

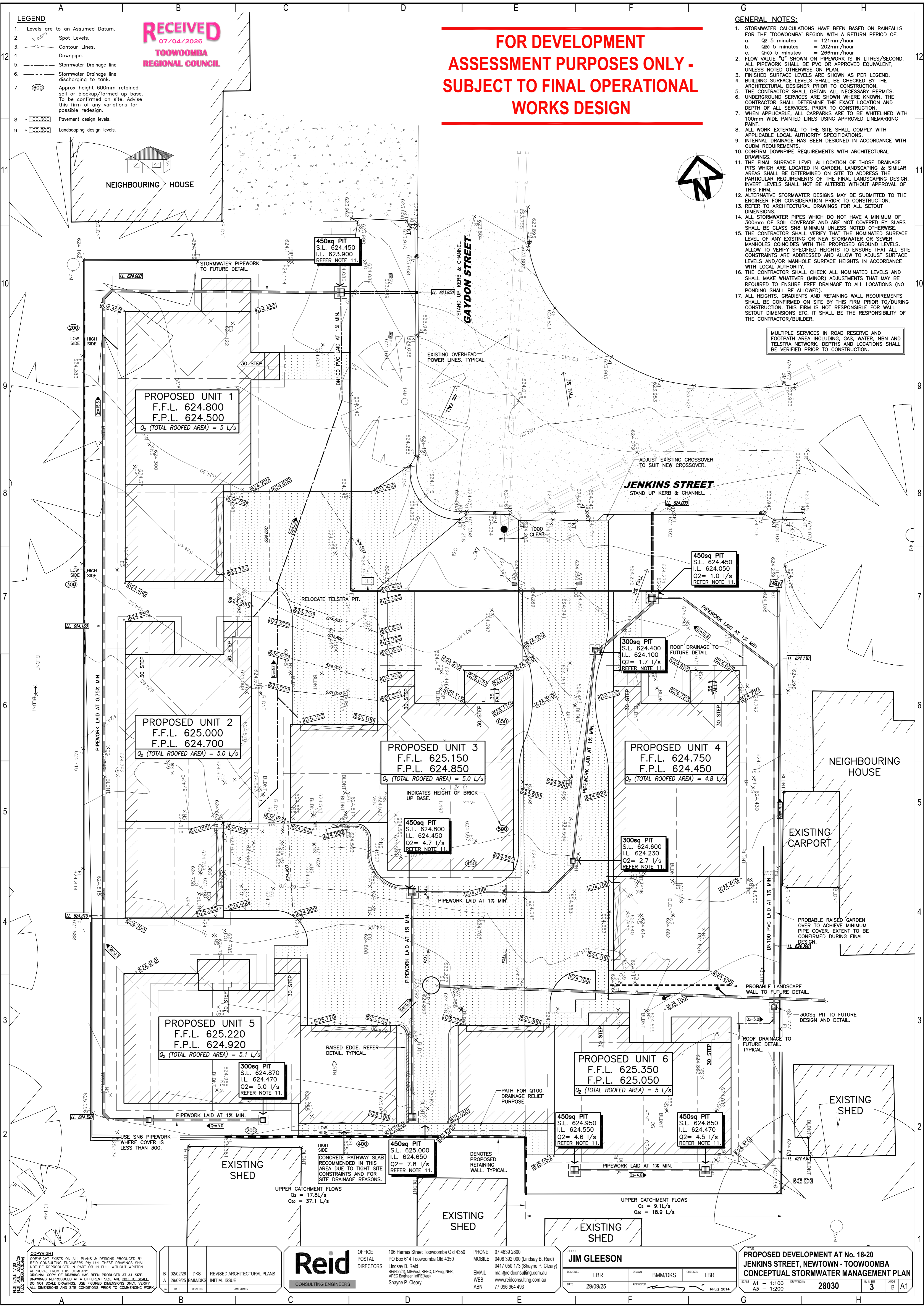
- LEGEND**
- Levels are to an Assumed Datum.
 - Spot Levels.
 - Contour Lines.
 - Downpipe.
 - Stormwater Drainage line
 - Stormwater Drainage line discharging to tank.
 - Approx height 600mm retained soil or blockup/formed up base. To be confirmed on site. Advise this firm of any variations for possible redesign.
 - Pavement design levels.
 - Landscaping design levels.

RECEIVED
07/04/2026
TOOWOOMBA
REGIONAL COUNCIL

**FOR DEVELOPMENT
ASSESSMENT PURPOSES ONLY -
SUBJECT TO FINAL OPERATIONAL
WORKS DESIGN**

- GENERAL NOTES:**
- STORMWATER CALCULATIONS HAVE BEEN BASED ON RAINFALLS FOR THE 'TOOWOOMBA' REGION WITH A RETURN PERIOD OF:
 - Q2 5 minutes = 121mm/hour
 - Q20 5 minutes = 202mm/hour
 - Q100 5 minutes = 266mm/hour
 - FLOW VALUE "Q" SHOWN ON PIPEWORK IS IN LITRES/SECOND. ALL PIPEWORK SHALL BE PVC OR APPROVED EQUIVALENT, UNLESS NOTED OTHERWISE ON PLAN.
 - FINISHED SURFACE LEVELS ARE SHOWN AS PER LEGEND.
 - BUILDING SURFACE LEVELS SHALL BE CHECKED BY THE ARCHITECTURAL DESIGNER PRIOR TO CONSTRUCTION.
 - THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS.
 - UNDERGROUND SERVICES ARE SHOWN WHERE KNOWN. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION AND DEPTH OF ALL SERVICES, PRIOR TO CONSTRUCTION.
 - WHEN APPLICABLE, ALL CARPARKS ARE TO BE WHITELINED WITH 100mm WIDE PAINTED LINES USING APPROVED LINE MARKING PAINT.
 - ALL WORK EXTERNAL TO THE SITE SHALL COMPLY WITH APPLICABLE LOCAL AUTHORITY SPECIFICATIONS.
 - INTERNAL DRAINAGE HAS BEEN DESIGNED IN ACCORDANCE WITH QUDM REQUIREMENTS.
 - CONFIRM DOWNPIPE REQUIREMENTS WITH ARCHITECTURAL DRAWINGS.
 - THE FINAL SURFACE LEVEL & LOCATION OF THOSE DRAINAGE PITS WHICH ARE LOCATED IN GARDEN, LANDSCAPING & SIMILAR AREAS SHALL BE DETERMINED ON SITE TO ADDRESS THE PARTICULAR REQUIREMENTS OF THE FINAL LANDSCAPING DESIGN. INVERT LEVELS SHALL NOT BE ALTERED WITHOUT APPROVAL OF THIS FIRM.
 - ALTERNATIVE STORMWATER DESIGNS MAY BE SUBMITTED TO THE ENGINEER FOR CONSIDERATION PRIOR TO CONSTRUCTION. REFER TO ARCHITECTURAL DRAWINGS FOR ALL SETOUT DIMENSIONS.
 - ALL STORMWATER PIPES WHICH DO NOT HAVE A MINIMUM OF 300mm OF SOIL COVERAGE AND ARE NOT COVERED BY SLABS SHALL BE CLASS SNB MINIMUM UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL VERIFY THAT THE NOMINATED SURFACE LEVEL OF ANY EXISTING OR NEW STORMWATER OR SEWER MANHOLES COINCIDES WITH THE PROPOSED GROUND LEVELS. ALLOW TO VERIFY SPECIFIED HEIGHTS TO ENSURE THAT ALL SITE CONSTRAINTS ARE ADDRESSED AND ALLOW TO ADJUST SURFACE LEVELS AND/OR MANHOLE SURFACE HEIGHTS IN ACCORDANCE WITH LOCAL AUTHORITY.
 - THE CONTRACTOR SHALL CHECK ALL NOMINATED LEVELS AND SHALL MAKE WHATEVER (MINOR) ADJUSTMENTS THAT MAY BE REQUIRED TO ENSURE FREE DRAINAGE TO ALL LOCATIONS (NO PONDING SHALL BE ALLOWED).
 - ALL HEIGHTS, GRADIENTS AND RETAINING WALL REQUIREMENTS SHALL BE CONFIRMED ON SITE BY THIS FIRM PRIOR TO/DURING CONSTRUCTION. THIS FIRM IS NOT RESPONSIBLE FOR WALL SETOUT DIMENSIONS ETC. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR/BUILDER.

MULTIPLE SERVICES IN ROAD RESERVE AND FOOTPATH AREA INCLUDING, GAS, WATER, NBN AND TELSTRA NETWORK. DEPTHS AND LOCATIONS SHALL BE VERIFIED PRIOR TO CONSTRUCTION.



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B	02/02/26	DKS	REVISED ARCHITECTURAL PLANS
A	29/09/25	BMM/DKS	INITIAL ISSUE
DATE	DRAWN	APPROVED	

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CLIENT **JIM GLEESON**

DESIGNED	LBR	DRAWN	BMM/DKS	CHECKED	LBR
DATE	29/09/25	APPROVED			RPEQ 2014

PROPOSED DEVELOPMENT AT No. 18-20
JENKINS STREET, NEWTOWN - TOOWOOMBA
CONCEPTUAL STORMWATER MANAGEMENT PLAN

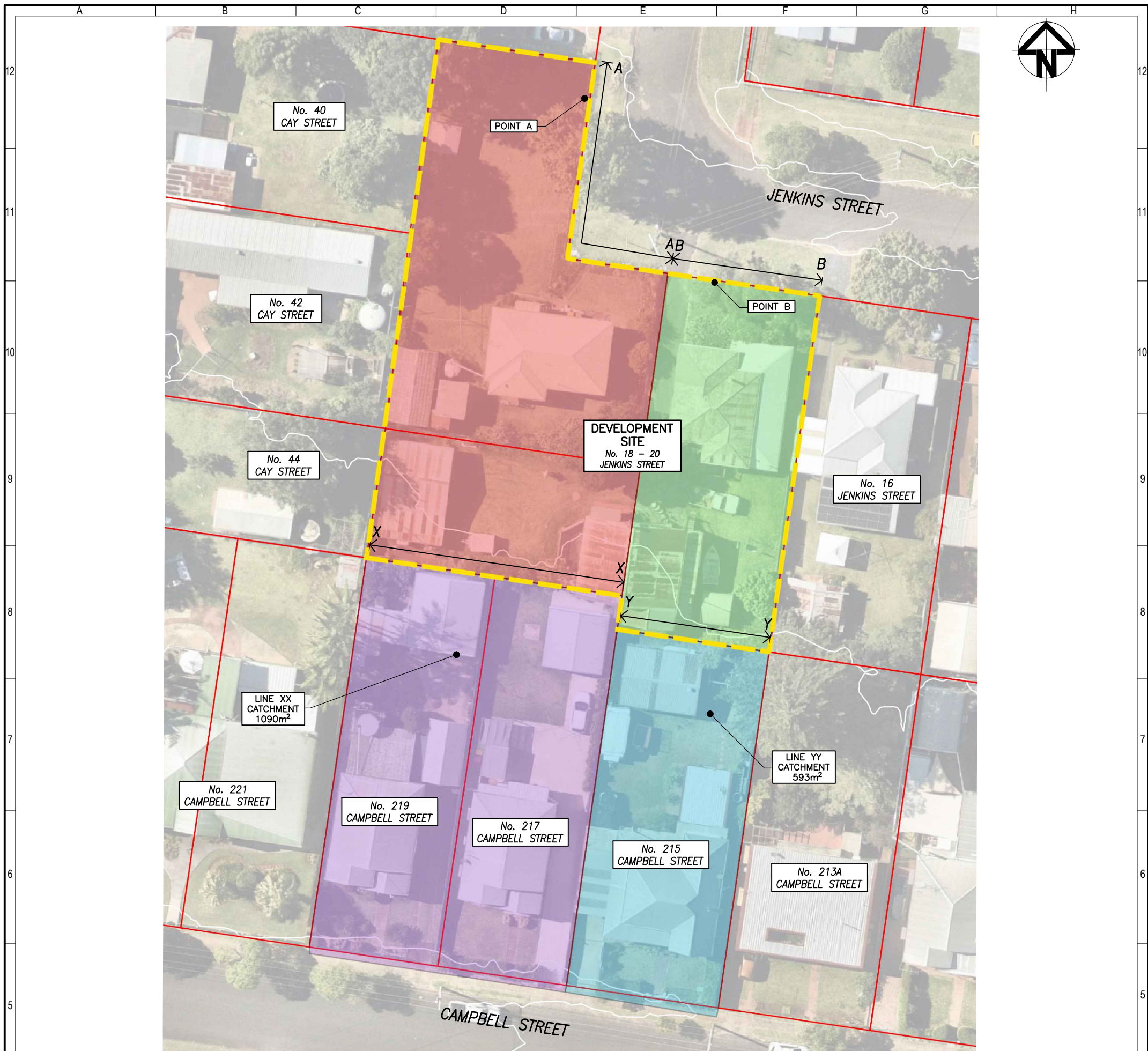
SCALE A1 - 1:100
A3 - 1:200

DRAWING NO. **28030**

NO. OF SHEETS **3**

SHEET NO. **B**

DATE **A1**



CATCHMENT PLAN
SCALE N.T.S

PRE-DEVELOPMENT

LINE X-X
(UPPER CATCHMENT FLOW)

AREA	=	1090 sqm
fi	=	61%
Tc	=	10 minutes
10 _{1/2}	=	95.3 mm/hr
10 _{1/20}	=	161.0 mm/hr
10 _{1/100}	=	211.0 mm/hr
C ₂	=	0.62
C ₂₀	=	0.76
C ₁₀₀	=	0.87
Q ₂	=	17.8 L/s
Q ₂₀	=	37.1 L/s
Q ₁₀₀	=	55.6 L/s

LINE A-A
(FLOW FROM DEVELOPMENT SITE TO JENKINS STREET)

AREA	=	3475 sqm
fi	=	43%
Tc	=	12 minutes
12 _{1/2}	=	88.5 mm/hr
12 _{1/20}	=	149.0 mm/hr
12 _{1/100}	=	196.0 mm/hr
C ₂	=	0.55
C ₂₀	=	0.68
C ₁₀₀	=	0.78
Q ₂	=	31.3 L/s
Q ₂₀	=	65.1 L/s
Q ₁₀₀	=	97.8 L/s

LINE Y-Y
(UPPER CATCHMENT FLOW)

AREA	=	593 sqm
fi	=	50%
Tc	=	10 minutes
10 _{1/2}	=	95.3 mm/hr
10 _{1/20}	=	161.0 mm/hr
10 _{1/100}	=	211.0 mm/hr
C ₂	=	0.58
C ₂₀	=	0.71
C ₁₀₀	=	0.82
Q ₂	=	9.1 L/s
Q ₂₀	=	18.9 L/s
Q ₁₀₀	=	28.4 L/s

LINE B-B
(FLOW FROM DEVELOPMENT SITE TO JENKINS STREET)

AREA	=	1173 sqm
fi	=	60%
Tc	=	12 minutes
12 _{1/2}	=	88.5 mm/hr
12 _{1/20}	=	149.0 mm/hr
12 _{1/100}	=	196.0 mm/hr
C ₂	=	0.61
C ₂₀	=	0.76
C ₁₀₀	=	0.86
Q ₂	=	17.6 L/s
Q ₂₀	=	36.7 L/s
Q ₁₀₀	=	55.2 L/s

POST-DEVELOPMENT

LINE X-X
(UPPER CATCHMENT FLOW)

AREA	=	1090 sqm
fi	=	61%
Tc	=	10 minutes
10 _{1/2}	=	95.3 mm/hr
10 _{1/20}	=	161.0 mm/hr
10 _{1/100}	=	211.0 mm/hr
C ₂	=	0.62
C ₂₀	=	0.76
C ₁₀₀	=	0.87
Q ₂	=	17.8 L/s
Q ₂₀	=	37.1 L/s
Q ₁₀₀	=	55.6 L/s

LINE A-A
(FLOW FROM DEVELOPMENT SITE TO JENKINS STREET)

AREA	=	2303 sqm
fi	=	76%
Tc	=	11 minutes
11 _{1/2}	=	91.8 mm/hr
11 _{1/20}	=	155.0 mm/hr
11 _{1/100}	=	203.0 mm/hr
C ₂	=	0.67
C ₂₀	=	0.83
C ₁₀₀	=	0.95
Q ₂	=	39.4 L/s
Q ₂₀	=	82.3 L/s
Q ₁₀₀	=	123.1 L/s

LINE Y-Y
(UPPER CATCHMENT FLOW)

AREA	=	593 sqm
fi	=	50%
Tc	=	10 minutes
10 _{1/2}	=	95.3 mm/hr
10 _{1/20}	=	161.0 mm/hr
10 _{1/100}	=	211.0 mm/hr
C ₂	=	0.58
C ₂₀	=	0.71
C ₁₀₀	=	0.82
Q ₂	=	9.1 L/s
Q ₂₀	=	18.9 L/s
Q ₁₀₀	=	28.4 L/s

LINE B-B
(FLOW FROM DEVELOPMENT SITE TO JENKINS STREET)

AREA	=	1173 sqm
fi	=	70%
Tc	=	11 minutes
11 _{1/2}	=	91.8 mm/hr
11 _{1/20}	=	155.0 mm/hr
11 _{1/100}	=	203.0 mm/hr
C ₂	=	0.65
C ₂₀	=	0.80
C ₁₀₀	=	0.92
Q ₂	=	19.4 L/s
Q ₂₀	=	40.6 L/s
Q ₁₀₀	=	60.7 L/s

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DATE	14/04/25
DRAWN	BMM
INITIAL ISSUE	
AMENDMENT	

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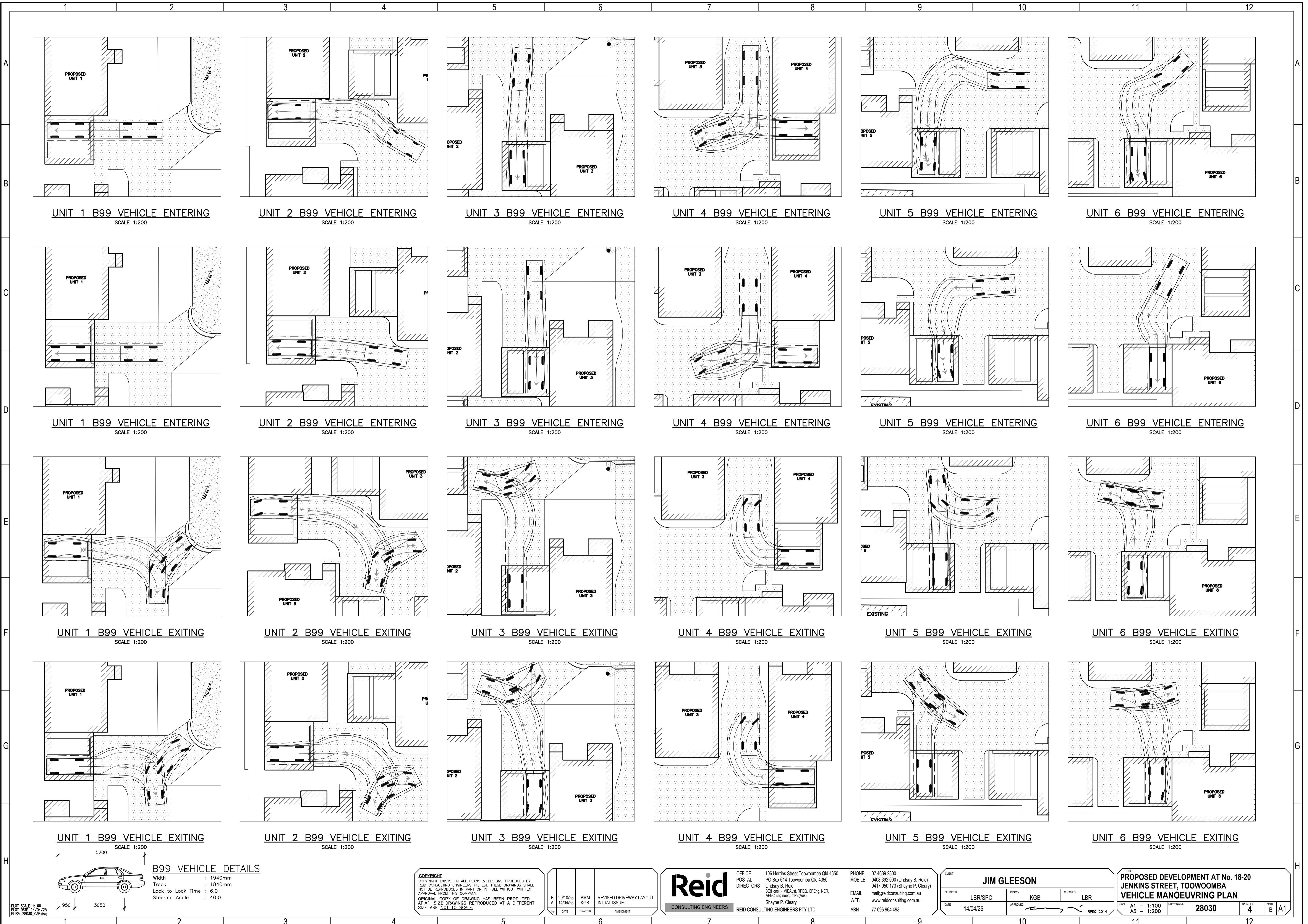
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CLIENT
JIM GLEESON
DESIGNED
LBR/SPC
DATE
14/04/25

DRAWN
BMM
CHECKED
LBR
APPROVED
RPEQ 2014

PROPOSED DEVELOPMENT AT No. 18 - 20 JENKINS STREET, NEWTOWN - TOOWOOMBA
STORMWATER ANALYSIS PLAN
SCALE
A1 - 1:100
A3 - 1:200
DRAWING NO.
28030
NO. IN SET
2
SHEET
A
A1



UNIT 1 B99 VEHICLE ENTERING
SCALE 1:200

UNIT 2 B99 VEHICLE ENTERING
SCALE 1:200

UNIT 3 B99 VEHICLE ENTERING
SCALE 1:200

UNIT 4 B99 VEHICLE ENTERING
SCALE 1:200

UNIT 5 B99 VEHICLE ENTERING
SCALE 1:200

UNIT 6 B99 VEHICLE ENTERING
SCALE 1:200

UNIT 1 B99 VEHICLE ENTERING
SCALE 1:200

UNIT 2 B99 VEHICLE ENTERING
SCALE 1:200

UNIT 3 B99 VEHICLE ENTERING
SCALE 1:200

UNIT 4 B99 VEHICLE ENTERING
SCALE 1:200

UNIT 5 B99 VEHICLE ENTERING
SCALE 1:200

UNIT 6 B99 VEHICLE ENTERING
SCALE 1:200

UNIT 1 B99 VEHICLE EXITING
SCALE 1:200

UNIT 2 B99 VEHICLE EXITING
SCALE 1:200

UNIT 3 B99 VEHICLE EXITING
SCALE 1:200

UNIT 4 B99 VEHICLE EXITING
SCALE 1:200

UNIT 5 B99 VEHICLE EXITING
SCALE 1:200

UNIT 6 B99 VEHICLE EXITING
SCALE 1:200

UNIT 1 B99 VEHICLE EXITING
SCALE 1:200

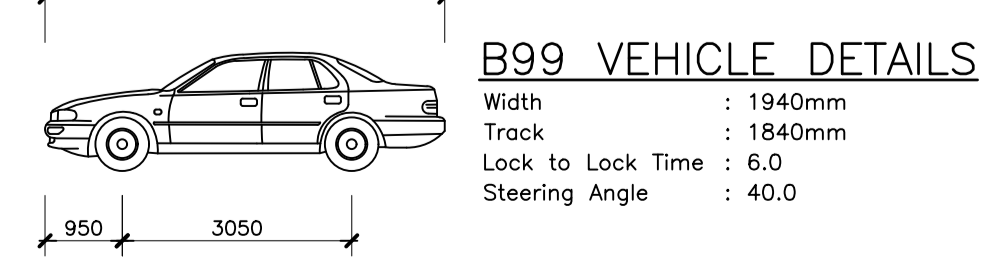
UNIT 2 B99 VEHICLE EXITING
SCALE 1:200

UNIT 3 B99 VEHICLE EXITING
SCALE 1:200

UNIT 4 B99 VEHICLE EXITING
SCALE 1:200

UNIT 5 B99 VEHICLE EXITING
SCALE 1:200

UNIT 6 B99 VEHICLE EXITING
SCALE 1:200



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NO.	DATE	DRAWN BY	AMENDMENT
B	29/10/25	BMM	REVISED DRIVEWAY LAYOUT
A	14/04/25	KGB	INITIAL ISSUE

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REID CONSULTING ENGINEERS PTY LTD

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CLIENT: JIM GLEESON			
DESIGNED: LBR/SPC	DRAWN: KGB	CHECKED: LBR	DATE: 14/04/25
APPROVED:		DATE: 14/04/25	SCALE: A1 - 1:100, A3 - 1:200

PROPOSED DEVELOPMENT AT No. 18-20 JENKINS STREET, TOOWOOMBA
VEHICLE MANOEUVRING PLAN

SCALE: A1 - 1:100, A3 - 1:200
DRAWING NO: 28030
NO. IN SET: 4
SHEET: B
A1

PLT SCALE 1:100
PLOT DATE: 14/04/25
FILES: 28030_03B.dwg

- LEGEND :**
- Levels are to an Australian Height Datum.
 - spot Levels.
 - contour Lines.
 - BH1 borehole Location & No.
 - 200 approx height of retaining wall.
 - R.P. Peg on site, if not shown, no peg present.
 - survey station.
 - survey datum.
 - power pole.
 - approx. location and size of trees on/nearby site.
 - fire hydrant.
 - water meter.
 - electricity pillar.
 - NBN telstra pit.
 - light pole.
 - approx. size assessed to potentially be the theoretical zone of influence of adjacent trees. typical.

SURVEY NOTES:

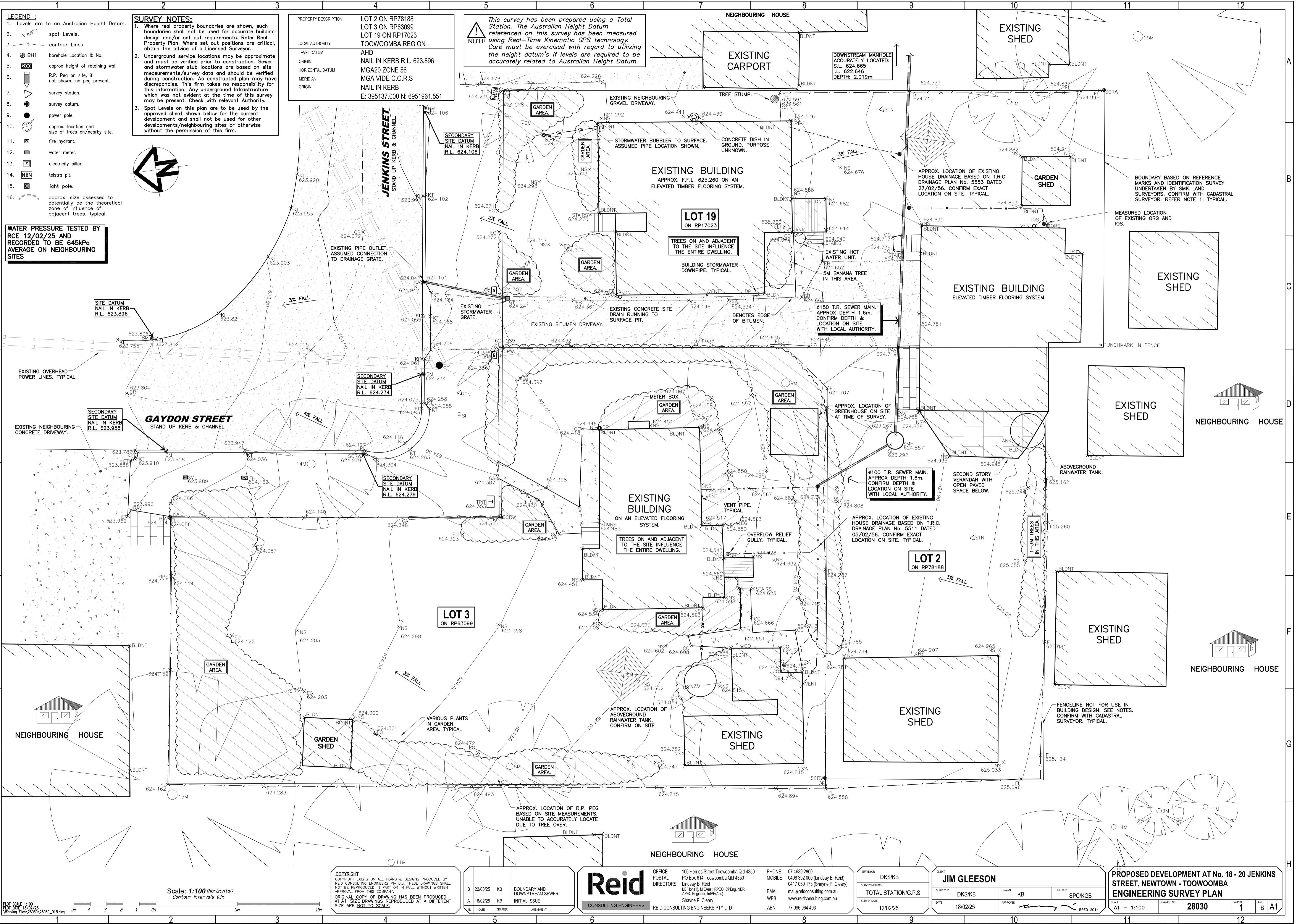
- Where red property boundaries are shown, such boundaries shall not be used for accurate building design and/or set out requirements. Refer Real Property Plan. Where set out positions are critical, obtain the advice of a Licensed Surveyor.
- Underground service locations may be approximate and must be verified prior to construction. Sewer and stormwater stub locations are based on site measurements/survey data and should be verified during construction. As constructed plan may have discrepancies. This firm takes no responsibility for this information. Any underground infrastructure which was not evident at the time of this survey may be present. Check with relevant Authority.
- Spot Levels on this plan are to be used by the approved client shown below for the current development and shall not be used for other developments/neighbouring sites or otherwise without the permission of this firm.

PROPERTY DESCRIPTION	LOT 2 ON RP78188 LOT 3 ON RP63099 LOT 19 ON RP17023 TOOWOOMBA REGION
LOCAL AUTHORITY	AHD
LEVEL DATUM	NAIL IN KERB R.L. 623.896
HORIZONTAL DATUM	MGA20 ZONE 56
MERIDIAN	MGA VIDE C.O.R.S
ORIGIN	NAIL IN KERB E: 395137.000 N: 6951961.551

NOTE

This survey has been prepared using a Total Station. The Australian Height Datum referenced on this survey has been measured using Real-Time Kinematic GPS technology. Care must be exercised with regard to utilizing the height datum's if levels are required to be accurately related to Australian Height Datum.

WATER PRESSURE TESTED BY RCE 12/02/25 AND RECORDED TO BE 645kPa AVERAGE ON NEIGHBOURING SITES



Scale: 1:100 (Horizontal)
Contour intervals 0.1m

Plot Scale 1:100
Plot Date 18/02/25
Working Files 28030_018.dwg

DATE	22/08/25	BY	KB	BOUNDARY AND DOWNSTREAM SEWER
DATE	18/02/25	BY	KB	INITIAL ISSUE

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SURVEY METHOD	DKS/KB
SURVEY DATE	12/02/25
CLIENT	JIM GLEESON
SURVEYED	DKS/KB
DRAWN	KB
CHECKED	SPCKGB
DATE	18/02/25
APPROVED	[Signature]
REG	RPEQ 2014

PROPOSED DEVELOPMENT AT No. 18 - 20 JENKINS STREET, NEWTOWN - TOOWOOMBA

ENGINEERING SURVEY PLAN

SCALE: A1 - 1:100
DRAWING No: 28030
No in SET: 1
SHEET: B A1