



**CIVIL ENGINEERING
ASSESSMENT REPORT**

179-191 Green Road, Park Ridge

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REPORT CONTROL SHEET

HCE Ref No:	24065
Site:	179-191 Green Road, Park Ridge
Report Title:	Civil Engineering Assessment Report
Prepared For:	ACGN Pty Ltd ATF ACGN Family Trust

Rev No	Date	Written by	Reviewed by	Authorised by	Signed
Draft	11/02/2025	ST	MB	MB	
0	19/03/2025	ST	GH	MB	

DISTRIBUTION										
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Oasis Town Planning	11/02/2025	<input checked="" type="checkbox"/>								
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Oasis Town Planning	19/03/2025		<input checked="" type="checkbox"/>							

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1. Introduction

This report has been prepared to support the development application for the 1 into 93 lot residential subdivision over 7 stages at 179-191 Green Road, Park Ridge. Please refer to the accompanying survey proposal plans.

A general description of proposed works and items of note are contained within the body of this report. Tabular responses to each of the performance criteria within the *Filling and Excavation and Infrastructure Codes* are included as Appendices.



Image 1 – Site Location (Source Nearmap.com)

2. Flooding

The Logan Flood Hazard Overlay has been examined through the PD Hub Interactive Mapping, see image below.

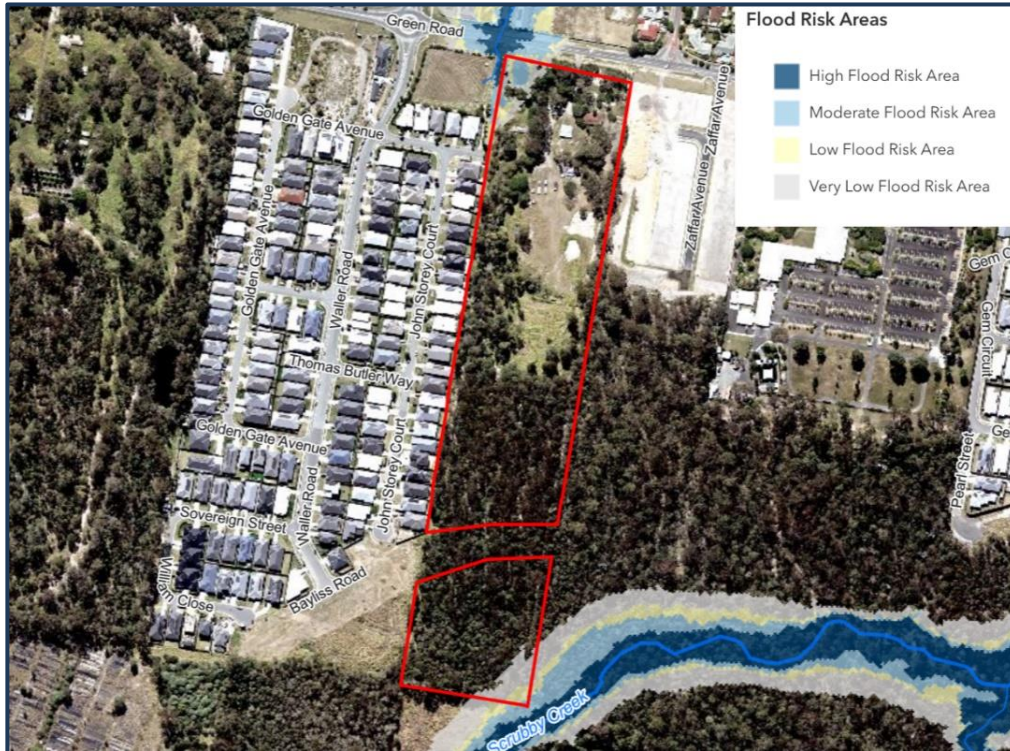


Image 2 – Flood Hazard Overlay (Source LCC PDHub)

The site is partially within the Flood Hazard Overlay trigger area; however, this is largely due to upstream ponding over the existing inlets within Green Road. No dwellings are proposed within these areas.

Refer Appendix A for the LCC Flood Report.

The eastern development (RL/94/2015) has accounted to capture and convey stormwater towards the swale within Green Road and the existing waterway in the southern portion of the site. Therefore, if proceeded, there are no external catchments to be considered.

However, a review of local topography has also been undertaken and it is confirmed there may be surface runoff from the east until the adjoining development is completed. This can be managed by a temporary swale designed and submitted for approval as part of the Operational Works. In the ultimate condition, no external catchment will be expected, and flows will be managed by the ultimate road network.

3. Earthworks and Retaining

Earthworks are planned to support the construction of the road network, create level building pads, and establish an extended detention basin. Retaining walls will primarily be required to support the construction of the level building pads and the detention basin.

As it is planned to expand the existing detention basin, the existing retaining wall is proposed to be extended to match the existing conditions.

Additionally, as these retaining walls are visible from the road reserve, incorporation of a high standard visual appearance treatment is proposed as per Section 3.3.6.2 of *Planning Scheme Policy 5 – Infrastructure*.

The total height of the retaining walls along the front boundary of Lots 1 – 8, and Lots 38 – 40, exceed 1.5m in height, therefore it is proposed to provide a terraced retaining wall to split the height as to not exceed 1.5m in height for each retaining wall. A similar solution has been adopted for Lots 14 – 29 and Lots 50 – 65, as the total retaining wall height exceeds 1.5m.

A temporary retaining wall is proposed along the south – eastern corner which exceeds 1.5m in height, however once the neighbouring development has been completed, it can be removed and replaced as necessary.

The retaining wall along the western boundary exceeds 1.5m in height to facilitate the cut earthworks pad for Lots 66 – 93. However, as this retaining wall is in cut, it will not cause any visual impact present to adjoining development.

Therefore, P08 of the Filling and Excavation Code is achieved.

Proposed earthworks are shown on the accompanying concept design drawings.

4. Roadworks

Roadworks are planned to provide access to the lots and to connect seamlessly with both the existing and proposed road networks from the surrounding developments as part of Stage 1, 6 and 7. It is proposed to extend Bayliss Road to connect Green Road and Park Ridge Road in the future.

Proposed roadworks are shown on the accompanying concept design drawings.

6. Sewerage Reticulation

Existing sewerage infrastructure in the vicinity of the development site are shown in the image below taken from Council's As-Constructed records.

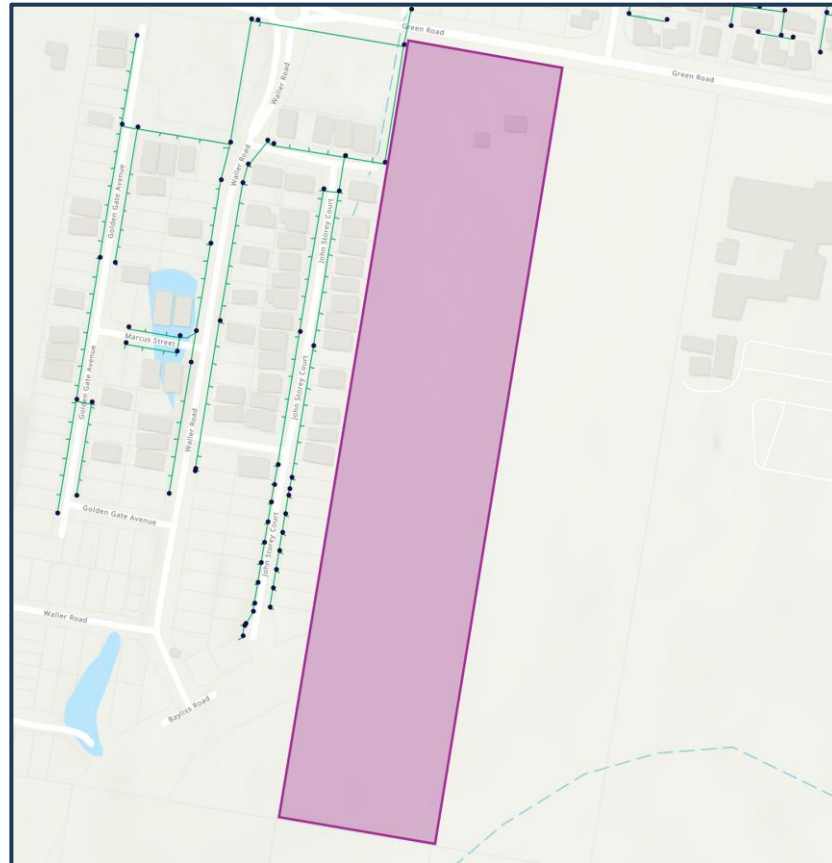


Image 4 – Sewerage Infrastructure (Source LCC GIS Mapping)

There is an existing sewerage main within the verge of Green Road and it is proposed to extend this sewerage main to service each lot.

A concept design for proposed sewerage works is shown on the accompanying drawings.

7. Water Reticulation

Existing water reticulation infrastructure in the vicinity of the development site are shown in the image below taken from Council's As-Constructed records.

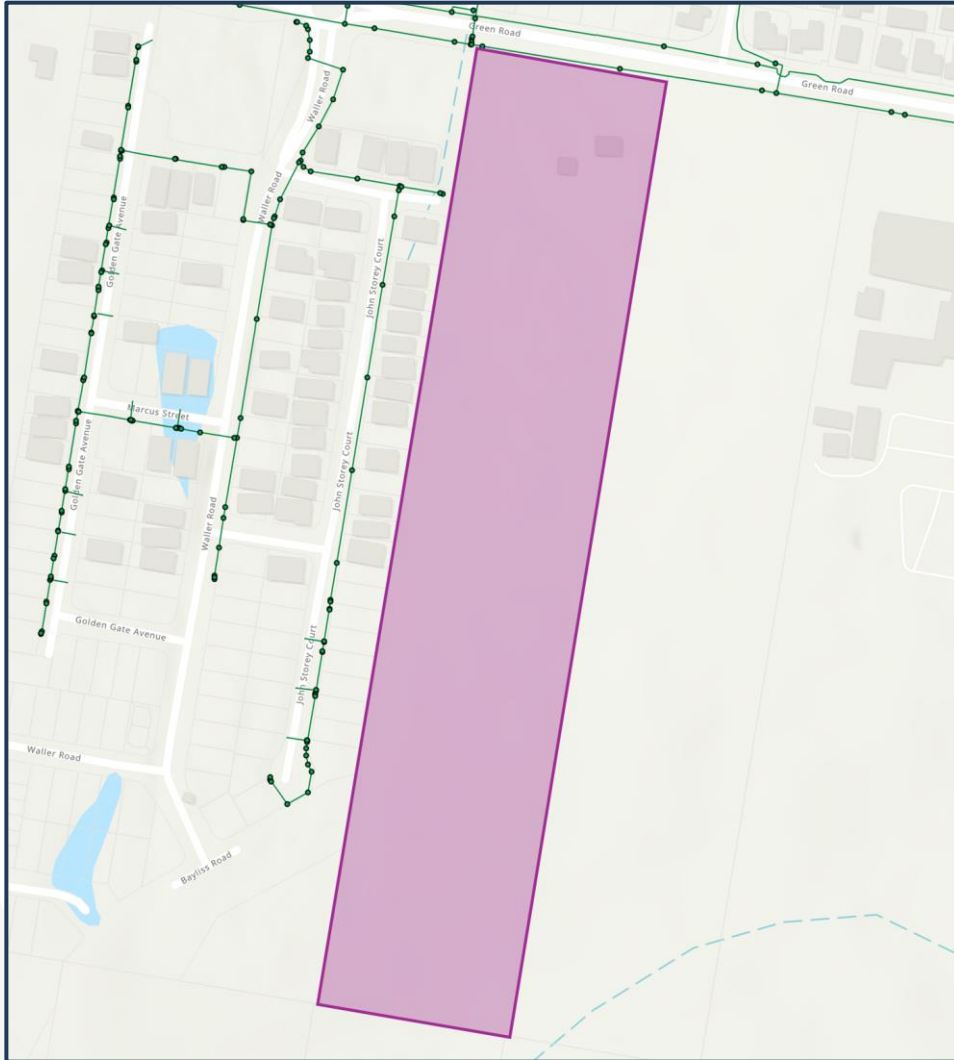


Image 5 – Water Infrastructure (Source LCC GIS Mapping)

There is an existing water main near the western boundary from the recent development (OW/2147/2016) provided to the development site of adequate size, which will be used to service the development.

It is proposed to provide fire hydrants to provide fire coverage to all lots in accordance with the requirements of *Clause 8.8.8 of the Water Supply Code SEQ Edition*.

A concept design for proposed water reticulation works is shown on the accompanying drawings.

8. Conclusions

The proposed development has been assessed against Logan Planning Scheme.

Compliance with the Performance Outcomes of the *Filling and Excavation and Infrastructure* have been achieved.

Reasonable and relevant conditions can be applied to the development approval to achieve compliant and adequate servicing of the development.

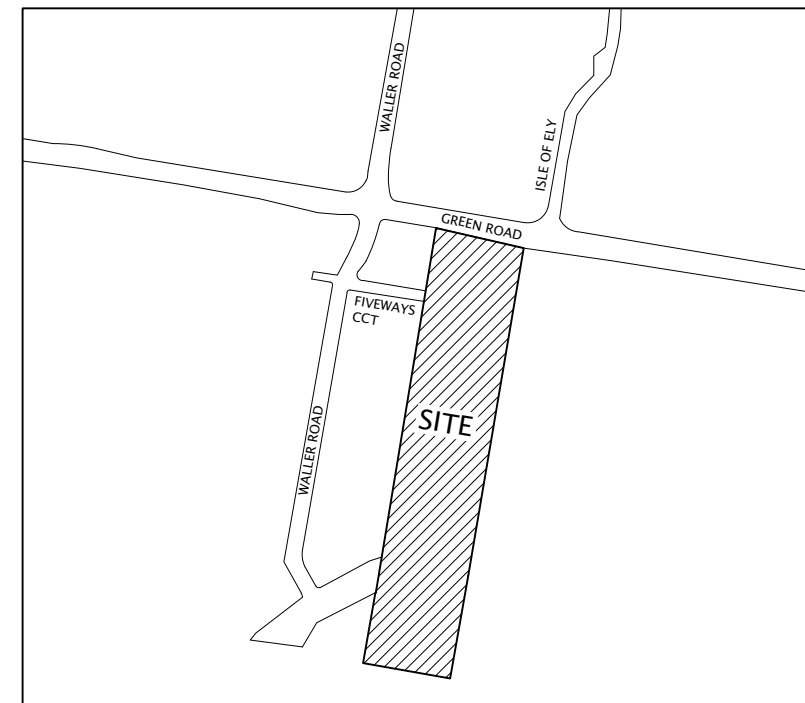
Concept Design Drawings

1 INTO 93 LOT RESIDENTIAL SUBDIVISION

LOT 4 ON SP 335824

179-191 GREEN ROAD
PARK RIDGE, QLD 4125

DRAWING INDEX	
DRAWING No.	DESCRIPTION
24065-SK01	LOCALITY PLAN AND DRAWING INDEX
24065-SK02	CONCEPT GENERAL ARRANGEMENT PLAN SHEET 1 OF 2
24065-SK03	CONCEPT GENERAL ARRANGEMENT PLAN SHEET 2 OF 2
24065-SK04	CONCEPT ROADWORKS TYPICAL SECTIONS
24065-SK05	CONCEPT EARTHWORKS LAYOUT PLAN SHEET 1 OF 2
24065-SK06	CONCEPT EARTHWORKS LAYOUT PLAN SHEET 2 OF 2
24065-SK07	CONCEPT EARTHWORKS SECTIONS SHEET 1 OF 2
24065-SK08	CONCEPT EARTHWORKS SECTIONS SHEET 2 OF 2
24065-SK09	CONCEPT STORMWATER BASIN PLAN
24065-SK10	CONCEPT EXISTING AND PROPOSED STORMWATER CATCHMENT PLANS



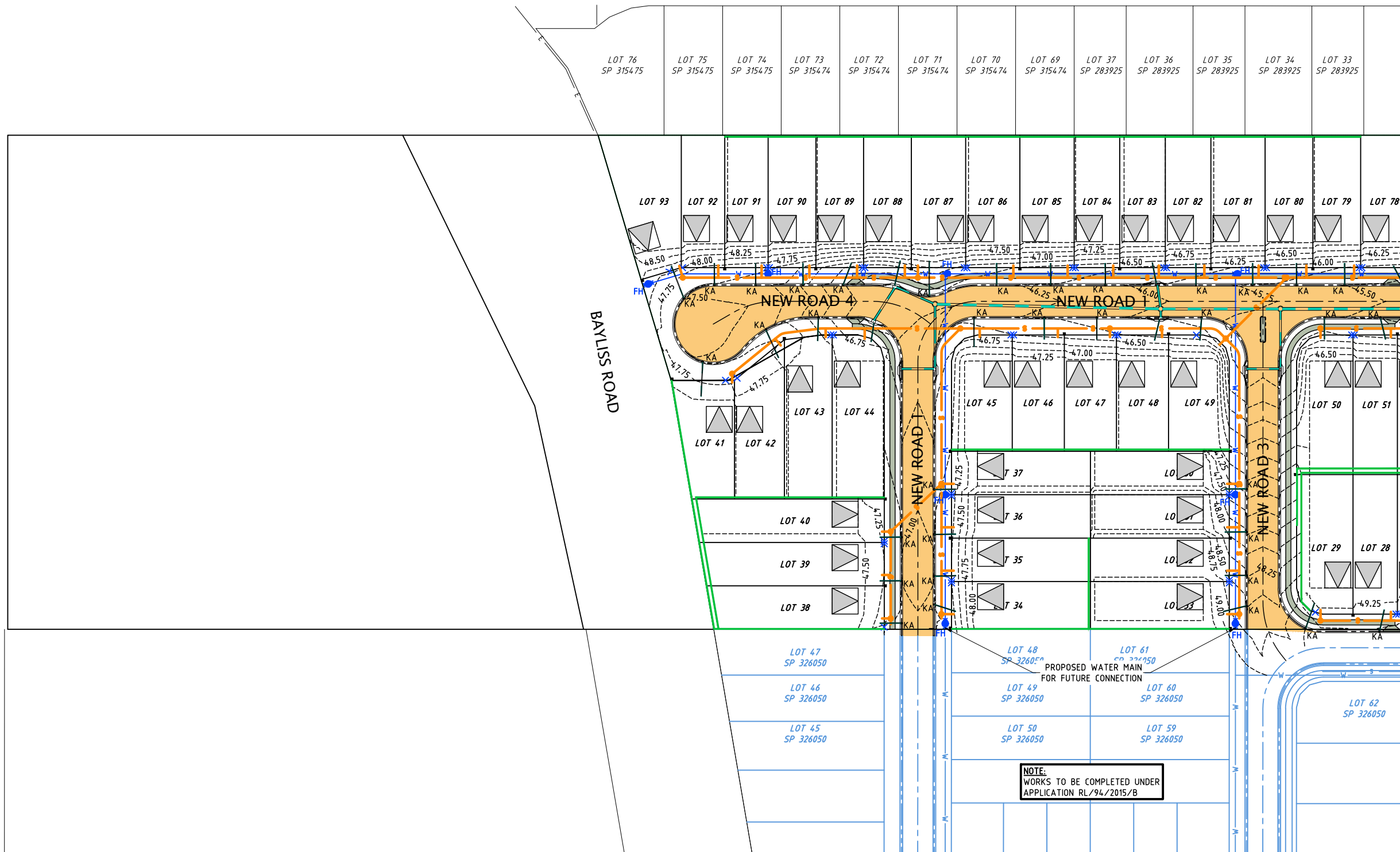
LOCALITY PLAN

SCALE 1:5000

SCALE 1:5000 (A1) (SCALE BEFORE REDUCTION)

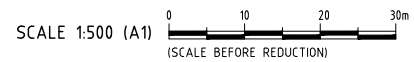
	HCE Engineers Pty Ltd ABN 42 664 382 610 mail@hce-engineers.com.au 07 3829 1399	PROJECT	TITLE	CLIENT	<div style="border: 2px solid red; padding: 5px; text-align: center;"> NOT FOR CONSTRUCTION. CONCEPT ONLY. </div>	REVISION	AMENDMENT	DATE	DO NOT SCALE. CONFIRM ALL DIMENSIONS ON SITE. Copyright ©			
		179-191 GREEN ROAD PARK RIDGE QLD 4125 LOT 4 ON SP 335824	LOCALITY PLAN AND DRAWING INDEX	ACGN PTY LTD ATF ACGN FAMILY TRUST		A	ISSUED FOR COMMENT	12/02/25	Designed	MB	Drawn	JA
						B	STAGING AMENDED	14/03/25	Approval No.		Scale	AS SHOWN
								Drawing No.		24065-SK01	Rev.	B

- LEGEND**
- 10.0--- FINISHED SURFACE CONTOURS (0.25m INTERVAL)
 - PROPOSED STORMWATER DRAINAGE
 - PROPOSED SEWERAGE
 - PROPOSED WATER RETICULATION
 - PROPOSED ROAD CENTRELINE
 - PROPOSED RETAINING WALL
 - PROPOSED KERB AND CHANNEL
 - E--- EXISTING UNDERGROUND ELECTRIC LINE
 - PROPOSED FOOTPATH/CONCRETE
 - PROPOSED PAVEMENT
 - ⊗ PROPOSED WATER METER
 - KA ⊗ PROPOSED KERB ADAPTOR
 - PROPOSED ELECTRICAL PILLAR
 - ▲ POTENTIAL FUTURE ACCESS LOCATION
 - FH ⊗ PROPOSED FIRE HYDRANT



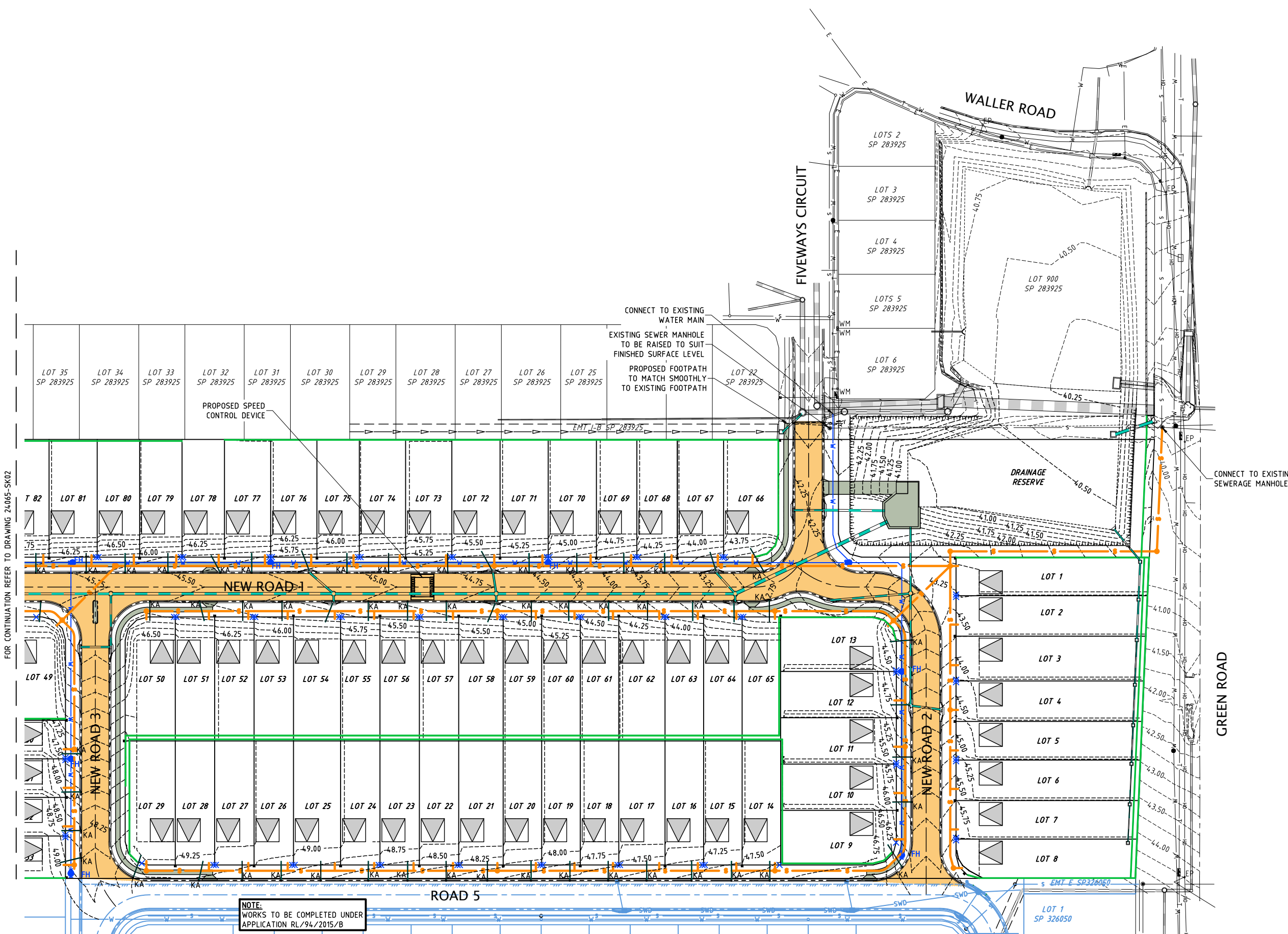
FOR CONTINUATION REFER TO DRAWING 24065-SK03

THIS DESIGN HAS BEEN PREPARED BASED ON SERVICE AUTHORITY AS CONSTRUCTED INFORMATION. NO POT HOLING HAS BEEN UNDERTAKEN TO VERIFY EXISTING SERVICE LOCATIONS AND DEPTHS. IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERTAKE POT HOLING TO VERIFY THE DESIGN.



		HCE Engineers Pty Ltd ABN 42 664 382 610 mail@hce-engineers.com.au 07 3829 1399	PROJECT 179 - 191 GREEN ROAD PARK RIDGE QLD 4125 LOT 4 ON SP 335824	TITLE CONCEPT GENERAL ARRANGEMENT PLAN SHEET 1 OF 2	CLIENT ACGN PTY LTD ATF ACGN FAMILY TRUST	NOT FOR CONSTRUCTION. CONCEPT ONLY.	REVISION A B	AMENDMENT ISSUED FOR COMMENT STAGING AMENDED	DATE 12/02/25 14/03/25	DO NOT SCALE. CONFIRM ALL DIMENSIONS ON SITE.	Copyright © Date 15/01/2025
			Approval No. Drawing No. 24065-SK02	Scale AS SHOWN	Rev. B						

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 - 10.0--- EXISTING SURFACE CONTOURS (0.25m INTERVAL)
 - PROPOSED STORMWATER DRAINAGE
 - S --- EXISTING SEWERAGE
 - O --- PROPOSED SEWERAGE
 - W --- EXISTING WATER RETICULATION
 - W --- PROPOSED WATER RETICULATION
 - OH --- EXISTING OVERHEAD ELECTRICAL
 - T --- EXISTING TELECOMMUNICATIONS
 - PROPOSED ROAD CENTRELINE
 - EXISTING KERB AND CHANNEL
 - PROPOSED KERB AND CHANNEL
 - E --- EXISTING UNDERGROUND ELECTRIC LINE
 - PROPOSED RETAINING WALL
 - EXISTING RETAINING WALL
 - PROPOSED FOOTPATH/CONCRETE
 - PROPOSED PAVEMENT
 - ✕ PROPOSED WATER METER
 - KA PROPOSED KERB ADAPTOR
 - ELECTRICAL PILLAR
 - △ POTENTIAL FUTURE ACCESS LOCATION
 - FH PROPOSED FIRE HYDRANT
 - ▷ DRAINAGE SWALE



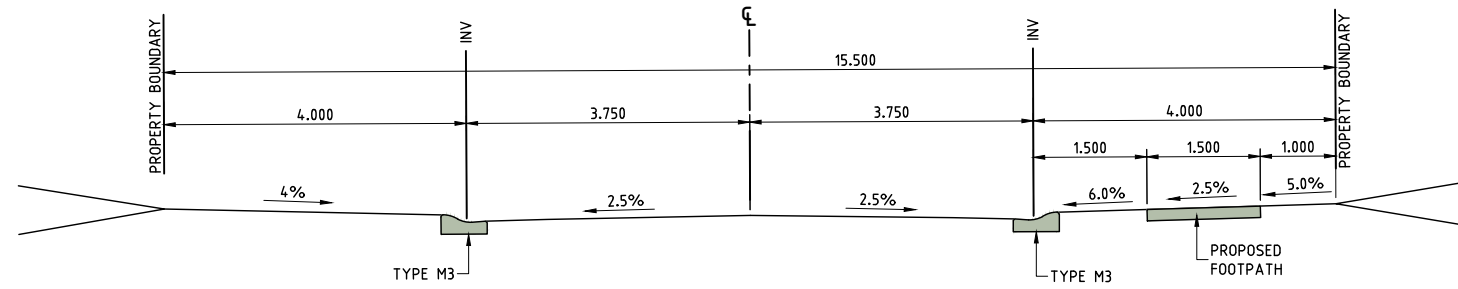
NOTE:
REFER TO 24065-SK10 FOR BASIN DETAILS

PLAN PART B
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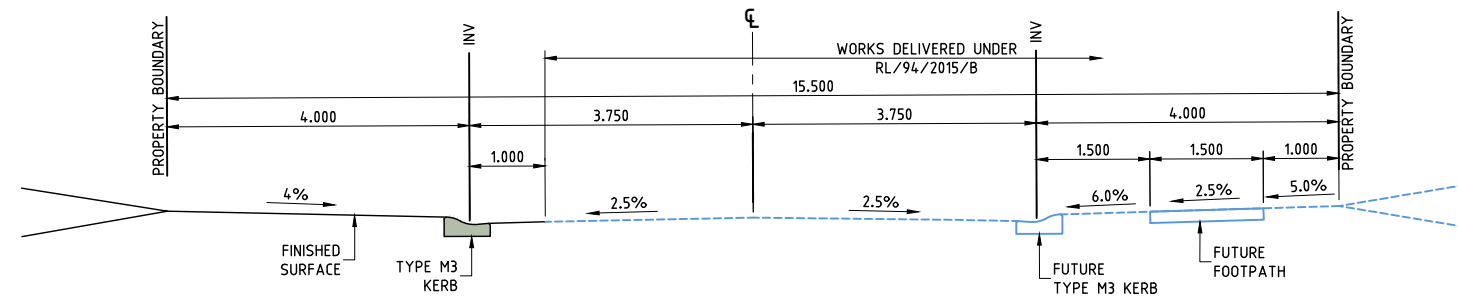
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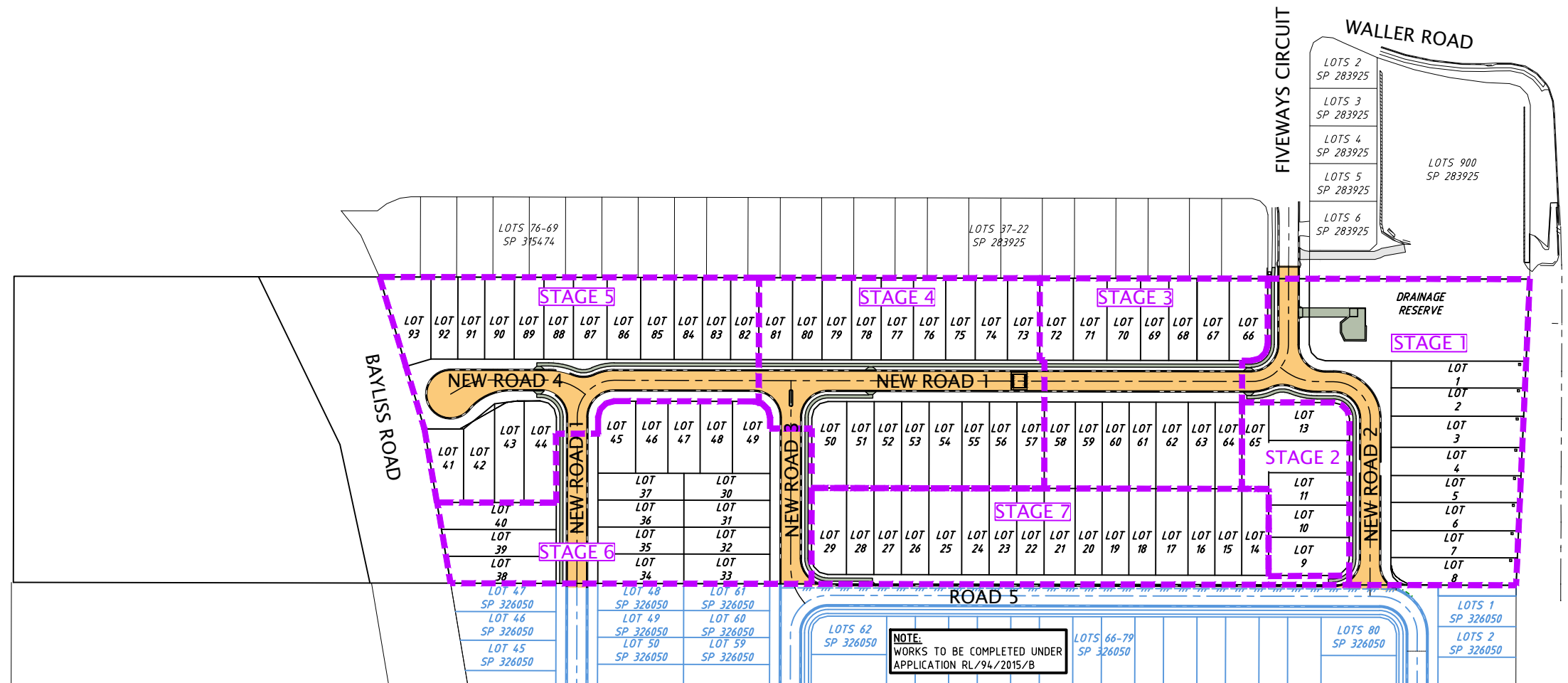
		HCE Engineers Pty Ltd ABN 42 664 382 610 mail@hce-engineers.com.au 07 3829 1399	PROJECT	TITLE	CLIENT	<div style="border: 2px solid red; padding: 5px; text-align: center; color: red;"> NOT FOR CONSTRUCTION. CONCEPT ONLY. </div>	REVISION	AMENDMENT	DATE	DO NOT SCALE. CONFIRM ALL DIMENSIONS ON SITE.			
			179 - 191 GREEN ROAD PARK RIDGE QLD 4125 LOT 4 ON SP 335824	CONCEPT GENERAL ARRANGEMENT PLAN SHEET 2 OF 2	ACGN PTY LTD ATF ACGN FAMILY TRUST		A	ISSUED FOR COMMENT	12/02/25	Designed	MB	JA	Date
							B	STAGING AMENDED	14/03/25	Approval No.	Scale	AS SHOWN	
										Drawing No.	24065-SK03	Rev.	B



NEW ROAD 1 - 4 TYPICAL SECTION
SCALE 1:50



ROAD 5 TYPICAL SECTION
SCALE 1:50



- LEGEND**
- PROPOSED ROAD CENTRELINE
 - STAGE BOUNDARY
 - EXISTING KERB AND CHANNEL
 - PROPOSED KERB AND CHANNEL
 - EXISTING RETAINING WALL
 - PROPOSED FOOTPATH/CONCRETE
 - PROPOSED PAVEMENT

NOTE:
WORKS TO BE COMPLETED UNDER
APPLICATION RL/94/2015/B

PLAN
SCALE 1:1000



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<p>HCE Engineers Pty Ltd ABN 42 664 382 610 mail@hce-engineers.com.au 07 3829 1399</p>	<p>PROJECT 179 - 191 GREEN ROAD PARK RIDGE QLD 4125 LOT 4 ON SP 335824</p>	<p>TITLE CONCEPT ROADWORKS TYPICAL SECTIONS</p>	<p>CLIENT ACGN PTY LTD ATF ACGN FAMILY TRUST</p>	<p>NOT FOR CONSTRUCTION. CONCEPT ONLY.</p>	<p>REVISION A ISSUED FOR COMMENT B STAGING AMENDED</p>	<p>AMENDMENT</p>	<p>DATE 12/02/25 14/03/25</p>	<p>DO NOT SCALE. CONFIRM ALL DIMENSIONS ON SITE.</p>
	<p>Approval No. 24065-SK04</p>	<p>Scale AS SHOWN</p>	<p>Rev. B</p>					

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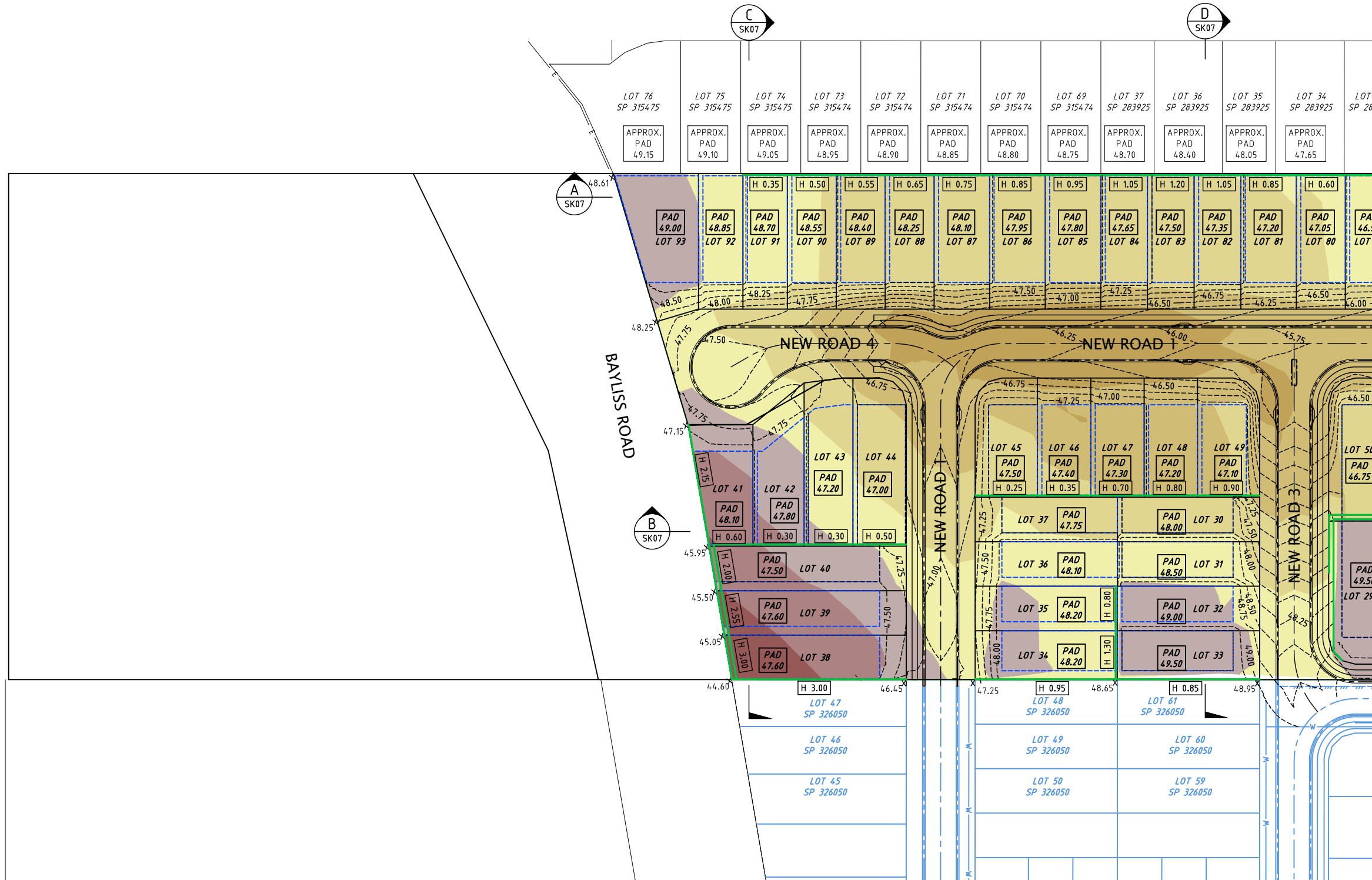
- PROPOSED EARTHWORKS PAD
- FINISHED SURFACE CONTOURS (0.25m INTERVAL)
- EXISTING UNDERGROUND ELECTRICAL
- PROPOSED KERB AND CHANNEL
- PROPOSED RETAINING WALL
- H 0.35 MAX. HEIGHT
- 48.61 X EXISTING SURFACE LEVEL

CUT/FILL DEPTHS

- 4.00 to -3.00 m
- 3.00 to -2.00 m
- 2.00 to -1.00 m
- 1.00 to -0.00 m
- 0.00 to 1.00 m
- 1.00 to 2.00 m
- 2.00 to 3.00 m

PRELIMINARY EARTHWORKS VOLUMES

TOTAL CUT	-28800m ³
TOTAL FILL	24000m ³
BALANCE	-4800m ³



FOR CONTINUATION REFER TO DRAWING 24065-SK06

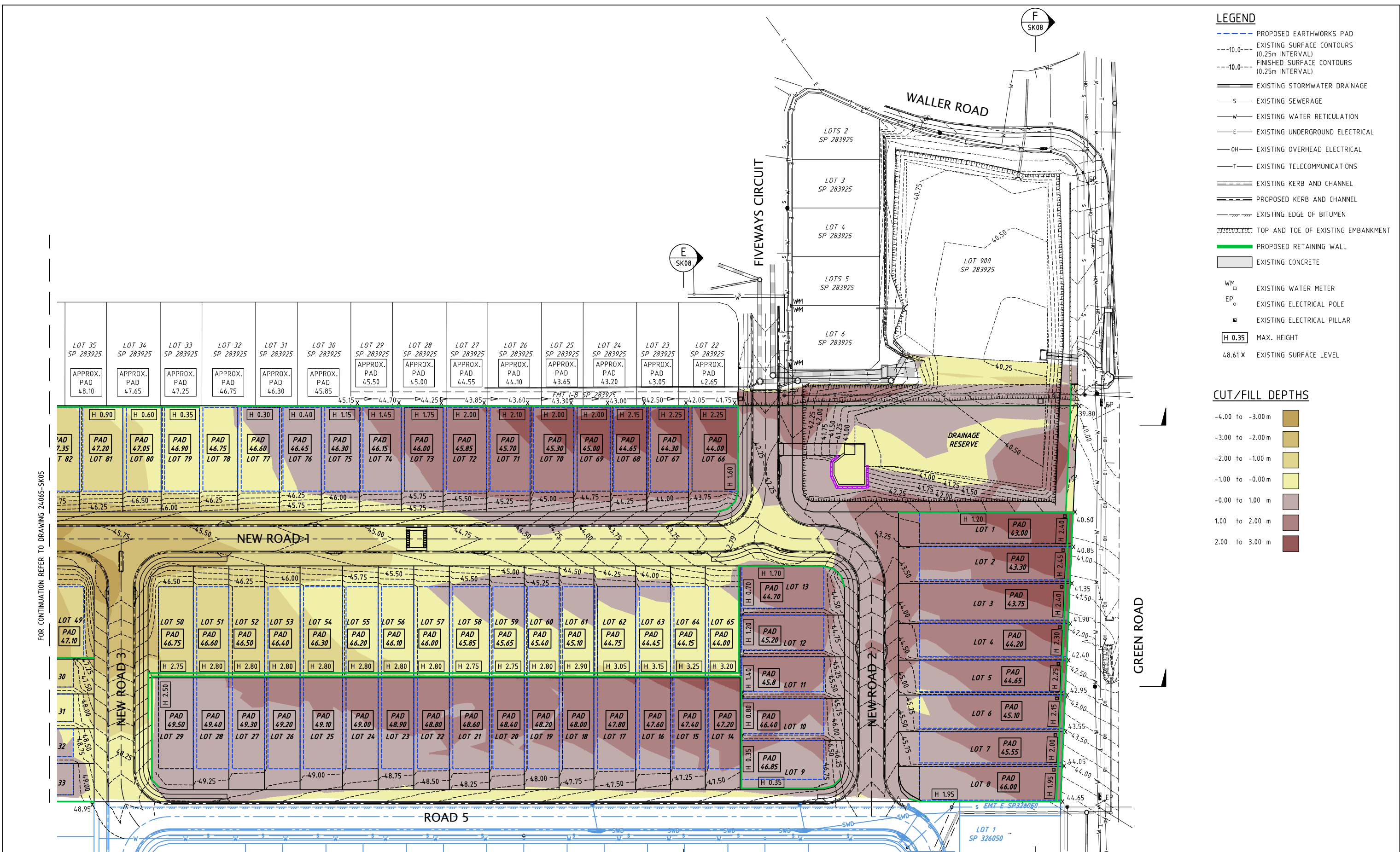
PLAN PART A

SCALE 1:500

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SCALE 1:500 (A1) (SCALE BEFORE REDUCTION)

	HCE Engineers Pty Ltd ABN 42 664 382 610 mail@hce-engineers.com.au 07 3829 1399	PROJECT 179 - 191 GREEN ROAD PARK RIDGE QLD 4125 LOT 4 ON SP 335824	TITLE CONCEPT EARTHWORKS LAYOUT PLAN SHEET 1 OF 2	CLIENT ACGN PTY LTD ATF ACGN FAMILY TRUST	NOT FOR CONSTRUCTION. CONCEPT ONLY.	REVISION A ISSUED FOR COMMENT B STAGING AMENDED	AMENDMENT (Empty)	DATE 12/02/25 14/03/25	DO NOT SCALE. CONFIRM ALL DIMENSIONS ON SITE.	Copyright © Designed MB Drawn JA Date 15/01/2025 Approval No. Scale AS SHOWN Drawing No. 24065-SK05 Rev. B
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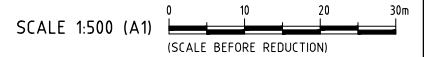
- LEGEND**
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 - 10.0--- EXISTING SURFACE CONTOURS (0.25m INTERVAL)
 - 10.0--- FINISHED SURFACE CONTOURS (0.25m INTERVAL)
 - EXISTING STORMWATER DRAINAGE
 - S --- EXISTING SEWERAGE
 - W --- EXISTING WATER RETICULATION
 - E --- EXISTING UNDERGROUND ELECTRICAL
 - OH --- EXISTING OVERHEAD ELECTRICAL
 - T --- EXISTING TELECOMMUNICATIONS
 - EXISTING KERB AND CHANNEL
 - PROPOSED KERB AND CHANNEL
 - EXISTING EDGE OF BITUMEN
 - TOP AND TOE OF EXISTING EMBANKMENT
 - PROPOSED RETAINING WALL
 - EXISTING CONCRETE
 - WM --- EXISTING WATER METER
 - EP --- EXISTING ELECTRICAL POLE
 - EXISTING ELECTRICAL PILLAR
 - H 0.35 --- MAX. HEIGHT
 - 48.61X --- EXISTING SURFACE LEVEL

- CUT/FILL DEPTHS**
- 4.00 to -3.00 m
 - 3.00 to -2.00 m
 - 2.00 to -1.00 m
 - 1.00 to -0.00 m
 - 0.00 to 1.00 m
 - 1.00 to 2.00 m
 - 2.00 to 3.00 m

FOR CONTINUATION REFER TO DRAWING 24065-SK05

PLAN PART B
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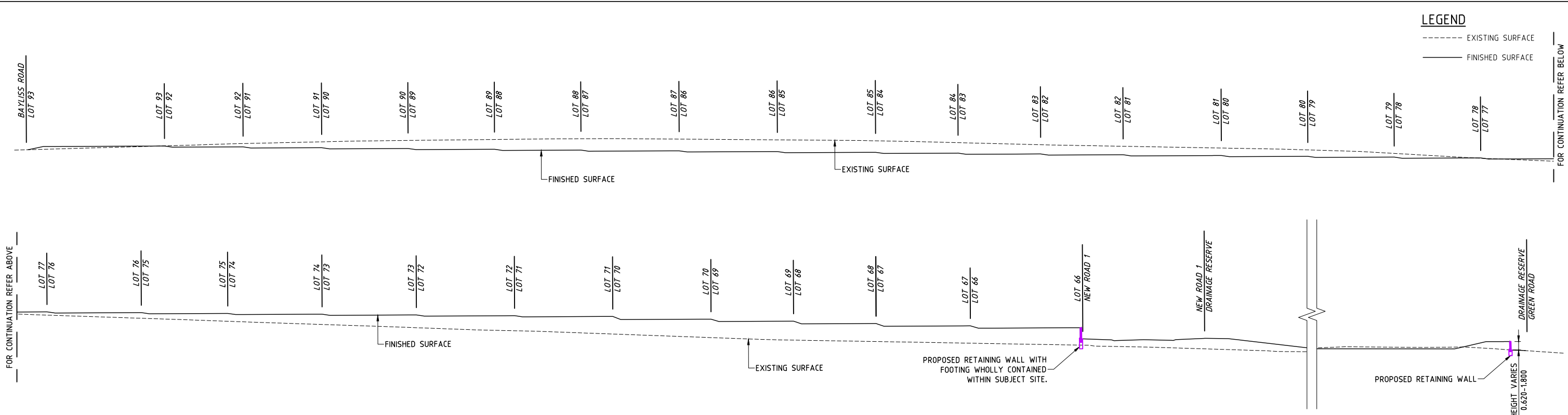
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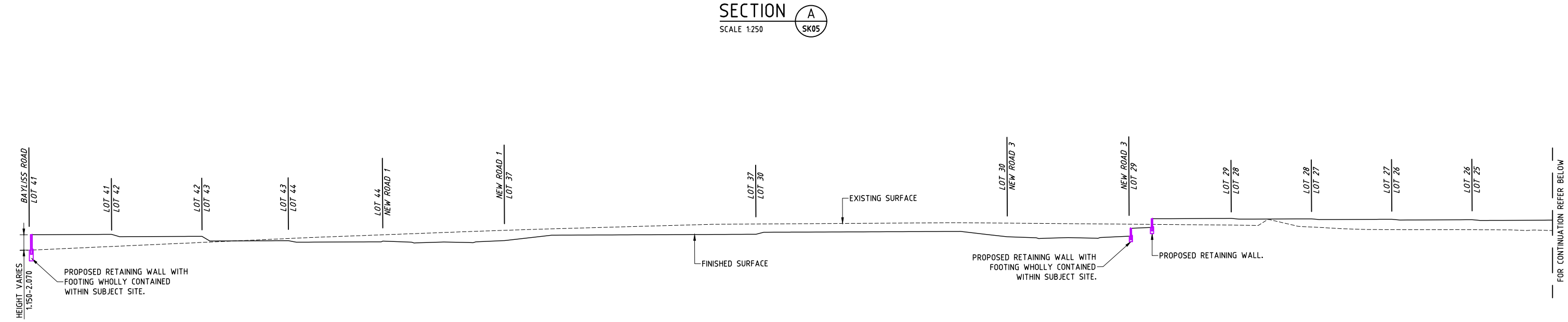
<p>HCE Engineers Pty Ltd ABN 42 664 382 610 mail@hce-engineers.com.au 07 3829 1399</p>	<p>PROJECT 179 - 191 GREEN ROAD PARK RIDGE QLD 4125 LOT 4 ON SP 335824</p>	<p>TITLE CONCEPT EARTHWORKS LAYOUT PLAN SHEET 2 OF 2</p>	<p>CLIENT ACGN PTY LTD ATF ACGN FAMILY TRUST</p>	<p>NOT FOR CONSTRUCTION. CONCEPT ONLY.</p>	<p>REVISION A B</p>	<p>AMENDMENT ISSUED FOR COMMENT STAGING AMENDED</p>	<p>DATE 12/02/25 14/03/25</p>	<p>DO NOT SCALE. CONFIRM ALL DIMENSIONS ON SITE. Designed MB Drawn JA Date 15/01/2025 Approval No. Scale AS SHOWN Drawing No. 24065-SK06 Rev. B</p>

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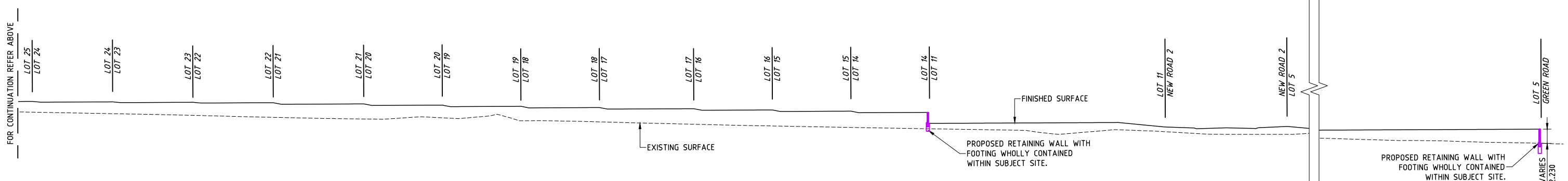
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- FINISHED SURFACE



SECTION A
SCALE 1:250




SECTION B
SCALE 1:250



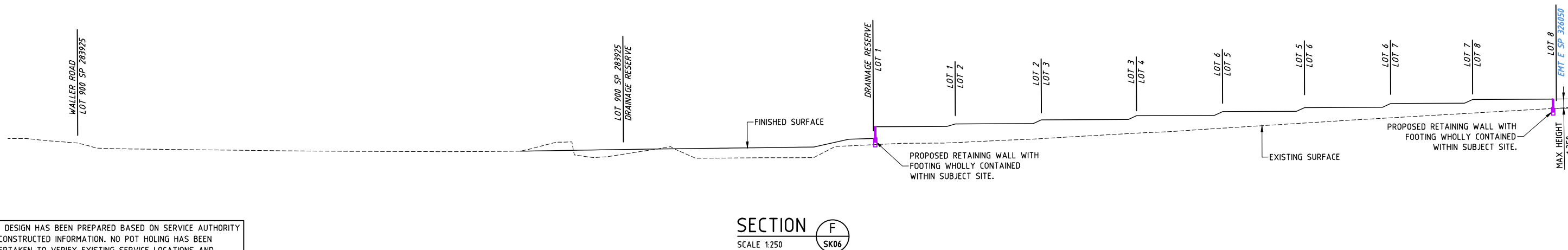
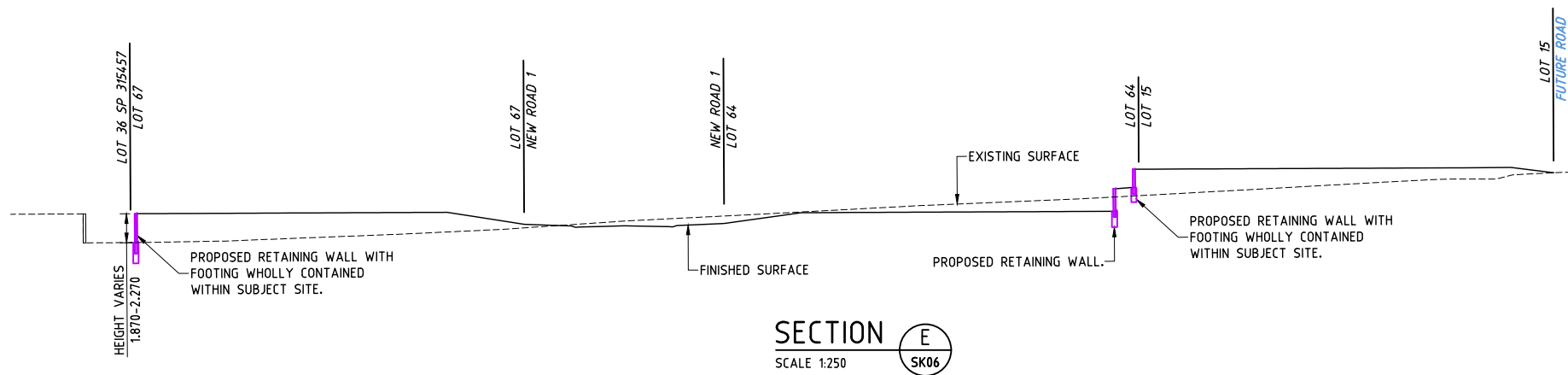
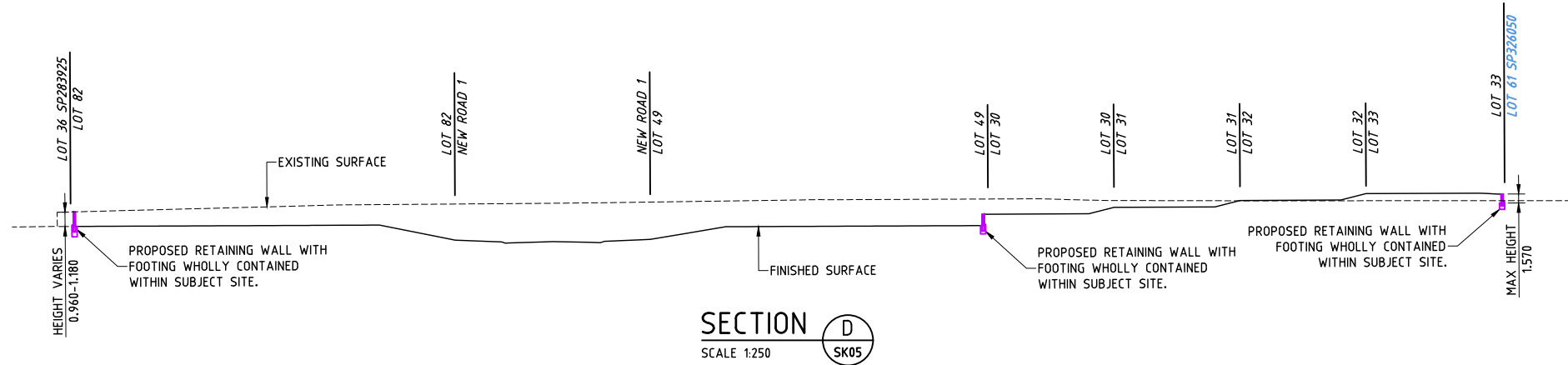
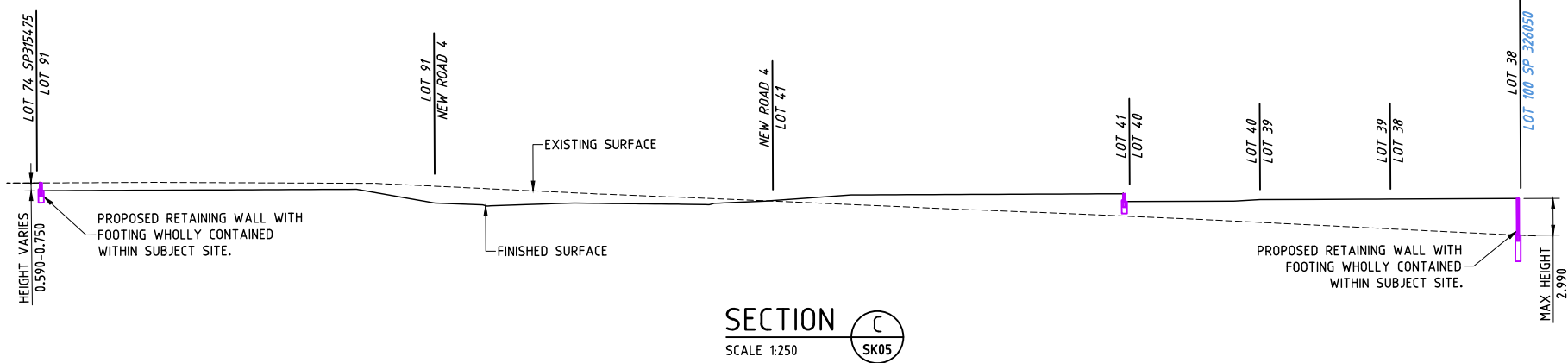
SECTION C
SCALE 1:250

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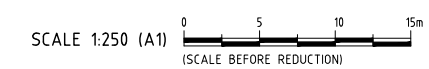


 <p>HCE Engineers Pty Ltd ABN 42 664 382 610 mail@hce-engineers.com.au 07 3829 1399</p>	<p>PROJECT</p> <p>179 - 191 GREEN ROAD PARK RIDGE QLD 4125 LOT 4 ON SP 335824</p>	<p>TITLE</p> <p>CONCEPT EARTHWORKS SECTIONS SHEET 1 OF 2</p>	<p>CLIENT</p> <p>ACGN PTY LTD ATF ACGN FAMILY TRUST</p>	<p>NOT FOR CONSTRUCTION. CONCEPT ONLY.</p>	<p>REVISION</p> <p>A ISSUED FOR COMMENT B STAGING AMENDED</p>	<p>AMENDMENT</p>	<p>DATE</p> <p>12/02/25 14/03/25</p>	<p>DO NOT SCALE. CONFIRM ALL DIMENSIONS ON SITE.</p> <p>Designed MB Drawn JA Date 15/01/2025</p>
	<p>Approval No.</p>		<p>Scale</p> <p>AS SHOWN</p>		<p>Drawing No.</p> <p>24065-SK07</p>	<p>Rev.</p> <p>B</p>		

LEGEND
 - - - - - EXISTING SURFACE
 ——— FINISHED SURFACE



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 HCE Engineers Pty Ltd
 ABN 42 664 382 610
 mail@hce-engineers.com.au
 07 3829 1399

PROJECT
 179 - 191 GREEN ROAD
 PARK RIDGE QLD 4125
 LOT 4 ON SP 335824

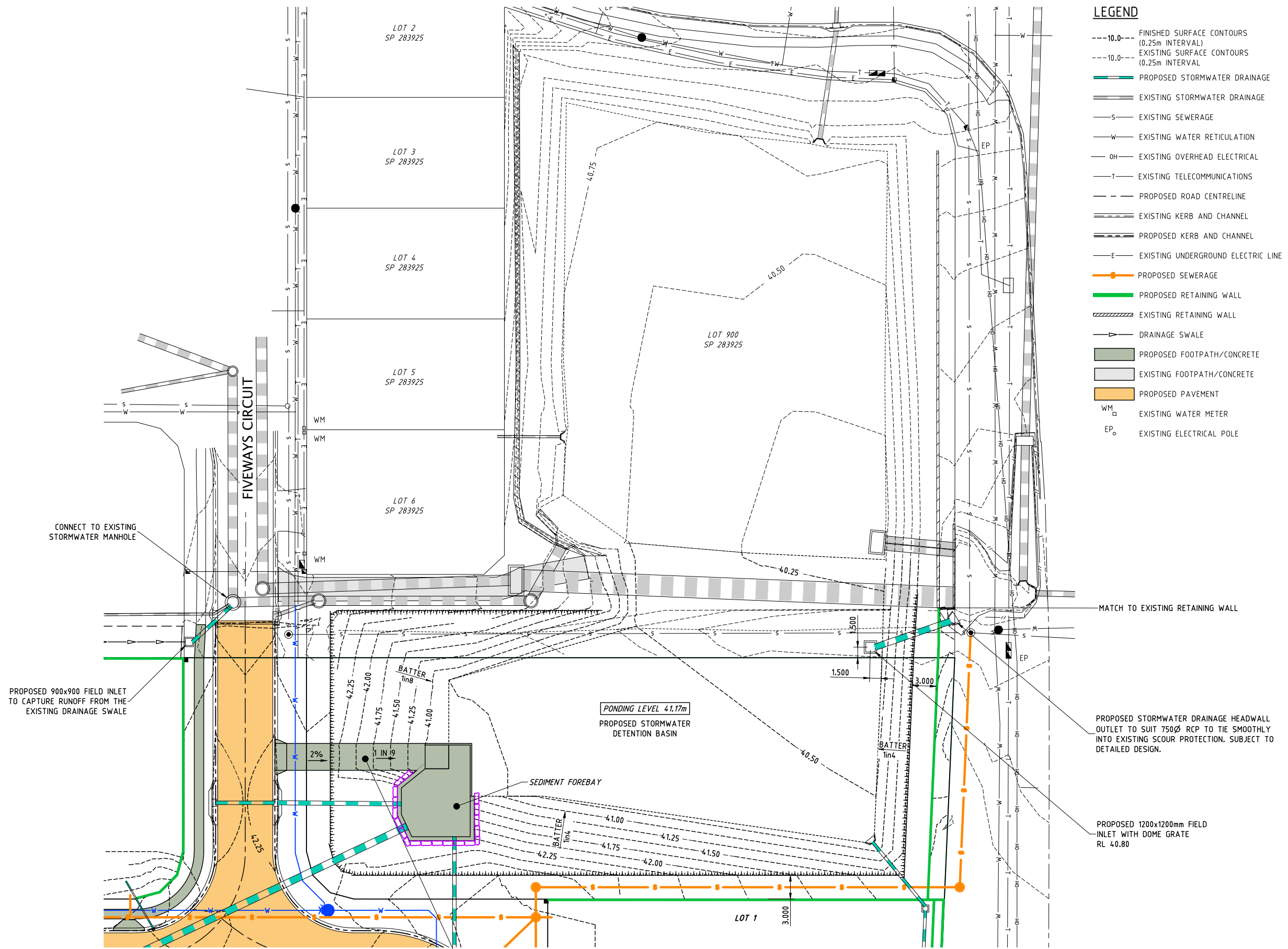
TITLE
 CONCEPT EARTHWORKS
 SECTIONS SHEET 2 OF 2

CLIENT
 ACGN PTY LTD ATF ACGN
 FAMILY TRUST

**NOT FOR
 CONSTRUCTION.
 CONCEPT ONLY.**

REVISION	AMENDMENT	DATE
A	ISSUED FOR COMMENT	12/02/25
B	STAGING AMENDED	14/03/25

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Approval No.	Date 15/01/2025
Scale AS SHOWN	Rev. B
Drawing No. 24065-SK08	



LEGEND

- 10.0--- FINISHED SURFACE CONTOURS (0.25m INTERVAL)
- 10.0--- EXISTING SURFACE CONTOURS (0.25m INTERVAL)
- PROPOSED STORMWATER DRAINAGE
- EXISTING STORMWATER DRAINAGE
- S--- EXISTING SEWERAGE
- W--- EXISTING WATER RETICULATION
- OH--- EXISTING OVERHEAD ELECTRICAL
- T--- EXISTING TELECOMMUNICATIONS
- PROPOSED ROAD CENTRELINE
- EXISTING KERB AND CHANNEL
- PROPOSED KERB AND CHANNEL
- E--- EXISTING UNDERGROUND ELECTRIC LINE
- PROPOSED SEWERAGE
- PROPOSED RETAINING WALL
- EXISTING RETAINING WALL
- >--- DRAINAGE SWALE
- PROPOSED FOOTPATH/CONCRETE
- EXISTING FOOTPATH/CONCRETE
- PROPOSED PAVEMENT
- WM □ EXISTING WATER METER
- EP ○ EXISTING ELECTRICAL POLE

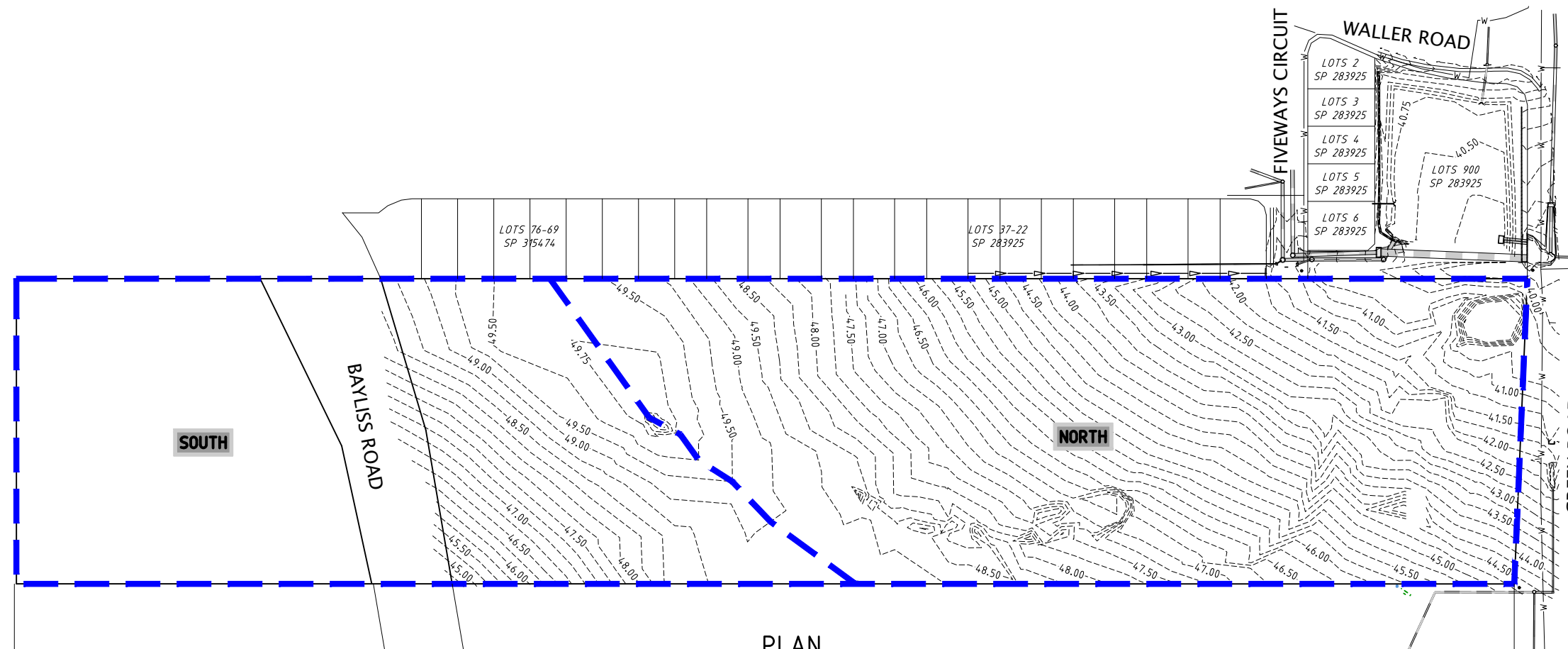
PLAN

SCALE 1:250

SCALE 1:250 (A1)
(SCALE BEFORE REDUCTION)

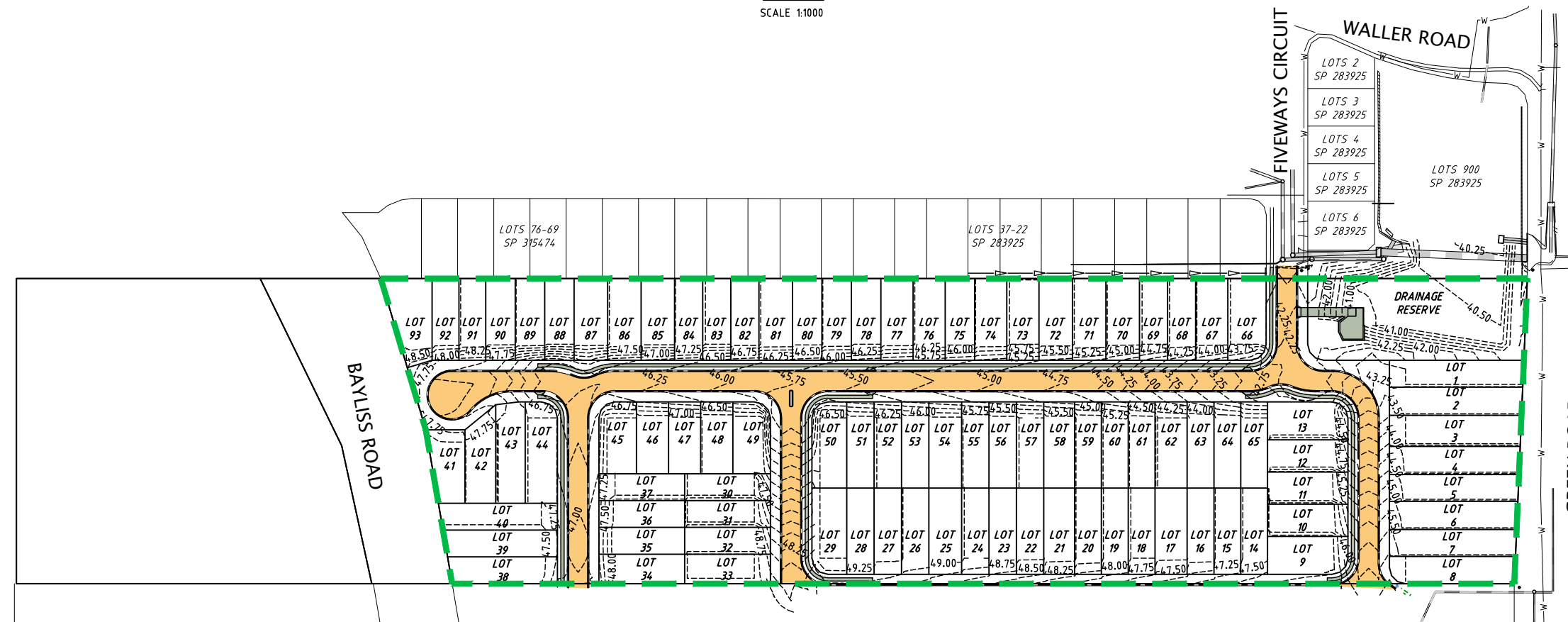
THIS DESIGN HAS BEEN PREPARED BASED ON SERVICE AUTHORITY AS CONSTRUCTED INFORMATION. NO POT HOLING HAS BEEN UNDERTAKEN TO VERIFY EXISTING SERVICE LOCATIONS AND DEPTHS. IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERTAKE POT HOLING TO VERIFY THE DESIGN.

<p>HCE Engineers Pty Ltd ABN 42 664 382 610 mail@hce-engineers.com.au 07 3829 1399</p>	<p>PROJECT 179 - 191 GREEN ROAD PARK RIDGE QLD 4125 LOT 4 ON SP 335824</p>	<p>TITLE CONCEPT STORMWATER BASIN PLAN</p>	<p>CLIENT ACGN PTY LTD ATF ACGN FAMILY TRUST</p>	<p style="color: red; text-align: center;">NOT FOR CONSTRUCTION. CONCEPT ONLY.</p>	<p>REVISION</p>	<p>AMENDMENT</p>	<p>DATE</p>	<p>DO NOT SCALE. CONFIRM ALL DIMENSIONS ON SITE.</p>	
					<p>A</p>	<p>ISSUED FOR COMMENT</p>	<p>12/02/25</p>	<p>Designed MB</p>	<p>Drawn JA</p>
					<p>B</p>	<p>STAGING AMENDED</p>	<p>14/03/25</p>	<p>Approval No.</p>	<p>Scale AS SHOWN</p>
								<p>Drawing No. 24065-SK09</p>	<p>Rev. B</p>



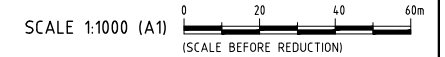
PLAN
SCALE 1:1000

- LEGEND**
- NORTH CATCHMENT LABEL
 - EXISTING CATCHMENT BOUNDARY
 - PROPOSED CATCHMENT BOUNDARY
 - EXISTING SURFACE CONTOURS (0.25m INTERVAL)
 - EXISTING KERB AND CHANNEL
 - PROPOSED KERB AND CHANNEL
 - EXISTING WATER RETICULATION
 - EXISTING STORMWATER DRAINAGE
 - EXISTING KERB AND CHANNEL
 - PROPOSED PAVEMENT



PLAN
SCALE 1:1000

THIS DESIGN HAS BEEN PREPARED BASED ON SERVICE AUTHORITY AS CONSTRUCTED INFORMATION. NO POT HOLING HAS BEEN UNDERTAKEN TO VERIFY EXISTING SERVICE LOCATIONS AND DEPTHS. IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERTAKE POT HOLING TO VERIFY THE DESIGN.



	 HCE Engineers Pty Ltd ABN 42 664 382 610 mail@hce-engineers.com.au 07 3829 1399	PROJECT	TITLE	CLIENT	NOT FOR CONSTRUCTION. CONCEPT ONLY.	REVISION	AMENDMENT	DATE	DO NOT SCALE. CONFIRM ALL DIMENSIONS ON SITE.	Copyright ©
		179 - 191 GREEN ROAD PARK RIDGE QLD 4125 LOT 4 ON SP 335824	CONCEPT EXISTING AND PROPOSED STORMWATER CATCHMENT PLANS	ACGN PTY LTD ATF ACGN FAMILY TRUST		A B	ISSUED FOR COMMENT STAGING AMENDED	12/02/25 14/03/25	Designed MB	Drawn JA
								Drawing No.	24065-SK10	Rev. B

Appendix A – Flood Report

PROPERTY FLOOD REPORT



Property Details

Address: 179-191 Green Road PARK RIDGE QLD 4125

Lot/Plan: Lot 4 SP 335824

Size/Area: 60,044 m²

Property Key: 403655

Summary Flood Assessment

The table below presents the flood risks applicable to the selected property. There may be multiple studies and flood scenarios affecting the property, particularly for larger sites.

Assessment	Details
Risk area(s)	High, Moderate, Low, Very Low
Investigation area	Not applicable
Isolation risk	Not applicable
River flooding	Not applicable
Creek flooding	10% chance of a flood this size or larger happening in any given year
Overland flow	Applies. It is possible that flooding from a local waterway which has not yet been studied may also impact the property. Please contact Council for further advice. Overland flow is water (stormwater run-off) that travels over land during heavy rainfall events. It generally occurs quickly and for short durations.

Latest Flood Risk

The extract below comes from the flood risk map based on the latest (most recent) flood studies accepted by Council applicable for this property.




LEGEND

 High

Floodwaters may be deep or fast flowing, or have a relatively high chance of occurrence (e.g. 80% chance in 30 years). Conditions may pose a risk to life and cause damage to buildings, possibly severe. Limited development may be considered if not increasing the flood risk exposure for people or property. These areas are generally better suited to environmental, recreational and some agricultural uses.

 Moderate

Less frequently affected by flooding or if more frequent, with shallow or slower moving floodwater. Conditions may pose an unacceptable risk to people or property if not mitigated. Development may be tolerable if measures are taken to address flood impacts, protect people and limit damage.

 Low

Extremely unlikely chance of flooding (1% chance or less over a 30 year period) and/or relatively shallow or benign flooding conditions. Development is generally acceptable except for vulnerable uses and essential community infrastructure.

 Very Low

Identifies the full floodplain under the largest flood that could conceivably occur. Development is generally acceptable except for essential community infrastructure (e.g. emergency services). Vulnerable uses (e.g. childcare, aged care) may be ok subject to building and site access mitigation measures.

 Investigation area

Locations where a current flood study has not been delivered and information to determine flood risk is not available. The approximation of the floodplain in these areas is based on a citywide overland flow study. Development should avoid these areas until further investigation (updated flood study or localised risk assessment) is completed.



The flood studies this map is based on consider the impacts of climate change, as required by Queensland's planning legislation and policies. The map considers the whole floodplain for Logan and reflects a risk-based approach that takes into account:

- How likely a flood of a given size is in any given year, and
- What the impact or level of danger of that flood is.

Flood Levels

The table below displays flood levels from the most recently accepted flood studies affecting this property. To view the flood study documents please see the [Flood page](#) on Council's website. The levels are measured in Australian Height Datum (AHD), where sea level is approximately zero (0) metres. The level displayed in the table below is the maximum flood level on the property for that event (likelihood). For some properties, particularly large properties or those on a significant slope, flood levels can vary significantly.

The most likely flood scenarios is shown at the top of the table, with the Probable Maximum Flood (PMF) at the bottom, being the least likely but most serious flood scenario.

Some properties may be impacted by only river flooding or only creek flooding, and some may be impacted by both. There may also be other sources of inundation that may impact the property and affect flood levels, based on overland flow or local creeks where studies have not yet been completed.

Study: Slacks and Scrubby Creek Flood Study 2023

Likelihood (each year)	Creek flooding
20% chance	Not applicable
10% chance	39.5 metres AHD
5% chance	39.8 metres AHD
2% chance	39.9 metres AHD
1% chance	40.0 metres AHD
0.5% chance	40.5 metres AHD
0.2% chance	40.6 metres AHD
0.05% chance	40.7 metres AHD
PMF	41.1 metres AHD

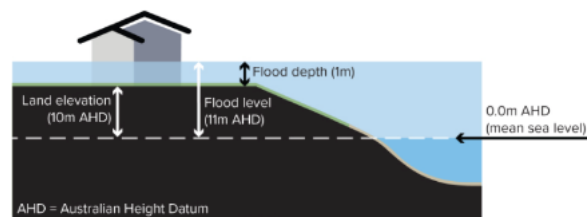
Ground Levels

Ground levels are based on an aerial LiDAR (Light Detection and Ranging) survey, which uses millions of laser point measurements to build a model of the ground surface. The source of the data is displayed in the table below so that you know when the survey was conducted.

Ground level	Details
Minimum ground level	38.9 metres AHD
Maximum ground level	50.7 metres AHD

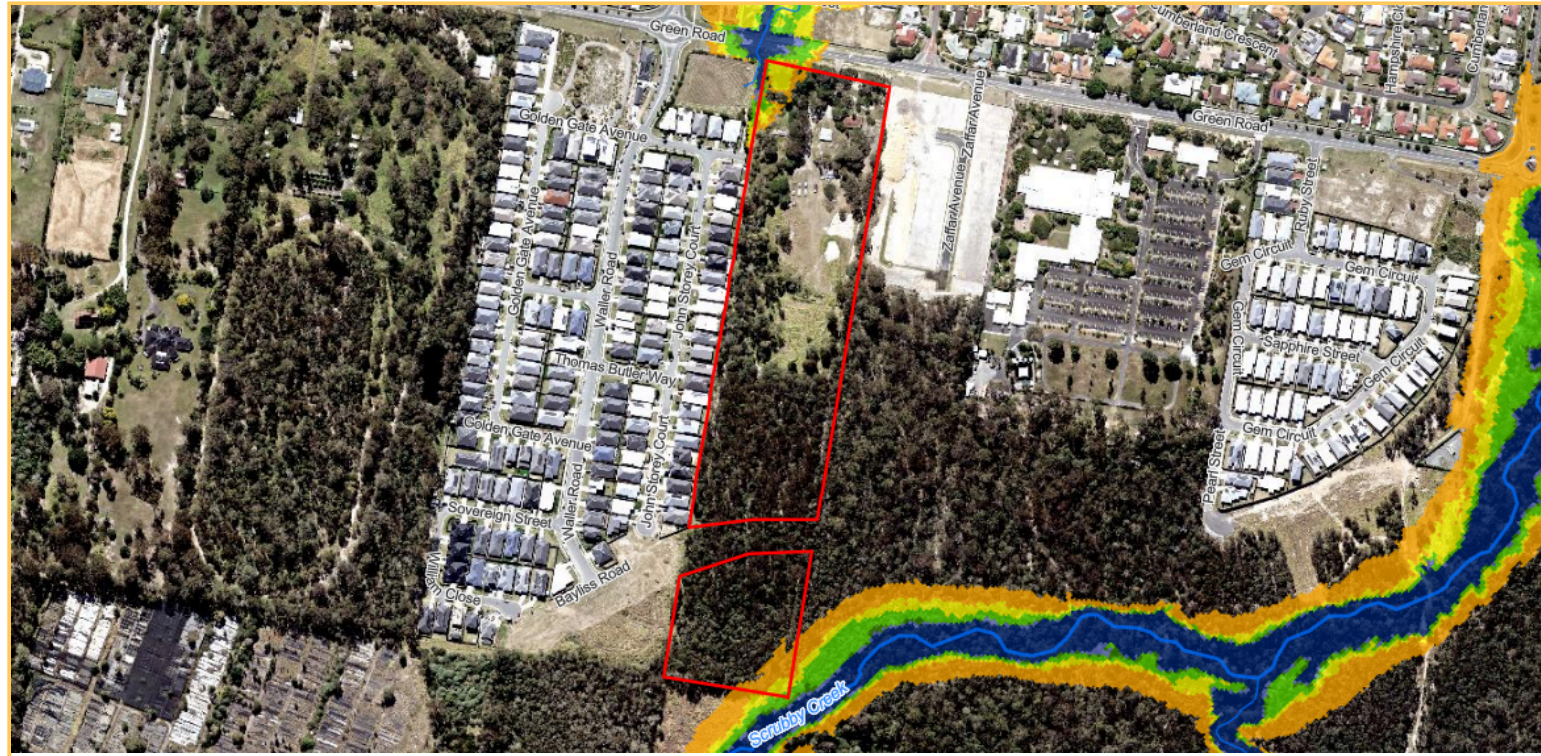
Source: 2021 Digital elevation model (1 metre grid)

The projected flood depth (how deep the water may be above ground, in metres) is the difference between the flood levels in the section above and the ground levels in this table. The diagram below provides an example (land elevation is ground level).



Future Climate Scenarios

This extract comes from the map showing the projected extent of flooding (affected areas) for multiple flood scenarios for all relevant flood studies, **including the projected impacts of climate change**. This map corresponds with the flood levels provided in the table above for the 5%, 2%, 1%, 0.5%, 0.05% and Probable Maximum Flood (PMF) scenarios.



LEGEND

 5% chance

The areas modelled to be impacted by a flood that has a 5% (or 1 in 20) chance of happening in any given year, or 80% chance over a 30 year period, which is the common term of a mortgage. This modelling **includes the impacts of climate change** and represents our understanding of future risk.

 2% chance

The areas modelled to be impacted by a flood that has a 2% (or 1 in 50) chance of happening in any given year, or 45% chance over a 30 year period, which is the common term of a mortgage. This modelling **includes the impacts of climate change** and represents our understanding of future risk.

 1% chance

The areas modelled to be impacted by a flood that has a 1% (or 1 in 100) chance of happening in any given year, or 25% chance over a 30 year period, which is the common term of a mortgage. This modelling **includes the impacts of climate change** and represents our understanding of future risk.

 0.5% chance

The areas modelled to be impacted by a flood that has a 0.5% (or 1 in 200) chance of happening in any given year, or 15% chance over a 30 year period, which is the common term of a mortgage. This modelling **includes the impacts of climate change** and represents our understanding of future risk.

 0.05% chance

The areas modelled to be impacted by a flood that has a 0.05% (or 1 in 2000) chance of happening in any given year. This is an extremely unlikely flood event with a 1% chance of happening over a 30 year period, not including the impacts of climate change.

 PMF

The PMF or probable maximum flood scenario represents the full extent of the floodplain, or the most serious flood that could be expected to occur. This is usually estimated based on the probable maximum rainfall, not including the impacts of climate change.

 Investigation area

Locations where a current flood study has not been delivered and information to determine flood risk is not available. The approximation of the floodplain in these areas is based on a citywide overland flow study. Further investigation is needed.

Current Climate Scenarios

This extract comes from the map showing flood affected areas **without** considering the impacts of climate change. This map represents modelled flooding under current conditions, and can be used for insurance purposes.



LEGEND

 5% chance

The areas modelled to be impacted by a flood that has a 5% (or 1 in 20) chance of happening in any given year, or 80% chance over a 30 year period, which is the common term of a mortgage. This modelling is based on **current (present day) conditions** and does not take into account the impacts of climate change.

 2% chance


The areas modelled to be impacted by a flood that has a 2% (or 1 in 50) chance of happening in any given year, or 45% chance over a 30 year period, which is the common term of a mortgage. This modelling is based on **current (present day) conditions** and does not take into account the impacts of climate change.

 1% chance

The areas modelled to be impacted by a flood that has a 1% (or 1 in 100) chance of happening in any given year, or 25% chance over a 30 year period, which is the common term of a mortgage. This modelling is based on **current (present day) conditions** and does not take into account the impacts of climate change.

 0.5% chance

The areas modelled to be impacted by a flood that has a 0.5% (or 1 in 200) chance of happening in any given year, or 15% chance over a 30 year period, which is the common term of a mortgage. This modelling is based on **current (present day) conditions** and does not take into account the impacts of climate change.

 0.05% chance

The areas modelled to be impacted by a flood that has a 0.05% (or 1 in 2000) chance of happening in any given year. This is an extremely unlikely flood event with a 1% chance of happening over a 30 year period, not including the impacts of climate change.

 PMF

The PMF or probable maximum flood scenario represents the full extent of the floodplain, or the most serious flood that could be expected to occur. This is usually estimated based on the probable maximum rainfall, not including the impacts of climate change

 Investigation area

Locations where a current flood study has not been delivered and information to determine flood risk is not available. The approximation of the floodplain in these areas is based on a citywide overland flow study. Further investigation is needed.

Historic Flood Events

Based on the best information available to Council, the table below indicates whether or not the selected property may have been impacted by significant historic flood events. It is possible that other creek flooding or overland flow, which is not included in Council's mapping of these events, may have impacted the property.

Flood event	Property impacted
1974	No
2017 (after ex Tropical Cyclone Debbie)	No
2022 (late February / early March)	No

Planning Scheme Maps

The selected property is shown below on an extract of the Flood Overlay Maps from the Logan Planning Scheme 2015 V9 with TLPI No. 1/2023. Various provisions of the planning scheme which refer to properties affected by the Flood Overlay Maps will apply to the flood affected areas for the purposes of planning and development. This may include, for example, raised building floor levels and achieving safe vehicle access to the road network.

OM-05.01 Flood risk areas








OM-05.02 High flow area







OM-05.03 Isolated islands



MAP LEGEND

-  **High**
 Floodwaters may be deep or fast flowing, or have a relatively high chance of occurrence (e.g. 80% chance in 30 years). Conditions may pose a risk to life and cause damage to buildings, possibly severe. Limited development may be considered if not increasing the flood risk exposure for people or property. These areas are generally better suited to environmental, recreational and some agricultural uses.
-  **Moderate**
 Less frequently affected by flooding or if more frequent, with shallow or slower moving floodwater. Conditions may pose an unacceptable risk to people or property if not mitigated. Development may be tolerable if measures are taken to address flood impacts, protect people and limit damage.
-  **Low**
 Extremely unlikely chance of flooding (1% chance or less over a 30 year period) and/or relatively shallow or benign flooding conditions. Development is generally acceptable except for vulnerable uses and essential community infrastructure.
-  **Very Low**
 Identifies the full floodplain under the largest flood that could conceivably occur. Development is generally acceptable except for essential community infrastructure (e.g. emergency services). Vulnerable uses (e.g. childcare, aged care) may be ok subject to building and site access mitigation measures.
-  **Investigation area**
 Locations where a current flood study has not been delivered and information to determine flood risk is not available. The approximation of the floodplain in these areas is based on a citywide overland flow study. Development should avoid these areas until further investigation (updated flood study or localised risk assessment) is completed.

MAP LEGEND

-  **High flow area**
 High hazard areas of flooding where significant (deeper, faster) flow of water occurs and in which a building is vulnerable to structural damage or failure from floodwater. Classified as H5 or H6 in the Australian Institute of Disaster Resilience (AIDR) Guideline 7-3 'Flood Hazard'.
-  **High flood island**
 Areas which are isolated from flood-free land (surrounded by floodwater) but retain a portion of the area as flood free in a probable maximum flood (PMF).
-  **Low flood island**
 Areas which are surrounded by floodwater and at first isolated from flood-free land, then completely inundated by floodwater (submerged) as the flood continues to rise.
-  **Meadowbrook flood assessment area**
 Area where the function of important community infrastructure needs to be maintained. Flood mitigation measures and comprehensive emergency management planning is required to adequately manage the risk for flood events.



If more recent flood studies have been completed and accepted by Council, the Latest Flood Risk Map shown at the top of this report may be different from the planning scheme map. The latest flood information should be used to inform development decisions and will be incorporated into the planning scheme in a future amendment.

Further Information

1. Floods are highly unpredictable and variable, and properties may be affected by other sources of potential flooding. Each flood and its impact is different. Areas that were not flooded previously may be affected by future events. Areas that have been previously flooded may be impacted in different ways. This online report cannot take all of this into account.
2. The flood mapping and levels in this report are based on data from flood studies undertaken at a particular time and are subject to change. For example, if the method for calculating flood levels is updated, industry guidelines are updated or more recent information becomes available, this may result in changes to the information in this report. In areas where development is ongoing, the flood mapping and levels may not reflect developed conditions.
3. Flood studies do not create risk. They help us to understand the risk, based on relevant legislation and Queensland Government policies and guidelines. Flood studies also consider a range of other factors such as rainfall and river level information from recent events, climate change and trends, the impacts of development, changes to catchment conditions, new technologies and industry best practice (which help to improve accuracy).
4. Flood studies and models are developed from the best information available at the time. They do not tell you how the flood waters might behave, how quickly they may rise, or how dangerous the flooding will be. The models also cannot represent changes that have occurred since they were developed which may impact flood behaviour, such as earthworks, new developments or road infrastructure.
5. This report is not a substitute for independent professional advice. You should engage the services of a Registered Professional Engineer of Queensland (RPEQ) to get site specific information regarding the flood risk to your property, and how that might affect any proposed building or development work.
6. While Logan City Council takes reasonable care in producing this report, it does not guarantee that the information is accurate, complete or current. Logan City Council does not accept any responsibility for any loss or damage (however it was caused) in connection with the use of or reliance on the information in this report.

Contact Information

Where to go for further information depends on the type of information you need. Please refer to the [Flood Risk Fact Sheet](#) or contact Council using the details below.

Topic	Contact Details
Flood studies and modelling information, and the flood risk on your property	Contact Council on 07 3412 3412 or email council@logan.qld.gov.au . Further information about flooding and flood studies is available on the Flood page on Council's website.
Planning and development enquiries or proposals	Contact Council on 07 3412 3412 or email development@logan.qld.gov.au . Before lodging a development application, pre-lodgement advice is recommended.
Building information	Contact Council on 07 3412 3412 or email council@logan.qld.gov.au . You can also contact a private building certifier .
Properties in Priority Development Areas	Contact Economic Development Queensland . Council is not the planning authority for these properties.
Independent advice about flooding on your property	Contact a registered engineer through the Board of Professional Engineers of Queensland: Phone: 07 3210 3100 Email: admin@bpeq.qld.gov.au Web: Home - Board of Professional Engineers Queensland (bpeq.qld.gov.au)

Appendix B – Filling and Excavation Code

9.4.2 Filling and excavation code

9.4.2.1 Application

1. This code applies to:
 - a. material change of use:
 - i. that is accepted development (subject to requirements) or code assessable and for which the Filling and excavation code is identified in the 'assessment benchmarks for assessable development and requirements for accepted development' column in a table of assessment in section 5.5 - Categories of development and assessment - Material change of use in Part 5 - Tables of assessment;
 - ii. that is made impact assessment in a table of assessment in section 5.5 - Categories of development and assessment - Material change of use or section 5.9 - Categories of development and assessment - local plans in Part 5 - Tables of assessment;
 - b. reconfiguring a lot:
 - i. that is code assessable and for which the Filling and excavation code is identified in the 'assessment benchmarks for assessable development and requirements for accepted development' column in Table 5.6.1 - Reconfiguring a lot in Part 5 - Tables of assessment;
 - ii. that is impact assessable in Table 5.6.1 - Reconfiguring a lot in Part 5 - Tables of assessment;
 - c. operational work that is accepted development (subject to requirements) and code assessable operational work - filling or excavation for which the Filling and excavation code is identified in the 'assessment benchmarks for assessable development and requirements for accepted development' column in Table 5.8.1 - Operational work.
2. When using this code, reference should be made to section 5.3.2 - Determining the category of development and category of assessment and, where applicable, section 5.3.3 - Determining the 'assessment benchmarks for assessable development and requirements for accepted development' located in Part 5 - Tables of assessment.

9.4.2.2 Purpose

1. The purpose of the code is to protect premises, people and natural processes from adverse impacts associated with filling or excavation.
2. The purpose of the code will be achieved through the following overall outcomes:
 - a. development protects:
 - i. natural physical processes and ecosystems;
 - ii. existing and planned infrastructure;
 - iii. personal health and safety and premises;
 - iv. visual amenity.

9.4.2.3 Assessment benchmarks for assessable development and requirements for accepted development

Part A - Requirements for accepted development (subject to requirements) and assessment benchmarks for assessable development

Table 9.4.2.3.1 - Filling and excavation code: accepted development (subject to requirements) and assessable development

Performance outcomes	Acceptable outcomes	Comments
For accepted development (subject to requirements) and assessable development		
Protection of natural processes and ecosystems		
PO1 The discharge of sediments and pollutants from filling or excavation does not adversely affect a waterway or the stormwater network.	AO1 The discharge of sediments and pollutants to a waterway or stormwater network complies with part 3.3 - Filling and excavation standards in Planning scheme policy 5 - Infrastructure.	The Acceptable Outcome can be and is proposed to be met
PO2 Topsoil and spoil stockpiled on the premises do not adversely affect natural processes and ecosystems.	AO2 Topsoil and spoil is stockpiled to comply with part 3.3 - Filling and excavation standards in Planning scheme policy 5 - Infrastructure.	The Acceptable Outcome can be and is proposed to be met
PO3 Filling is carried out using stable, solid and clean earth, free of organic and putrescible waste, rubbish and refuse material.	AO3 Filling complies with part 3.3 - Filling and excavation standards in Planning scheme policy 5 - Infrastructure.	The Acceptable Outcome can be and is proposed to be met
Protection of existing and planned infrastructure		
PO4 Filling or excavation works do not adversely affect infrastructure, including any services.	AO4 Filling or excavation works comply with part 3.3 - Filling and excavation standards in Planning	The Acceptable Outcome can be and is proposed to be met

	scheme policy 5 - Infrastructure.	
Protection and enhancement of personal health and safety and premises		
PO5 Filling or excavation works do not adversely affect personal health and safety.	AO5 Filling or excavation works comply with part 3.3 - Filling and excavation standards in Planning scheme policy 5 - Infrastructure.	The Acceptable Outcome can be and is proposed to be met
Surface water flow		
PO6 Surface water drainage does not cause any of the following: a. ponding on any premises; or b. a hazard or adversely affect personal health and safety and premises; or c. diversion or concentration of flow from or onto adjoining premises or infrastructure.	AO6 Surface water drainage complies with part 3.3 - Filling or excavation standards in Planning scheme policy 5 - Infrastructure.	The Acceptable Outcome can be and is proposed to be met
Batters		
PO7 A batter: a. does not adversely affect the natural physical processes and ecosystems; b. protects existing and planned infrastructure; c. is safe, stable and easily maintained; d. is landscaped to enhance visual amenity.	AO7 A batter is designed and constructed to comply with the standards specified in 3.3.6 - Batters and retaining walls in Planning scheme policy 5 - Infrastructure.	The Acceptable Outcome can be and is proposed to be met
Retaining walls		
PO8 A retaining wall: a. is not constructed of timber and is not located on existing or proposed lot	AO8 A retaining wall is designed and constructed to comply with the standards specified in section 3.3.6.2 - Retaining walls in Planning scheme	The Acceptable Outcome can be and is proposed to be met

<p>boundaries, or movement networks;</p> <p>b. does not adversely affect the natural physical processes and ecosystems;</p> <p>c. is located to avoid conflict with adjoining premises;</p> <p>d. is located such that existing and planned infrastructure is not adversely affected;</p> <p>e. protects the visual amenity of adjoining premises or a public open space;</p> <p>f. is located within the premises that is being filled;</p> <p>g. is located within the premises that is cut and is designed to take any surcharge loading allowable on the uphill lot;</p> <p>h. is safe and stable;</p> <p>i. enables easy access for maintenance.</p>	<p>policy 5 - Infrastructure.</p>	
<p>Filling of a dam</p>		
<p>PO9 The filling of a dam:</p> <p>a. does not adversely affect the natural physical processes and ecosystems;</p> <p>b. creates a safe and stable surface;</p> <p>c. is integrated into the landscape.</p>	<p>AO9 The filling of a dam complies with part 3.3 - Filling and excavation standards in Planning scheme policy 5 - Infrastructure.</p>	<p>Not applicable to this development.</p>

9.4.3 Infrastructure code

9.4.3.1 Application

1. This code applies to:
 - a. material change of use:
 - i. that is accepted development (subject to requirements) or code assessable and for which the Infrastructure code is identified in the 'assessment benchmarks for assessable development and requirements for accepted development' column in a table of assessment in section 5.5 - Categories of development and assessment - Material change of use in Part 5 - Tables of assessment;
 - ii. that is made impact assessment in a table of assessment in section 5.5 - Categories of development and assessment - Material change of use or section 5.9 - Categories of development and assessment - Local plans in Part 5 - Tables of assessment;
 - b. reconfiguring a lot:
 - i. that is code assessable and for which the Infrastructure code is identified in the 'assessment benchmarks for assessable development and requirements for accepted development' column in Table 5.6.1 - Reconfiguring a lot in Part 5 - Tables of assessment;
 - ii. made impact assessment in Table 5.6.1 - Reconfiguring a lot in Part 5 - Tables of assessment;
 - c. operational work that is infrastructure work:
 - i. that is accepted development (subject to requirements) or code assessable and for which the Infrastructure code is identified in the 'assessment benchmarks for assessable development and requirements for accepted development' column Table 5.8.1 - Operational work in Part 5 - Tables of assessment.
2. When using this code, reference should be made to section 5.3.2 - Determining the category of development and category of assessment and, where applicable, section 5.3.3 - Determining the 'assessment benchmarks for assessable development and requirements for accepted development' located in Part 5 - Tables of assessment.

9.4.3.2 Purpose

1. The purpose of the code is to ensure that infrastructure is provided to service development.
2. The purpose of the code will be achieved through the following overall outcomes:
 - a. development protects the existing infrastructure and planned infrastructure networks being the:
 - i. movement network;
 - ii. park network;
 - iii. water network;

- iv. sewerage network;
- v. stormwater network;
- vi. other networks including electricity, gas and telecommunications;
- vii. land for community facilities network;
- b. development other than operational work provides infrastructure that is necessary to service the development, including elements of:
 - i. a safe, efficient and legible road network;
 - ii. a safe, efficient and legible public transport network;
 - iii. a safe, efficient and legible cycle network;
 - iv. a safe, efficient and legible pedestrian network;
 - v. a safe, efficient and legible parks network;
 - vi. a safe and efficient water network;
 - vii. a safe and efficient sewerage network;
 - viii. a safe and efficient stormwater network;
 - ix. safe and efficient other networks including electricity, gas and telecommunications;
 - x. a safe and efficient road lighting network;
 - xi. land for a community facilities network;
- c. development integrates with existing and planned infrastructure networks;
- d. infrastructure is designed and constructed to deliver a standard of service that is efficient and equitable;
- e. the cost to the community for the life of the infrastructure is minimised by providing for a suitable design life, ease of maintenance and ease of replacement;
- f. development appropriately manages refuse and recycling storage and collection;
- g. infrastructure protects personal health and safety and premises;
- h. infrastructure protects environmental values.

9.4.3.3 Assessment benchmarks for assessable development and requirements for accepted development

Part A - Requirements for accepted development (subject to requirements) and assessment benchmarks for assessable development

Table 9.4.3.3.1 - Infrastructure code: accepted development (subject to requirements) and assessable development

Performance outcomes	Acceptable outcomes	Comments
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For accepted development (subject to requirements) and assessable development		
Provision, design, construction and location of infrastructure		
<p>PO1 Development is demonstrated to be capable of being serviced by necessary infrastructure.</p>	<p>AO1 Reports, plans and drawings are provided in accordance with part 2 of Planning scheme policy 5 - Infrastructure.</p>	<p>The Acceptable Outcome can be and is proposed to be met</p>
<p>PO2 Development:</p> <ul style="list-style-type: none"> a. provides necessary infrastructure to service the development; b. provides that the design, construction and location of necessary infrastructure: <ul style="list-style-type: none"> i. protects existing and planned infrastructure networks; ii. services proposed development; iii. integrates with existing and planned infrastructure networks; iv. delivers a standard of service that is efficient and equitable; v. minimises the cost to the community for the life of the infrastructure by providing a suitable design life, ease of maintenance and ease of replacement; vi. protects personal health, safety and premises; vii. protects environmental values. 	<p>AO2 Development:</p> <ul style="list-style-type: none"> a. in a water supply service area connects to the water network in accordance with the SEQ Water Supply and Sewerage Design and Construction Code; b. not in a water supply service area provides a tank with a minimum storage capacity of 45,000 litres; c. in a sewerage supply service area connects to the waste water network in accordance with the SEQ Water Supply and Sewerage Design and Construction Code; d. not in a sewerage supply service area complies with part 1 of the Queensland Plumbing and Wastewater Code; e. provides stormwater infrastructure in accordance with part 3.6 of Planning scheme policy 5 - Infrastructure; f. provides a movement network infrastructure in accordance with part 3.4 of Planning scheme policy 5 - Infrastructure; g. provides parks in accordance with part 3.12 of Planning scheme policy 5 - Infrastructure; 	<p>AO2 (a, c and e): The Acceptable Outcome can be and is proposed to be met, as identified on the accompanying drawings.</p> <p>AO2 (b, d, f – j): Not applicable to this development.</p>

	<p>h. provides road lighting in accordance with part 3.5 of Planning scheme policy 5 - Infrastructure;</p> <p>i. provides electricity reticulation in accordance with part 3.8 of Planning scheme policy 5 - Infrastructure;</p> <p>j. provides gas and telecommunications reticulation in accordance with part 3.9 of Planning scheme policy 5 - Infrastructure.</p> <p>k. is consistent with the general planning layouts in part 7.2 of Planning scheme policy 5 - Infrastructure.</p> <p>Editor's note - The delivery of any part of a network identified in the plans for trunk infrastructure is governed by Part 4 - Local government infrastructure plan.</p>	
Location of development		
<p>PO3 Development is located to protect trunk infrastructure networks.</p>	<p>A03 Development is located outside a network identified in Local government infrastructure plan map LGIP-03.00 to 08.00 Plans for trunk infrastructure in Schedule 3 - Local government infrastructure plan mapping and tables.</p>	<p>The Performance Outcome can be and is proposed to be met</p>
Fire fighting		
<p>PO4 Development in a water service area accessed by common private title provides:</p> <ul style="list-style-type: none"> a. fire hydrant infrastructure; b. unimpeded access for emergency services vehicles. <p>Editor's note - The term common private title refers to areas such as access roads in community title developments or</p>	<p>A04 Development in a water service area involving a material change of use or reconfiguring a lot where, or to be, accessed by common private title ensures that fire hydrant placement and technical requirements for streets and access ways are in accordance with:</p>	<p>Not applicable to this development.</p>

<p>strata title unit access, which are private and under group or body corporate control.</p>	<p>a. Australian Standard (AS) 2419.1 - 2005 <i>Fire hydrant installations</i>; b. QFES: <i>Fire Hydrant and vehicle access guidelines for residential, commercial and industrial lots</i>.</p>	
<p>PO5 Development not in a water service area provides sufficient water storage with adequate pressure, volume and flow to service development for fire fighting purposes.</p>	<p>AO5 Development: a. is connected to a reticulated water supply scheme that has sufficient flow and pressure characteristics for fire fighting purposes at all times with a minimum pressure and flow of 10 litres per second at 200kPa; or b. has on-site water storage in accordance with Table 9.4.3.3.2 - Water storage for fire fighting, dedicated or retained for fire fighting purposes that is made of fire resistant materials and is: i. a separate tank; or ii. a reserve section in the bottom part of the main water supply tank/water tank. Editor's note - The requirement in AO5 is: - in addition to the requirement for potable water supply/storage in AO2 in Table 9.4.3.3.1 - Infrastructure code: accepted development (subject to requirements) and assessable development; - reflected in AO5 in Table 8.2.3.3.1 - Bushfire hazard overlay code: accepted development (subject to requirements) and assessable development.</p>	<p>The Acceptable Outcome can be and is proposed to be met, as identified on the accompanying drawings.</p>
<p>Waste management</p>		
<p>PO6</p>	<p>AO6.1</p>	<p>Not applicable to this development.</p>

<p>Development provides refuse and recycling collection and storage facilities that are located and managed so that adverse impacts on building occupants, neighbouring properties and the public realm are minimised.</p>	<p>Development provides refuse and recycling collection and storage facilities in accordance with Planning scheme policy 9 - Waste management.</p> <p>AO6.2 Development ensures that the location and design of refuse and recycling collection and storage facilities does not have any adverse impact including odour, noise or visual impacts on the amenity of land uses within or adjoining the development.</p> <p>Note - Planning scheme policy 9 - Waste management provides guidance on how to achieve this outcome.</p>	
Disposal of trade waste		
<p>PO7 The disposal of trade waste in a sewerage supply service area does not adversely affect the sewerage network.</p>	<p>A07 The disposal of trade waste in a sewerage supply service area complies with the sewer admission standards in section 3.2.6 - Sewer admission standards in Planning scheme policy 3 - Environmental management.</p>	<p>Not applicable to this development.</p>
Roof water drainage and surface water drainage		
<p>PO8 Development provides stormwater infrastructure for the drainage of the premises so as not to cause any of the following:</p> <ul style="list-style-type: none"> a. ponding of stormwater on the premises; b. a hazard to personal health and safety; c. damage to premises; d. an increased risk of flooding to premises within the catchment. 	<p>A08 Development complies with the standards for stormwater infrastructure specified in part 3.6 of Planning scheme policy 5 - Infrastructure.</p>	<p>The Acceptable Outcome can be and is proposed to be met, as identified on the accompanying drawings.</p>

Natural flow of surface water		
<p>PO9 Development provides that the natural flow of surface water is:</p> <ul style="list-style-type: none"> a. not altered so as to cause a risk to personal health and safety or damage to property; b. not increased in intensity, velocity or frequency; c. not concentrated onto adjoining premises. 	<p>AO9 Development complies with the standards for stormwater infrastructure specified in part 3.6 of Planning scheme policy 5 - Infrastructure.</p>	<p>The Acceptable Outcome can be and is proposed to be met, as identified on the accompanying drawings.</p>
Water sensitive urban design		
<p>PO10 Development which provides stormwater infrastructure incorporates water sensitive urban design principles having regard to:</p> <ul style="list-style-type: none"> a. protecting existing natural features and ecological processes; b. protecting the natural hydrologic behaviour of catchments; c. protecting the existing natural flow and water quality regimes of waterways; d. protecting water quality of surface and ground waters; e. minimising demand on the water network; f. minimising sewage discharges to the natural environment; g. integrating water into the landscape to enhance visual and ecological values. 	<p>AO10 Development complies with the standards for stormwater infrastructure specified in part 3.6 of Planning scheme policy 5 - Infrastructure.</p>	<p>The Acceptable Outcome can be and is proposed to be met, as identified on the accompanying drawings.</p>
Movement network		
<p>PO11</p>	<p>AO11</p>	<p>The Performance Outcome can be and is proposed to be met</p>

<p>The projected traffic levels for a use do not adversely affect the planned standards of service for a road or intersection.</p>	<p>Development does not cause or contribute to projected traffic levels:</p> <ul style="list-style-type: none"> a. exceeding the maximum vehicle trips per day in Table 3.4.1.4.2 in Planning scheme policy 5 - Infrastructure; or b. exceeding the maximum control delays through intersections in peak periods in Table 3.4.1.4.3 in Planning scheme policy 5 - Infrastructure. 	
<p>Integrated movement concept report</p>		
<p>PO12 Development which generates more than 3,000 vehicle trips per average weekday is designed to integrate the movement network to minimise the transportation costs required to service the use.</p>	<p>AO12 Development which generates more than 3,000 vehicle trips per average weekday provides an integrated movement concept report which integrates the planning of the movement network in accordance with part 2 and 3 of Planning scheme policy 5 - Infrastructure.</p>	<p>The Performance Outcome can be and is proposed to be met</p>
<p>For assessable development only</p>		
<p>Land use and transport integration</p>		
<p>PO13 Development within 400 metres of existing or future public passenger transport facilities where the total site area is 5,000m² or more:</p> <ul style="list-style-type: none"> a. supports a road hierarchy which facilitates efficient, safe and accessible bus services connecting to existing and future public passenger transport facilities; 	<p>AO13 No acceptable outcome provided.</p>	<p>Not applicable to this development.</p>

<p>b. enhances connectivity between existing and future public passenger transport facilities and other transport modes;</p> <p>c. optimises the walkable catchment to existing and future public passenger transport facilities;</p> <p>d. provides for direct and safe access to and use of existing or future public passenger transport facilities.</p> <p>Note - SPP code: Land use and transport integration in Appendix 4 of the state planning policy provides guidance to achieve this outcome.</p>		
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Table 9.4.3.3.2 - Water storage for fire fighting

Column 1 Lot size / use type	Column 2 Water requirement
For each residential lot:	
a. less than 1,000m ²	5,000 litres
b. between 1,000m ² and less than 1 hectare	10,000 litres
c. greater than 1 hectare	20,000 litres
Multiple dwelling	5,000 litres per dwelling up to a maximum of 20,000 litres
A use other than Multiple dwelling	5,000 litres or the prevailing rural fire brigade standard

Appendix C – Infrastructure Code