

MEMORANDUM

TO City of Rockingham

FROM Eva Cronin and Maitland Ely (Eco Logical Australia) on behalf of Frasers Property Australia



DATE 13/09/2023

PURPOSE For Information

SUBJECT Bushfire Management Plan Compliance Report: Stage 12B Baldivis Parks, Baldivis

Document purpose

Eco Logical Australia (ELA) has prepared this Bushfire Management Plan (BMP) compliance report for 36 lots within Stage 12B Baldivis Parks, Baldivis (the subject site; Figure 1). Lots within the subject site are subject to Western Australian Planning Commission (WAPC) subdivision approval WAPC Ref. 156812.

This report provides a post-subdivisional works compliance assessment of bushfire management measures required to clear Condition 14 and 15 of subdivision approval as follows:

14. Information is to be provided to demonstrate that the measures contained in Section 6 – Table 3 of the Baldivis Parks Estate, Baldivis – Structure Plan Revised Bushfire Management Plan date, July 2017 (Doc No.: EP16-004(02)--44) have been implemented during subdivisional works. This information should include a completed ‘Certification by Bushfire Consultant’ from the bushfire management plan. (Local Government)

15. Notification, pursuant to Section 165 of the Planning and Development Act 2005 is to be placed on the certificate(s) of title of the proposed lot(s) with a Bushfire Attack Level (BAL) rating of 12.5 or above, advising of the existence of a hazard or other factor.

Notice of this notification is to be included on the diagram or plan of survey (deposited plan).

The notification is to state as follows:

‘This land is within a bushfire prone area as designed by an Order made by the Fire and Emergency Services Commissioner and is subject to a Bushfire Management Plan. Additional planning and building requirements may apply to development on this land’ (Western Australian Planning Commission)

The approach for preparation of this BMP compliance report is consistent with Section 4.2 of the Guidelines for Planning in Bushfire Prone Areas (the Guidelines; WAPC 2017).

Compliance assessment

The endorsed BMP (Emerge 2017) included 21 bushfire management strategies that are required to ensure the proposed development will comply with the bushfire protection criteria in the Guidelines as detailed in the endorsed BMP (Emerge 2017). Thirteen of these strategies are not relevant to progress subdivision clearance and have been excluded from this report.

ELA has undertaken a bushfire risk assessment and compliance assessment to determine if the relevant bushfire management measures documented in the endorsed BMP have been undertaken (Table 1).

Based on our assessment, ELA can confirm that for Stage 12B Baldivis Parks subdivision, the relevant bushfire management measures detailed in the endorsed BMP (where applicable) have either been implemented as intended to a satisfactory level, are no longer applicable or have been progressed to a point that these measures are likely to be compliant, once completed.

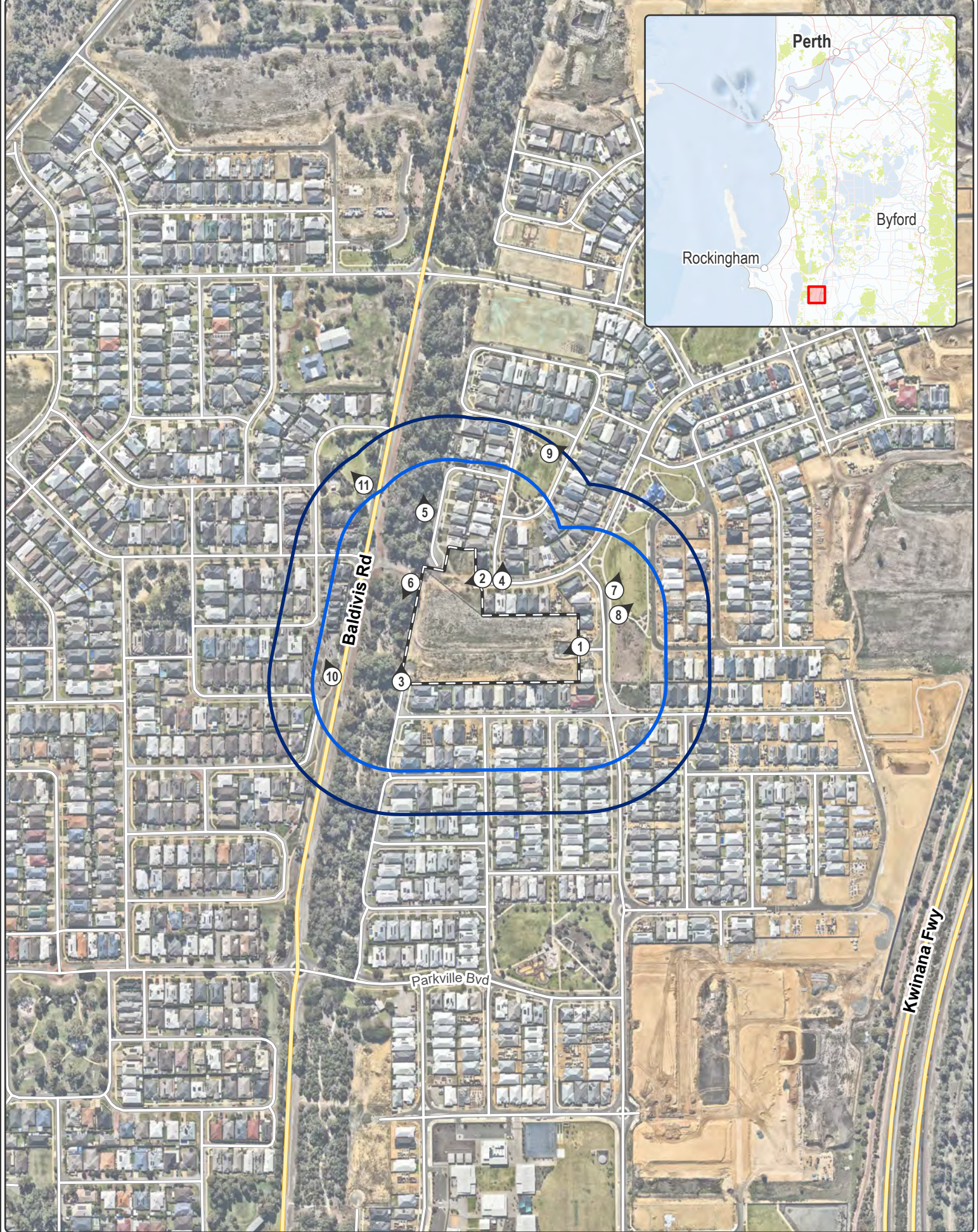




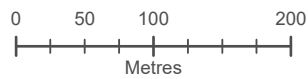


Figure 1: Site Overview

-  Subject site
-  100m site assessment
-  150m site assessment
-  Photo location



Datum/Projection:
GDA 1994 MGA Zone 50
22PER2999-SM Date: 12/09/2023



Table 1: Bushfire compliance assessment against Bushfire Management Plan Emerge (2017)

BMP reference	Action	Implementation status	Compliance assessment
Bushfire Management Measure No 1 - Table 3 ¹	Undertake further detailed bushfire assessments to determine ultimate BAL ratings for future lots within the site, with assessment recommendations to be submitted to the City of Rockingham and accommodated in the lot clearances an/or Local Development Plan.	An updated BAL assessment and BAL report has been completed.	Compliant The updated BAL assessment can be seen in Appendix A. Future dwellings on all proposed lots can be located in areas subject to BAL ratings of ≤BAL-19 (with instalment of individual lot setbacks). Refer to Plate 1, Plate 2, Plate 3 and Plate 4 for evidence of internal and external clearing. Evidence of some remnant vegetation within 100 m of the subject site and external management of vegetation to low threat status can be seen in Plate 5, Plate 6, Plate 7, Plate 8, Plate 9, Plate 10 and Plate 11 (Appendix B).
Bushfire Management Measure No 2 - Table 3	For each new lot created within areas exposed to a BAL rating exceeding BAL-LOW, lodge a Section 70A Notification on the Certificate of Title in order to alert purchasers and successors in title of the existence of the overarching BMP and specifically the requirements associated with meeting AS 3959 construction standards.	Section reference has been amended due to legislative amendment, Sections 70A is now Section 165. Notification will be placed on all titles for lots with a rating of BAL-12.5 or greater in accordance with Condition 15 of subdivision approval. Notice of this notification shown on Deposited Plan.	Compliant The updated BAL assessment can be seen in Appendix A. Refer to Appendix C and Appendix D for a copy of the Deposited Plans.
Bushfire Management Measure No 3 – Table 3	Install the public roads to standards outlined in Section 5.1.3 ² and ensure two access ways (either formal road or temporary emergency access) are provided at all times for each subdivision stage.	All public roads within the subject site are being constructed in accordance with the approved Roadworks Layout Plan which will meet the technical requirements of the Guidelines (as stated in the endorsed BMP (Emerge 2017). Four access points to Stage 12B Baldivis Parks are currently being established.	Will be Compliant Refer to Plate 1 in Appendix B that shows roads within the subdivision are being constructed. Access/egress connection to external road network is currently being installed (Plate 2). All public roads within the subject site are being constructed in accordance with the approved Roadworks Layout Plan in Appendix E and will be compliant.
Bushfire Management Measure No 4 – Table 3	On all vacant land, comply with the City of	Development is under construction within the subject site. This site has	Compliant Refer to Plate 1, Plate 2 and Plate 3 in Appendix B for

BMP reference	Action	Implementation status	Compliance assessment
	Rockingham Fire Control Notices as published.	been cleared and will managed and/or maintained to low threat status as per clause 2.2.3.2 (f).	evidence of internal site clearing. Post-development, all internals to the site will be managed/maintained to either non-vegetated state or low threat status as per clause 2.2.3.2 (f). Assessment of compliance with the City of Rockingham (CoR) Fire Control notice is the responsibly of the CoR.
Bushfire Management Measure No 5 – Table 3	Install reticulated water supply and hydrants to Water Corporation, DFES and the City of Rockingham standards.	Water supply not fully constructed at the time of assessment. Installation of reticulated water supply and network hydrants is underway as per the Water Reticulation Plan.	Will be Compliant Water supply not fully constructed yet, however, if constructed in accordance with Water Reticulation Plan in Appendix F, this will be likely compliant.
Bushfire Management Measure No 6 – Table 3	Design and landscape all managed public open space areas to create a low threat environment in accordance with Clause 2.2.3.2 of AS 3959.	No POS areas proposed within the subject site. External POS areas within 100 m of the subject site are currently maintained to a low threat state.	Compliant All POS areas within 100 m of the subject site have been maintained to a low threat state as per exclusion clause 2.2.3.2 of AS 3959: 2018. Refer to Plate 7, Plate 8, Plate 9, Plate 10 and Plate 11 in Appendix B for evidence of areas within the POS managed to a low threat state as per exclusion clause 2.2.3.2 of AS 3959: 2018.
Bushfire Management Measure No 7 – Table 3	Establish and maintain the APZs ³ within the site to standards as specified in this document.	All areas within the subject site have been cleared and will remain managed to a low threat status as per clause 2.2.3.2 (f) of AS 3959: 2018. APZ within the road reserve inside of the site adjacent to the Baldvis Tramway will be managed to APZ standards as per Section 5.1.2.5 ⁴ and Figure 12 ⁵ .	Compliant All proposed areas within 100 m of the subject site excluding the Baldvis Tramway have been cleared or are maintained to a low threat state as per 2.2.3.2 (f) of AS 3959: 2018. Refer to Plate 1 and Plate 3 in Appendix B for evidence of internal site clearing. APZ over the road reserve that separates lots from Baldvis Tramway has been cleared at the time of the assessment. ELA do not have details of proposed landscaping to

BMP reference	Action	Implementation status	Compliance assessment
			<p>streetscape in this area, however, if landscaping in this road reserve is installed in accordance with APZ standards (as referenced in BMP) this will likely be compliant.</p> <p>The APZ installation is currently underway, except the proposed road reserve is 13 m not the original 14 m shown BMP, however the updated BAL report states all lots achieve acceptable BAL rating.</p>
<p>Bushfire Management Measure No 8 – Table 3</p>	<p>Manage fuel loads within 100 m of each internal construction stage within the overall site to ensure temporary hazards do not threaten any subdivision stage.</p>	<p>All areas within the subject site and within 100 m of the site, excluding the Baldivis Tramway have been cleared or maintained to a low threat state as per 2.2.3.2 (f) of AS 3959: 2018.</p>	<p>Compliant</p> <p>All proposed areas within 100 m of the subject site excluding the Baldivis Tramway have been cleared or are maintained to a low threat state as per 2.2.3.2 (f) of AS 3959: 2018. Refer to Plate 1 and Plate 3 in Appendix B for evidence of internal site clearing.</p> <p>External site management can be seen in Plate 4, Plate 7, Plate 8, Plate 9, Plate 10 and Plate 11.</p> <p>Refer to Bushfire Management Measure No 6 for details regarding management of vegetation within POS areas.</p> <p>Remnant vegetation outside of the subject site within 100 m and a part of the Baldivis Tramway can be seen in Plate 5 and Plate 6.</p>

1. TABLE 3 OF THE ENDORSED BUSHFIRE MANAGEMENT PLAN (EMERGE 2017)
2. SECTION 5.1.3 OF THE ENDORSED BUSHFIRE MANAGEMENT PLAN (EMERGE 2017)
3. ASSET PROTECTION ZONES
5. SECTION 5.1.2.5 OF THE ENDORSED BUSHFIRE MANAGEMENT PLAN (EMERGE 2017)
4. FIGURE 12 OF THE ENDORSED BUSHFIRE MANAGEMENT PLAN (EMERGE 2017)

References

City of Rockingham (CoR). 2023. Fire Control Notice 2023-2024. Available from: [Fire Control Notice 2023/2024 \(rockingham.wa.gov.au\)](https://www.rockingham.wa.gov.au)

Department of Planning (DoP), 2016, *Visual guide for bushfire risk assessment in Western Australia*. DoP, Perth.

Emerge, 2017, Bushfire Management Plan – Baldivis parks Estate, Baldivis – Structure Plan Revision, July 2017.

Standards Australia, 2018, *Construction of buildings in bushfire-prone areas, AS 3959: 2018*. SAI Global, Sydney.

Water Corporation, 2021, *Water Reticulation Standard Design and Construction Requirements for Water Reticulation Systems up to DN250, Design Standard DS 63 (Version 3, Revision 15)*. Water Corporation, Western Australia.

Western Australian Planning Commission, 2015, *State Planning Policy 3.7 Planning in Bushfire Prone Areas*. WAPC, Perth.

Western Australian Planning Commission, 2021, *Guidelines for Planning in Bushfire Prone Areas Version 1.4 (including appendices)*, WAPC, Perth.

Western Australian Planning Commission, 2017, *Guidelines for Planning in Bushfire Prone Areas Version 1.3 (including appendices)*, WAPC, Perth.

Appendix A Bushfire Attack Level (BAL) Assessment Report

Bushfire Attack Level (BAL) Assessment Report for Stage 12B (Lots 1201-1204 Paparone Road, Lots 1205-1209 and 1222-1223 Karst Road, Lots 1210-1221 and 1224-1236 Barool Street) Baldivis Parks, Baldivis

Site Details

Address: Stage 12B (Lots 1201-1204 Paparone Road, Lots 1205-1209 and 1222-1223 Karst Road, Lots 1210-1221 and 1224-1236 Barool Street) Baldivis Parks, Baldivis

Suburb: Baldivis, 6171 **State:** Western Australia

Local Government Area: City of Rockingham

Description of building works: Residential development (36 lots)

Report details

Report/Job number:	22PER2999	Report version:	v3
Assessment date:	18/07/2023	Report date:	13/09/2023
Author:	Maitland Ely	Review:	Eva Cronin (BPAD Level 2 – 45482)



SITE ASSESSMENT AND SITE PLAN

The assessment of the 36 subject lots was undertaken on 18 July 2023 for the purpose of determining the Bushfire Attack Level (BAL) in accordance with *Australian Standard AS 3959: 2018 Construction of Buildings in Bushfire Prone Areas (SA 2018) Simplified Procedure (Method 1)*. An overview of the site is presented in Figure 1.

VEGETATION CLASSIFICATION

All vegetation within 100 m of the 36 subject lots was classified in accordance with Clause 2.2.3 of AS 3959: 2018. Each distinguishable vegetation class with the potential to determine the BAL is identified below and presented in Figure 1.

Plot 1 Classification or Exclusion Clause Class B Woodland

Photo Point 1

This plot relates to the Baldyvis Tramway.
Classified vegetation within this plot is comprised of trees 10 m to 30 m tall with varying foliage cover. Understorey is comprised of short grasses with isolated juvenile trees.

Vegetation within the Baldyvis Tramway has historically been classified as Class B Woodland under AS 3959-2009. Subsequent consultation with the City of Rockingham in 2023 identified that no revegetation involving tree planting is planned with the Tramway (Appendix B). Thus, the Class B Woodland classification is still deemed appropriate for this area, particularly given the narrow, linear nature of the Tramway containing paths, areas of low fuel etc.

Slope under this vegetation was assessed as upslope/flat land.



Plot 1 Classification or Exclusion Clause Class B Woodland

Photo Point 2

This plot relates to the Baldyvis Tramway.
Classified vegetation within this plot is comprised of trees 10 m to 30 m tall with varying foliage cover. Understorey is comprised of short grasses with isolated juvenile trees.

Vegetation within the Baldyvis Tramway has historically been classified as Class B Woodland under AS 3959-2009. Subsequent consultation with the City of Rockingham in 2023 identified that no revegetation involving tree planting is planned with the Tramway (Appendix B). Thus, the Class B Woodland classification is still deemed appropriate for this area, particularly given the narrow, linear nature of the Tramway containing paths, areas of low fuel etc.

Slope under this vegetation was assessed as upslope/flat land.



Plot 1 Classification or Exclusion Clause Class B Woodland

Photo Point 3

This plot relates to the Baldyvis Tramway.
Classified vegetation within this plot is comprised of trees 10 m to 30 m tall with varying foliage cover. Understorey is comprised of short grasses with isolated juvenile trees.

Vegetation within the Baldyvis Tramway has historically been classified as Class B Woodland under AS 3959-2009. Subsequent consultation with the City of Rockingham in 2023 identified that no revegetation involving tree planting is planned with the Tramway (Appendix B). Thus, the Class B Woodland classification is still deemed appropriate for this area, particularly given the narrow, linear nature of the Tramway containing paths, areas of low fuel etc.

Slope under this vegetation was assessed as upslope/flat land.



Plot 1 Classification or Exclusion Clause Class B Woodland

Photo Point 4

This plot relates to the Baldivis Tramway.
 Classified vegetation within this plot is comprised of trees 10 m to 30 m tall with varying foliage cover. Understory is comprised of short grasses with isolated juvenile trees.
 Vegetation within the Baldivis Tramway has historically been classified as Class B Woodland under AS 3959-2009. Subsequent consultation with the City of Rockingham in 2023 identified that no revegetation involving tree planting is planned with the Tramway (Appendix B). Thus, the Class B Woodland classification is still deemed appropriate for this area, particularly given the narrow, linear nature of the Tramway containing paths, areas of low fuel etc.
 Slope under this vegetation was assessed as upslope/flat land.



Plot 1 Classification or Exclusion Clause Class B Woodland

Photo Point 5

This plot relates to the Baldivis Tramway.
 Classified vegetation within this plot is comprised of trees 10 m to 30 m tall with varying foliage cover. Understory is comprised of short grasses with isolated juvenile trees.
 Vegetation within the Baldivis Tramway has historically been classified as Class B Woodland under AS 3959-2009. Subsequent consultation with the City of Rockingham in 2023 identified that no revegetation involving tree planting is planned with the Tramway (Appendix B). Thus, the Class B Woodland classification is still deemed appropriate for this area, particularly given the narrow, linear nature of the Tramway containing paths, areas of low fuel etc.
 Slope under this vegetation was assessed as upslope/flat land.



Plot 1 Classification or Exclusion Clause Class B Woodland

Photo Point 6

This plot relates to the Baldivis Tramway.
 Classified vegetation within this plot is comprised of trees 10 m to 30 m tall with varying foliage cover. Understory is comprised of short grasses with isolated juvenile trees.
 Vegetation within the Baldivis Tramway has historically been classified as Class B Woodland under AS 3959-2009. Subsequent consultation with the City of Rockingham in 2023 identified that no revegetation involving tree planting is planned with the Tramway (Appendix B). Thus, the Class B Woodland classification is still deemed appropriate for this area, particularly given the narrow, linear nature of the Tramway containing paths, areas of low fuel etc.
 Slope under this vegetation was assessed as upslope/flat land.



Plot 2 Classification or Exclusion Clause

Excluded AS 3959: 2018 2.2.3.2 (e) & (f)

Photo Point 7

This area has been excluded under 2.2.3.2 (e) and (f) of AS 3959: 2018. The area comprises of non-vegetated areas such as footpaths and a playground as well as low threat vegetation (managed parkland and landscaping).



Plot 2 Classification or Exclusion Clause

Excluded AS 3959: 2018 2.2.3.2 (f)

Photo Point 8

Vegetation present is regarded as low threat due to factor such as flammability, moisture content or fuel load (managed grass – sporting oval).



Plot 2 Classification or Exclusion Clause

Excluded AS 3959: 2018 2.2.3.2 (f)

Photo Point 9

Vegetation present is regarded as low threat due to factors such as flammability, moisture content or fuel load (managed landscaping).



Plot 2 Classification or Exclusion Clause

Excluded AS 3959: 2018 2.2.3.2 (e)

Photo Point 10

Non-vegetated area that has been excluded under 2.2.3.2 (e) of AS 3959: 2018. The area comprises of cleared areas for future residential development.

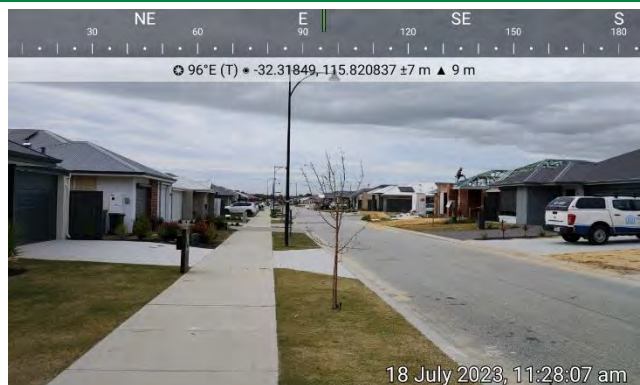


Plot 2 Classification or Exclusion Clause

Excluded AS 3959: 2018 2.2.3.2 (e) & (f)

Photo Point 11

This area has been excluded under 2.2.3.2 (e) and (f) of the AS 3959: 2018. The area comprises of non-vegetated areas such as roads, footpaths and residential houses as well as low threat vegetation that is comprised of gardens and landscaping.



Plot 2 Classification or Exclusion Clause

Excluded AS 3959: 2018 2.2.3.2 (e)

Photo Point 12

Non-vegetated area that has been excluded under 2.2.3.2 (e) of AS 3959: 2018. The area comprises of cleared areas for future residential development.



Plot 2 Classification or Exclusion Clause

Excluded AS 3959: 2018 2.2.3.2 (e) & (f)

Photo Point 13

This area has been excluded under 2.2.3.2 (e) and (f) of the AS 3959: 2018. The area comprises of non-vegetated areas such as roads, footpaths and residential houses as well as low threat vegetation that is comprised of landscaping.



Plot 2 Classification or Exclusion Clause

Excluded AS 3959: 2018 2.2.3.2 (f)

Photo Point 14

Vegetation present is regarded as low threat due to factors such as flammability, moisture content or fuel load (managed landscaping).



Plot 2 Classification or Exclusion Clause

Excluded AS 3959: 2018 2.2.3.2 (f)

Photo Point 15

Vegetation present is regarded as low threat due to factors such as flammability, moisture content or fuel load (managed parkland).



RELEVANT FIRE DANGER INDEX

The fire danger index for this site has been determined in accordance with Table 2.1 of AS 3959: 2018.

Relevant Fire Danger Index			
FDI 40 <input type="checkbox"/>	FDI 50 <input type="checkbox"/>	FDI 80 <input checked="" type="checkbox"/>	FDI 100 <input type="checkbox"/>
<i>Table 2.4.5</i>	<i>Table 2.4.4</i>	<i>Table 2.4.3</i>	<i>Table 2.4.2</i>

POTENTIAL BUSHFIRE IMPACTS

The potential bushfire impact to the site / proposed development from each of the identified vegetation plots are identified below, Table 1 and Figure 1.

Table 1: BAL Analysis AS 3959: 2018

Plot	Vegetation Classification	Effective Slope	Separation distances required				
			BAL-FZ	BAL-40	BAL-29	BAL-19	BAL-12.5
1	Class B Woodland	All upslopes and flat land (0 degrees)	<10	10-<14	14-<20	20-<29	29-<100
2	Excluded AS 3959: 2018 2.2.3.2 (e) & (f)	-	No separation distances required – BAL-LOW				

DETERMINED BUSHFIRE ATTACK LEVEL (BAL)

The determined Bushfire Attack Level (highest BAL) for the proposed works has been determined in accordance with Clause 2.2.6 of AS 3959: 2018 relevant data from the site assessment shown in Table 2 and Figure 2.

Table 2: BAL Assessment summary

Lot	BAL rating (highest BAL) No lot setbacks	BAL rating (lowest BAL) Lot setbacks present	Minimum set back required to achieve BAL-19 for a future dwelling on lot
1201	BAL-19	BAL-19	N/A
1202	BAL-12.5	BAL-12.5	N/A
1203	BAL-12.5	BAL-12.5	N/A
1204	BAL-12.5	BAL-12.5	N/A
1205	BAL-29	BAL-19	4.1 m
1206	BAL-29	BAL-19	3.4 m
1207	BAL-29	BAL-19	1.9 m
1208	BAL-29	BAL-19	3.5 m
1209	BAL-29	BAL-19	3.5 m
1210	BAL-12.5	BAL-12.5	N/A
1211	BAL-12.5	BAL-12.5	N/A
1212	BAL-12.5	BAL-12.5	N/A
1213	BAL-12.5	BAL-12.5	N/A
1214	BAL-12.5	BAL-12.5	N/A
1215	BAL-LOW	BAL-LOW	N/A
1216	BAL-LOW	BAL-LOW	N/A
1217	BAL-LOW	BAL-LOW	N/A
1218	BAL-LOW	BAL-LOW	N/A
1219	BAL-LOW	BAL-LOW	N/A
1220	BAL-LOW	BAL-LOW	N/A
1221	BAL-LOW	BAL-LOW	N/A
1222	BAL-29	BAL-19	3.5 m
1223	BAL-29	BAL-19	0.9 m
1224	BAL-12.5	BAL-12.5	N/A
1225	BAL-12.5	BAL-12.5	N/A
1226	BAL-12.5	BAL-12.5	N/A
1227	BAL-12.5	BAL-12.5	N/A
1228	BAL-12.5	BAL-12.5	N/A
1229	BAL-LOW	BAL-LOW	N/A
1230	BAL-LOW	BAL-LOW	N/A

Lot	BAL rating (highest BAL) No lot setbacks	BAL rating (lowest BAL) Lot setbacks present	Minimum set back required to achieve BAL-19 for a future dwelling on lot
1231	BAL-LOW	BAL-LOW	N/A
1232	BAL-LOW	BAL-LOW	N/A
1233	BAL-LOW	BAL-LOW	N/A
1234	BAL-LOW	BAL-LOW	N/A
1235	BAL-LOW	BAL-LOW	N/A
1236	BAL-LOW	BAL-LOW	N/A

Future dwellings on proposed lots 1205-1209 and 1222-1223 can achieve a rating of BAL-19 with minimum setbacks (as detailed in Table 2 above) from the western boundary of the lot.

Note: This BAL rating is based on the information current at the date of this document and is valid for 12 months.

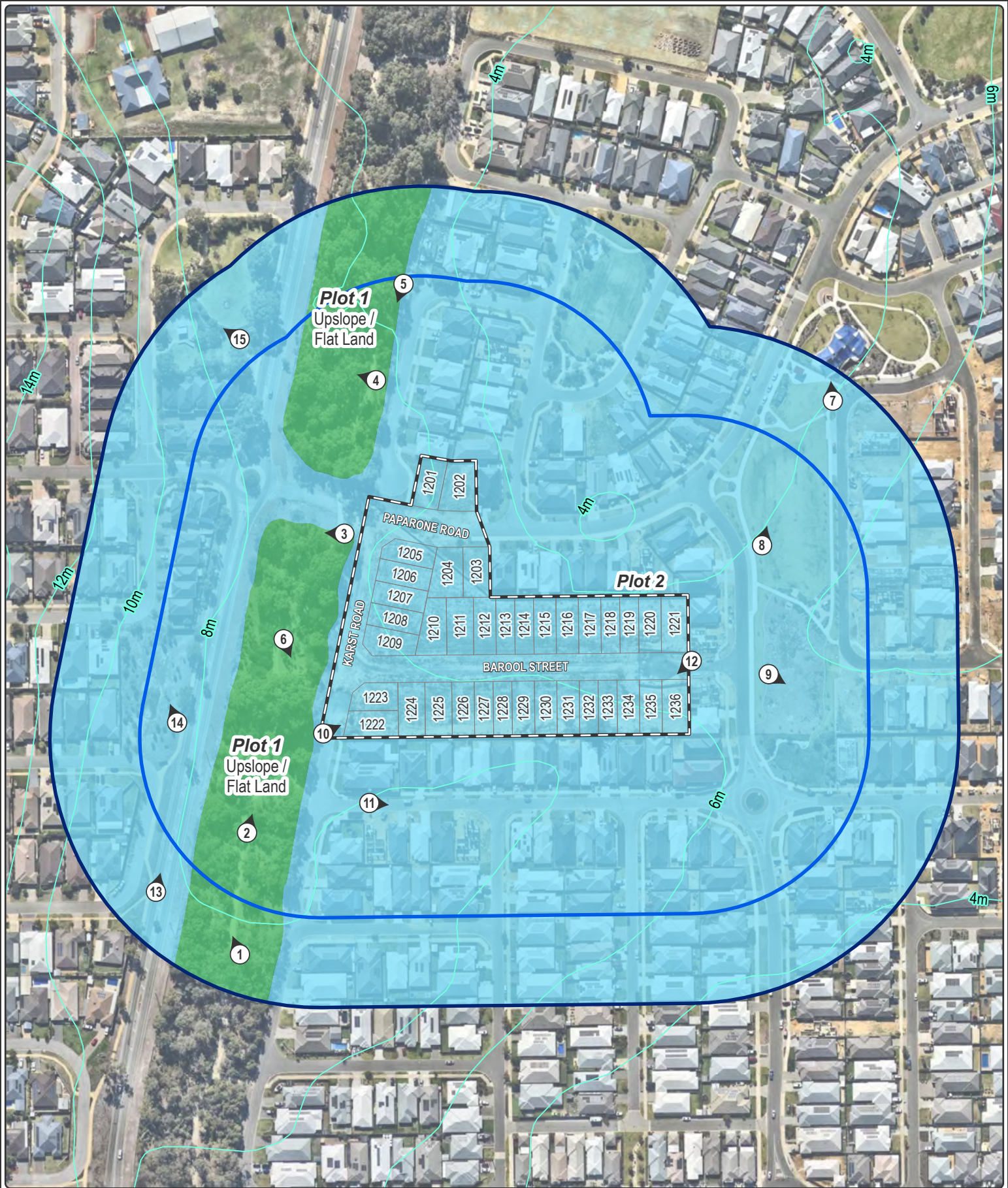


Figure 1: Vegetation Classification

Subject site	Vegetation classification	
100m site assessment	Class B Woodland	
150m site assessment	Excluded as per clause 2.2.3.2 (e) and (f)	Datum/Projection: GDA 1994 MGA Zone 50
Lot boundary		22PER2999-SM Date: 12/09/2023
Photo location		
Contour (2m)		

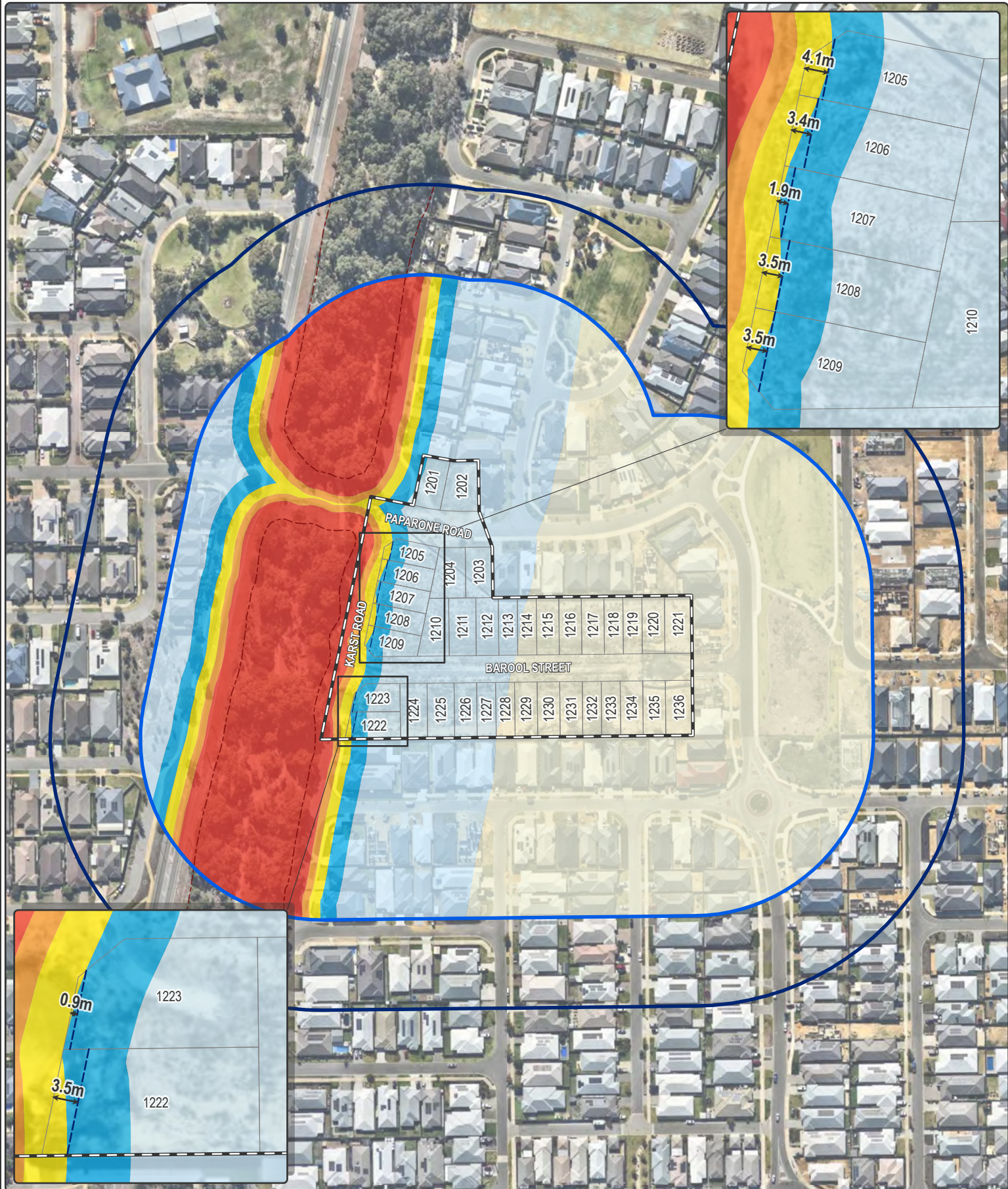
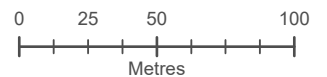


Figure 2: Bushfire Attack Level (BAL) Contours

- Subject site
- 100m site assessment
- 150m site assessment
- Lot boundary
- Bushfire hazard interface
- Lot setback

Bushfire Attack Level (BAL)

- BAL - FZ
- BAL - 40
- BAL - 29
- BAL - 19
- BAL - 12.5
- BAL - LOW



Datum/Projection:
GDA 1994 MGA Zone 50
22PER2999-SM Date: 12/09/2023



Appendix A – Additional Information / Advisory Notes

This assessment was undertaken as per AS 3959: 2018. It is important that the current version of AS 3959, is consulted for construction purposes.

This BAL rating is based on the information current at the date of this letter and is valid for 12 months from the date of this letter.

Bushfire Attack Level (BAL) as set out in the *Australian Standard 3959 Construction of Buildings in Bushfire-Prone Areas* (AS 3959), as referenced in the *Building Code of Australia*.

Bushfire Attack Level (BAL)	Classified vegetation within 100 m of the site and radiant heat flux exposure thresholds	Description of predicted bush fire attack and levels of exposure	Construction Section as per AS 3959
BAL-LOW		There is insufficient risk to warrant specific construction requirements.	4
BAL-12.5	≤12.5 kW/m ²	Ember attack	3 and 5
BAL-19	>12.5 kW/m ² ≤19 kW/m ²	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing radiant heat flux.	3 and 6
BAL-29	>19 kW/m ² ≤29 kW/m ²	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing radiant heat flux	3 and 7
BAL-40	>29 kW/m ² ≤40 kW/m ²	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing radiant heat flux with the increased likelihood of exposure to flames.	3 and 8
BAL-FZ	>40 kW/m ²	Direct exposure to flames from fire front in addition to radiant heat flux and ember attack	3 and 9

Source: “AS 3959: 2018 Construction of buildings in bushfire-prone areas” published by Standards Australia, Sydney

Appendix B – Baldvis Tramway Vegetation

From: Brett Ashby <Brett.Ashby@rockingham.wa.gov.au>
Sent: Thursday, 16 March 2023 10:46 AM
To: Wayne Burns <Wayne.burns@frasersproperty.com.au>
Cc: David Waller <David.Waller@rockingham.wa.gov.au>; James Henson <James.Henson@rockingham.wa.gov.au>; Luke Rogers <Luke.Rogers@rockingham.wa.gov.au>; Cyril Sharrock <Cyril.Sharrock@rockingham.wa.gov.au>
Subject: RE: Baldivis Parks Stage 18 BAL Assessment

You don't often get email from brett.ashby@rockingham.wa.gov.au. [Learn why this is important](#)

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Good morning Wayne,

Further to our conversation, I've been out on-site and discussed with relevant staff within the City. It's agreed that there isn't further revegetation required in that area of the Tramway, particularly with shrubs or trees, however, there may be some areas requiring limited planting of ground covers.

I do note that the City will not be seeking to maintain a specific classification over the tramway, and in this regard will not be removing any trees or shrubs that naturally regenerate in the area.

Regards

Brett



Brett Ashby - Manager Strategic Planning and Environment

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From: Wayne Burns <Wayne.burns@frasersproperty.com.au>

Sent: Wednesday, 1 March 2023 1:15 PM

To: James Henson <James.Henson@rockingham.wa.gov.au>

Cc: Daniel Panickar (danielp@ecoaus.com.au) <danielp@ecoaus.com.au>

Subject: Baldvis Parks Stage 18 BAL Assessment

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Hi James,

As discussed, what we are seeking and what our bushfire consultant requires to maintain a Class B Woodland classification over the Baldvis Tramway within their BAL assessment, is confirmation from the City that it will not be undertaking revegetation within areas of the Tramway adjacent to the Baldvis Parks project, specifically with the planting of shrubs or additional trees?

Wayne Burns

Development Manager

Frasers Property Australia

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Appendix B Photographic evidence of compliance



Plate 1: Evidence of construction internal road network is underway and internal site being cleared.



Plate 2: Evidence of construction internal road network and connection to external road network is underway and internal site being cleared.

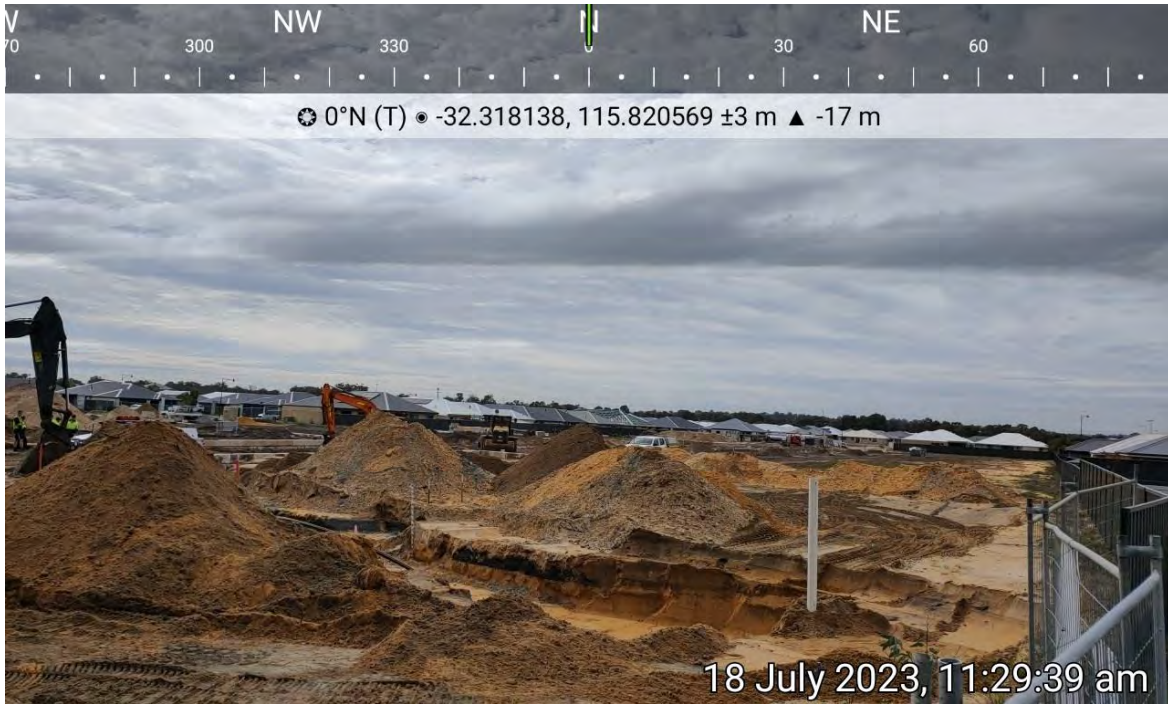


Plate 3: Evidence of internal areas to site being cleared and/or maintained to low threat.



Plate 4: Evidence of external areas to site being cleared and/or maintained to low threat.



Plate 5: Remnant vegetation present within the Baldvis Tramway adjacent to the subject site

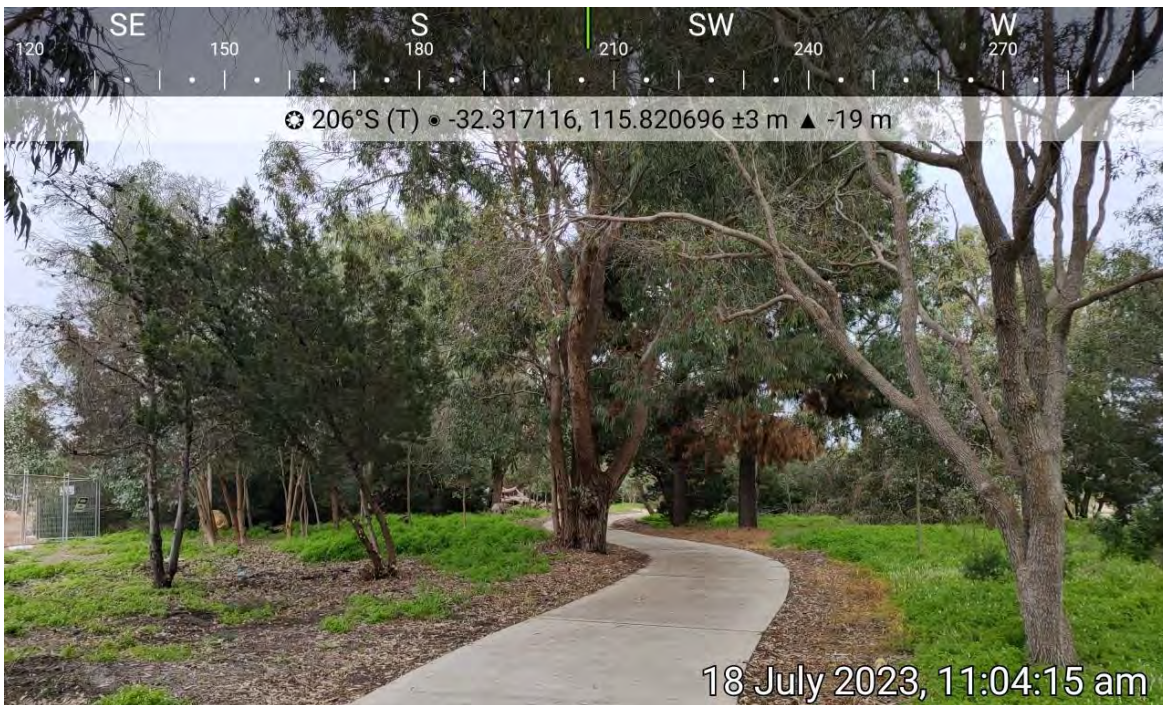


Plate 6: Remnant vegetation present within the Baldvis Tramway adjacent to the subject site



Plate 7: Evidence of external POS areas being maintained to low threat as per clause 2.2.3.2 (f) in AS 3959.



Plate 8: Evidence of external landscaping areas being maintained to low threat as per clause 2.2.3.2 (f) in AS 3959.

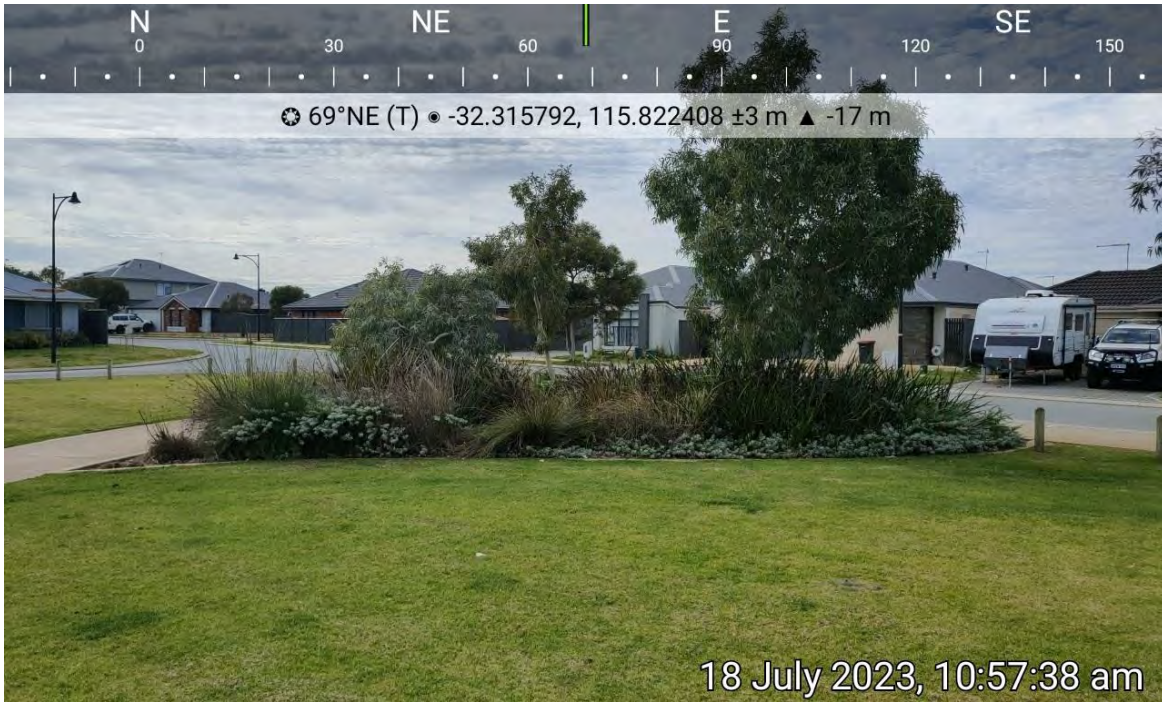


Plate 9: Evidence of external POS and landscaping areas being maintained to low threat as per clause 2.2.3.2 (f) in AS 3959.



Plate 10: Evidence of external landscaping areas being maintained to low threat as per clause 2.2.3.2 (f) in AS 3959.



Plate 11: Evidence of external POS and landscaping areas being maintained to low threat as per clause 2.2.3.2 (f) in AS 3959.

Appendix C Deposited Plan (A)

Plan Information

Tenure Type	Freehold
Plan Type	Deposited Plan
Plan Purpose	Subdivision

Plan Heading

Lots 1203 -1236, 9030, Roads & Restrictive Covenant.

Locality & Local Government

Locality	Baldivis
Local Government	City of Rockingham

Department of Planning, Lands and Heritage

File Number	
-------------	--

Examination

Examined	Date
----------	------

Planning Approval

Planning Authority	WAPC
Reference	156812

Delegated under S. 16 P&D Act 2005	Date
------------------------------------	------

In Order For Dealings

Subject To	
------------	--

For Registrar of Titles	Date
-------------------------	------

Plan Approved

REG 26A(1)(4)

Inspector of Plans and Surveys / Authorised Land Officer	Date
--	------

Survey Details

Field Records	123309
Declared as Special Survey Area	Yes

Survey and Plan Notation

Survey carried out under Reg. 26A(1) Deferred Final Marking Approval. Approval ID xxxx-xx dated Day Month Year : Landgate File xxxx-xxxx

LIMITED IN DEPTH TO 60.96 METRES EXCEPT AS TO LOT 539

Survey Method Regulatory Statement

Survey carried out under Reg. 26A Special Survey Area Guidelines. See survey sheet(s) to determine the true final position and type of all survey marks placed for this plan.

Survey Certificate - Regulation 54

I, David J. Gibb hereby certify that this plan is accurate and is a correct representation of the -
 (a) survey; and
 (b) calculations from measurements recorded in the field records, undertaken for the purposes of this plan and that it complies with the relevant written law(s) in relation to which it is lodged.

Licensed Surveyor	Date
-------------------	------

Survey Organisation

Name	VERIS
Address	JOLIMONT 6014
Phone	6241 3333
Fax	6241 3300
Email	lodgements.wa@veris.com.au
Reference	609975-S012B-DJG

Former Tenure

New Lot / Land	Parent Plan Number	Parent Lot Number	Title Reference	Subject Land Description
Lots 1203 -1236 & 9030	DP 425072	Lot 9028		

Former Tenure Interests and Notifications

Subject	Purpose	Statutory Reference	Origin	Land Burdened	Benefit To	Comments
33b J	Easement (Sewerage)	Sec 167 of the P & D Act Reg33(b)	DP 403189	Lot 9030	Water Corporation	
33b N	Easement (Sewerage)	Sec 167 of the P & D Act Reg33(b)	DP 403190	Lot 9030	Water Corporation	
33b F	Easement (Sewerage & Water Supply)	Sec 167 of the P & D Act Reg33(b)	DP 403189	Lot 9030	Water Corporation	
33b O	Easement (Sewerage & Water Supply)	Sec 167 of the P & D Act Reg33(b)	DP 403190	Lot 9030	Water Corporation	
33c C	Easement (Electricity Supply)	Sec 167 of the P & D Act Reg33(c)	DP 403189	Lot 9030	Electricity Networks Corporation	
33c D	Easement (Electricity Supply)	Sec 167 of the P & D Act Reg33(c)	DP 403190	Lot 9030	Electricity Networks Corporation	
33b P	Easement (Sewerage & Water Supply)	Sec 167 of the P & D Act Reg33(b)	DP 405201	Lot 9030	Water Corporation	
33b R	Easement (Sewerage)	Sec 167 of the P & D Act Reg33(b)	DP 406069	Lot 9030	Water Corporation	
33b V 33b X	Easement (Sewerage)	Sec 167 of the P & D Act Reg33(b)	DP 406834	Lot 9030	Water Corporation	
X	Easement		Doc N971268	Lot 9030	Water Corporation	
33a B	Easement (Drainage)	Sec 167 of the P & D Act Reg33(a)	DP 422527	Lot 9030	City of Rockingham	
33b	Easement (Sewerage & Water Supply)	Sec 167 of the P & D Act Reg33(b)	DP 423253	Lot 9030	Water Corporation	
33c G	Easement (Electricity Supply)	Sec 167 of the P & D Act Reg33(c)	DP 423253	Lot 9030	Electricity Networks Corporation	
F	Restrictive Covenant	Sec 129BA of the TLA	Doc P525171	Lot 9030	Electricity Networks Corporation	Fire Separation
33b A	Easement (Sewerage)	Sec 167 of the P & D Act Reg33(b)	DP 425072	Lot 9030	Water Corporation	

New Interests

Subject	Purpose	Statutory Reference	Origin	Land Burdened	Benefit To	Comments
	Restrictive Covenant	Sec 136D of the TLA	This Plan & Doc	All Lots Except Lot 9030	All Lots Except Lot 9030	

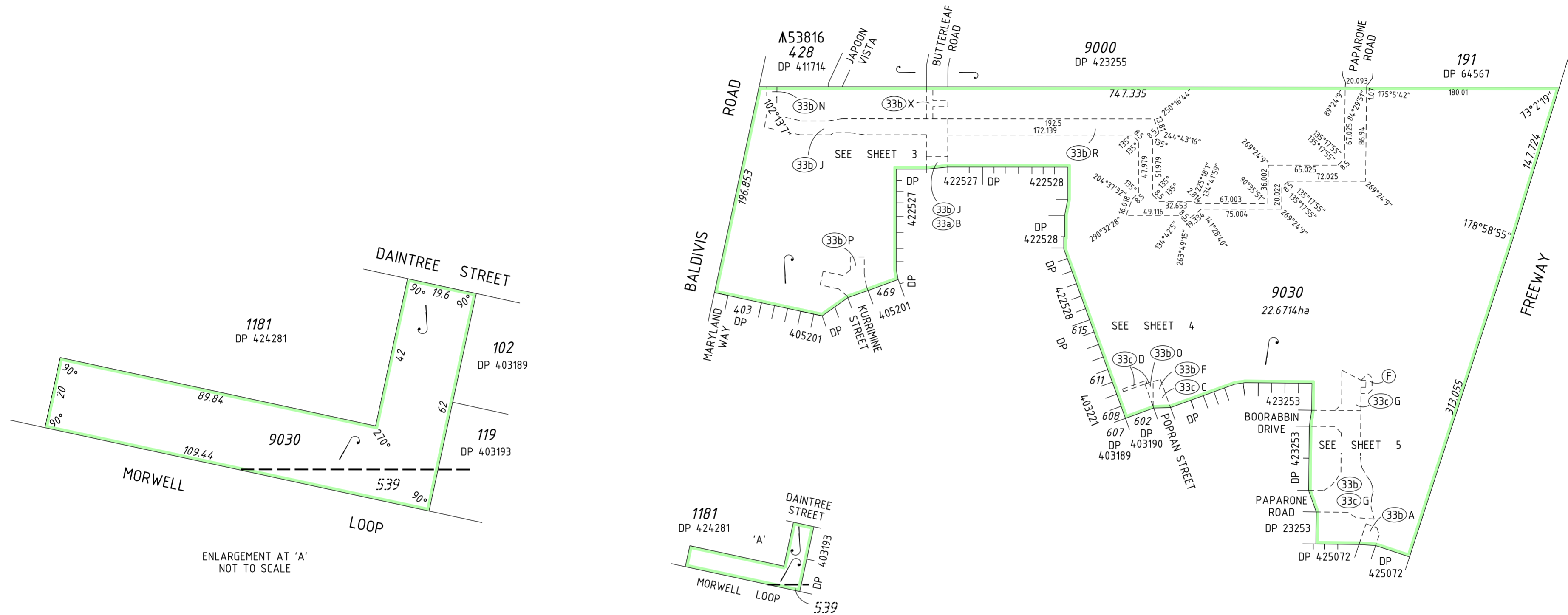
New Notifications and Memorials

Subject	Purpose	Statutory Reference	Origin	Land Burdened	Benefit To	Comments
	Notification	Sec 165 of the P & D Act	Doc	All Lots Except Lot 9030		Mosquitoes
	Notification	Sec 165 of the P & D Act	Doc	Lots 1203-1214 & 1222-1228		Bushfire Management Plan

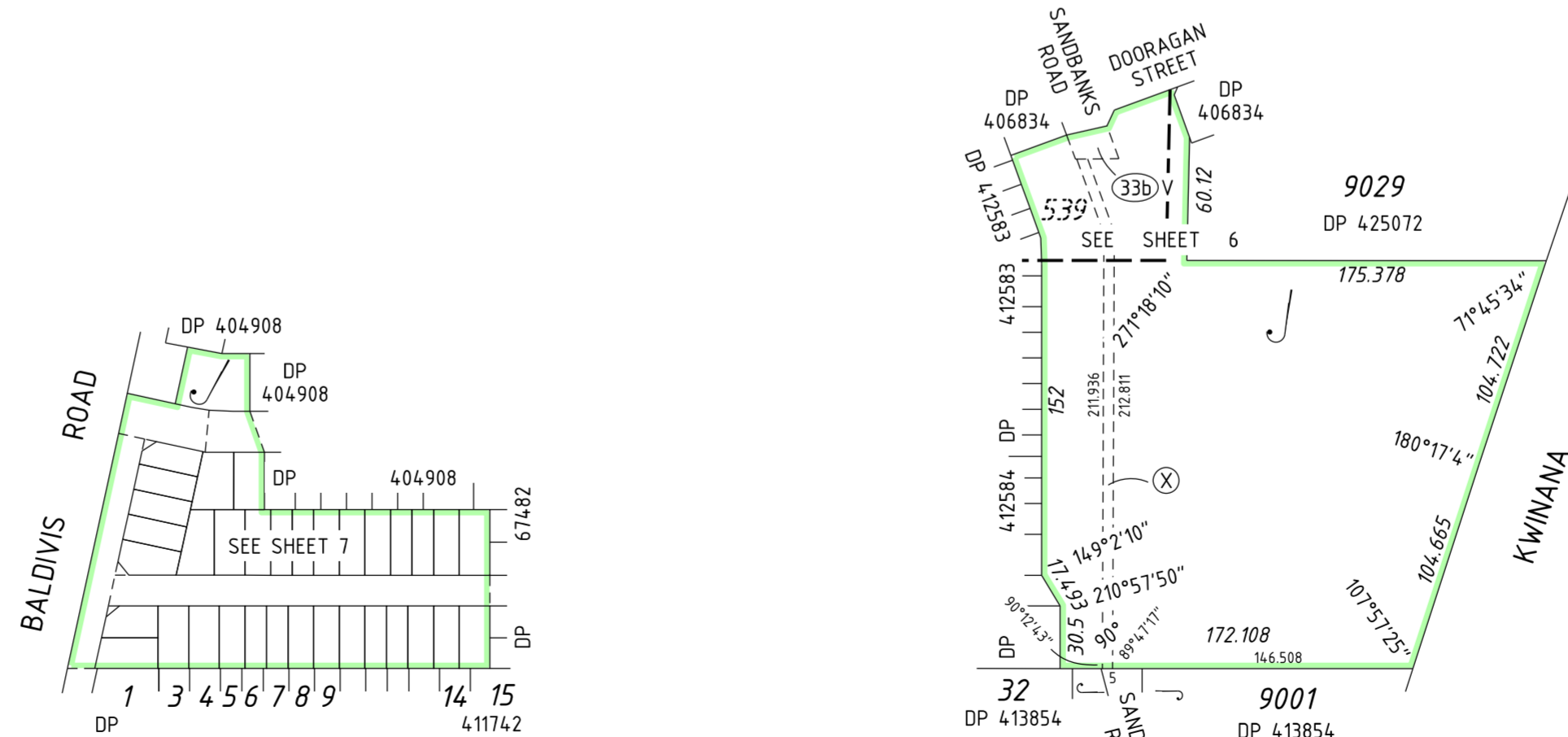
PRELIMINARY ONLY UNLODGED VERSION
SUBJECT TO LANDGATE AUDIT

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CORRECT copy should be obtained for such purposes.

LIMITED IN DEPTH TO 60.96 METRES EXCEPT AS TO LOT 539



ENLARGEMENT AT 'A'
NOT TO SCALE



SCALE: 1:3000 AT A2 SIZE

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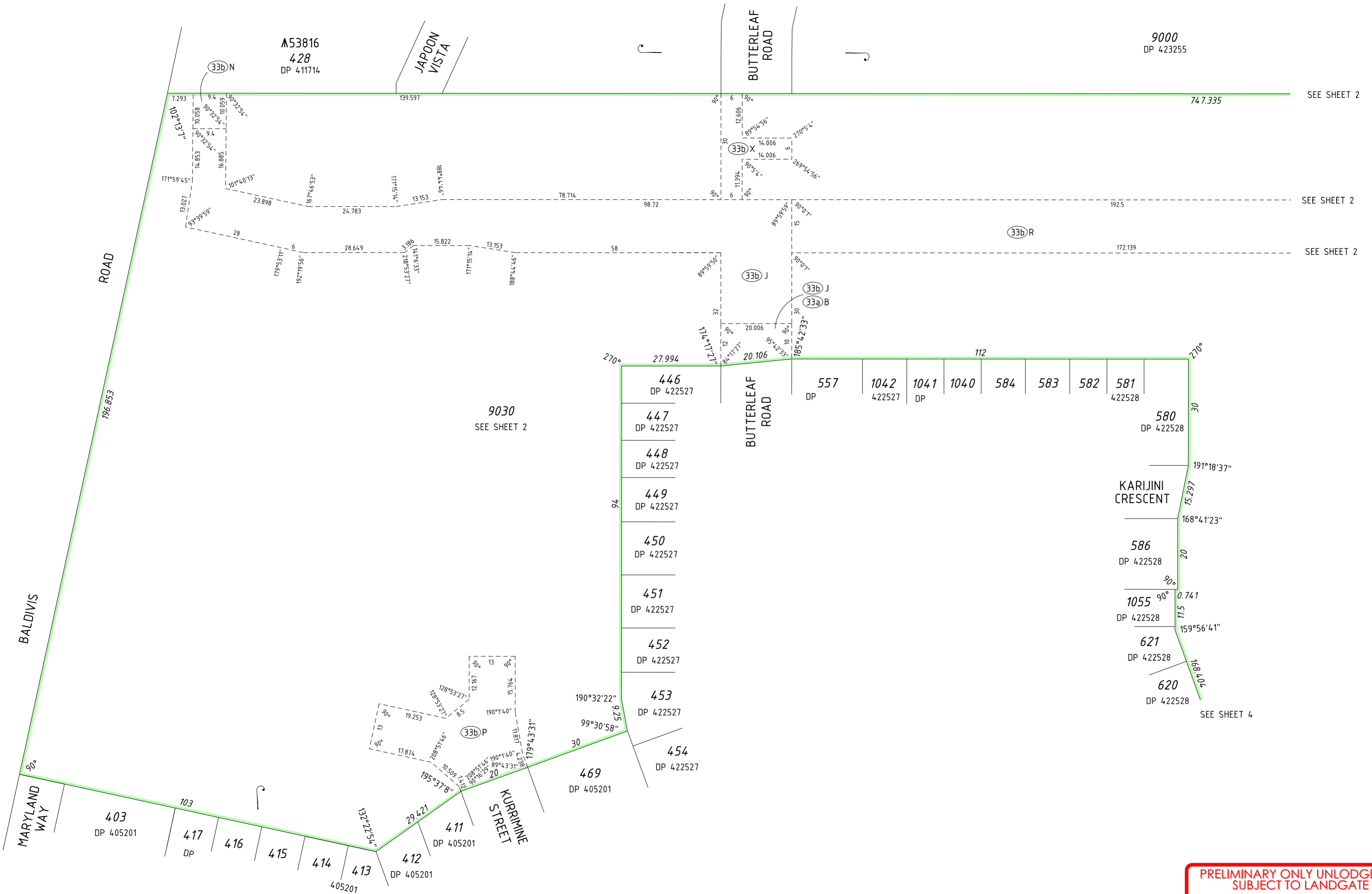


ADDITIONAL SHEETS
Survey Sheet(s)

SHEET SHEETS VERSION NUMBER
2 OF 7 1

DEPOSITED PLAN
425984

LIMITED IN DEPTH TO 60.96 METRES EXCEPT AS TO LOT 539



SCALE: 1:750 AT A2 SIZE

**PRELIMINARY ONLY UNLOGGED VERSION
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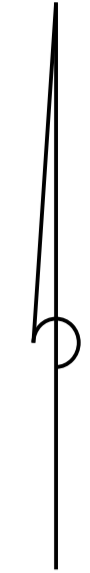
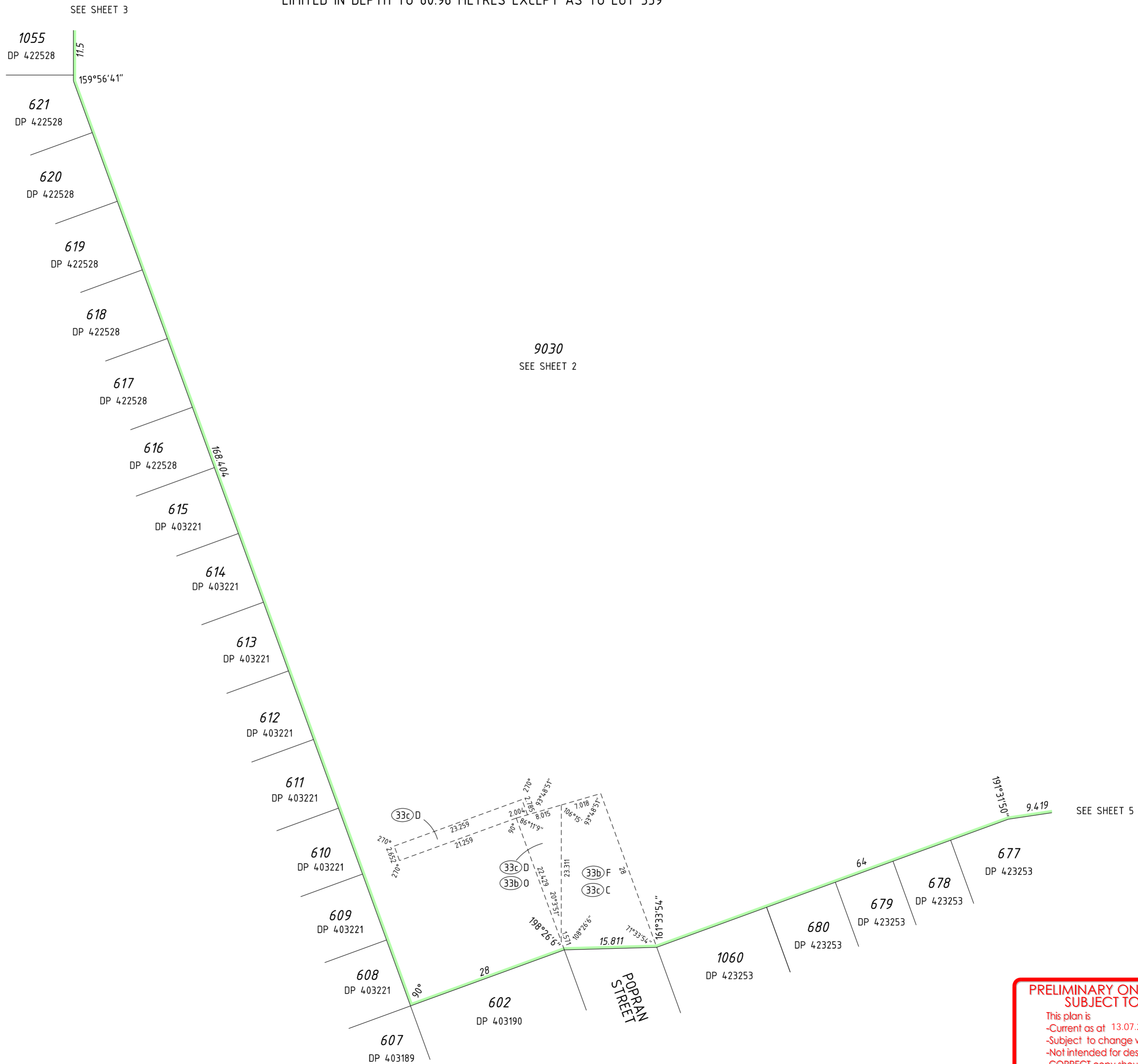
This plan is
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 -Subject to change without notice
 -Not intended for design use, a LANDGATE CERTIFIED
CORRECT copy should be obtained for such purposes.



ADDITIONAL SHEETS Survey Sheet(s)	SHEET 3 OF 7	SHEETS 7	VERSION NUMBER 1	DEPOSITED PLAN 425984
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LIMITED IN DEPTH TO 60.96 METRES EXCEPT AS TO LOT 539



SCALE: 1:500 AT A2 SIZE

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LIMITED IN DEPTH TO 60.96 METRES EXCEPT AS TO LOT 539

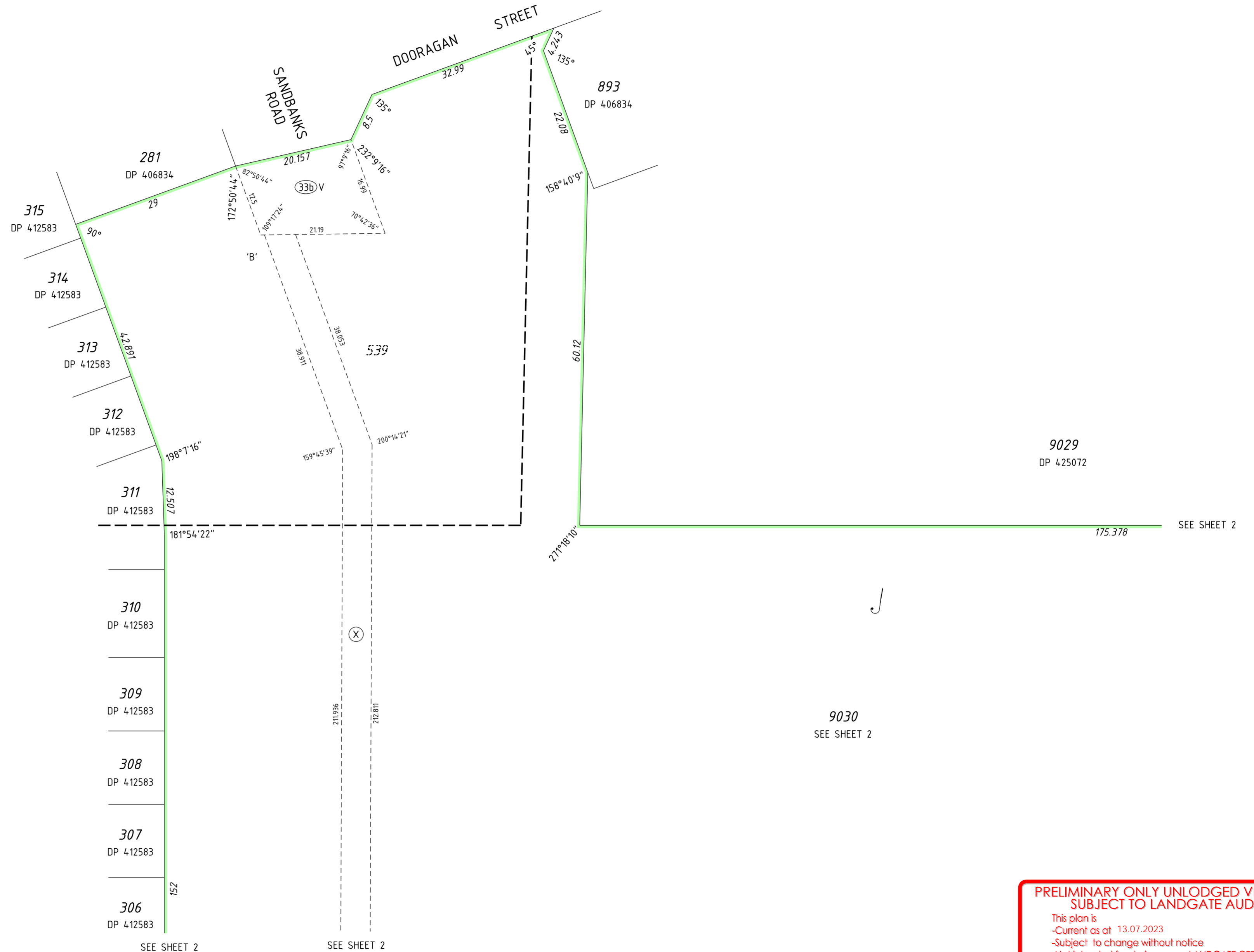
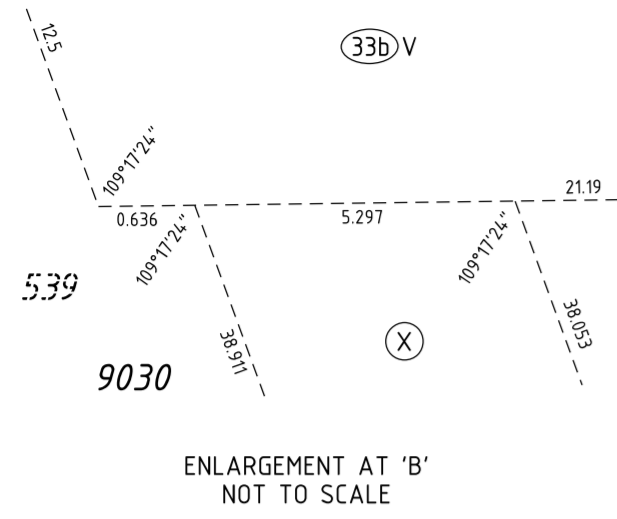


SCALE: 1:500 AT A2 SIZE

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LIMITED IN DEPTH TO 60.96 METRES EXCEPT AS TO LOT 539



SCALE: 1:500 AT A2 SIZE

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FP-609975-103-VER 1.0

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ADDITIONAL SHEETS
Survey Sheet(s)

SHEET	SHEETS	VERSION NUMBER
6	OF 7	1

DEPOSITED PLAN
425984



SCALE: 1:500 AT A2 SIZE

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Appendix D Deposited Plan (B)

Plan Information

Tenure Type	Freehold
Plan Type	Deposited Plan
Plan Purpose	Subdivision

Plan Heading

Lots 1201, 1202, 9031 & Restrictive Covenant

Locality & Local Government

Locality	Baldivis
Local Government	City of Rockingham

Department of Planning, Lands and Heritage

File Number

Examination

Examined	Date
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Planning Approval

Planning Authority	WAPC
Reference	163794

Delegated under S. 16 P&D Act 2005

In Order For Dealings

Subject To	
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For Registrar of Titles

Plan Approved

REG 26A(1)(4)

Inspector of Plans and Surveys / Authorised Land Officer

Date

Survey Details

Field Records	123309
Declared as Special Survey Area	Yes

Survey and Plan Notation

Survey carried out under Reg. 26A(1) Deferred Final Marking Approval. Approval ID xxxx-xx dated Day Month Year : Landgate File xxxx-xxxx

Limited in Depth to 60.96 metres except as to Lot 539.

Survey Method Regulatory Statement

Survey carried out under Reg. 26A Special Survey Area Guidelines. See survey sheet(s) to determine the true final position and type of all survey marks placed for this plan.

Survey Certificate - Regulation 54

I, David J. Gibb hereby certify that this plan is accurate and is a correct representation of the -
 (a) survey; and
 (b) calculations from measurements recorded in the field records, undertaken for the purposes of this plan and that it complies with the relevant written law(s) in relation to which it is lodged.

Licensed Surveyor

Survey Organisation

Name	VERIS
Address	JOLIMONT 6014
Phone	6241 3333
Fax	6241 3300
Email	lodgements.wa@veris.com.au
Reference	609975-1180-DJG

Former Tenure

New Lot / Land	Parent Plan Number	Parent Lot Number	Title Reference	Subject Land Description
Lots 1201, 1202 & 9031	DP 425984	Lot 9030		

Former Tenure Interests and Notifications

Subject	Purpose	Statutory Reference	Origin	Land Burdened	Benefit To	Comments
33b J	Easement (Sewerage)	Sec 167 of the P & D Act Reg33(b)	DP 403189	Lot 9031	Water Corporation	
33b N	Easement (Sewerage)	Sec 167 of the P & D Act Reg33(b)	DP 403190	Lot 9031	Water Corporation	
33b F	Easement (Sewerage & Water Supply)	Sec 167 of the P & D Act Reg33(b)	DP 403189	Lot 9031	Water Corporation	
33b O	Easement (Sewerage & Water Supply)	Sec 167 of the P & D Act Reg33(b)	DP 403190	Lot 9031	Water Corporation	
33c C	Easement (Electricity Supply)	Sec 167 of the P & D Act Reg33(c)	DP 403189	Lot 9031	Electricity Networks Corporation	
33c D	Easement (Electricity Supply)	Sec 167 of the P & D Act Reg33(c)	DP 403190	Lot 9031	Electricity Networks Corporation	
33b P	Easement (Sewerage & Water Supply)	Sec 167 of the P & D Act Reg33(b)	DP 405201	Lot 9031	Water Corporation	
33b R	Easement (Sewerage)	Sec 167 of the P & D Act Reg33(b)	DP 406069	Lot 9031	Water Corporation	
33b V 33b X	Easement (Sewerage)	Sec 167 of the P & D Act Reg33(b)	DP 406834	Lot 9031	Water Corporation	
X	Easement		Doc N971268	Lot 9031	Water Corporation	
33a B	Easement (Drainage)	Sec 167 of the P & D Act Reg33(a)	DP 422527	Lot 9031	City of Rockingham	
33b	Easement (Sewerage & Water Supply)	Sec 167 of the P & D Act Reg33(b)	DP 423253	Lot 9031	Water Corporation	
33c G	Easement (Electricity Supply)	Sec 167 of the P & D Act Reg33(c)	DP 423253	Lot 9031	Electricity Networks Corporation	
F	Restrictive Covenant	Sec 129BA of the TLA	Doc P525171	Lot 9031	Electricity Networks Corporation	Fire Separation
33b A	Easement (Sewerage)	Sec 167 of the P & D Act Reg33(b)	DP 425072	Lot 9031	Water Corporation	

New Interests

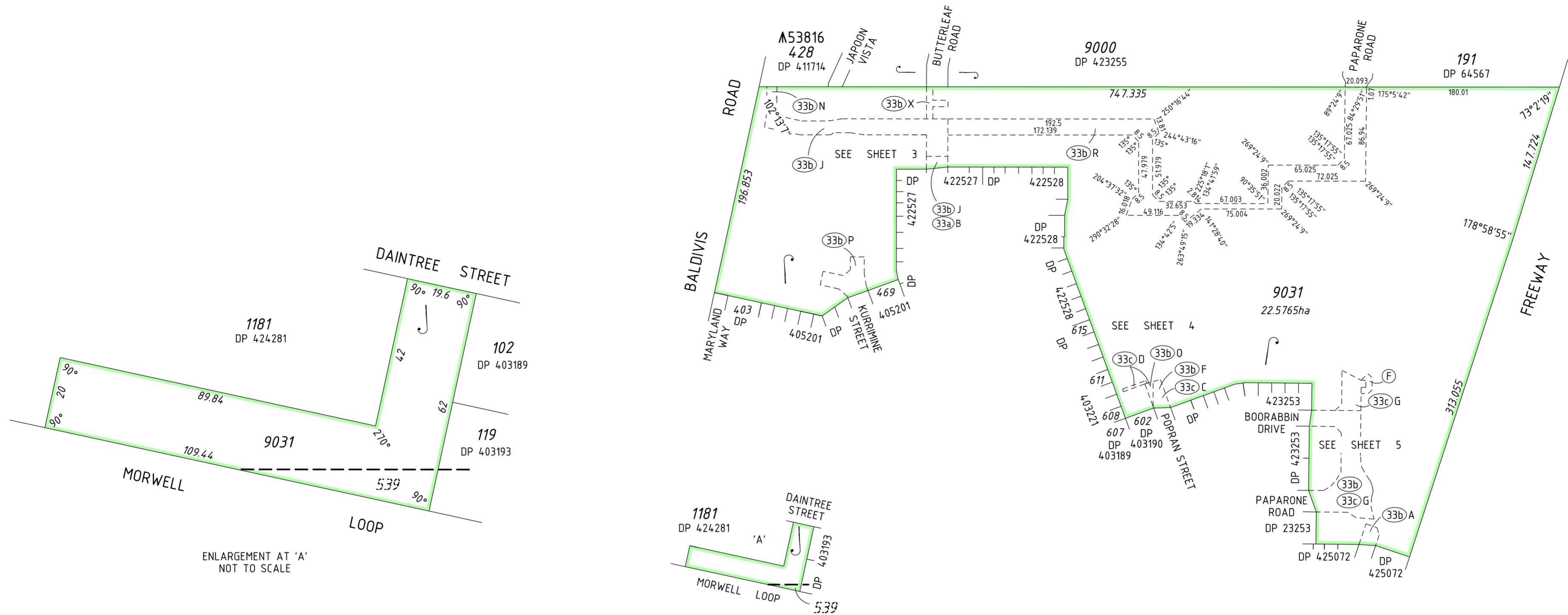
Subject	Purpose	Statutory Reference	Origin	Land Burdened	Benefit To	Comments
	Restrictive Covenant	Sec 136D of the TLA	This Plan & Doc	All Lots Except Lot 9031	All Lots Except Lot 9031	

New Notifications and Memorials

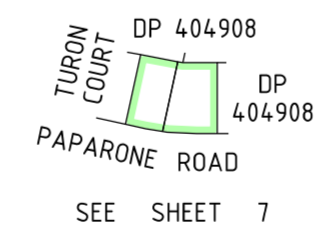
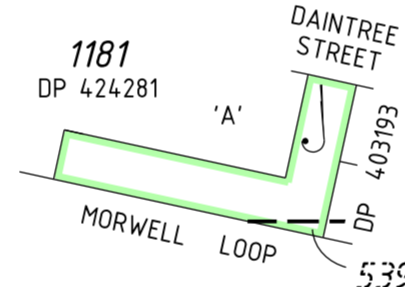
Subject	Purpose	Statutory Reference	Origin	Land Burdened	Benefit To	Comments
	Notification	Sec 165 of the P & D Act	Doc	Lots 1201 & 1202		Mosquitoes
	Notification	Sec 165 of the P & D Act	Doc	Lots 1201 & 1202		Bushfire Management Plan

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LIMITED IN DEPTH TO 60.96 METRES EXCEPT AS TO LOT 539



ENLARGEMENT AT 'A'
NOT TO SCALE

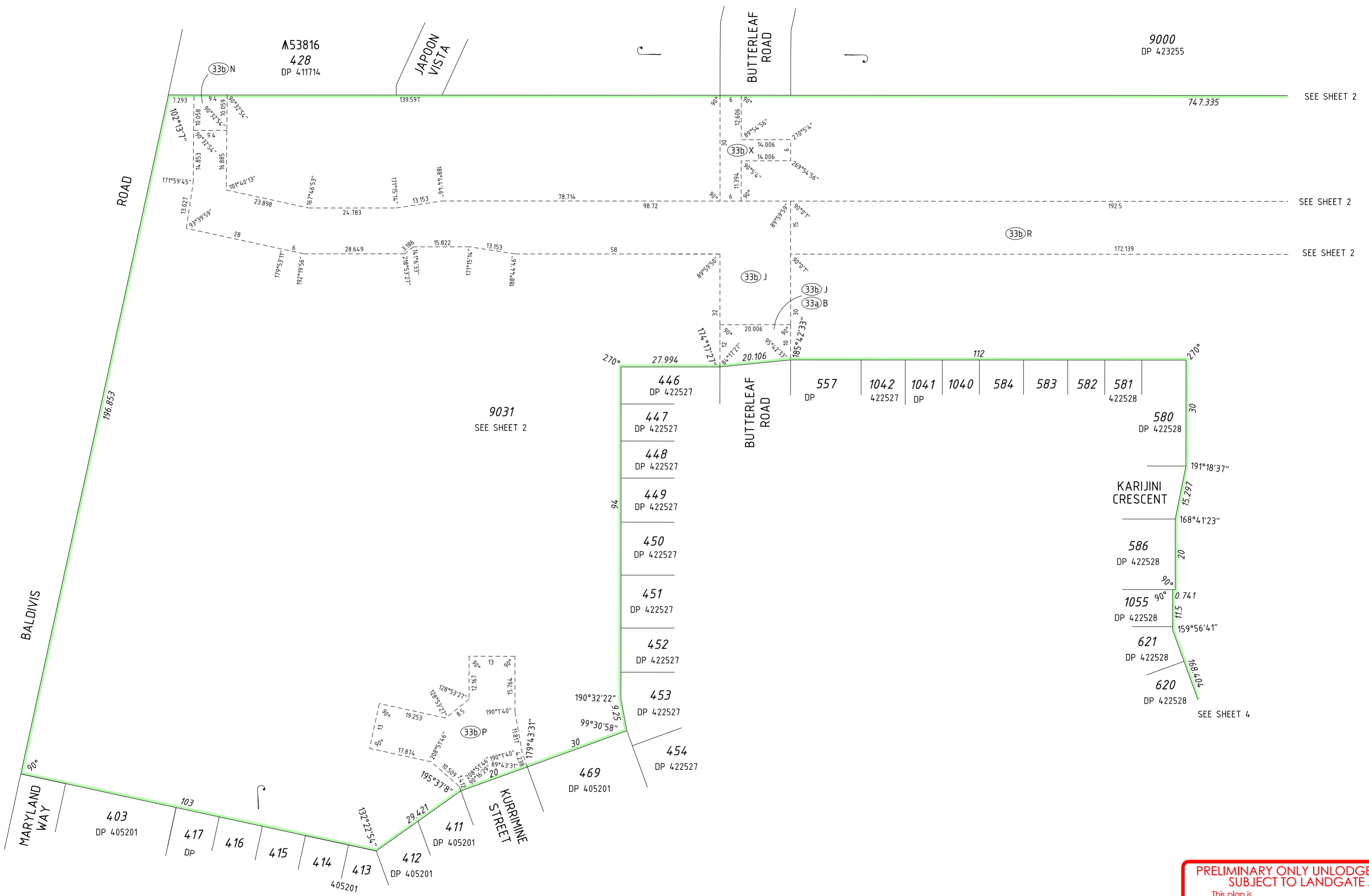


SCALE: 1:3000 AT A2 SIZE

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ADDITIONAL SHEETS Survey Sheet(s)	SHEET 2 OF 7	SHEETS 7	VERSION NUMBER 1	DEPOSITED PLAN 425987
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LIMITED IN DEPTH TO 60.96 METRES EXCEPT AS TO LOT 539

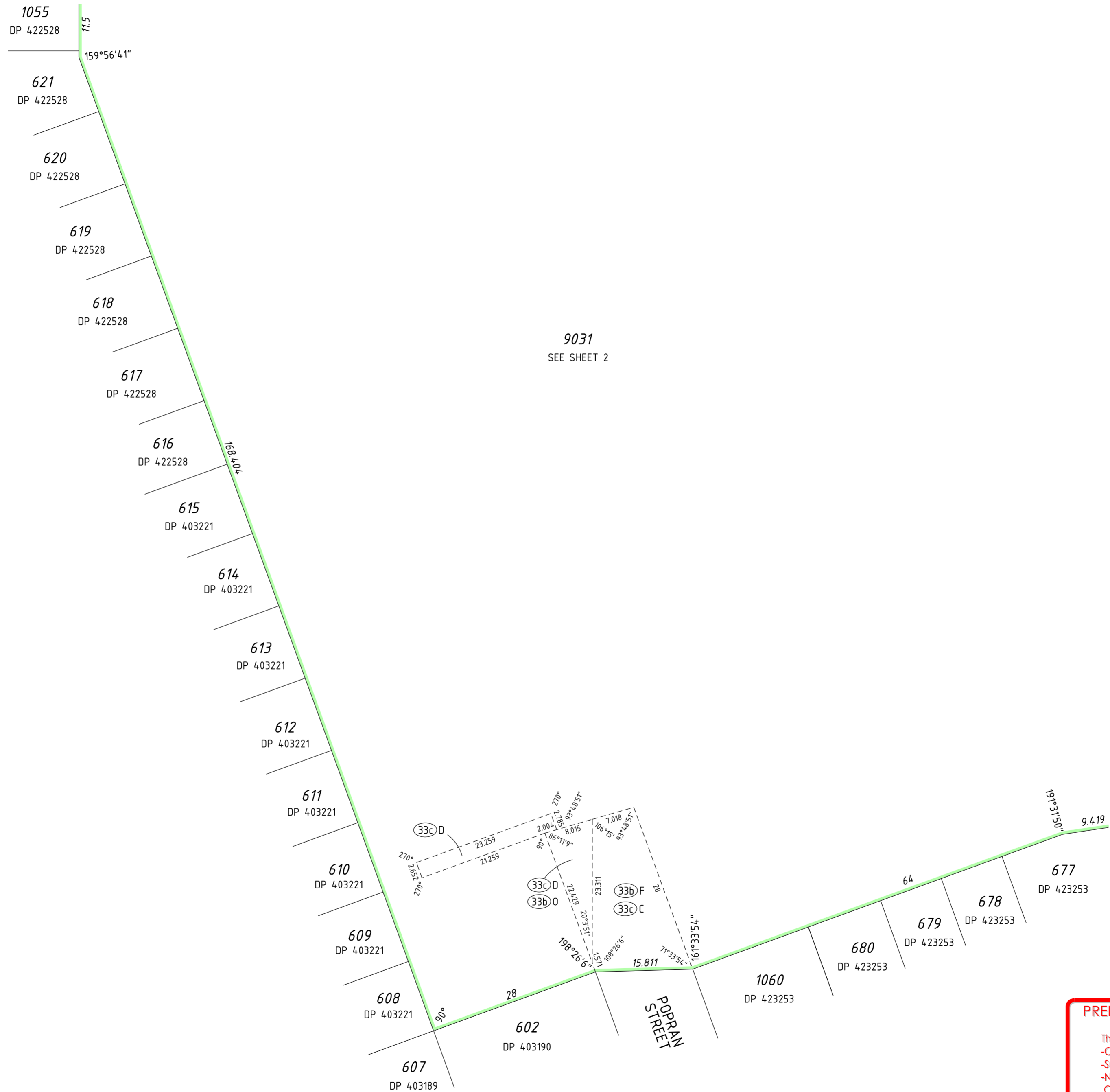


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LIMITED IN DEPTH TO 60.96 METRES EXCEPT AS TO LOT 539

SEE SHEET 3



SEE SHEET 5

SCALE: 1:500 AT A2 SIZE

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ADDITIONAL SHEETS Survey Sheet(s)	SHEET 4	SHEETS OF 7	VERSION NUMBER 1	DEPOSITED PLAN 425987
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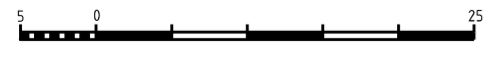
LIMITED IN DEPTH TO 60.96 METRES EXCEPT AS TO LOT 539



SEE SHEET 4

9031
SEE SHEET 2

SEE SHEET 2



SCALE: 1:500 AT A2 SIZE

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ADDITIONAL SHEETS
Survey Sheet(s)

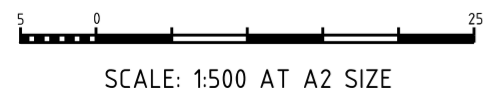
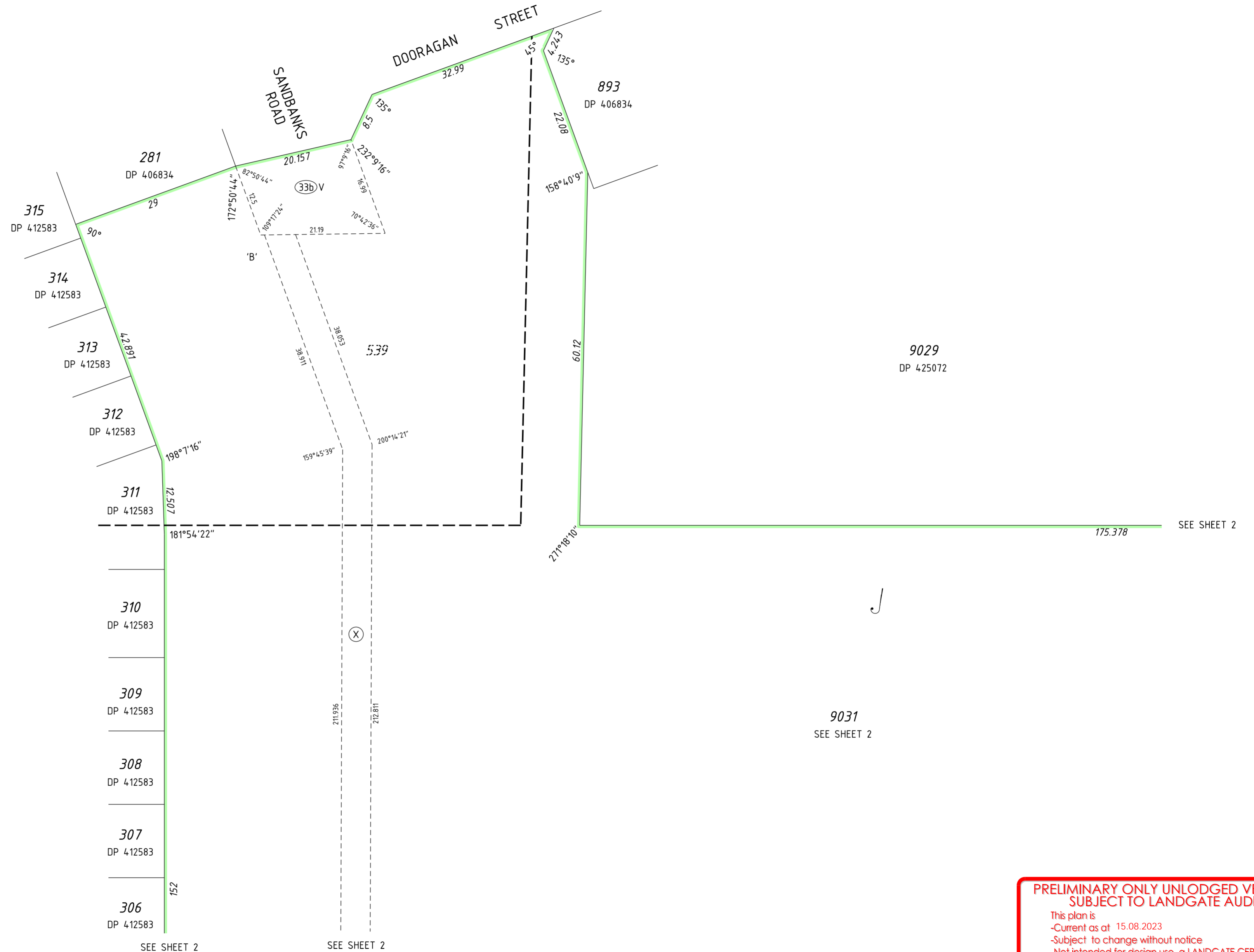
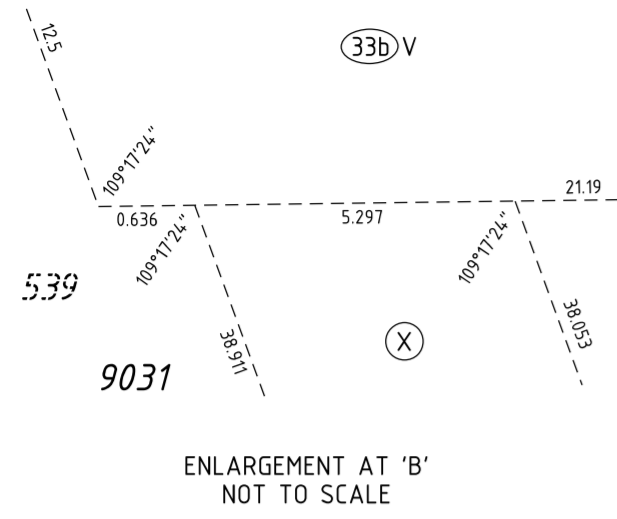
SHEET SHEETS
5 OF 7

VERSION NUMBER
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DEPOSITED PLAN
425987

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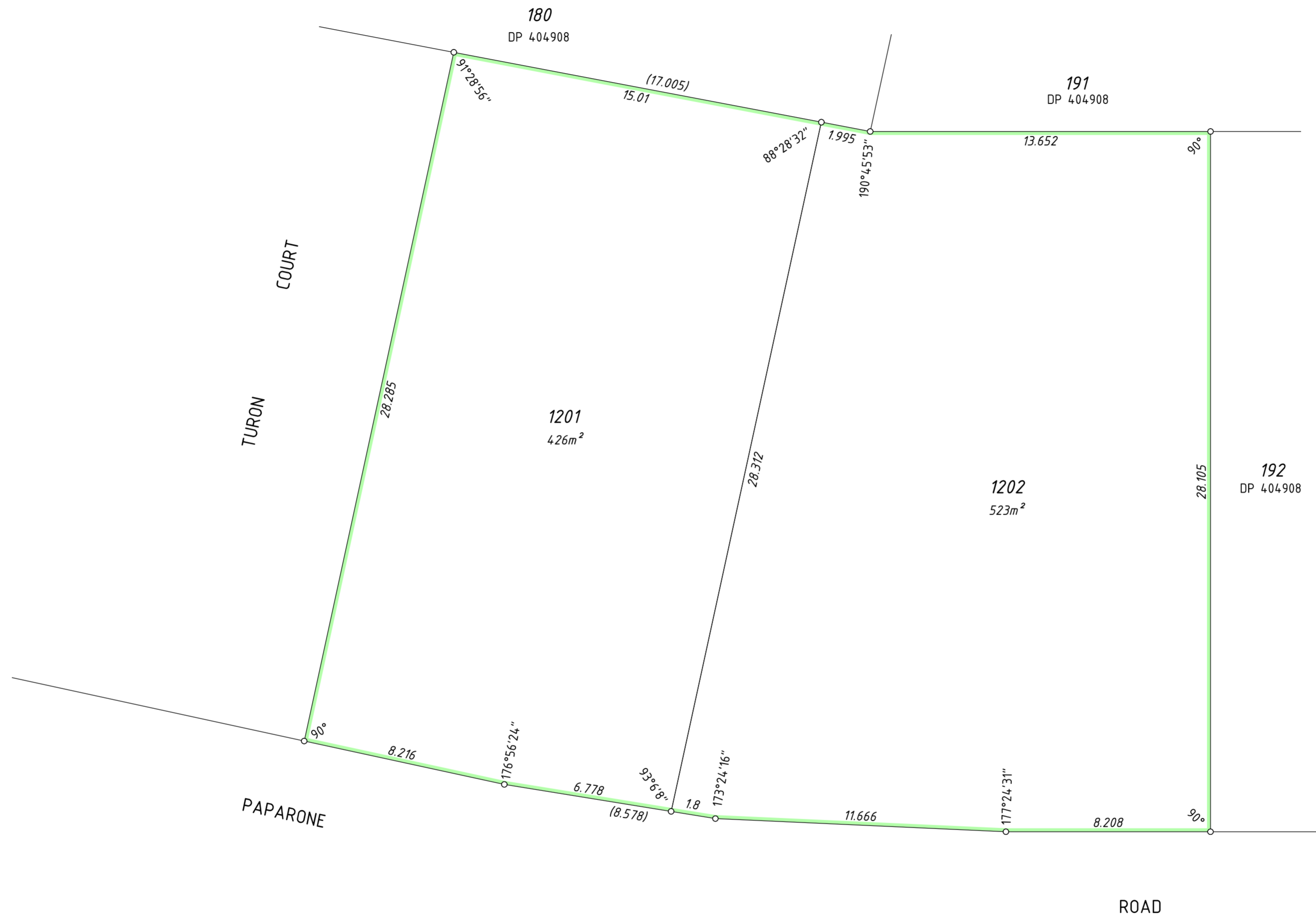
LIMITED IN DEPTH TO 60.96 METRES EXCEPT AS TO LOT 539



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ADDITIONAL SHEETS Survey Sheet(s)	SHEET 6 OF 7	SHEETS 7	VERSION NUMBER 1	DEPOSITED PLAN 425987
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LIMITED IN DEPTH TO 60.96 METRES EXCEPT AS TO LOT 539



SCALE: 1:150 AT A2 SIZE

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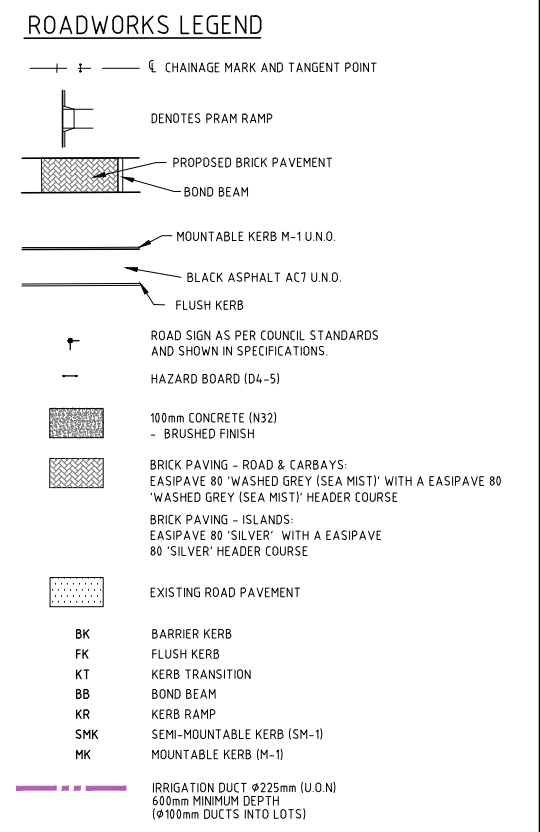
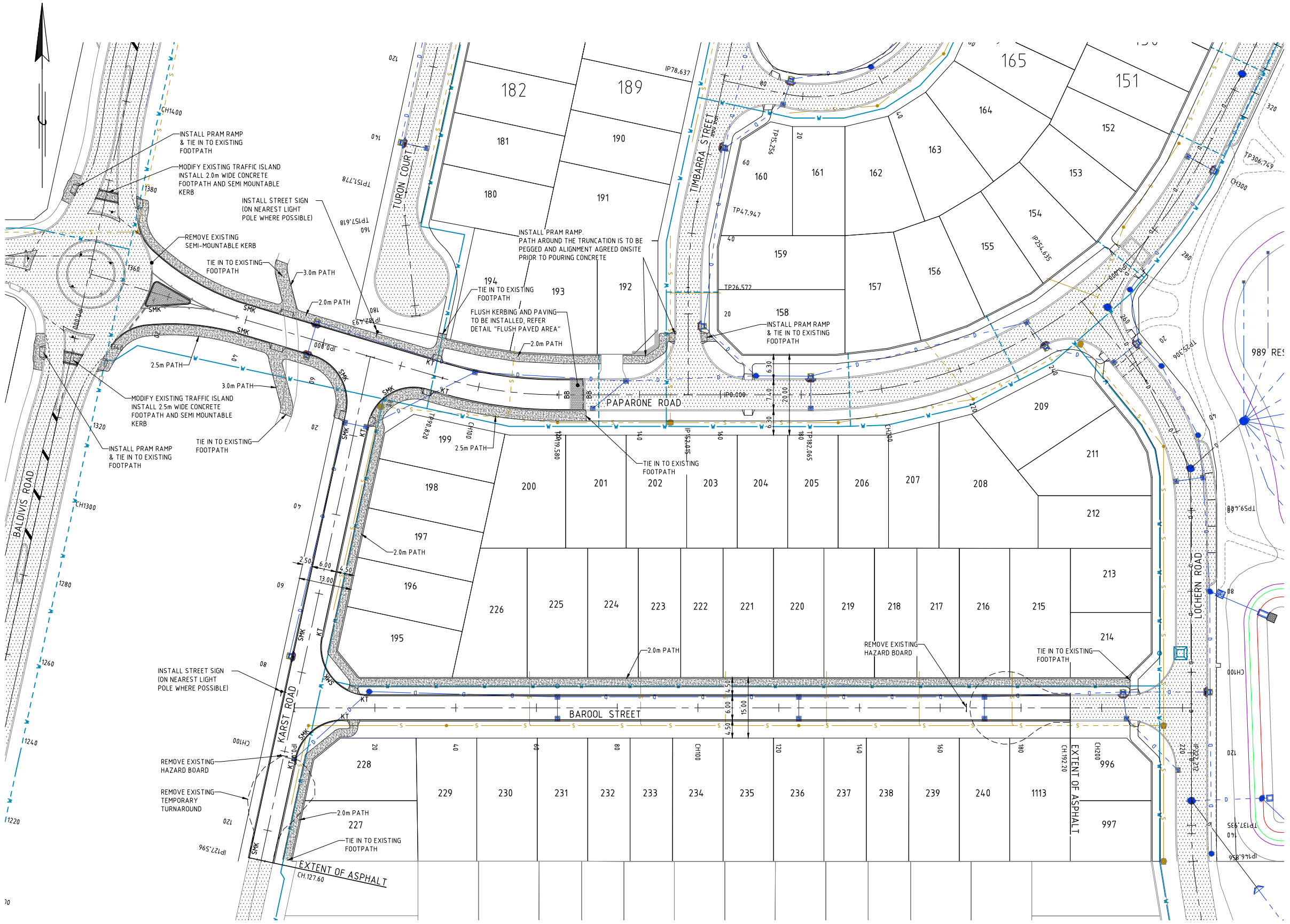
ADDITIONAL SHEETS
 Survey Sheet(s)

SHEET SHEETS
7 OF **7**

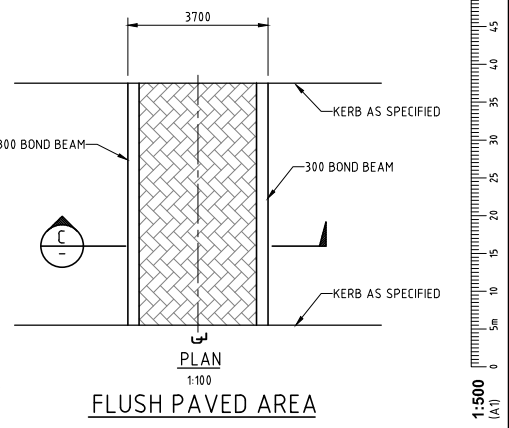
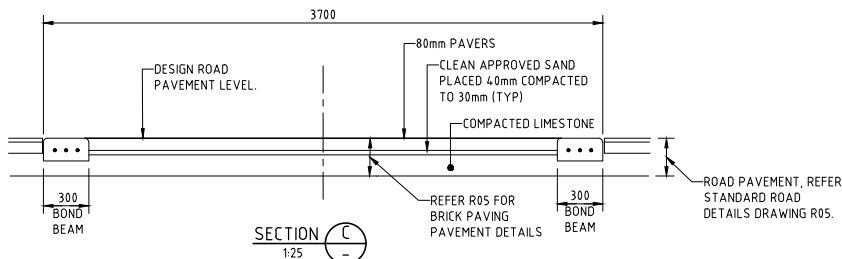
VERSION NUMBER
1

DEPOSITED PLAN
425987

Appendix E Roadworks layout plan



- ### NOTES:
- LEVEL DATUM - AUSTRALIAN HEIGHT DATUM
 - THE CONTRACTOR SHALL CO-ORDINATE THE LOCATION OF ALL EXISTING AND PROPOSED SERVICES PRIOR TO COMMENCEMENT OF WORK. ANY CONFLICTS ARE TO BE REPORTED TO THE SUPERINTENDENT IMMEDIATELY
 - THE CONTRACTOR SHALL LOCATE ALL LEVELS FROM EXISTING BENCH MARKS
 - ALL BENCH MARKS ARE TO BE PROTECTED
 - SERVICES, SUCH AS WATER, GAS, TELEPHONE, ELECTRICITY, AND DRAINAGE MAY BE ENCOUNTERED DURING CONSTRUCTION OF THE WORKS. SERVICES INFORMATION SHOWN ON DRAWINGS IS INDICATIVE ONLY AND MAY NOT BE COMPLETE. BEFORE EXCAVATION COMMENCES THE LOCATION OF ALL SUCH SERVICES SHALL BE OBTAINED FROM THE RELEVANT AUTHORITIES
 - ALL KERBS TO BE MOUNTABLE TYPE M-1 U.N.O.
 - FOOTPATHS IN FRONT OF WALLS TO BE WIDENED TO FACE OF WALL
 - FOR CROSSOVER DETAILS REFER TO CITY OF ROCKINGHAM STANDARD DRAWINGS
 - PATHS TO BE 0.3m FROM BOUNDARY U.N.O.
 - CLEARING SHALL BE KEPT TO AN ABSOLUTE MINIMUM
 - SIGN POSTS AND STREET NAME PLATES SHALL BE SUPPLIED AND INSTALLED AS PER THE SPECIFICATION
 - REFER TO DRAWING BDVAUS0 R05 FOR STANDARD DETAILS



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0	27/04/23	BWB	ISSUED FOR CONSTRUCTION
B	30/11/22	BWB	COUNCIL COMMENTS RECEIVED, FOOTPATHS MODIFIED, WATTS PROFILE REMOVED
A	16/09/22	BWB	INITIAL ISSUE
No.	DATE	BY	REVISION

COORDINATE GRID SYSTEM: PCG 94, VERTICAL DATUM: AHD

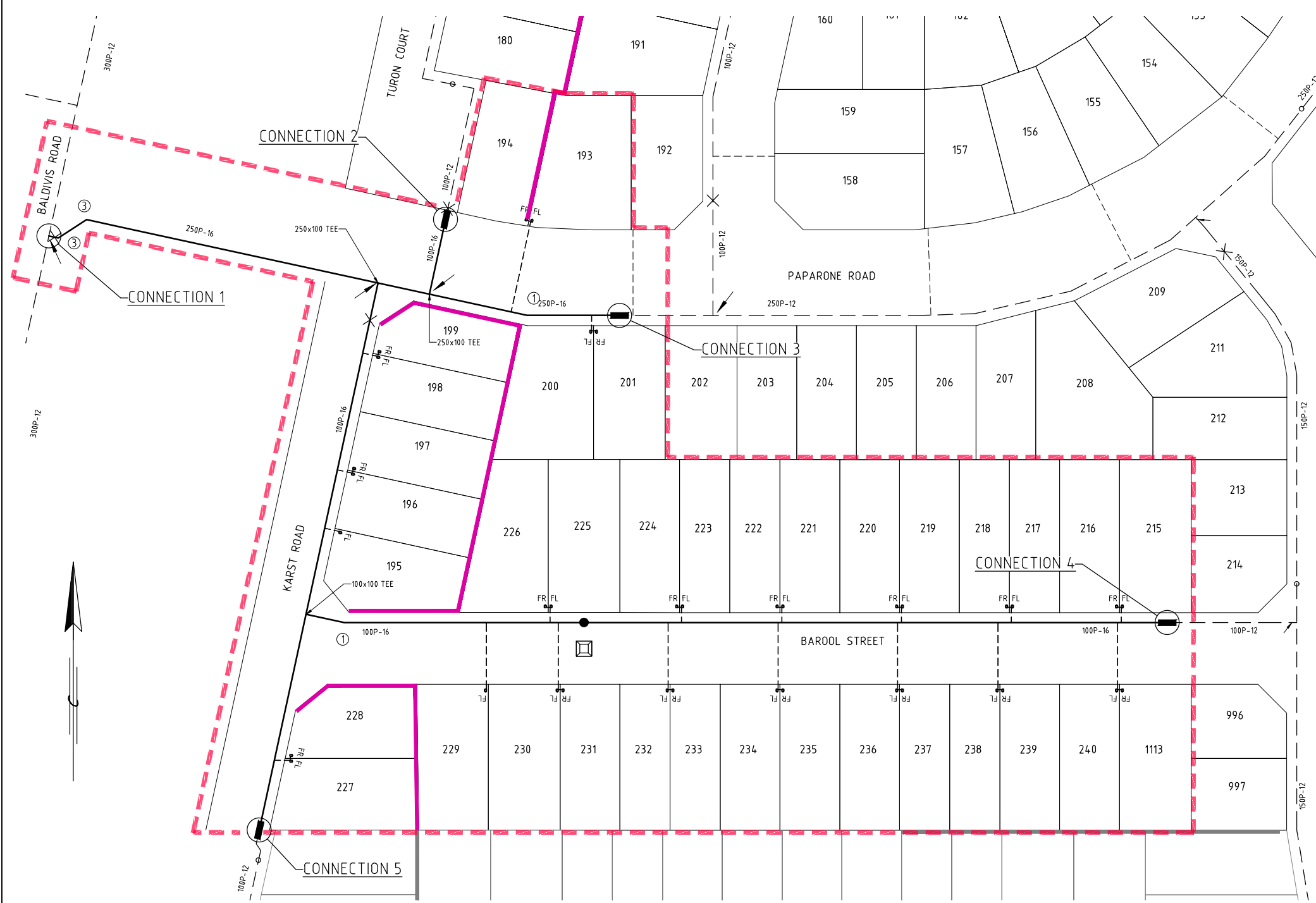
DEVELOPMENT ENGINEERING CONSULTANTS
 SUITE 3, 123A COLIN ST. WEST PERTH, 6005 WESTERN AUSTRALIA
 Ph: (08) 9481 1900 Fax: (08) 9481 1700

PROJECT: **BALDISV EAST DEVELOPMENT STAGE 12B**
 W.A.P.C. No. - 156812

DRAWING: **ROADWORKS LAYOUT PLAN**
 SCALE: 1:500
 DATE: AUG 2022
 DRAWN: BWB
 DESIGNED: BWB
 CHECKED: SRA
 APPROVED: SRA

PROJECT NUMBER	DRAWING NUMBER	REV No.
BDVAUS50	R01	0
S:\Aust\BDVAUS50\Drawings\BDVAUS50 R01.dwg 27/04/2023		

Appendix F Water reticulation plan



LEGEND

- AGREEMENT BOUNDARY
- 63PE20 EXISTING WATER MAIN PIPE SIZE AND TYPE
- 63PE20 NEW WATER MAIN PIPE SIZE AND TYPE
- 63PE20 FUTURE WATER MAIN PIPE SIZE AND TYPE
- CHANGE OF PIPE SIZE OR ALIGNMENT
- EXISTING HYDRANT
- NEW HYDRANT
- BLUE RRPV VALVE
- X FLUSHING POINT
- 80mm UPVC DUCT
- LOCATION OF LONG SERVICE
- ① DENOTES 112.5° BEND
- ② DENOTES 22.5° BEND
- ③ DENOTES 45° BEND
- ④ DENOTES 90° BEND
- Ⓧ DEFLECTION - MAX 3° (TO BE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS)
- "D" DEFERRED SERVICE
- FL FR SERVICE LOCATION
- * INDICATES LOTS IN FUTURE STAGE BUT SERVICES TO BE LAID NOW (FULLY PRELAI D SERVICE)
- Ⓧ INDICATES LOTS WHERE SERVICES LAID IN PREVIOUS STAGE - TO BE LOCATED & SET AT CORRECT LEVELS FOR F.T.I.
- Ⓧ POWER EXCLUSION ZONE
- █ RETAINING WALL

- ### GENERAL NOTES
1. ALL PIPES, VALVES AND FITTINGS SHALL BE IN ACCORDANCE WITH THE WATER CORPORATION'S 'DESIGN STANDARDS DS63' WATER RETICULATION STANDARD, TABLE 3.1 'STANDARD WATER RETICULATION SYSTEM REQUIREMENTS'.
 2. THE DIFFERENCE IN LEVEL BETWEEN THE CROWN OF THE PIPE AND ADJACENT FINISHED ROAD GUTTER SHALL NOT BE LESS THAN 600mm AND SHALL NOT EXCEED 700mm.
 3. UNLESS OTHERWISE DIRECTED BY THE SUPERINTENDENT, THE DIFFERENCE IN LEVEL BETWEEN THE CROWN OF THE PIPE AND THE FINISHED VERGE LEVEL SHALL BE NOT LESS THAN 600mm AND SHALL NOT EXCEED 800mm.
 4. WHERE PIPES CROSS OR ADJOIN OTHER EXISTING OR PROPOSED SERVICES, THE WATER MAIN SHALL HAVE A CLEARANCE OF 150mm.
 5. UNLESS OTHERWISE SHOWN ON THIS DRAWING OR VARIED BY THE SUPERINTENDENT, ALL PIPES AND FITTINGS SHALL BE LAID ON AN ALIGNMENT OF 2.1m FROM THE CENTRE OF THE PIPE TO THE ROAD RESERVE BOUNDARY.
 6. TEMPORARY DEAD ENDS, INSTALLED IN ACCORDANCE WITH THE SPECIFICATION, SHALL BE PROVIDED ON ALL MAINS AT CONNECTION POINTS TO EXISTING MAINS AND WHERE SPECIFIED.
 7. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SHOWN.
 8. UNLESS DIMENSIONED OTHERWISE, PE MAINS SHALL EXTEND AT LEAST 6.0m PAST THE LAST LOT SERVED.
 9. ALL VALVES AND HYDRANTS SHALL BE PLACED OPPOSITE BOUNDARY PEGS OR IN THE CENTRE OF LOT FRONTAGES AS SHOWN.
 10. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE STANDARD DETAILS, WATER CORPORATION'S 'DESIGN STANDARDS DS63' AND THE SPECIFICATION.
 11. EXISTING POWER POLES ARE TO BE SUPPORTED DURING LAYING OF THE WATER MAIN, BY WESTERN POWER, AT CONTRACTORS EXPENSE.
 12. ALL LOT CONNECTIONS AT FRONT.
 13. PIPES TO BE DEFLECTED WHERE BEND TYPE NOT SPECIFIED.
 14. CONTRACTOR TO INSTALL 1 x BLUE RRPV ON ROAD (170mm OFFSET FROM CL) OPPOSITE ALL HYDRANTS.
 15. REFER TO BDVAUS50 V01 FOR TYPICAL SERVICE LAYOUT DETAILS.

CONTRACTORS RESPONSIBILITY

IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THE INDICATED POSITIONS FOR PRELAI D SERVICES DO NOT CLASH WITH DRAINAGE OR OTHER FACILITIES. PLEASE CONTACT THE SITE SUPERINTENDANT IF AMENDMENTS TO THE PRELAI D SERVICE LOCATIONS ARE REQUIRED.

SERVICES

- L OR R INDICATES THE SIDE OF THE LOT AS VIEWED FROM THE ROAD
- FR OR FL INDICATES LEFT OR RIGHT FULLY PRELAI D SERVICE
- D INDICATES A DEFERRED SERVICE
- L80 OR R80 INDICATES LEFT OR RIGHT PVC DUCT.

PRELAI D SHORT SINGLE SERVICES:	1
PRELAI D SHORT DUAL SERVICES:	10
PRELAI D LONG SINGLE SERVICES:	1
PRELAI D LONG DUAL SERVICES:	7
DEFERRED SERVICES:	0

TOTAL NUMBER OF LOTS SERVED- 36

EXTENSION

LAY 315.4 METRES OF 100-P16
LAY 123.7 METRES OF 250-P16

STRUCTURES

HYDRANTS 1
VALVES 2

STANDARD DRAWINGS

AS LISTED IN THE WATER CORPORATION'S 'DESIGN STANDARDS DS63', WATER RETICULATION STANDARD

THIS PLAN IS ACCEPTED AS BEING IN ACCORDANCE WITH THE ENDORSED CONCEPT PLAN:
LR77-100-001-01A

COMPLIANCE WITH THE RELEVANT DESIGN STANDARDS AND MANUALS REMAINS THE RESPONSIBILITY OF THE DESIGN ENGINEER.
NO WORKS ARE TO COMMENCE ON SITE UNTIL START-UP MEETING REQUIREMENTS HAVE BEEN MADE WITH THE RELEVANT ASSET INSPECTOR. REFER TO THE DEVELOPERS' MANUAL FOR CONTACT DETAILS.

RECEIVED LAND SERVICING:
PLAN No. - OB52-103-001-01A
FILE No. - 141801451

NOTE:
FOR CONNECTIONS OVER Ø250 THE CONTRACTOR SHALL MAKE APPLICATION AND PAY FOR "CONNECTION 1" SEPARATELY WITH THE WATER CORPORATION'S BUILDING SERVICES BRANCH, BALCATTA. RECEIPT OF PAYMENT TO BE FORWARDED TO DEVELOPMENT SERVICES.

CONNECTION DETAIL 1
NTS
300x300x250 TEE CONNECTION WITH VALVE BY WATER CORPORATION

CONNECTION DETAIL 2
NTS
100 STRAIGHT CONNECTION BY WATER CORPORATION AT DEVELOPERS EXPENSE. FEE INCLUDED IN LAND DEVELOPMENT AGREEMENT.

CONNECTION DETAIL 3
NTS
250 STRAIGHT CONNECTION BY WATER CORPORATION AT DEVELOPERS EXPENSE. FEE INCLUDED IN LAND DEVELOPMENT AGREEMENT.

CONNECTION DETAIL 4
NTS
100 STRAIGHT CONNECTION BY WATER CORPORATION AT DEVELOPERS EXPENSE. FEE INCLUDED IN LAND DEVELOPMENT AGREEMENT.

CONNECTION DETAIL 5
NTS
100 STRAIGHT CONNECTION BY WATER CORPORATION AT DEVELOPERS EXPENSE. FEE INCLUDED IN LAND DEVELOPMENT AGREEMENT.



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No.	DATE	BY	REVISION
0	27/04/23	BWB	ISSUED FOR CONSTRUCTION
B	01/12/22	BWB	WATER CORPORATION COMMENTS RECEIVED, NUMBERS ADDED
A	16/09/22	BWB	INITIAL ISSUE

CLIENT:	FRASERS PROPERTY
DEVELOPMENT ENGINEERING CONSULTANTS	SUITE 3, 123A COLIN ST, WEST PERTH, 6005 WESTERN AUSTRALIA Ph: (08) 9481 1900 Fax: (08) 9481 1700
PROJECT:	BALDIS EAST DEVELOPMENT STAGE 12B
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SCALE	1:500	DRAWN	BWB	CHECK	SRA	REV No.	0
DATE	AUG 2022	DESIGNED	BWB	APPROVED	SRA		
PROJECT NUMBER	BDVAUS50		DRAWING NUMBER	W01			

COORDINATE GRID SYSTEM: PCG 94, VERTICAL DATUM: AHD	CAD DRAWING DO NOT MANUALLY ALTER
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