



Part Stage 10 Vivente Estate, Hammond Park

Richard Noble

Bushfire Management Plan Compliance & Condition Clearance Report

155,341 | 65665

19 January 2024



We acknowledge the Traditional Custodians of Country throughout Australia and their connections to land, sea and community.

We pay respect to Elders past and present and in the spirit of reconciliation, we commit to working together for our shared future.



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1. Introduction

1.1 Site/development summary

Table 1 provides a summary of the site and proposed development. The development layout and subject lots are shown in Figure 1 and Figure 2.

Table 1: Site/development summary

Site details	
Address details	22 proposed residential lots within Stage 10 Vivente Estate, Hammond Park WA 6164
Local government area	City of Cockburn
Description of building works	Construction of a single residential dwelling (Class 1a building and associated Class 10a structure/s) within each lot

1.2 Purpose of report

This Bushfire Management Plan (BMP) compliance and condition clearance report has been prepared for 22 proposed residential lots within Stage 10 Vivente Estate (the project area). Lots within the project area are subject to WAPC subdivision approval (WAPC Ref. 159067), with the following bushfire-related conditions:

Condition 1 The proposed lots with a BAL rating of BAL-FZ or BAL-40, as highlighted in green on Attachment A, are to be held in balance until such time as they can achieve a BAL-29 rating or below, as demonstrated by the submission of a BAL assessment or BAL Contour Map certified by a bushfire consultant, to the satisfaction of the Western Australian Planning Commission.

Condition 18 *Information is to be provided to demonstrate that the measures contained in Section 6 of the Vivente Estate Structure Plan Amendment Bushfire Management Plan (Rev 1, May 2020) have been implemented during subdivisional works. This information should include a completed 'Certification by a Bushfire Consultant' from the bushfire management plan.*

Condition 1 is not applicable to the project area since the part of Stage 10 that this document pertains to does not contain any lots identified in Attachment A of the approval as BAL-40/FZ. As such, this report has been prepared to address Condition 18 only of WAPC Ref. 159067 to facilitate subdivision clearances and creation of title for the portion of Stage 10 that contains the project area (i.e. 22 proposed lots). This report also provides a post-subdivisional works update of the Bushfire Attack Level (BAL) assessment and ratings for individual lots within the project area.

Since all proposed lots within the project area are situated within a designated bushfire prone area, as per the Map of Bush Fire Prone Areas (DFES 2021, see Plate 1), BAL certificates have been prepared for all proposed lots based on the final site compliance assessment and are appended to this report to facilitate future lot sales and building approvals (refer to Appendix A).

The BAL assessment outlined in this report is the most up to date assessment by JBS&G relating to the project area and has been prepared in consideration of the previous BAL contour assessment documented in the previous BMP (Strategen-JBS&G 2020). The approach for preparation of this BMP compliance and condition clearance report is consistent with Section 4.2 and Appendix 3 of *Guidelines for Planning in Bushfire Prone Areas* (the Guidelines; WAPC 2021).

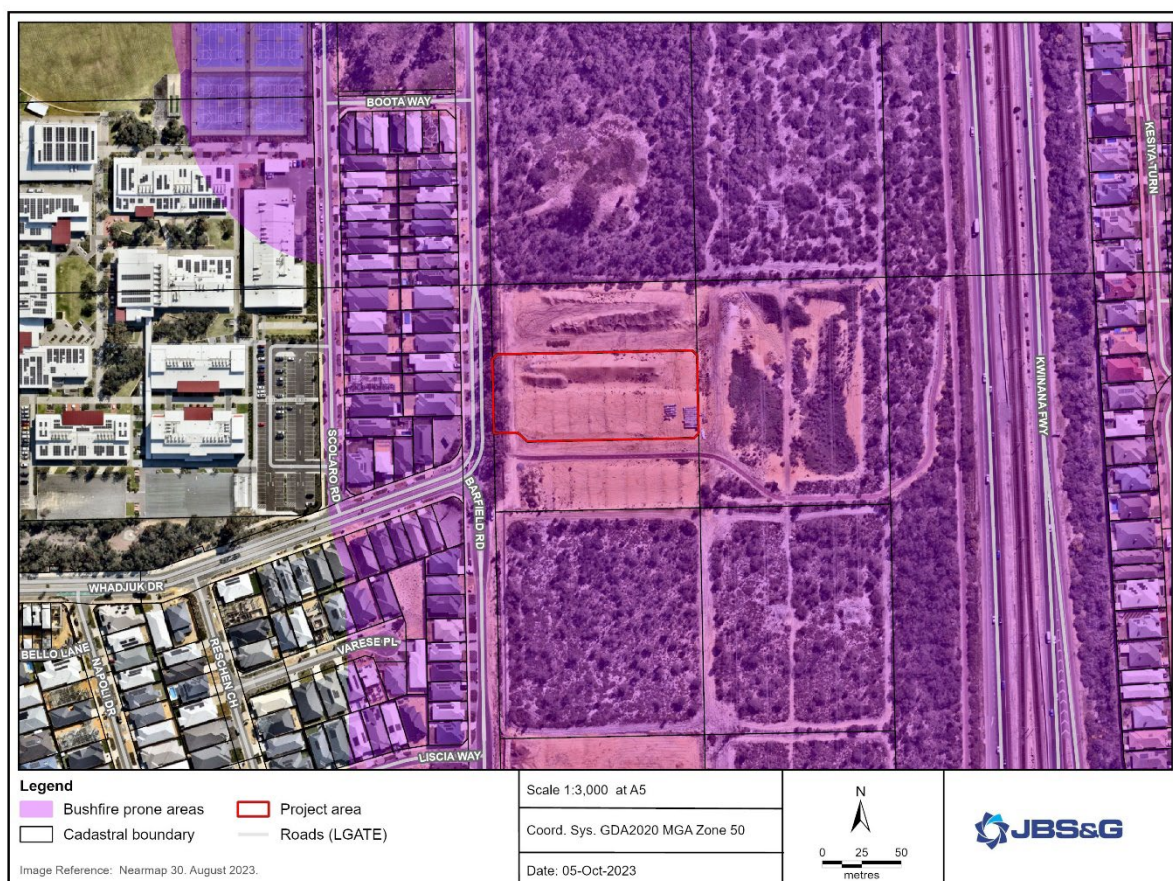








Plate 1: Designated bushfire prone status of the project area (DFES 2021)





2. Bushfire Management Plan compliance audit

The BMP prepared to support the previous stage of planning (Strategen-JBS&G 2020) lists the bushfire management measures required to be implemented by the developer as part of future stages of planning and development. A site audit was undertaken on 1 November 2023 to confirm that all relevant works from the previous BMP had been implemented in relation to the project area. The relevant BMP requirements and associated evidence of compliance are documented in Table 2, along with the required certification by bushfire consultant.

Table 2: Bushfire compliance audit table

Action	Status	Evidence of completion/clearance comments	Certification by bushfire consultant
Confirm lot layout, including any proposed public open space (POS)	Complete	Confirmed lot layout is depicted in Figure 1 and Figure 2. No POS areas are proposed as part of Stage 10.	Zac Cockerill (Level 2 BPAD37803) 
Detailed landscaping design/plans in regard to proposed POS, consistent with the provisions of this BMP	N/A	No POS areas are proposed as part of Stage 10.	N/A
Post development classified vegetation extent and effective slope	Complete	Post development classified vegetation extent and effective slope are outlined in Figure 1 and Table 3.	Zac Cockerill (Level 2 BPAD37803) 
BAL contour map demonstrating that proposed development areas will achieve BAL-29 or lower	Complete	BAL contour mapping demonstrating delivery of BAL-29 or lower for all proposed lots is outlined in Figure 2 and Table 4.	Zac Cockerill (Level 2 BPAD37803) 

Action	Status	Evidence of completion/clearance comments	Certification by bushfire consultant
Width and alignment of compliant APZs/setbacks where applicable	N/A	No APZ setbacks are required to achieve BAL-29 or lower within the project area.	N/A
Confirmation of how bushfire management will be addressed during development staging, particularly with regards to temporary quarantining of lots, delayed/staged development, provision of low threat staging buffers/vegetation modification or clearing in advance, vehicular access staging requirements, etc	Complete	<p>Staged development and appropriate WAPC conditions (i.e. Condition 1) have resulted in the temporary quarantining of those Stage 10 lots that are subject to BAL-40/FZ, such that the portion of Stage 10 lots subject to BAL-29 or lower (i.e. the project area) can progress through to creation of title. The entire Stage 10 development footprint has been cleared to achieve the intended BAL outcomes for lots within the project area, as depicted in Figure 1 and Figure 2.</p> <p>With regards to staged access, a temporary emergency access connection has been established at the terminus of Sardinia Place with Barfield Road to resolve the temporary non-compliant Sardinia Place dead end (refer to Plate 2), as per the following provision of the BMP:</p> <ul style="list-style-type: none"> Provisions for temporary emergency access from the Stage 10 cul-de-sac onto Barfield Road until a compliant cul-de-sac can be provided through the planned construction of a future road linkage south to Rowley Road. 	<p>Zac Cockerill (Level 2 BPAD37803)</p> 
Proposed approach to fuel management or AS 3959 application in response to any on-site POS	Complete	The Stage 10 development footprint has been established and maintained in a non-vegetated/low threat managed state through on-site clearing and earthworks in accordance with Clauses 2.2.3.2 (e) and (f) of AS 3959. The remaining external vegetation extent has been appropriately classified under AS3959 (refer to Figure 1). No POS areas are proposed as part of Stage 10.	<p>Zac Cockerill (Level 2 BPAD37803)</p> 
Vehicular access provisions, including demonstration that a minimum of two access routes will be achieved for each stage of development in accordance with Acceptable Solution A3.1	Complete	Primary access to the project area is from Barfield Road in the northwest via Calabria Street and then via Sardinia Place. The temporary non-compliant Sardinia Place dead-end has been resolved via temporary emergency access connection with Barfield Road in the southwest (refer to Plate 2). This provides a circular through connection for Stage 10 development until such time that Sardinia Place becomes a compliant cul-de-sac through the planned construction of a future road linkage south to Rowley Road.	<p>Zac Cockerill (Level 2 BPAD37803)</p> 

Action	Status	Evidence of completion/clearance comments	Certification by bushfire consultant
Compliance with any specific vehicular access technical requirements (e.g. public roads, cul-de-sacs, EAWs, etc)	Complete	All public roads, cul-de-sacs and emergency access connections within Stage 10 have been constructed in accordance with the relevant technical requirements of the Guidelines, as per the civil roadworks plan contained in (Appendix C).	Zac Cockerill (Level 2 BPAD37803) 
Water supply provisions with regards to reticulated water.	Complete	The reticulated water supply and network of street hydrants within Stage 10 have been constructed in accordance with Water Corporation Design Standard 63, as per the civil water reticulation plan contained in (Appendix D).	Zac Cockerill (Level 2 BPAD37803) 
Provisions for notification on Title for any future lots with a rating of BAL-12.5 or greater as a condition of subdivision	N/A	To be completed by others at creation of title through provision of a Deposited Plan.	N/A
Compliance requirements with the current City annual firebreak notice	Complete/ongoing	The Stage 10 development footprint has been established and maintained in a non-vegetated/low threat managed state through on-site clearing and earthworks in accordance with Clauses 2.2.3.2 (e) and (f) of AS 3959, ensuring all proposed lots are compliant with City of Cockburn annual firebreak notice requirements.	Zac Cockerill (Level 2 BPAD37803) 
Construction of Class 1,2,3 or associated 10a buildings in accordance with AS3959 to the assessed BAL rating	N/A	To be completed by others as part of building construction.	N/A
Requirements for BMP/BAL compliance reports as conditions of subdivision	Complete	This report provides the necessary evidence of compliance with the BMP and intended BAL outcomes.	Zac Cockerill (Level 2 BPAD37803) 



Action	Status	Evidence of completion/clearance comments	Certification by bushfire consultant
Compliance with acceptable solutions of the bushfire protection criteria	Complete	This report provides the necessary evidence of compliance with the bushfire protection criteria of the Guidelines through maintaining compliance with the BMP and intended BAL outcomes.	Zac Cockerill (Level 2 BPAD37803) 
Proposed implementation and audit program outlining all measures requiring implementation and the appropriate timing and responsibilities for implementation	Complete	This report provides results of a bushfire compliance audit and the necessary evidence that all relevant bushfire management measures documented in the BMP have been adequately implemented on site by the developer as part of subdivisional works, prior to creation of title.	Zac Cockerill (Level 2 BPAD37803) 



Plate 2: 6 m wide EAW connection between the Sardinia Place cul-de-sac and Barfield Road

3. Bushfire assessment results

3.1 Assessment inputs

A Bushfire Attack Level (BAL) contour assessment has been undertaken for the project area in accordance with Method 1 of AS 3959—2018 *Construction of Buildings in Bushfire-Prone Areas* (AS 3959; SA 2018). The Method 1 procedure incorporates the following factors:

- state-adopted FDI 80 rating
- vegetation classification
- effective slope
- distance maintained between proposed development areas and the classified vegetation.

The BAL contours are based on the current on-ground site conditions and take into consideration the bushfire management measures that have been implemented on site, as listed in Section 2.

3.1.1 Vegetation classification

Classified vegetation and exclusions were assessed within the project area and adjoining 150 m (the assessment area) through on-ground verification on 1 November 2023 in accordance with AS3959 and the *Visual Guide for Bushfire Risk Assessment in Western Australia* (DoP 2016). Georeferenced site photos and a description of the vegetation classifications and exclusions are contained in Appendix B and depicted in Figure 1. A summary of the vegetation classification/exclusion outputs is contained in Table 3.

Site observations indicate that the vegetation classifications generally align with the post-development vegetation classifications determined by the endorsed BMP.

The classified vegetation extent occurs to the north, east and south of the project area in the form of Class D scrub (i.e. shrubs 2–6 m in height with a continuous horizontal fuel profile), with a small plot of Class G grassland to the north (i.e. grass and weeds greater than 100 mm in height).

All remaining land situated within 150 m of the project area was identified to be excluded from classification as a result of clearing, earthworks and construction associated with Stage 10 subdivisional works. The following exclusions were observed:

- the Stage 10 development footprint is in a cleared, non-vegetated state with some sparse tree retention along Barfield Road and is excluded from classification under Clauses 2.2.3.2 (e) and (f)
- existing non-vegetated and low threat managed land surrounding the project area, including adjacent residential development, roads, cleared land, firebreaks and street verges, are excluded under Clauses 2.2.3.2 (e) and (f) of AS3959.

3.1.2 Effective slope

Effective slope under classified vegetation was assessed within the assessment area through on-ground verification on 1 November 2023 in accordance with AS3959. Results were cross-referenced with DPIRD 2m contours and are depicted in Figure 1, which indicate that effective slope under classified vegetation is flat/upslope, except for a portion of scrub vegetation to the southeast and far east, which has an effective downslope of >0–5 degrees.

3.1.3 Summary of inputs

Figure 1 illustrates the current vegetation classifications and exclusions observed during site inspection. The vegetation classifications/exclusions and effective slope are summarised in Table 3.

Table 3: Summary of vegetation classifications, exclusions and effective slope

Vegetation plot	Vegetation classification	Effective slope	Comments
1	Class D Scrub	Downslope >0–5°	Shrubs 2–6 m in height with a continuous horizontal fuel profile consisting predominantly of low banksia and sheoak.
2	Class D Scrub	Flat/upslope (0°)	Shrubs 2–6 m in height with a continuous horizontal fuel profile consisting predominantly of low banksia and sheoak.
3	Class G Grassland	Flat/upslope (0°)	Unmanaged grassland/weeds greater than 100 mm in height.
4	Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f])	N/A	Existing non-vegetated areas (i.e. buildings, roads, footpaths, driveways, earthworked land, firebreaks, etc) and low threat managed areas (i.e. managed gardens, urban street verges, etc).

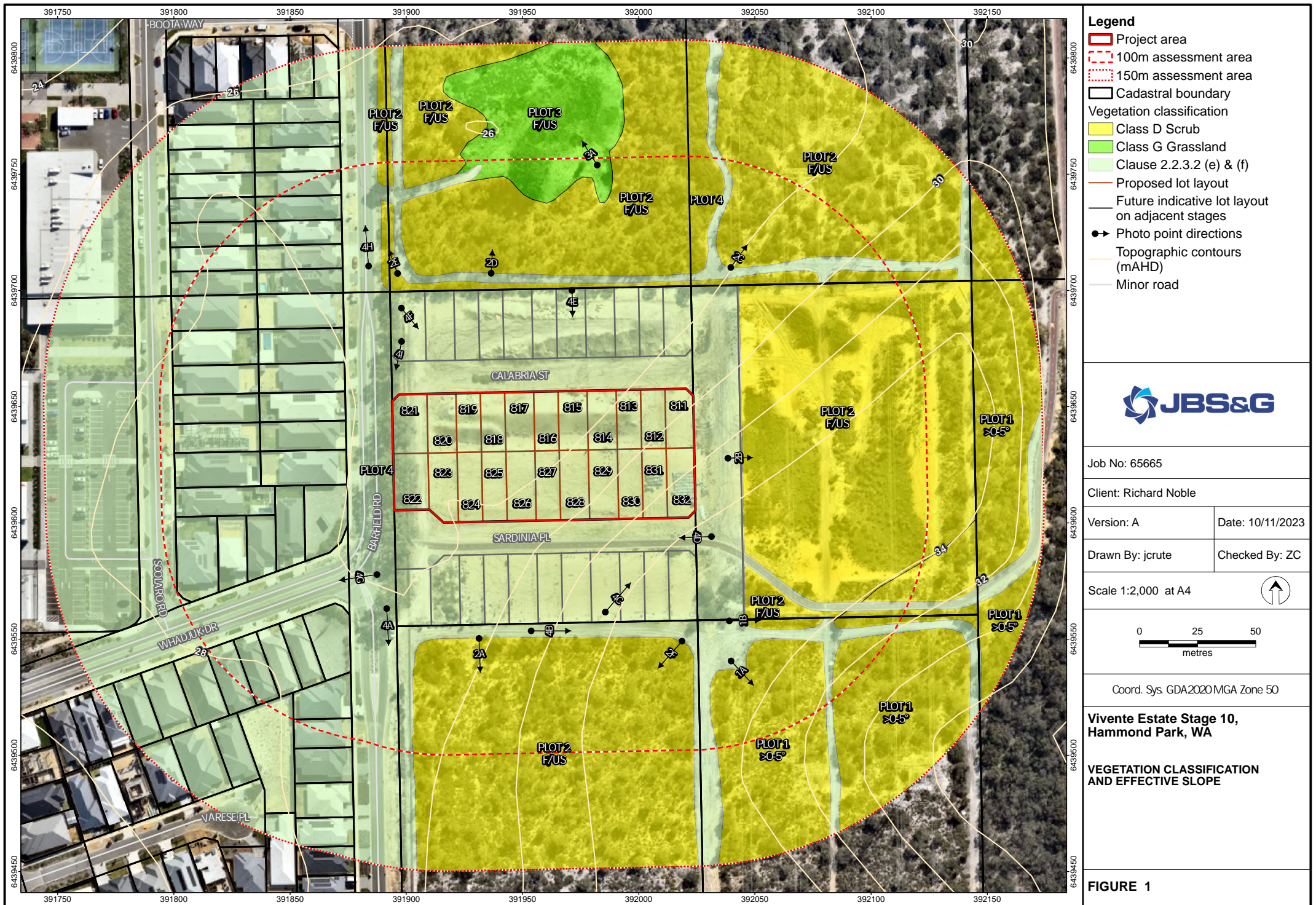
3.2 Assessment outputs

3.2.1 BAL contour assessment results

As previously stated, all 22 proposed lots within the project area are situated within a designated bushfire prone area and therefore require BAL assessment to facilitate future building approval. Results of the BAL contour assessment are illustrated in Figure 2 with a detailed summary of the assessment provided in Table 4.

3.2.2 BAL certificates

BAL certificates for the 22 proposed lots situated within a designated bushfire prone area are provided in Appendix A in accordance with the BAL contour assessment results detailed in Table 4.



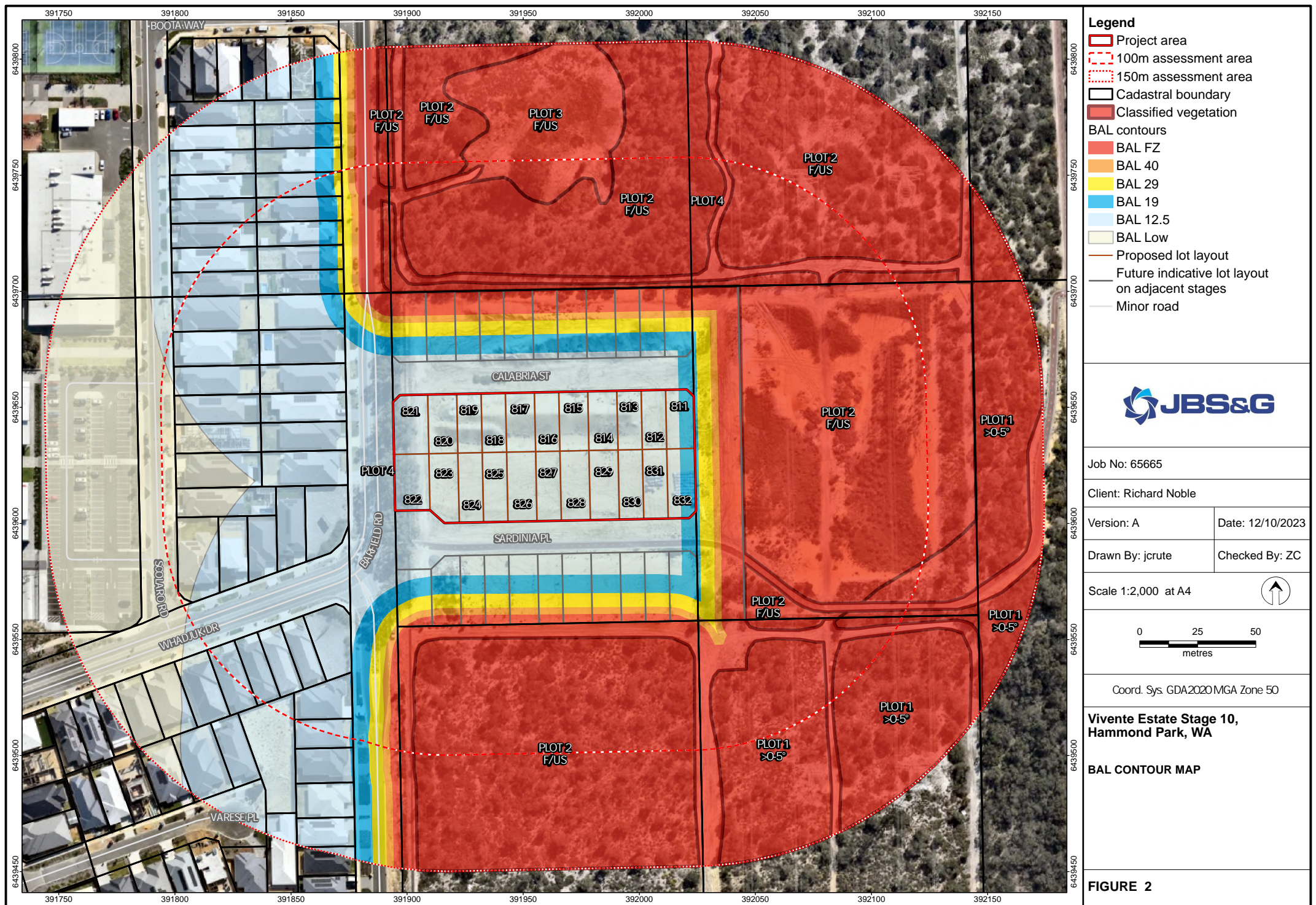


Table 4: BAL contour assessment results

Lot	Designated bushfire prone area	Plot	Vegetation classification	Effective slope	Separation to lot boundary (m)	Highest BAL to lot boundary
811	Yes	2	Class D Scrub	Flat/upslope (0°)	20m	BAL-19
812	Yes	2	Class D Scrub	Flat/upslope (0°)	32m	BAL-12.5
813	Yes	2	Class D Scrub	Flat/upslope (0°)	42m	BAL-12.5
814	Yes	2	Class D Scrub	Flat/upslope (0°)	44m	BAL-12.5
815	Yes	2	Class D Scrub	Flat/upslope (0°)	44m	BAL-12.5
816	Yes	2	Class D Scrub	Flat/upslope (0°)	44m	BAL-12.5
817	Yes	2	Class D Scrub	Flat/upslope (0°)	44m	BAL-12.5
818	Yes	2	Class D Scrub	Flat/upslope (0°)	44m	BAL-12.5
819	Yes	2	Class D Scrub	Flat/upslope (0°)	44m	BAL-12.5
820	Yes	2	Class D Scrub	Flat/upslope (0°)	44m	BAL-12.5
821	Yes	2	Class D Scrub	Flat/upslope (0°)	44m	BAL-12.5
822	Yes	2	Class D Scrub	Flat/upslope (0°)	55m	BAL-12.5
823	Yes	2	Class D Scrub	Flat/upslope (0°)	50m	BAL-12.5
824	Yes	2	Class D Scrub	Flat/upslope (0°)	50m	BAL-12.5
825	Yes	2	Class D Scrub	Flat/upslope (0°)	50m	BAL-12.5
826	Yes	2	Class D Scrub	Flat/upslope (0°)	50m	BAL-12.5
827	Yes	2	Class D Scrub	Flat/upslope (0°)	50m	BAL-12.5
828	Yes	2	Class D Scrub	Flat/upslope (0°)	50m	BAL-12.5

Lot	Designated bushfire prone area	Plot	Vegetation classification	Effective slope	Separation to lot boundary (m)	Highest BAL to lot boundary
829	Yes	2	Class D Scrub	Flat/upslope (0°)	50m	BAL-12.5
830	Yes	2	Class D Scrub	Flat/upslope (0°)	42m	BAL-12.5
831	Yes	2	Class D Scrub	Flat/upslope (0°)	32m	BAL-12.5
832	Yes	2	Class D Scrub	Flat/upslope (0°)	20m	BAL-19

4. Conclusion and recommendations

This BMP compliance and condition clearance report has been prepared for 22 proposed residential lots within Stage 10 Vivente Estate.

Assessment results are consistent with current on-ground conditions assessed on 1 November 2023. JBS&G can confirm that the existing BMP over the site has been implemented throughout the duration of subdivisional works for the relevant Stage 10 area and adjacent land to achieve the intended BAL outcomes, compliance with the BMP and compliance with bushfire protection criteria of the Guidelines. This sufficiently addresses the requirements of Condition 18 of WAPC Ref. 159067.

This report also provides a final BAL assessment and certification for individual lots for use at the building permit stage. All 22 proposed lots are situated within a designated bushfire prone area and require a BAL assessment, as per Figure 2 and Table 4, with the associated BAL certificates provided in Appendix A. JBS&G considers that the BAL contour assessment and BAL certificates outlined in this report are accurate to inform individual lot building permit applications.

5. Limitations

Scope of services

This report ("the report") has been prepared by JBS&G in accordance with the scope of services set out in the contract, or as otherwise agreed, between the Client and JBS&G. In some circumstances, a range of factors such as time, budget, access and/or site disturbance constraints may have limited the scope of services. This report is strictly limited to the matters stated in it and is not to be read as extending, by implication, to any other matter in connection with the matters addressed in it.

Reliance on data

In preparing the report, JBS&G has relied upon data and other information provided by the Client and other individuals and organisations, most of which are referred to in the report ("the data"). Except as otherwise expressly stated in the report, JBS&G has not verified the accuracy or completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report ("conclusions") are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data. JBS&G has also not attempted to determine whether any material matter has been omitted from the data. JBS&G will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to JBS&G. The making of any assumption does not imply that JBS&G has made any enquiry to verify the correctness of that assumption.

The report is based on conditions encountered and information received at the time of preparation of this report or the time that site investigations were carried out. JBS&G disclaims responsibility for any changes that may have occurred after this time. This report and any legal issues arising from it are governed by and construed in accordance with the law as at the date of this report.

Environmental conclusions

Within the limitations imposed by the scope of services, the preparation of this report has been undertaken and performed in a professional manner, in accordance with generally accepted environmental consulting practices. No other warranty, whether express or implied, is made, including to any third parties, and no liability will be accepted for use or interpretation of this report by any third party.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose.

JBS&G accepts no liability for use or interpretation by any person or body other than the client who commissioned the works. This report should not be reproduced without prior approval by the client, or amended in any way without prior approval by JBS&G or reproduced other than in full, including all attachments as originally provided to the client by JBS&G.

6. References

- Department of Fire and Emergency Services (DFES) 2021, *Map of Bush Fire Prone Areas*, [Online], Government of Western Australia, available from: <https://maps.slip.wa.gov.au/landgate/bushfireprone/>, [05/10/2023].
- Department of Planning (DoP) 2016, *Visual guide for bushfire risk assessment in Western Australia*, Department of Planning, Perth.
- Standards Australia (SA) 2018, *Australian Standard AS 3959–2018 Construction of Buildings in Bushfire-prone Areas*, Standards Australia, Sydney.
- Strategen-JBS&G 2020, *Bushfire Management Plan - Vivente Estate Structure Plan Amendment, including Stages 9 and 10*, report prepared for Gold Estates Holdings Pty Ltd, May 2020.
- Western Australian Planning Commission (WAPC) 2021, *Guidelines for Planning in Bushfire Prone Areas*, Version 1.4 December 2021, Western Australian Planning Commission, Perth.

Appendix A BAL Certificates

Appendix B Vegetation plot photos and descriptions

Plot 1	
Vegetation classification	Class D Scrub (Downslope >0–5 degrees)
Description / justification	Vegetation with a continuous horizontal and vertical structure, greater than 2 m high at maturity

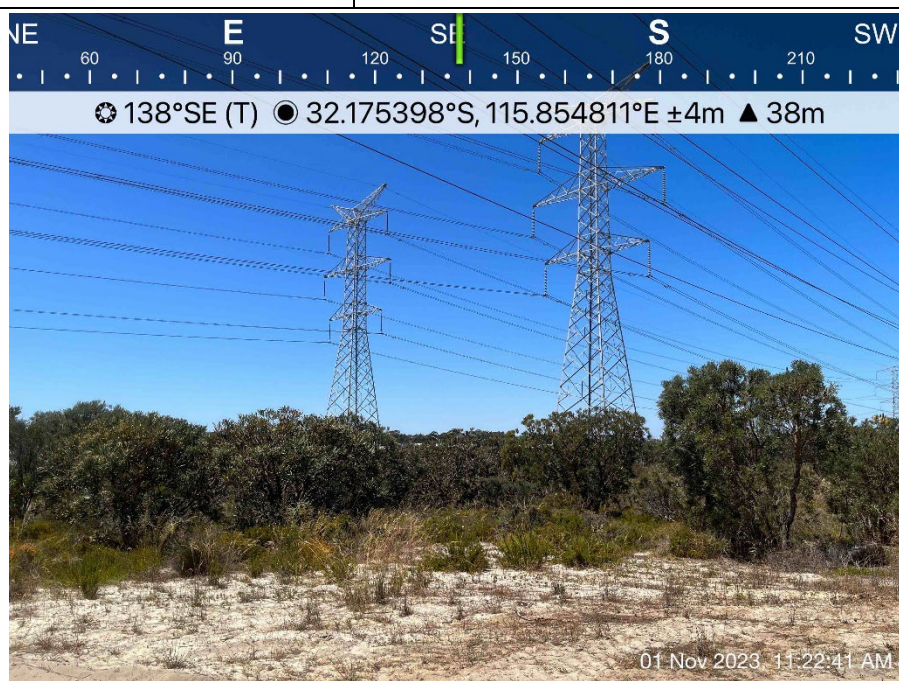


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Photo ID: 1b

Plot 2

Vegetation classification	Class D Scrub (Flat/Upslope)
Description / justification	Vegetation with a continuous horizontal and vertical structure, greater than 2 m high at maturity



Photo ID: 2a

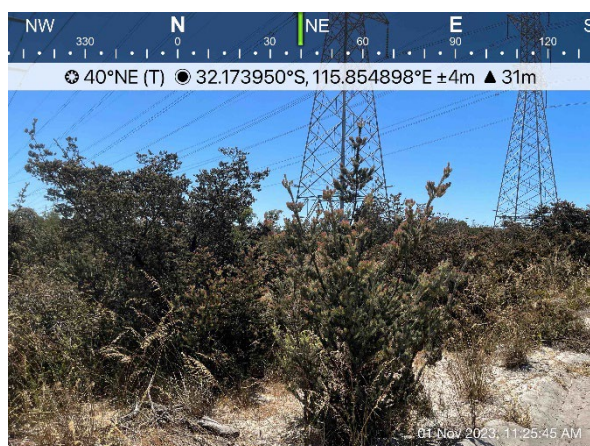


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Photo ID: 2e



Photo ID: 2b

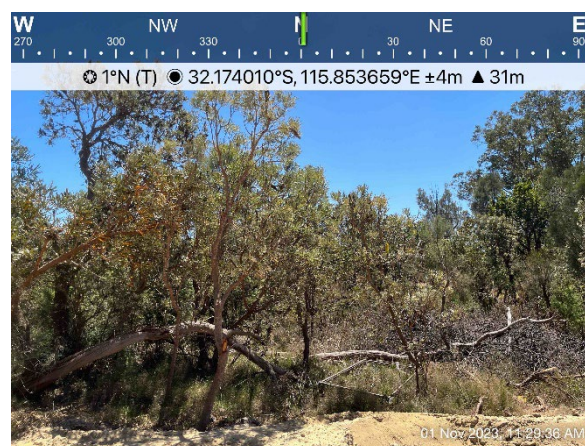


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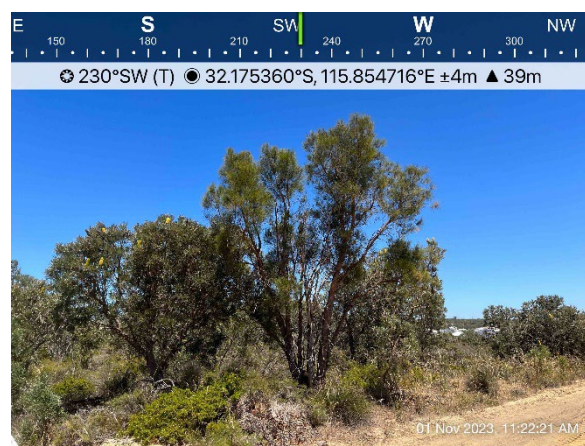


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Plot 3	
Vegetation classification	Class G Grassland
Description / justification	Grassland greater than 100 mm in height



Photo ID: 3a

Plot 4	
Vegetation classification	Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f])
Description / justification	Low threat cultivated gardens and maintained lawns within surrounding properties and non-vegetated areas including roads, footpaths, driveways and building footprints

<p>Photo ID: 4a</p>	<p>Photo ID: 4b</p>
<p>Photo ID: 4c</p>	<p>Photo ID: 4d</p>
<p>Photo ID: 4e</p>	<p>Photo ID: 4f</p>

Plot 4

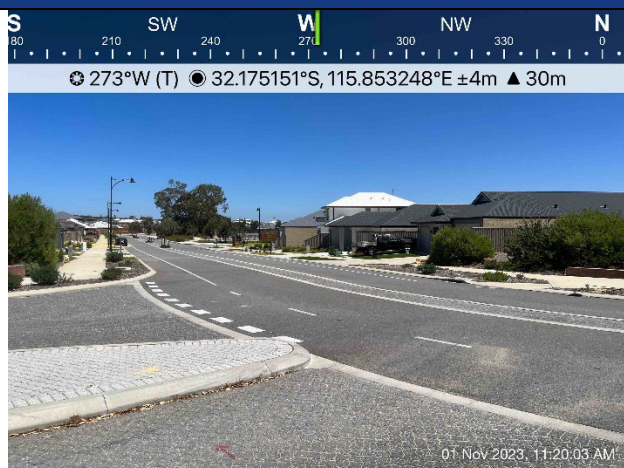


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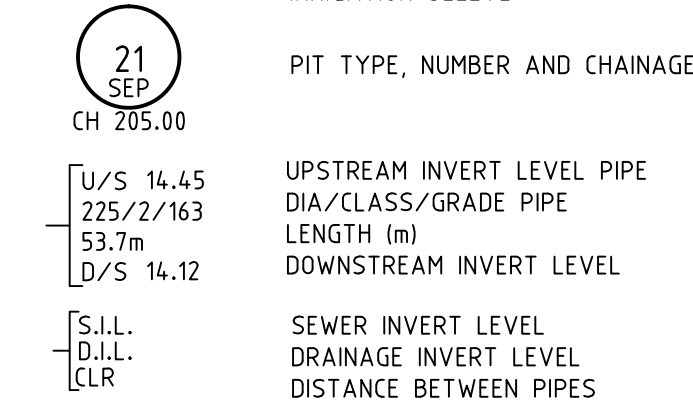
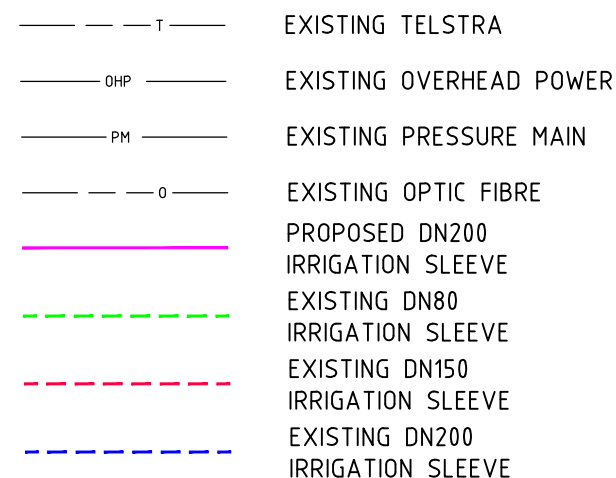
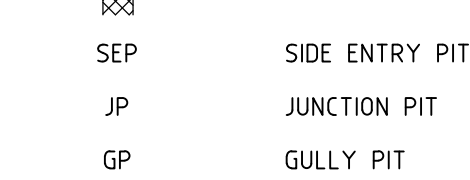
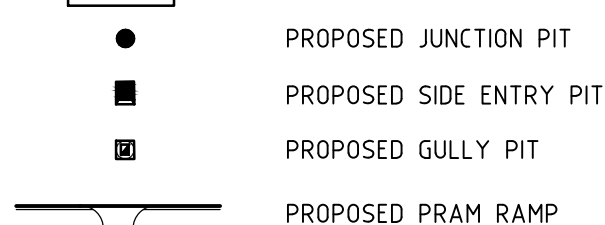
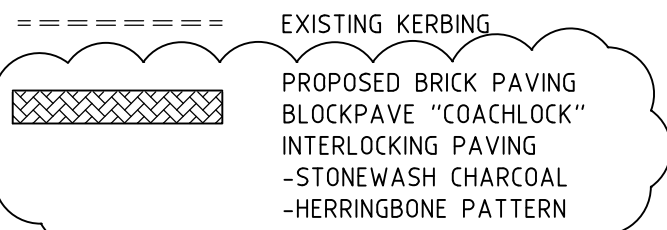
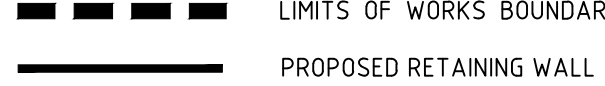
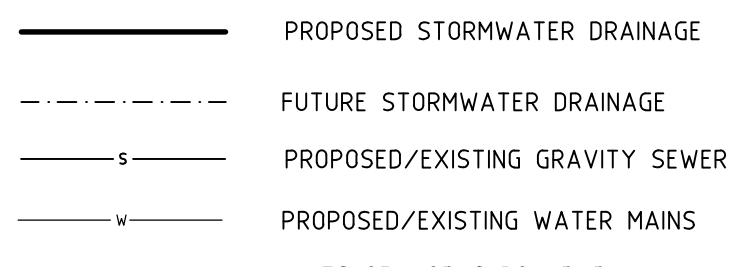
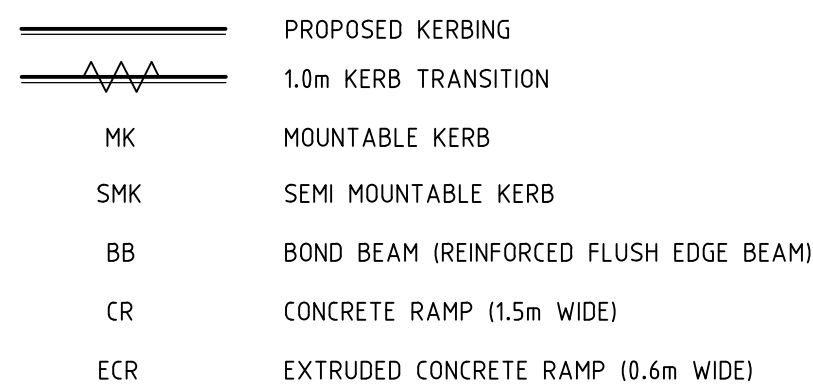
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Photo ID: 4i

Appendix C Stage 10 Civil Roadworks Plan

LEGEND



NOTE:
ALL COORDINATES SHOWN ON THIS DRAWING SHALL BE VERIFIED BY CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER IMMEDIATELY.

DRAINAGE INSPECTION

LINE	DATE	SIGNED
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1 to 2		
2 to 3		
3 to 4		
4 to 5		
5 to 6		
7 to 3		
8 to 9		
9 to 10		
10 to 11		
12 to 10		
13 to 11		
15 to 15A		

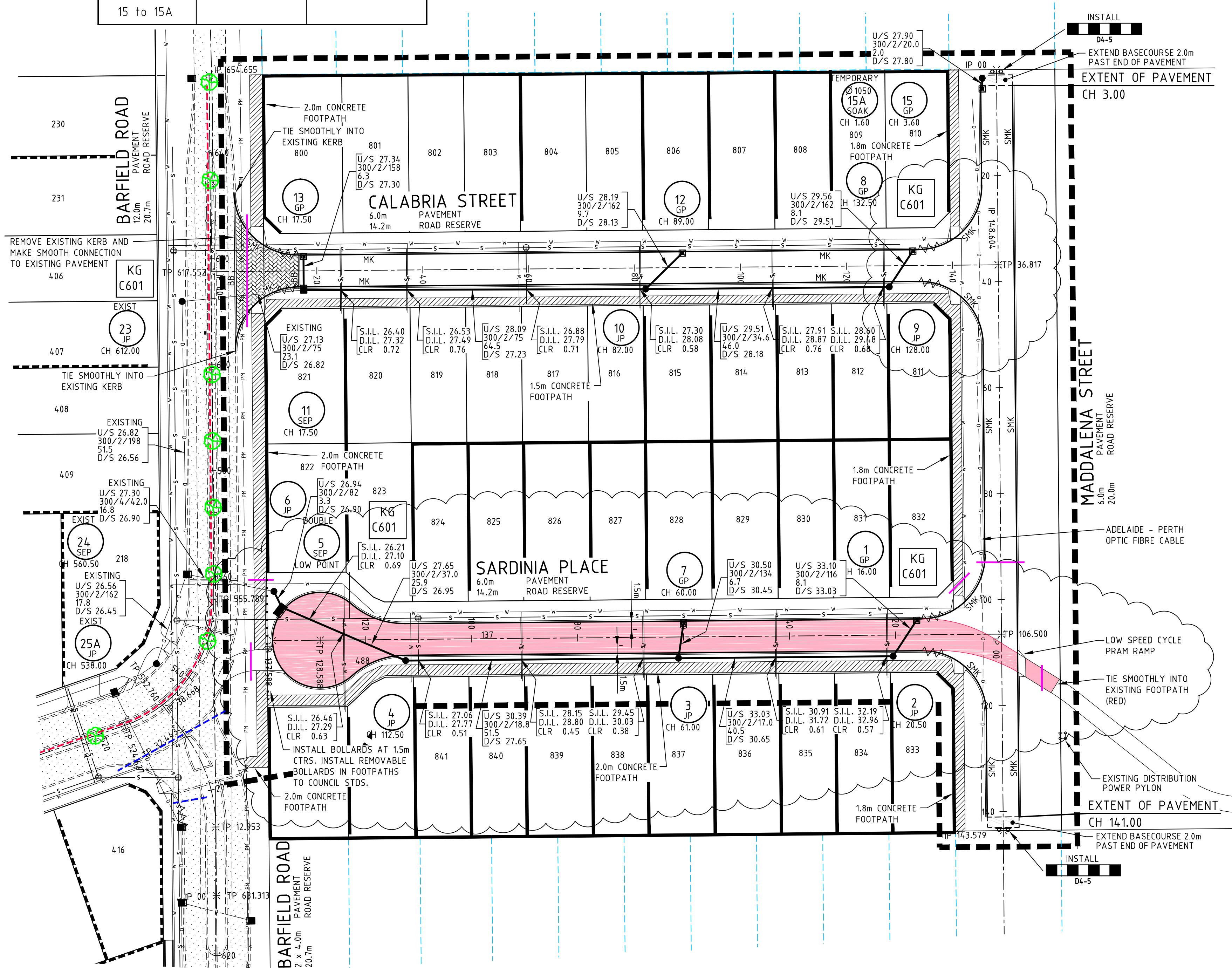
ROADWORKS INSPECTION

ROAD	SUBGRADE	SUBBASE	KERBING	DATE	SIGNED
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CALABRIA STREET					
MADDALENA STREET					
SARDINIA PLACE					

NOTES:

- ALL WORKS TO BE IN ACCORDANCE WITH THE SPECIFICATION, STANDARD DRAWINGS AND REQUIREMENTS OF THE LOCAL AUTHORITY.
- THE CONTRACTOR SHALL LIAISE WITH ALL RELEVANT AUTHORITIES TO LOCATE ALL EXISTING SERVICES WITHIN THE CONTRACT AREA PRIOR TO THE COMMENCEMENT OF WORK. WHERE EXISTING AND PROPOSED WORKS INTERSECT, LEVELS ARE TO BE TAKEN AND SUPPLIED TO THE SUPERINTENDENT, PRIOR TO WORK COMMENCING.
- THE CONTRACTOR SHALL LOCATE ALL LEVELS FROM ESTABLISHED BENCH MARKS.
- ALL BENCH MARKS ARE TO BE PROTECTED AND PRESERVED. THE CONTRACTOR SHALL INSTALL ALL DUCTS FOR SERVICE PROVIDER'S ROAD CROSSINGS.
- ALL KERB TO BE MOUNTABLE TYPE UNLESS OTHERWISE SHOWN. (ALL MOUNTABLE KERBING ON A RADIUS OF 40m OR LESS MUST BE KEYED).
- TRANSITIONS BETWEEN DIFFERENT KERB SECTIONS SHALL BE MADE OVER A LENGTH OF 1m AND SHALL COMMENCE AT THE TANGENT POINT OF KERB RETURNS IN THE CASE OF INTERSECTIONS
- ALL CONSTRUCTION SHALL MAKE SMOOTH CONNECTION TO EXISTING WORK.
- JUNCTION AND ENTRY PITS ARE TO BE LOCATED IN POSITIONS SHOWN, IRRESPECTIVE OF THE INDICATED PIPE LENGTHS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUPPORT OF ALL EXISTING SERVICES.
- SOIL STABILISATION AS PER THE SPECIFICATION.
- GRAVEL PAVEMENT MATERIALS SHALL BE OBTAINED FROM EXISTING ON SITE STOCKPILE ONLY WITH APPROVAL FROM SHIRE CHIEF EXECUTIVE OFFICER.
- EXCESS SPOIL FROM EARTHWORKS SHALL BE PLACED ON SITES DIRECTED BY THE SUPERINTENDENT.
- EXISTING TREES AND VEGETATION SHALL BE PROTECTED AT ALL TIMES. ONLY VEGETATION WITHIN THE ROAD PAVEMENT AND 5.0m FROM THE BACK OF KERB SHALL BE REMOVED. THE SUPERINTENDENT MAY ALSO DIRECT THE REMOVAL OF OTHER TREES WITHIN THE ROAD RESERVE.
- ALL ROAD VERGES SHALL BE SURFACED WITH 75mm OF TOPSOIL.
- WHERE CONNECTING INTO EXISTING DRAINAGE, THE CONTRACTOR IS TO PICK UP UPSTREAM AND DOWNSTREAM INVERT LEVELS OF EXISTING DRAINAGE LINE IMMEDIATELY DOWNSTREAM OF PROPOSED CONNECTION. THE CONTRACTOR TO SUPPLY THIS SURVEY INFORMATION TO THE SUPERINTENDENT PRIOR TO THE COMMENCEMENT OF ANY DRAINAGE CONSTRUCTION. THE CONTRACTOR TO THEN AWAIT NOTIFICATION FROM THE SUPERINTENDENT THAT DRAINAGE CONSTRUCTION MAY COMMENCE.
- EFFECTIVE DUST AND NOISE CONTROL MEASURES TO BE USED TO LIMIT NUISANCE TO EXISTING RESIDENTS AND ROAD USERS
- FOR SET OUT DETAILS OF INTERSECTIONS REFER TO KERB GRADING DRAWINGS.
- STORMWATER PIPES ARE TO BE REINFORCED CONCRETE (CLASS 2) U.N.O.

LANDSCAPING
BY OTHERSSTREET SIGNS TO BE
PLACED ON LIGHT POLES
WHERE POSSIBLEWARNING
EXISTING MAJOR
SERVICES IN THE VICINITYEXISTING PIT LIDS ARE TO
BE ADJUSTED TO SUIT
NEW DESIGN LEVELS.IRRIGATION DUCTS BY CONTRACTOR.
SUPERINTENDENT TO PROVIDE
IRRIGATION DRAWINGS.ALL SIDE ENTRY PITS ARE TO BE
CONSTRUCTED AS PER THE CITY'S DETAIL
EXCEPT THE BASE IS TO BE 1.2m BELOW THE
OUTLET PIPE INVERT LEVEL. LIDS ARE TO BE
MELVILLE TYPE SEP COVERS AND FRAMES.CONTRACTOR IS TO LAY PROPOSED WATER RETIC
UNDER THE PROPOSED DRAINAGE WHERE NECESSARY
AS TO AVOID ANY POTENTIAL CLASHES. THE
SUPERINTENDENT IS TO BE NOTIFIED IF THIS OCCURS.0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE

W.A.P.C. No 159067

3	RED ASPHALT CYCLE LANES ADDED / BRICK PAVING REMOVED	11.09.23	JSG
2	DRAINAGE REVISED	06.09.23	JSG
1	BOLLARDS ADDED	30.08.23	JSG
0	ISSUED FOR CONSTRUCTION	29.08.23	JSG
A	ISSUED FOR APPROVAL	22.07.22	JSG
REV	REVISION	DATE	APPROVED

GOLD ESTATES
HOLDINGS PTY LTD

DRAWN	J.Barram
DESIGNED	J. Barram
CHECKED	J. Grierson
APPROVED	J. Grierson
DATE	29.08.23

VIVENTE - STAGE 10
ROADWORKS AND DRAINAGE PLAN

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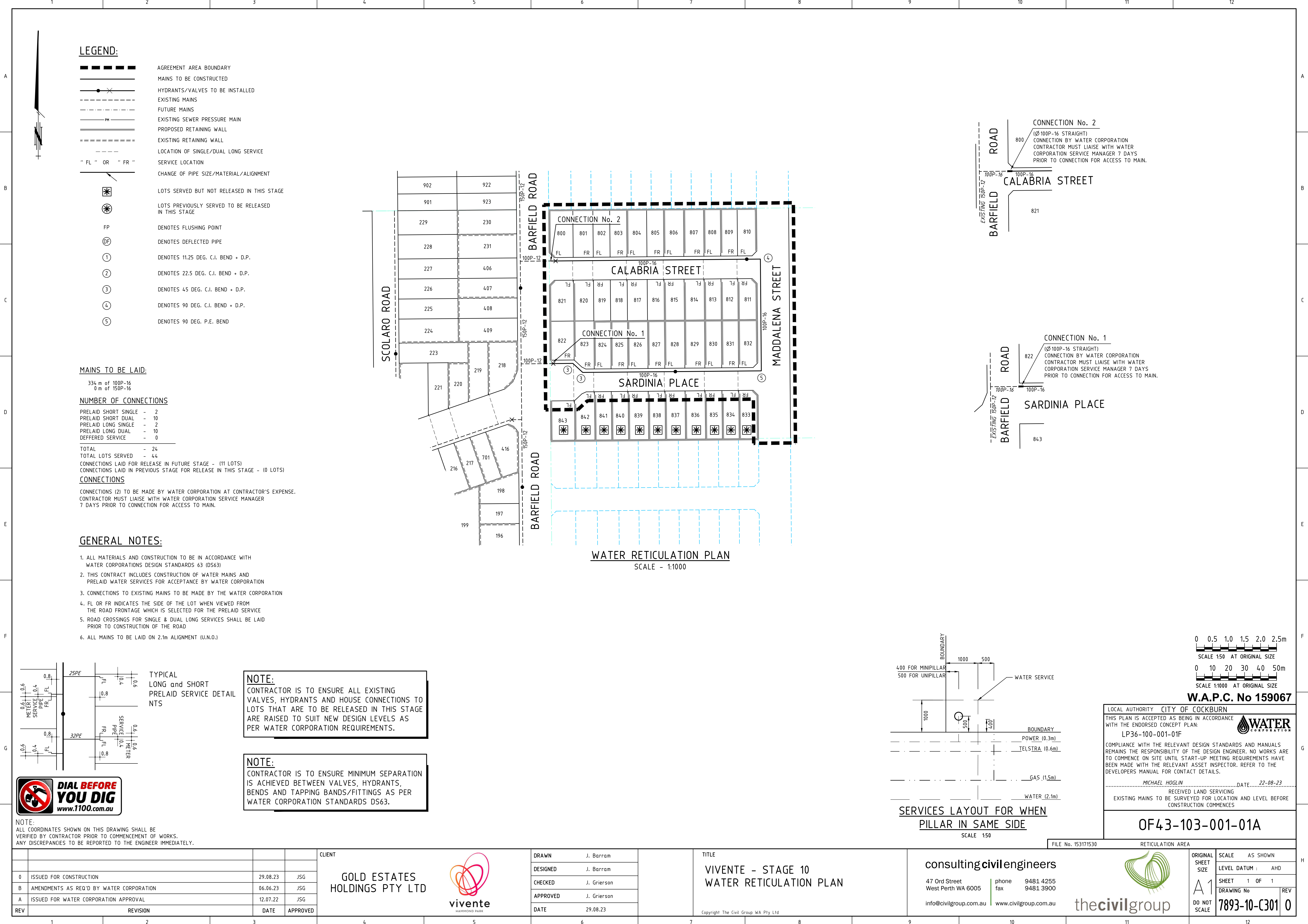
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thecivilgroup

ORIGINAL SHEET SIZE	SCALE 1:500
SHEET 1 OF 1	LEVEL DATUM : AHD
DRAWING No	7893-10-C401
DO NOT SCALE	REV 3

Appendix D Stage 10 Civil Water Reticulation Plan



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Document Status

Rev No.	Purpose	Author	Reviewed and approved for Issue	
			Name	Date
Rev 0	Issued for use: to facilitate subdivision clearances and future lot sales/building approvals	Kaitlin Southgate (BPAD 57034, Level 1)	Zac Cockerill (BPAD 37803, Level 2)	19 January 2024



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