS122676~~

RT 5122832 D.P. 12568

Abuttal vide Docket 283/1983



OVER

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

VOL 4195 FOL 947

DISCHARGE of Mortgage 4479716 vide 5122675
Produced 18.10.1983 at 3.05 p.m.

TRANSFER 5122676 to GIOVANNI EVANGELISTA and ANTONIA EVANGELISTA both of 227 Rundle Street Adelaide both Students of the within land
Produced 18.10.1983 at 3.05 p.m.

AQ 5245654

THE WHOLE OF THE WITHIN LAND IS NOW COMPRISED IN DEPOSITED PLAN 12705
VIDE APPLICATION R.T. 5128332

Caveat 5050355 is withdrawn this 8.6.1984 at 11 a.m.

ACQUISITION 5245654 whereby PORTION of the within land (Lot 126 D.P. 12705) is vested in COMMISSIONER OF HIGHWAYS Produced 6.6.1984 at 1.40 p.m.

CANCELLED as regards land in Acquisition 5245654 and new C.T. issued
Vol. 4226 Fol. 811

CANCELLED
AND Balance CERTIFICATE OF TITLE
ISSUED VIDE 5245654 DEPOSITED PLAN No. 12705
VOL. 4226 FOL. 812

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,
Volume 4226 Folio 812

New Certificate for the balance of the Land in Vol.4195 Folio 947

GIOVANNI EVANGELISTA and ANTONIA EVANGELISTA both of 227 Rundle Street Adelaide 5000 Students are the proprietors of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 125 of portion of Section 2247 HUNDRED OF YATALA in the area named GREEN FIELDS (L.T.R.O. DEPOSITED PLAN No.12705) SUBJECT to the easement to the Minister of Water Resources more particularly set forth in Transfer 4890468 in and over that portion marked X on the said Deposited Plan

In witness whereof I have signed my name and affixed my seal this 18th day of July 1984

Signed the 18th day of July 1984, in the presence of M Gioffre

A.J. Sharman
Deputy Registrar-General

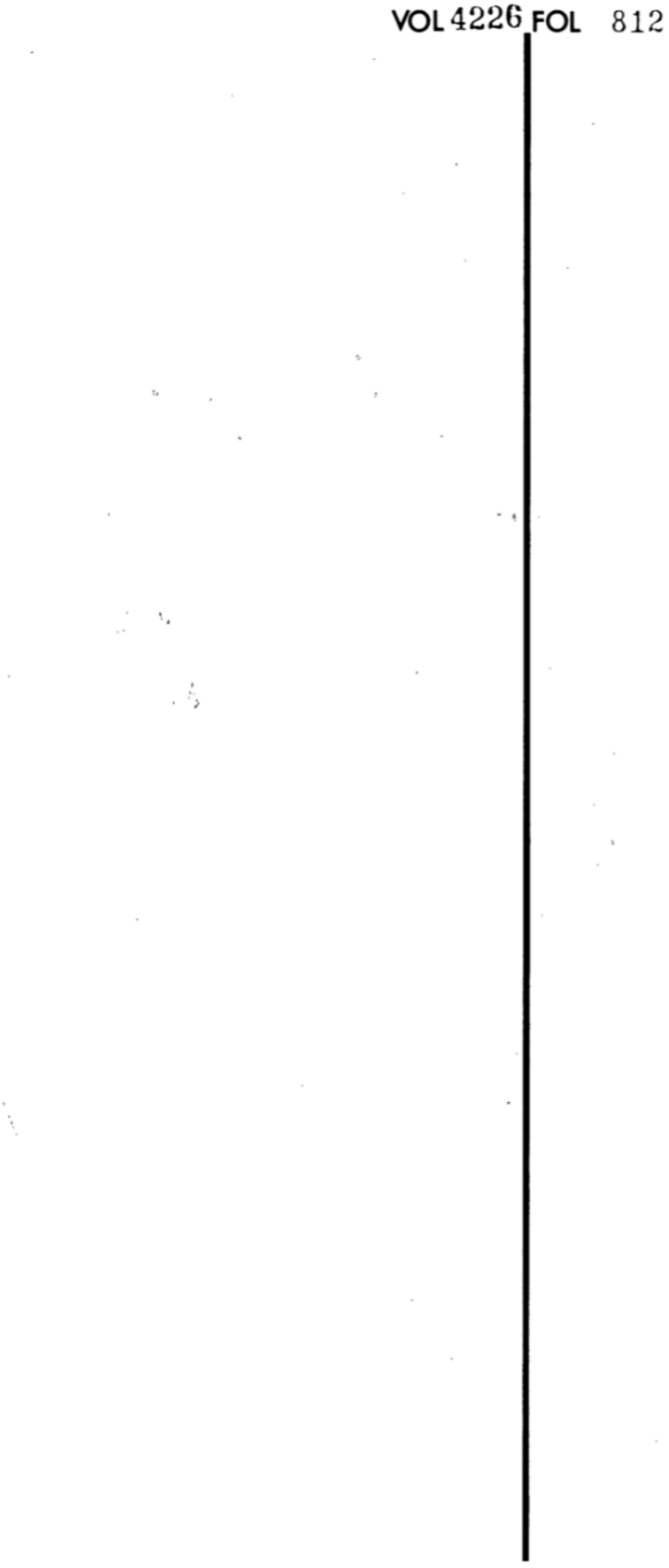
REGISTRAR-GENERAL SOUTH AUSTRALIA

PLAN FOR LEASING PURPOSES
GP 99/1992

The within land abuts a road which has been proclaimed a Controlled-Access Road. Access to this road is permitted only at such places as are approved for that purpose by the Commissioner of Highways. Plan 101

CANCELLED
CONVERTED TO A COMPUTERISED TITLE
REGISTRAR-GENERAL SOUTH AUSTRALIA

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment



Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

South Australia

(CERTIFICATE OF TITLE.)

Register Book,

Vol. 757 Folio 172

Balance Certificate of Title from Vol 719 Folio 133

Frederick William Mant of Bolivar Sheepfarmer is

the proprietor of an estate in fee simple

subject nevertheless to such incumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in

those pieces of land situated in the County of Adelaide being Firstly Section 3070 containing eighty acres or thereabouts situated in the Hundred of Port Adelaide and Secondly Portion of Section 2261 containing seventy nine acres three roods and twenty four perches or thereabouts situated in the Hundred of Yatala and more particularly delineated and bounded as appears on the plan in the margin hereof and thereon colored green

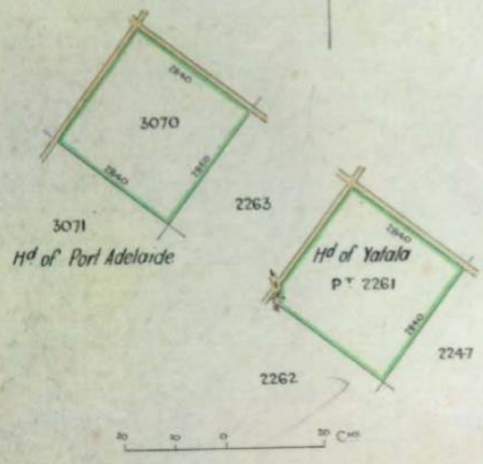
which said Sections are delineated in the public map of the said Hundred deposited in the office of the Surveyor-General.

In witness whereof I have hereunto signed my name and affixed my seal this Eighteenth day of January 1907

Signed the 18th day of January 1907 in the presence of

E.E. Piappond

G. Wilfred Anthony
Deputy Registrar-General.



Mortgage No 376716 from Frederick William Mant to the State Bank of South Australia Produced for registration the 21 day of August 1910 at 2.30 pm

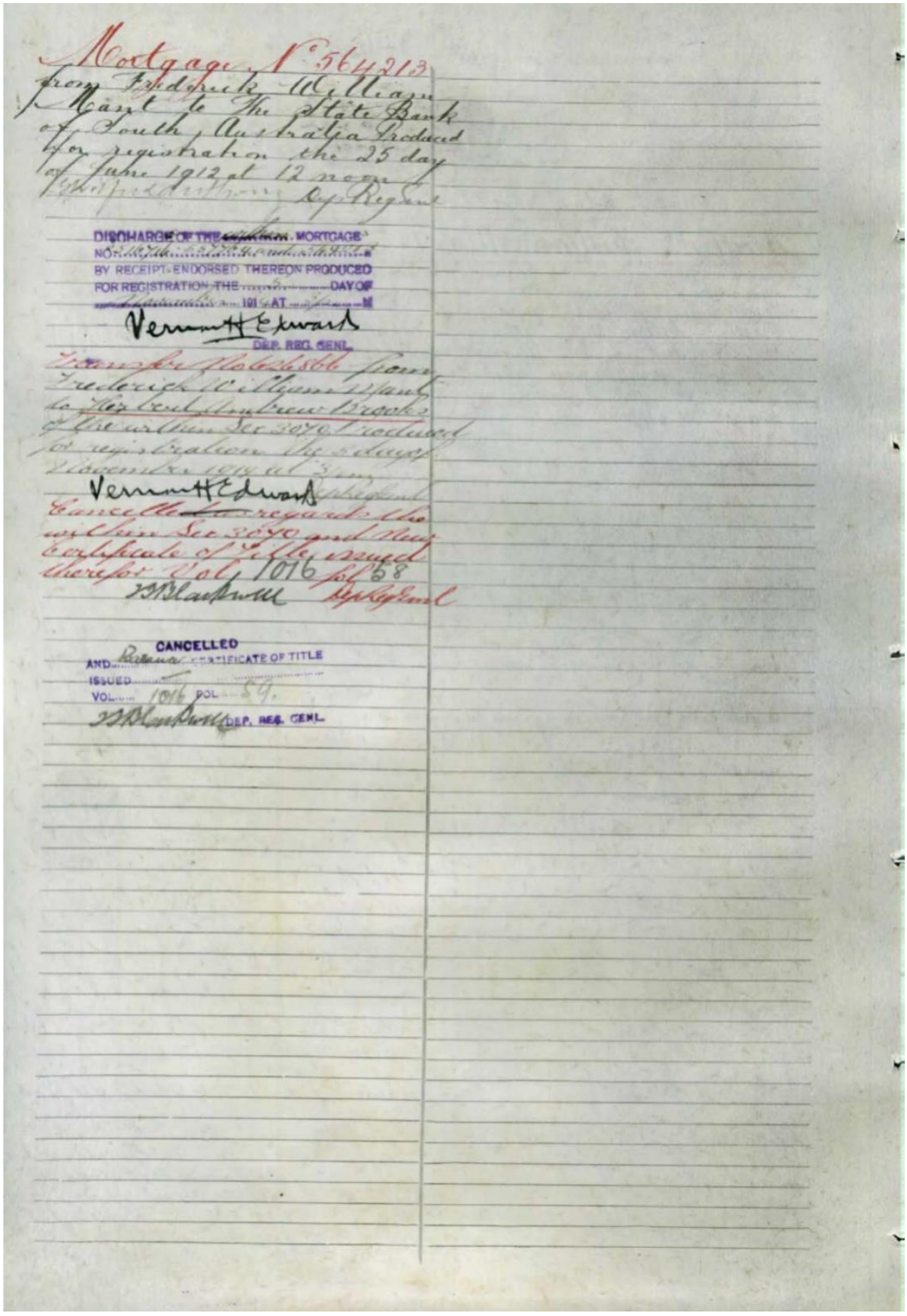
G. Wilfred Anthony Dep Regt

Mortgage No 557764 from Frederick William Mant to the State Bank of South Australia Produced for registration the 3 day of April 1912 at 11 a.m.

G. Wilfred Anthony Dep Regt

(over)

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment



Mortgage No 564213
from Frederick William
Hart to The State Bank
of South Australia Produced
for registration the 25 day
of June 1912 at 12 noon &
Entered Duly Dy Regr

DISCHARGE OF THE ~~within~~ MORTGAGE
NO
BY RECEIPT ENDORSED THEREON PRODUCED
FOR REGISTRATION THE 5 DAY OF
1913 AT 11
Vernon H Edwards
DEP. REG. GENL

Transfer No 668886 from
Frederick William Hart
to Herbert Ambrose Brooks
of Hillcrest Sec 3070 Produced
for registration the 2 day of
December 1914 at 3 pm
Entered
Vernon H Edwards
Cancelled ~~so~~ as regards the
within Sec 3070 and New
Certificate of Title issued
therefor Vol 1016 fol 58
J S Blackwell Dy Regr Genl

CANCELLED
AND Retained CERTIFICATE OF TITLE
ISSUED
VOL 1016 FOL 54.
J S Blackwell DEP. REG. GENL

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

South Australia.

(CERTIFICATE OF TITLE.)

Register Book,

Vol. 1016 Folio 59

Balance Certificate of Title from Vol 787 Folio 172

Frederick William Mant of Bolivar Sheepfarmer is

the proprietor of an estate in fee simple

subject nevertheless to such incumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in

That piece of land situated in the Hundred of Yatala COUNTY of Adelaide

being PORTION OF SECTION 2261 and bounded as appears in the plan in the margin hereof and therein colored green: Which said piece of land contains seventy nine acres three roods and twenty four perches or thereabouts and is more particularly delineated in the said plan

which said Section 2261 delineated in the public map of the said Hundred deposited in the office of the Surveyor-General.

In witness whereof I have hereunto signed my name and affixed my seal this twenty fourth day of November 19 14

Signed the 24th day of November 19 14, in the presence of R J Goffen

Registrar-General.

Martins Rd. vide Lr. 511/54

Dep. Reg. Genl.

Port Wakefield Rd. vide Lr. 1779/58

Dep. Reg. Genl.

Subdiv. D.P. 4862/60



20 10 0 20 CHS

Ryans Rd. vide Lr. 2714/59

Dep. Reg. Genl.

ROAD in Deposited Plan 7089 now REDESIGNATED as Allotment 23

Transfer No 653054 from Frederick William Mant to George Herbert Ryan of Plympton Chaff Merchant of an estate in fee simple in the within land Produced for registration the 10 day of February 1916 at 11.30 am

Registrar-General

MORTGAGE No. 320184 FROM George Herbert Ryan to The Bank of Adelaide

PRODUCED FOR REGISTRATION THE 7 DAY OF June 1920 AT 3 p.m.

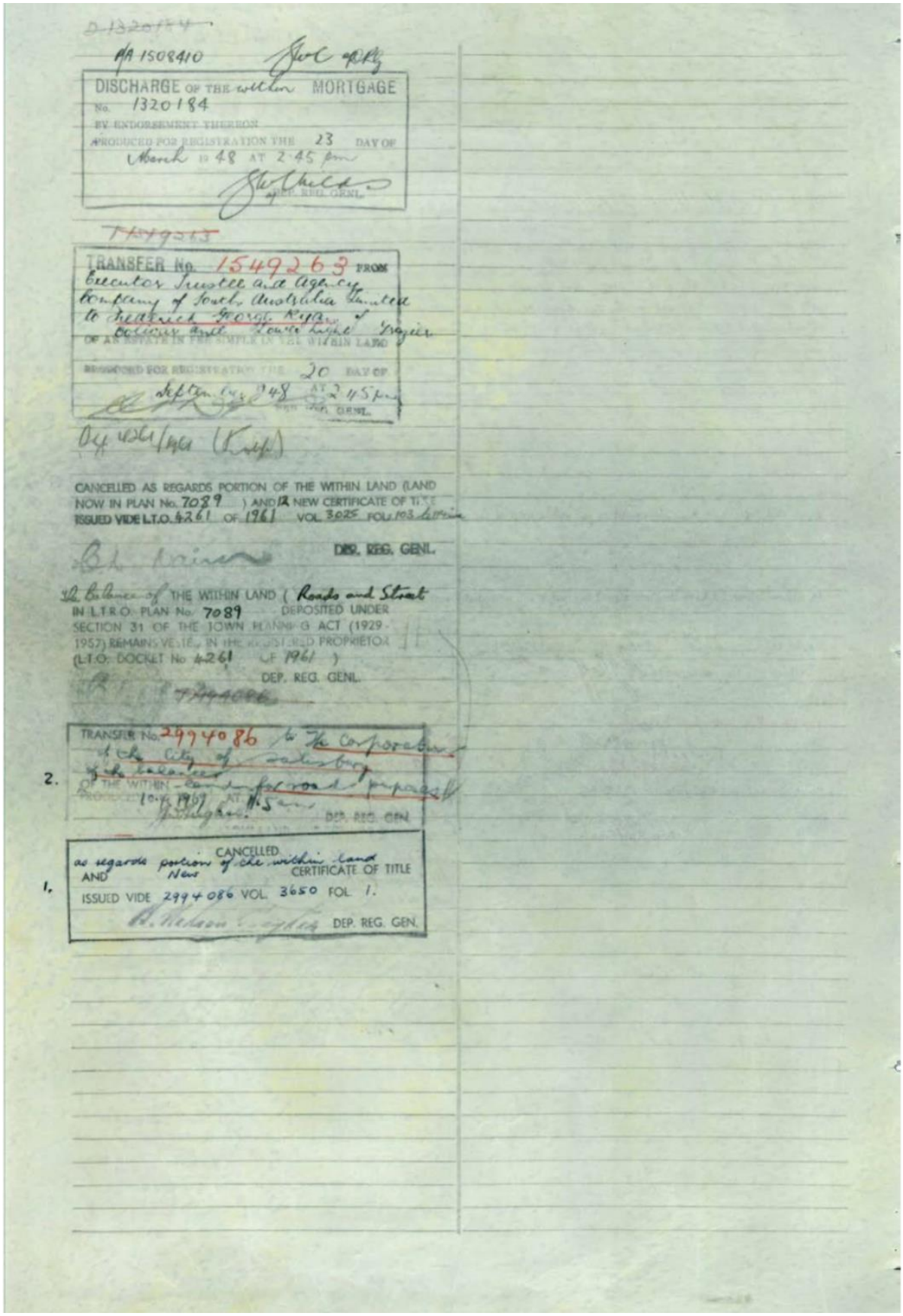
(excluding other land)

Registrar-General

TRANSMISSION APPLICATION No. 1404983

Executors Trustee and Agency Company of South Australia Limited of 22 Grenfell Street Adelaide is

PROPRIETOR OF AN ESTATE IN FEE SIMPLE IN THE WITHIN LAND AS THE EXECUTOR NAMED IN THE WILL DATED THE 5 DAY OF March 1943 OF THE ABOVE NAMED George Herbert Ryan WHO DIED ON THE 27 DAY OF April 1943 AS APPEARS BY PROBATE DATED THE DAY OF October 1943 PRODUCED FOR REGISTRATION



DISCHARGE OF THE within MORTGAGE
No. 1320184
BY ENDORSEMENT THEREON
PRODUCED FOR REGISTRATION THE 23 DAY OF March 1948 AT 2.45 pm
DEP. REG. GENL.

TRANSFER No. 1549263 FROM Executor Trustee and Agency Company of South Australia Limited to Frederick George Rigby of Salisbury and Louisa Lydia Rigby
OF AN ESTATE IN FEE SIMPLE IN THE WITHIN LAND
REGISTERED FOR REGISTRATION THE 20 DAY OF September 1948 AT 2.45 pm
DEP. REG. GENL.

CANCELLED AS REGARDS PORTION OF THE WITHIN LAND (LAND NOW IN PLAN No. 7089) AND A NEW CERTIFICATE OF TITLE ISSUED VIDE L.T.O. 4261 OF 1961 VOL. 3025 FOL. 103 given
DEP. REG. GENL.

2. Balance of THE WITHIN LAND (Roads and Street IN L.T.R.O. PLAN No. 7089 DEPOSITED UNDER SECTION 31 OF THE TOWN PLANNING ACT (1929-1957) REMAINS VESTED IN THE REGISTERED PROPRIETOR (L.T.O. DOCKET No. 4261 OF 1961)
DEP. REG. GENL.

2. TRANSFER No. 2994086 to The Corporation of the City of Salisbury for the balance of the within land for road purposes
10.5.1967 AT 11.5 am
DEP. REG. GEN.

1. CANCELLED as regards portion of the within land AND New CERTIFICATE OF TITLE ISSUED VIDE 2994086 VOL. 3650 FOL. 1.
DEP. REG. GEN.

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

Preliminary Site Investigation
City of Salisbury
Corner Ryans Road and Salisbury Highway, Greenfields

APPENDIX D EPA SECTION 7 RESPONSE

greencap.com.au
Adelaide | Auckland | Brisbane | Canberra | Darwin | Melbourne | Newcastle | Perth | Sydney | Wollongong

GPO Box 2607 Adelaide SA 5001
211 Victoria Square Adelaide SA 5000
T (08) 8204 2004
Country areas 1800 623 445

Greencap
12 Greenhill Road
WAYVILLE SA 5034

Contact: Section 7
Telephone: (08) 8204 2026
Email: epasection7@sa.gov.au

Contact: Public Register
Telephone: (08) 8204 9128
Email: epa.publicregister@sa.gov.au

06 October, 2021

EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference	CT Volume 6214 Folio 653
Address	Road Title Only,

Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND

8. Environment Protection Act 1993

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

8.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
8.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
8.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
8.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
8.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
8.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
8.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

Item 1.1.1 - Attachment 12 - Code Amendment attach D6 - environment

8.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
8.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
8.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

Schedule – Division 2 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS RELATING TO ENVIRONMENT PROTECTION

3-Licences and exemptions recorded by EPA in public register

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the *Environment Protection Act 1993* to conduct any prescribed activity of environmental significance under Schedule 1 of that Act at the land?	NO
b)	details of a licence no longer in force issued under Part 6 of the *Environment Protection Act 1993* to conduct any prescribed activity of environmental significance under Schedule 1 of that Act at the land?	NO
c)	details of a current exemption issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed *Waste Management Act 1987* to operate a waste depot at the land?	NO
g)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to produce waste of a prescribed kind (within the meaning of that Act) at the land?	NO
h)	details of a licence issued under the repealed *Waste Management Act 1987* to produce prescribed waste (within the meaning of that Act) at the land?	NO

4-Pollution and site contamination on the land - details recorded by the EPA in public register

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

a)	details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the *Environment Protection Act 1993*)?	NO

b)	details of site contamination notified to the EPA under section 83A of the *Environment Protection Act 1993*?	NO
c)	a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register?	NO
d)	a copy of a site contamination audit report?	NO
e)	details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the *Environment Protection Act 1993* applies?	NO
f)	details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
g)	details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993?*	NO
h)	details of a notification under section 103Z(1) of the *Environment Protection Act 1993* relating to the commencement of a site contamination audit?	NO
i)	details of a notification under section 103Z(2) of the *Environment Protection Act 1993* relating to the termination before completion of a site contamination audit?	NO
j)	details of records, held by the former *South Australian Waste Management Commission* under the repealed *Waste Management Act 1987*, of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995?	NO

5-Pollution and site contamination on the land - other details held by EPA

Does the EPA hold any of the following details in relation to the land or part of the land:

a)	a copy of a report known as a "Health Commission Report" prepared by or on behalf of the *South Australian Health Commission* (under the repealed *South Australian Health Commission Act 1976*)?	NO
b)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
c)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993*?	NO
d)	a copy of a pre-1 July 2009 site audit report?	NO
e)	details relating to the termination before completion of a pre-1 July 2009 site audit?	NO

All care and diligence has been taken to access the above information from available records. Historical records provided to the EPA concerning matters arising prior to 1 May 1995 are limited and may not be accurate or complete and therefore the EPA cannot confirm the accuracy of the historical information provided.

CT Volume 6214 Folio 653 page 3 of 3

TMK Consulting Engineers

Adelaide | Melbourne | Riverland

2308114_DB-C
BF227
24th October 2023

COMMERCIAL DESIGN BRIEF

HIGH LEVEL SERVICES INFRASTRUCTURE INVESTIGATION GREENFIELDS MIXED USE DEVELOPMENT –

LOT 1001 SALISBURY HIGHWAY, GREENFIELDS, SA

Prepared for

THIRTEEN COMMERCIAL C/-EVO ARC

www.tmkeng.com.au

Our Ref: 2308114
24 October 2023

Thirteen Commercial
C/-Evo Arc

ATTENTION: BARRY SANTRY Email: barrys@evoarc.com.au

Dear Barry,

RE: HIGH LEVEL SERVICES INFRASTRUCTURE INVESTIGATION
GREENFIELDS MIXED USE DEVELOPMENT
Lot 1001 Salisbury Highway, Greenfields, SA

TMK Consulting Engineers is pleased to present a copy of our Preliminary Design Investigation Report for the above project.

For and on behalf of
TMK Consulting Engineers

GREG CARUSO
Building Services Manager / Associate Director

E gcaruso@tmkeng.com.au
D 08 8238 4136 **M** 0400 259 101

Report Issue	Copy Number	Issued to	Issue Date
Preliminary Design Brief	2308114_DB	Barry Santry	24 October 2023

CONTENTS

1 INTRODUCTION 3
1.1 General 3
1.2 Services Scope Coverage 3
1.3 Development Details 3
2 WATER supply – potable / non-potable - SAWATER 5
2.1 Existing Water Infrastructure 5
2.2 Proposed Development Works 5
3 SEWER wastewater - SAWATER 6
3.1 Existing Sewer Infrastructure 6
3.2 Proposed Development Works 6
4 GAS – APA 7
4.1 General 7
5 STORMWATER 8
5.1 Existing Stormwater Infrastructure 8
5.2 Proposed Stormwater Infrastructure 8
5.3 Stormwater Quality 8
6 FIRE SERVICES - SAWATER 9
6.1 Fire Hydrant Protection 9
6.2 Automatic Fire Sprinkler Protection 9
7 ELECTRICITY 11
7.1 Existing Electricity Supply 11
7.2 Estimated Maximum Demand 11
7.3 Proposed Development Works 12
7.4 External Lighting 12
8 TELECOMMUNICATIONS 13
8.1 Existing Telecommunications Supply 13
8.2 Proposed Development Works 13
9 EXCLUSIONS 14
10 Attachments 14

1 INTRODUCTION

1.1 General

The engineering scope associated with this development is related to:

- Site services infrastructure to service the development; with a connection point to the buildings
- Excludes buildings
- To enable a high level cost estimate to be established for Thirteen Commercial;

Includes the following:

- Desktop study assessment of the existing infrastructure on site / available and the provision of cost estimates for associated services infrastructure connections / upgrades to service the development;
- Servicing requirements to developments based on parameter rates;
- Excludes headworks/authority infrastructure upgrades (the requirements for authority / head works will be outlined in the report as part of the assessment)

Limitations;

- General overview of buildings with respect to services demand loads; I.e parameter rates used to determine services loadings for buildings;

1.2 Services Scope Coverage

Site services assessed:

- Sewer wastewater (external private mains)-SAWater
- Domestic Water (external private mains)-SAWater
- Fire Services (hydrant/hose reel supplies)-SAwater
- Electrical Services (power supply/NBN/external lighting systems)-SAPN / NBN
- Gas (LPG/town mains as applicable) – Elgas / Seagas
- Liaisons with SA Water for connection to existing infrastructure/augmentation as required;
- Stormwater
- Excludes Civil works – siteworks, internal roadways, benching

The following items are excluded from the Design Brief:

- Detailed design information (to be confirmed during planning / design development stage).

1.3 Development Details

The Mixed use development entails the following:

- Supermarket;
- Specialty Shops;
- Fast Food Pads, 1 off;
- Childcare Centre
- Liquor Store;
- Large Format Retail;
- Warehouse Units;



Figure 1 – Locality Plan of proposed development

2 WATER SUPPLY – POTABLE / NON-POTABLE - SAWATER

2.1 Existing Water Infrastructure

The approximate locations of existing water infrastructure (SA Water) closest to the development site have been determined based on DBYD/AQUAMAP responses received from SA Water. The existing water mains which border the development site, are as follows:

- 150mm water main along Ryans Rd.
- 200mm water main along Salisbury Highway, section of which runs inside property boundary.



Figure 2 - Water Infrastructure (Source: SA Water Aquamaps)

2.2 Proposed Development Works

- While a network assessment needs to be completed SA Water to finalize connections, generally a 150 mm main is suitably sized to provide new 50 mm connections.
- Two (2) new 50mm central SA Water meters off Ryans Rd.
  - 1x to service warehouse & large format retail tenancies
  - 1x to service shopping centre, retail food & carwash tenancies.
- Private water meter to each tenancy to monitor usage.

Alternatively;

- Individual SA Water meters can be provided to service each tenancy. Client to advise if required?
- This option has a higher infrastructure cost, however minimizes on-going management of water usage billing.

3 SEWER WASTEWATER - SAWATER

3.1 Existing Sewer Infrastructure

The approximate locations of existing sewer infrastructure (SA Water) closest to the development site have been determined based on DBYD/AQUAMAP responses received from SA Water. The existing sewer mains which border the development site, are as follows:

- 300mm sewer main along Ryans Rd.
- 675 mm transmission main along Salisbury Highway.



Figure 3 - Sewer Infrastructure (Source: SA Water Aquamaps)

3.2 Proposed Development Works

- While a network assessment needs to be completed SA Water to finalize connections, generally a 300 mm main is suitably sized to provide new 150 mm connections.
- Two (2) new 150 mm central sewer connections off Ryans Rd.
  - 1x to service warehouse & large format retail tenancies
  - 1x to service shopping centre, retail food & carwash tenancies.
- Note that the existing 300 mm SA Water sewer main appears to be located in council verge from Aquamap drawings; however it has not been identified in site survey (Drawing 21A3416_Detail(0)20P). Location of existing Sa Water sewer main will have confirmed to avoid any clashes with proposed development.

4 GAS – APA

4.1 General

There is medium pressure gas main available along Ryans Rd, with the existing APA gas main easement inside property boundary.

New gas meters to be provided as to service commercial kitchen for food tenancies.

Item 1.1.1 - Attachment 13 - Code Amendment attach D7 - services

5 STORMWATER

5.1 Existing Stormwater Infrastructure

There is an existing stormwater easement on the site composed of underground pipes and a swale; the pipes have a diameter between 450mm and 1500mm.



Figure 4 – Existing stormwater infrastructure (Source: Location SA)

5.2 Proposed Stormwater Infrastructure

Relocation of the existing stormwater easement will be required to accommodate the proposed buildings; those chances will need to go through the council for approval.

The proposed stormwater detention system will consist of aboveground/underground detention tanks or swales distributed throughout the site; volume and discharge flow rate into council infrastructure will require approval by the council.

5.3 Stormwater Quality

The following water quality targets applicable to the site:
- 80% retention of the typical urban annual load for Total Suspended Solids (TSS)
- 60% retention of the typical urban annual load for Total Phosphorus (TP).
- 60% retention of the typical urban annual load for Total Nitrogen (TN)
- 100% retention of the typical urban annual load for Gross Pollutants (litter).
- No visible oil flows up to the 3month ARI peak flow

The water quality will be achieved with bio-retention swale and/or filter devices prior discharge into the council infrastructure.

6 FIRE SERVICES - SAWATER

6.1 Fire Hydrant Protection

- The proposed development with buildings in excess of 500m2 requires fire hydrant protection to AS2419.
- A boosted fire hydrant system with external fire hydrants will be required to meet the coverage.
- A fire hydrant system to the following is proposed to service the site:
  - Town mains supplied fire hydrant system;
  - There is an existing 150mm town main supply on Ryans Road, and 200mm mains on Salisbury Highway;
  - Minimum hydrant flow requirements are 1200lpm@200Ka which allows for two hydrant heads flowing simultaneously
  - Awaiting SA Water Newtork Analysis to confirm the adequacy of the water supply (require a minimum 20l/s@200kPa for compliance), but based on history in the area expect the hydrant flows to be achieved with the size of the mains concerned.
- In terms of the network main size: the development is compliant with the SA Water TS 0522 and Table 3.1 WSA 03-2011 for minimum water main sizes; which stipulates a minimum 150DN town mains supply to service the site.
- Subject to the SAWater network analysis; to confirm the mains has sufficient capacity to service the site; the town mains are considered suitable to supply a fire connection to the Mixed Use Development;
- **In summary, expect the town mains supply to adequately service the site fire hydrant water supply requirements, without supplementing with fire storage tanks / pump sets.**



SAWater plans detailing 150DN mains on Ryans Rd, and 200mm mains on Salisbury Highway

6.2 Automatic Fire Sprinkler Protection

- Automatic fire sprinkler protection is not a mandatory requirement unless building sizes and usage exceed the BCA criteria for triggering fire sprinkler protection;
- The following conditions would trigger fire sprinkler protection;
  - Class 6 retail areas exceeding 3,500m2 fire compartment area;

Item 1.1.1 - Attachment 13 - Code Amendment attach D7 - services

- Class 6 retail / Class 7B warehouse storage spaces exceeding a fire compartment size of 2,000m2 and containing combustible storage, stored to heights greater than 4.0 metres;

- It is envisaged that Automatic Fire sprinkler systems may be able to be serviced by the town mains supply up to an Ordinary Hazard 'classification.
- Class 6 retail / Class 7B warehouse storage spaces exceeding a fire compartment size of 2,000m2 and containing combustible storage, stored to heights greater than 4.0 metres would be classified as 'High Hazard' systems. Such systems will need to be serviced by supplementary on-site fire storage tanks/ pump sets.;
- **In summary, supplementary fire storage tanks / pump sets should be allowed for at planning stage to service fire sprinkler systems for the buildings required. A minimum 6m diameter tank x 5 m high , with 8x4m fire pumproom should be allowed for.**

7 ELECTRICITY

7.1 Existing Electricity Supply

There are High Voltage Overhead cables and stobie poles running along the northern side of Ryans Road and the western side of Salisbury Highway. The high voltage

The western side of Salisbury Highway also has underground high voltage cables for most of this side of the development.



Google Maps image from Salisbury Highway

The overhead high voltage cables cross Ryans Road at approximately hallway between Rosalia Terrace and Oleander Drive. These overhead cables are under an easement in favour of SAPN however are clear of any proposed building lines.



Google Maps image from Ryans Road

There is also low voltage infrastructure in the area however given the size of the development, the proposed connection points will be transformers connected to the existing high voltage infrastructure on Ryans Road.

7.2 Estimated Maximum Demand

An initial indication of the EMD for a development of this size is approximately 4500Amps 3-phase which includes landlord equipment and spare capacity for any future car chargers. A breakdown of this is as follows:

- Small Warehouse Units: 100 amps each (1200amps total)
- Large Format Retail: 200amps each (800amps total)
- Liquor store & specialty shops: 350amps total
- Super Market: 2000amps
- Amenities & landlord equipment: 200A

7.3 Proposed Development Works

- Two new transformers (2MVA and 1.5MVA) will be required on the site to provide the above EMD. These transformers will need to be connected to the HV overhead cables on Ryans Road. To facilitate this, an application is to be made to SA Power Networks with the above EMD breakdown. The locations of these transformers are spread out to assist in voltage drop calculations to reduce the size of the consumers mains cables.
- Each transformer will require a Main Switchboard and can be in designated plant and/or reserve areas on the concept plan. Subsequent switchboards can be placed as required during the fitout process. New electrical boards shall have a minimum of 1.2m clearance from the front of their doors.
- The electrical cables will run in underground conduits in a common service trench where possible. Conduits shall be capped, tagged, and supplied with draw wire, with conduit tail capped above ground for easy recognition and extension to the building by fit out contractor.
- Refer to the concept spatial sketches for proposed location of the new transformers and main switchboards.

7.4 External Lighting

The external lighting required for this development is up to the developer during the fitout of the buildings. Standard lighting for a shopping centre and warehouse carparking consists of the following:

- Pole lights through the site along the roadways.
- Floodlights throughout the site on the top of the buildings facing carparking spaces and passageways.

Note that if required by council then a light spill assessment may be necessary to determine if the light spill to adjacent properties complies to AS4282.

8 TELECOMMUNICATIONS

8.1 Existing Telecommunications Supply

The following telecommunications underground infrastructure is present along Ryans Road and Salisbury Highway in the vicinity of the proposed development:

- Telstra
- Optus
- Aussie Broadband
- NBN

The Aussie Broadband pit and pipe infrastructure is the only one of concerns as it runs inside the development boundary and requires relocating if the pits and conduits interfere with the proposed buildings:



Google Maps image from Ryans Road

8.2 Proposed Development Works

- NBN infrastructure is available and can be utilized to connect to this site. There may be requirements for additional pits along Ryans Road to facilitate this and will come at the cost of the developer. All infrastructure upgrades outside of the proposed development shall be by supply authorities.
- Additional charges may apply and shall be confirmed by NBN.Co/Telstra.
- Design & documentation for pit & pipe reticulation, to comply with NBN.Co fibre deployment standards, ACMA standards and industrial guidelines for future NBN fibre reticulation.
- Communication cable reticulation shall be installed by NBN.Co when each tenancy applies for the phone connection through their respective fit-out contractor.

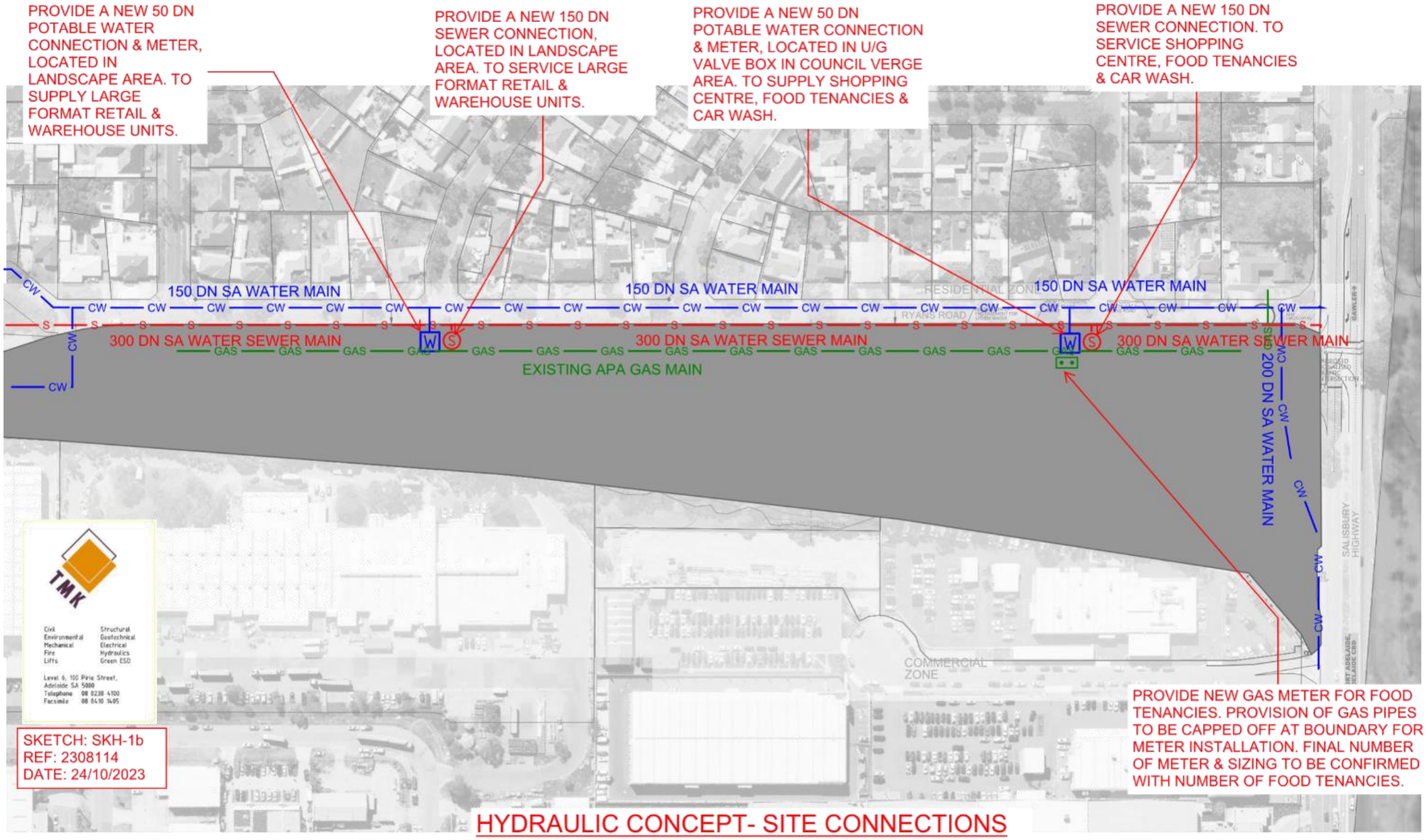
9 EXCLUSIONS

The following items listed below have not been considering when preparing this report and may or may not have an impact on the development.

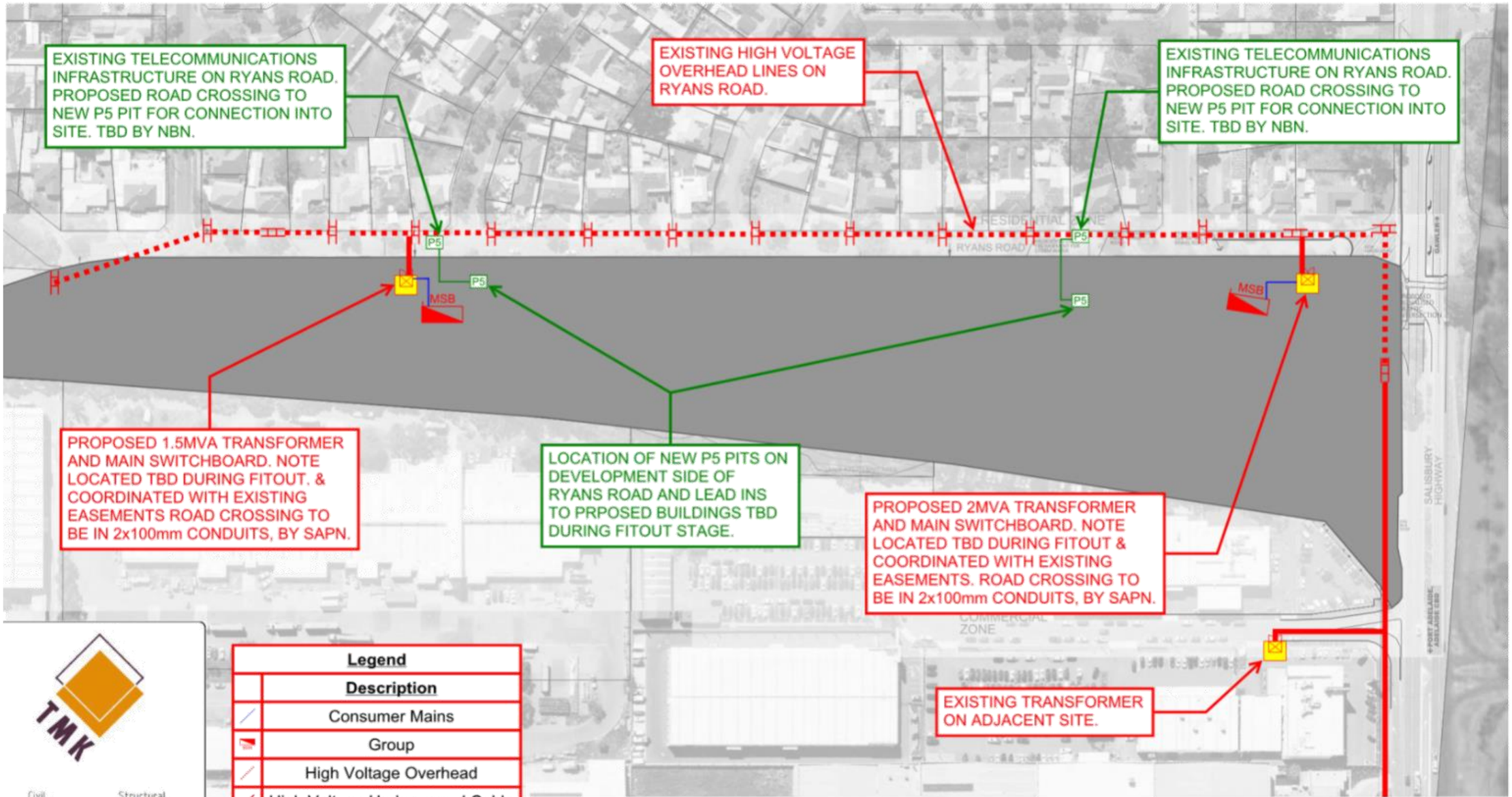
- Environmental Considerations.
- Recycled water supply.
- Landscaping.

10 ATTACHMENTS

- High Level Services & Stormwater Sketches
- Preliminary Master Services Plan


PROVIDE A NEW 50 DN POTABLE WATER CONNECTION & METER, LOCATED IN LANDSCAPE AREA. TO SUPPLY LARGE FORMAT RETAIL & WAREHOUSE UNITS.
PROVIDE A NEW 150 DN SEWER CONNECTION, LOCATED IN LANDSCAPE AREA. TO SERVICE LARGE FORMAT RETAIL & WAREHOUSE UNITS.
PROVIDE A NEW 50 DN POTABLE WATER CONNECTION & METER, LOCATED IN U/G VALVE BOX IN COUNCIL VERGE AREA. TO SUPPLY SHOPPING CENTRE, FOOD TENANCIES & CAR WASH.
PROVIDE A NEW 150 DN SEWER CONNECTION. TO SERVICE SHOPPING CENTRE, FOOD TENANCIES & CAR WASH.
150 DN SA WATER MAIN
150 DN SA WATER MAIN
150 DN SA WATER MAIN
300 DN SA WATER SEWER MAIN
300 DN SA WATER SEWER MAIN
300 DN SA WATER SEWER MAIN
EXISTING APA GAS MAIN
200 DN SA WATER MAIN
RESIDENTIAL ZONE
RYANS ROAD
COMMERCIAL ZONE
SALISBURY HIGHWAY
GAWLER RD
CW
S
GAS
W
TMK
Civil
Environmental
Mechanical
Fire
Lifts
Structural
Geotechnical
Electrical
Hydraulics
Green ESD
Level 6, 100 Pirie Street,
Adelaide SA 5000
Telephone 08 8238 4100
Facsimile 08 8410 1405
SKETCH: SKH-1b
REF: 2308114
DATE: 24/10/2023
PROVIDE NEW GAS METER FOR FOOD TENANCIES. PROVISION OF GAS PIPES TO BE CAPPED OFF AT BOUNDARY FOR METER INSTALLATION. FINAL NUMBER OF METER & SIZING TO BE CONFIRMED WITH NUMBER OF FOOD TENANCIES.
HYDRAULIC CONCEPT- SITE CONNECTIONS
TRUE NORTH
Project Title:
PROPOSED MIXED-USE DEVELOPMENTS
@ Lot 1001, SALISBURY HWY
GREEN FIELDS, SA

ELECTRICAL & TELECOMMUNICATIONS PLAN SKE-01b
LOT 1001 SALISBURY HIGHWAY, PARAFIELD GARDENS
DANIEL PERILLI 24/10/2023



Legend	
	Description
	Consumer Mains
	Group
	High Voltage Overhead
	High Voltage Underground Cable
P5	P5 Communications Pit
	P100 NBN Conduit
	Stobie Pole
	Transformer

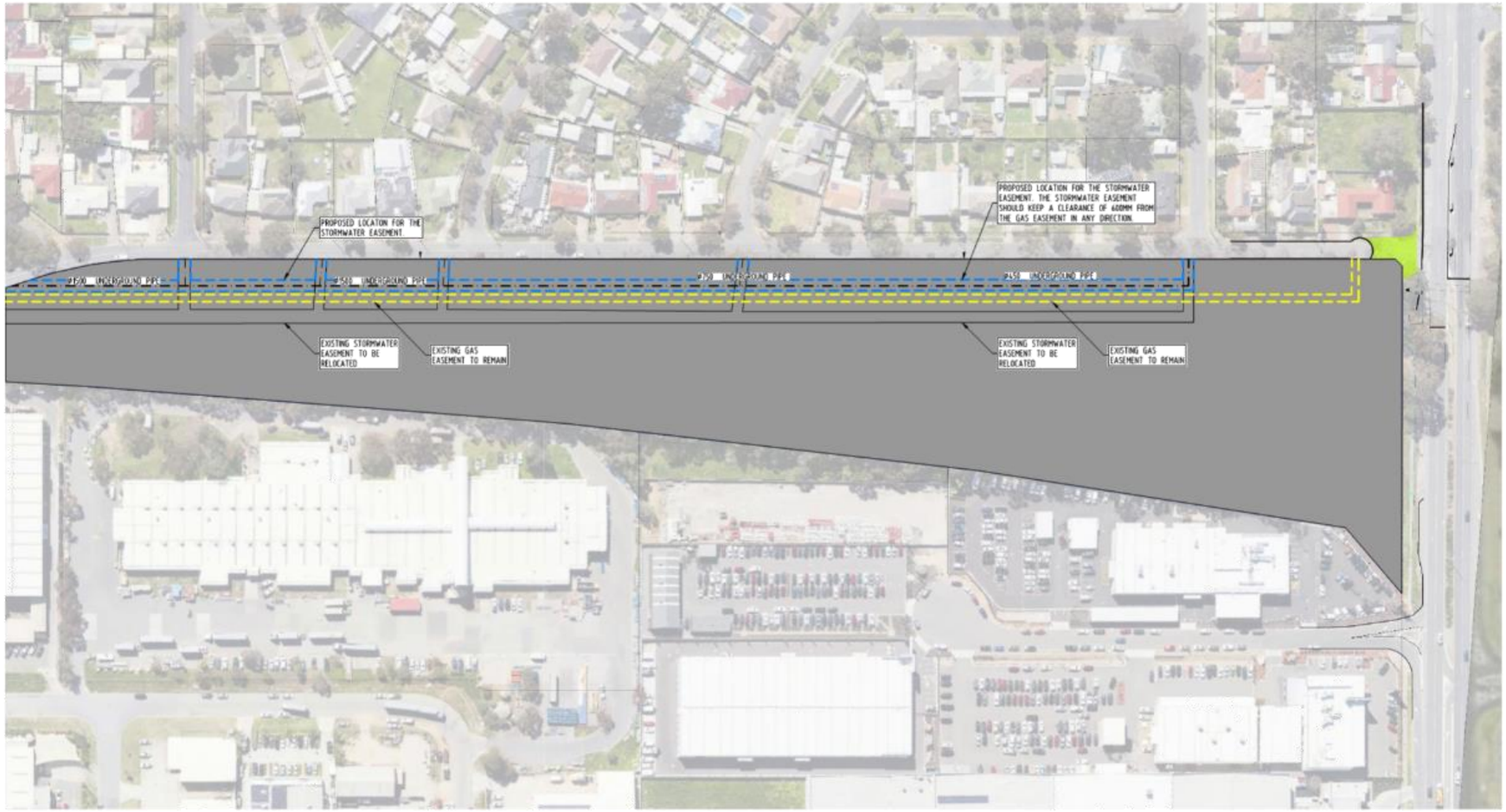
TMK

Civil, Structural, Environmental, Geotechnical, Mechanical, Electrical, Fire, Hydraulics, Lifts, Green ESD

Level 6, 100 Pirie Street,
Adelaide SA 5000
Telephone 08 8238 4100
Facsimile 08 8410 1405

Project Title:
PROPOSED MIXED-USE DEVELOPMENTS
@ Lot 1001, SALISBURY HWY
GREEN FIELDS, SA

Item 1.1.1 - Attachment 13 - Code Amendment attach D7 - services



CIVIL PLAN
1:1000

1 : 1000 @ A1
0 10 20 30 40 50 m

No	REVISION	DRAWN	CHE'KD	DATE

PROJECT
PROPOSED MIXED-USE DEVELOPMENT
AT: LOT 1001, SALISBURY HWY

DRAWING TITLE
CIVIL PLAN

PRELIMINARY

Civil
Geotechnical
Environmental
Structural
Mechanical
Electrical
Fire
Hydraulics
Process
Construction Assist
Vertical Transport

Adelaide Office: 08 8238 4100
Melbourne Office: 08 8238 4195
Riverland Office: 08 8582 3930
www.tmkeng.com.au

TMK

SCALES	AS SHOWN	© COPYRIGHT RESERVED
DRAWN	RF	DRAWING No.
DATE	OCT 23	2308114_SKC02
ENGINEER	RF	
CHECKED	X	