Premise

ROCKHAMPTON REGIONAL COUNCIL APPROVED PLANS

These plans are approved subject to the current conditions of approval associated with **Development Permit No.:** D/123-2022 **Dated:** 20 July 2023

ZOOM PROPERTY GROUP PTY LTD

5 Barton Court, Parkhurst

ENGINEERING INFRASTRUCTURE REPORT

Report No: MIS-1043/R01 Rev: C 4 July 2023



© Premise 2023

This report has been prepared by Premise Rockhampton for Zoom Property Group Pty Ltd; may only be used and relied on by Zoom Property Group Pty Ltd; must not be copied to, used by, or relied on by any persons other than Zoom Property Group Pty Ltd without the prior written consent of Premise. If Zoom Property Group Pty Ltd wishes to provide this Report to a third party recipient to use and rely upon, the recipient agrees: to acknowledge that the basis on which this Report may be relied upon is consistent with the principles in this section of the Report; and to the maximum extent permitted by law, Premise shall not have, and the recipient forever releases Premise from, any liability to recipient for loss or damage howsoever in connection with, arising from or in the respect of this Report whether such liability arises in contract, tort including negligence.

DOCUMENT AUTHORISATION								
Revision	Revision Date	Report Details						
С	04/07/23	Amended Layout Plan						
В	03/05/23	DA RFI Response						
А	02/08/22	For DA Submission						
Prepared By		Reviewed By		Authorised By				
Lawrence Mills	LM	Chris Shields	CS	Chris Shields				



CONTENTS

1.	INTRODUCTION	.1
1.1	PROPOSED DEVELOPMENT	. 1
2.	EXISTING SERVICES & CONDITIONS	.2
2.1	TERRAIN & EARTHWORKS	, 2
2.2	WATER RETICULATION	.4
2.3	SEWER RETICULATION	.4
2.4	STORMWATER	. 5
2.5	ELECTRICAL AND TELECOMMUNICATIONS	6
2.6	GAS	. 9
3.	CONCLUSION	.9

FIGURES

Figure 1 - Subject Site	1
Figure 2 – Conceptual Proposed Site Layout	2
Figure 3 – General Site Terrain Towards the Southern Site Boundary	3
Figure 4 – General Site Terrain Along the Northern Site Frontage	3
Figure 5 – Existing Water Infrastructure	4
Figure 6 – Existing Sewer Infrastructure	5
Figure 7 – Ergon DBYD Extract	7
Figure 8 – Existing Electrical Turret and Pit on North-West Site Corner	7
Figure 9 – Existing Street Lights on Barton Court Site Frontage	8
Figure 10 – Telstra DBYD Extract	8





Ν

1. INTRODUCTION

Premise Australia Pty Ltd (here within referred to as "Premise") has been commissioned by Zoom Property Group to prepare an Engineering Infrastructure Report (EIR) in support of a development application (DA) to implement an industrial / commercial business at 5 Barton Court, Parkhurst (Lot 2 on SP326319). The site is approx. 1ha in size, is located within the recently developed Lily Place Industrial Estate and is currently vacant. The proposed access for the site is via two (2) separate driveway crossovers from Barton Court on the northeast (entry) and north-west (exit) corners of the property frontage.

This report intends to address the Civil Engineering Infrastructure for the proposed development including earthworks, sewer main connection, water main connection, electrical, and telecommunications for the project.

With respect to stormwater management, specific details are provided in Section 2.4 noting that should be considered in conjunction with the separate *Stormwater Management Plan (Including Hydraulic Impact Assessment)* that has previously been prepared by Knobel Engineers for the Lily Place Industrial Estate DA (D/52-2019).



Refer to Figure 1 below:

Figure 1 - Subject Site

1.1 Proposed Development

The proposed development will be classified as High Impact Industry as per the Rockhampton Regional Council (RRC) Planning Scheme. The site layout illustrated in **Figure 2** consists of one (1) warehouse with a Gross Floor Area (GLFA) of 3,000 square metres, and an office with 250 square metres of GFA.





Figure 2 – Conceptual Proposed Site Layout

The proposed order of construction works is planned to generally follow this summary below:

- Minor clearing and grubbing;
- Earthworks and retaining wall works;
- Underground services installation;
- Construction of new buildings, parking and hardstand areas as per the Development Proposal;
- Final detailed works including perimeter fencing; and
- Landscaping establishment.

Refer to attached drawing C001 (Rev 3) for the generally proposed Civil Works Layout.

2. EXISTING SERVICES & CONDITIONS

2.1 Terrain & Earthworks

All sites within the recently constructed Lily Place Industrial Precinct are currently vacant and have been cleared of vegetation. The site is bordered by neighbouring industrial lots to the east and west, with frontage to Barton Court provided on the northern boundary.

Based on the survey provided by Capricorn Survey Group (CSG), the gradient across the site is relatively flat, grading north-east to south-west at an approximate slope of 1%. Elevations reach a maximum of 24.5 m AHD on the north-eastern corner of the site and decline towards a minimum height 23.0 m AHD on the south-western site corner. Refer to **Figure 3** and **Figure 4** below for photos of the existing terrain taken from Barton Court:

PAGE 2





Figure 3 – General Site Terrain Towards the Southern Site Boundary



Figure 4 – General Site Terrain Along the Northern Site Frontage

In terms of the proposed earthworks for the site, due to the orientation of the proposed warehouse and office, the surrounding hardstand areas, and the fall across the lot generally from north-east to south-west, it is proposed that some controlled fill and retaining will be required around the southern 2/3 of the site to ensure traversable grades for proposed trucks and machinery. It is anticipated that such fill and retaining walls will be a maximum height of 1m above the existing terrain (southern side of the site), required to get to a subgrade level for pavement and structural elements such as footings and slabs.

It is recommended that a geotechnical investigation is undertaken on this to confirm the in-situ conditions, which will inform pavement, slab, driveway crossover, retaining wall and structural footings designs.



2.2 Water Reticulation

Council's Geographical Information System (GIS) illustrates that the site has sufficient access to existing water mains. There is an existing 150mm diameter mPVC water main which traverses beneath the footpath adjacent to the northern site boundary in the Barton Crt road reserve. There are also fire hydrants located on the opposite side of Barton Court from the site, as shown in **Figure 5**.

Given that the water mains have likely been sized to meet the industrial demands of Lily Place, no external upgrades are anticipated to meet flow and pressure requirements.

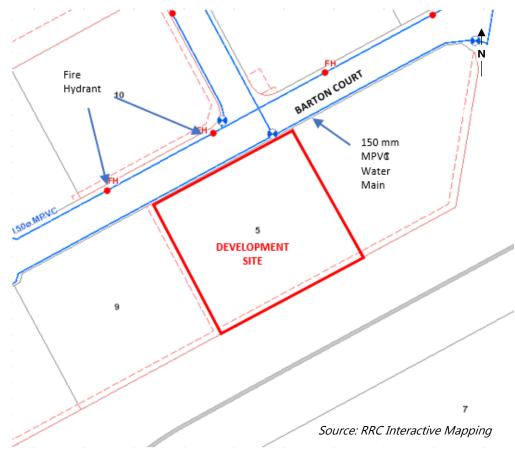


Figure 5 – Existing Water Infrastructure

The internal water supply for the proposed development, including any necessary booster and metering arrangements if required, will be detailed by a suitably qualified person (Hydraulic Engineer) during the detailed design phase, and all appropriate approvals sought from Council.

2.3 Sewer Reticulation

Council's Geographical Information System (GIS) shows that the site is well serviced by existing sewer mains. There are existing easements housing 150 mm uPVC reticulation mains that traverse the southern portion of the site, and in the adjacent lot to the west along the whole western boundary of the site. There are also a total of three (3) access chambers located near the north-west, south-west and south-east site corners, with the intent being for the site to most likely connect to the existing sewer manhole near the south-eastern corner. Refer to **Figure 6.**

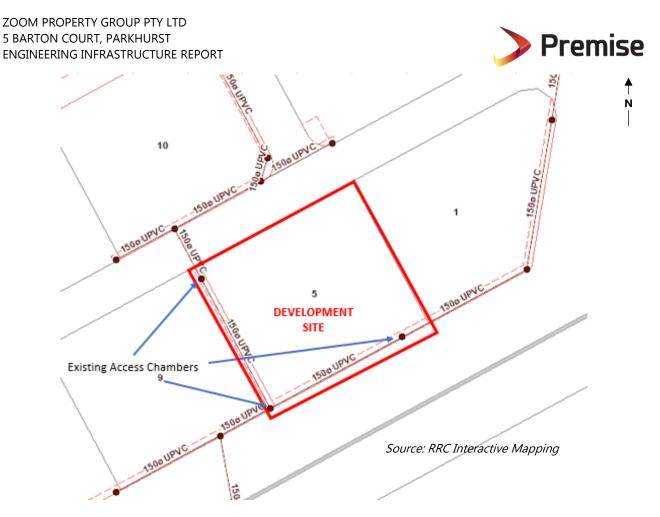


Figure 6 – Existing Sewer Infrastructure

All proposed internal sanitary drainage will be documented during the detailed design phase by a suitably qualified person (Hydraulic Engineer), and all appropriate approvals sought from Council. This includes any first-flush diverters or grease/oil separators that are intended to discharge to the sewer network via a trade waste approval.

2.4 Stormwater

Knobel Engineers have previously prepared a Stormwater Management Plan (Including Hydraulic Impact Assessment) that was approved as part of the DA for the Lily Place Industrial Estate ('D/52-2019' RRC Reference and '1907-12044 SRA' SARA Reference). The SMP / HIA quantified the peak stormwater discharge up to a 1% AEP flood event in a post-development scenario and provided measures for water quantity and quality management for the whole precinct. The post-development scenario in this case considered a fully developed industrial site with all building pads levelled to be above adjacent major flow channels, to maintain adequate freeboard. The adoption of conveyance channels and a basin located near the southwestern corner of the site, was adopted to maintain a 'no worsening' case from pre- to post-development states. Furthermore, a bioretention basin was also integrated within this basin to treat stormwater and meet reduction targets for Gross Pollutants (GP), Total Suspended Solids (TSS), Total Phosphorus (TP) and Total Nitrogen (TN) as per RRC requirements and the State Planning Policy (2017).

As both hydraulic modelling and water quality modelling were undertaken to account for the entire Lily place Industrial Estate being fully developed up to 90% impervious, Premise considers that any stormwater issues relevant to the site in question have already been resolved through measures outlined by Knobel Engineers. Therefore, no further investigation into stormwater management is considered necessary for the proposed development.

This was further confirmed by Jamie McCaul from RRC via email correspondence on 14 July 2022, whereby he stated:



I can confirm that the basin and water quality device that has been constructed/ designed is considering a fully developed (90% impervious) site. Hence no site-specific detention or water quality improvements are needed.

Following further email correspondence with Jamie McCaul and Mohit Paudyal from Council between 6 September 2022 and 14 September 2022, we understand that there may be some inconsistencies between what was documented by Knobel Engineers in the DA phase of the Lily Place development, and what was subsequently documented by Siris Consulting Engineers in the detailed design / Operational Works phase, approved by Council, and ultimately built and accepted On Maintenance by Council. In summary, it appears that some form of supplementary stormwater detention and quality improvement is now required within the site, and Council Officers were willing to agree a practical compromise that meets both parties' interests.

With reference to the attached amended drawing C001 (Rev 3), the following approach for internal stormwater management has now been taken:

- The proposed internal piped stormwater system seeks to split the discharge from the site to send approx. 25% of the site to the existing piped system within Barton Crt, approx. 25% to the existing inter-allotment drainage system along the southern boundary of the site, and at Council's request the balance 50% to the open drainage channel in the Boundary Rd road reserve immediately to the south. This is achieved through a combination of connecting to an existing gully pit, an existing inter-allotment drainage pit, and also discharging two (2) new headwalls to the south. This will help alleviate the stormwater load on any one part of the stormwater system, the first two of which ultimately discharge into the regional detention basin to the west of the Lily Place Estate;
- SPEL Stormsacks (or approved equivalents) are now included within the six (6) pits noted with an asterisk, to assist with stormwater quality improvement; and
- 2 x 5,000L slimline tanks plumbed for detention (ie. not to hold water for re-use) have been nominated on the southern end of the warehouse to command all of the proposed roof area via gutters and downpipes. This will provide peak flow attenuation (throttling) before that portion of the runoff enters the proposed piped system on the southern side of the warehouse and ultimately discharges into existing downstream piped infrastructure.

All proposed internal stormwater management (downpipes, grated inlets and pipes) will be documented during by a suitably qualified person (Hydraulic Engineer) during the detailed design phase, and all appropriate approvals sought from Council.

2.5 Electrical and Telecommunications

There does not appear to be any existing overhead electrical infrastructure within the vicinity of the site. According to the DBYD search the closest underground asset (below 33 kV) maintained by Ergon Energy is located approximately 30m to the south of the site adjacent Boundary Road (below 33 kV) (refer **Figure 7**).

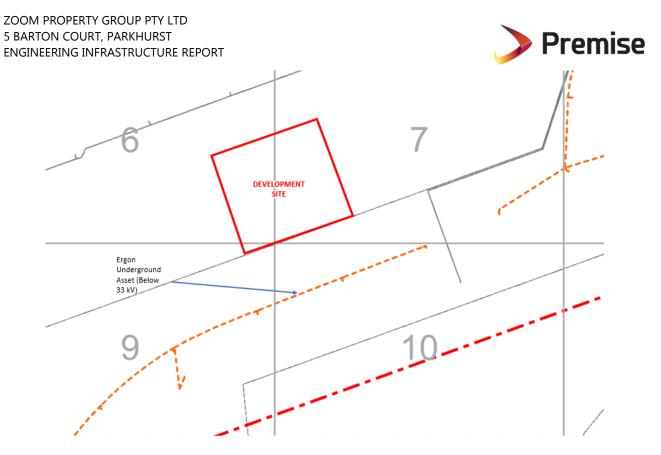


Figure 7 – Ergon DBYD Extract

However, site inspection shows that LV electrical reticulation is evident via the existence of an electrical turret and pit near the north-west corner of the site and streetlights along Barton Court itself (refer **Figure 8** and **Figure 9**). This suggests that there are existing underground services which have yet to be registered by DBYD.



Figure 8 – Existing Electrical Turret and Pit on North-West Site Corner





Figure 9 – Existing Street Lights on Barton Court Site Frontage

Any electrical reticulation design for the proposed internal works will be completed by a qualified Electrical Engineer during the detailed design phase, and all appropriate approvals sought from the relevant authority.

It is a similar scenario for telecommunications infrastructure, in that the DBYD search (refer to **Figure 10** below) shows the closest Telstra pit located approximately 75 metres to the north-east of the site, in Barton Crt.

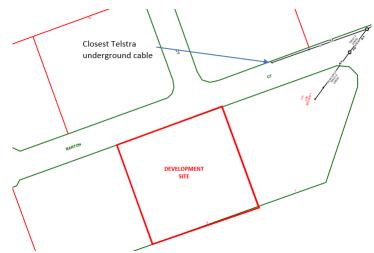


Figure 10 – Telstra DBYD Extract

However, site inspection shows that telecommunications reticulation is evident via the existence of a telecommunications pits near the north-west corner of the site (refer **Figure 8**). This suggests that there are existing underground services which have yet to be registered by DBYD.

Any telecommunications reticulation design for the proposed internal works will be completed by a qualified Telecommunications Engineer during the detailed design phase, and all appropriate approvals sought from the relevant authority.



2.6 Gas

There does not appear to be any existing gas services immediately adjacent to the subject site.

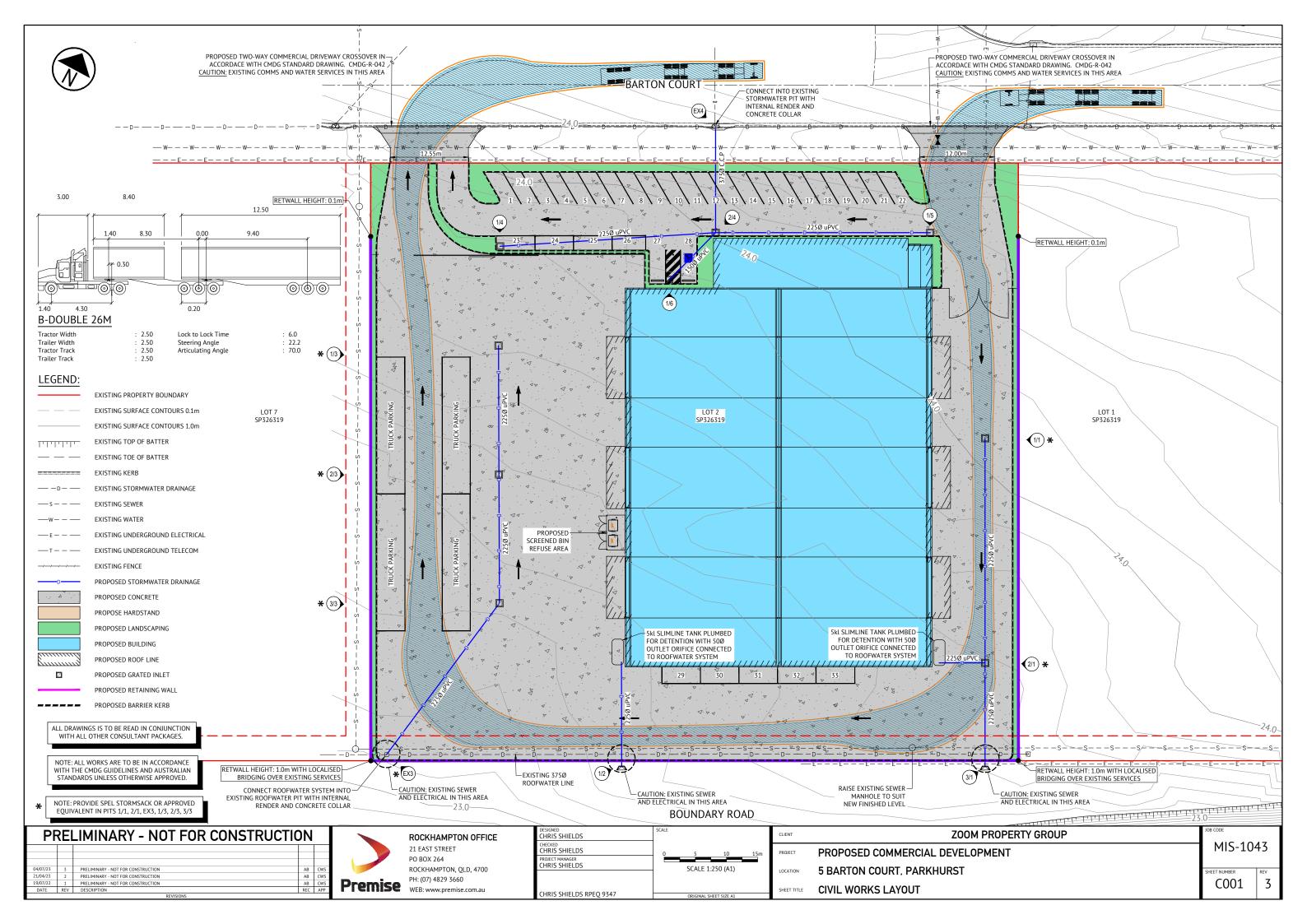
3. CONCLUSION

There appears to be no insurmountable engineering infrastructure difficulties with the proposed development on the subject site at 5 Barton Crt, Parkhurst (Lot 2 on SP326319). A review of the services proposed for this development and their impact on surrounding services, indicates that there is no impediment to development. The development can be adequately serviced by the existing water and sewer networks and electrical and telecommunication services are also available immediately adjacent to the site. The management of stormwater quantity and quality for a fully developed site has also been addressed in Section 2.4, to be read in conjunction with the previous modelling and reporting tied into the DA Approval for the Lily Place Industrial Estate itself (D/52-2019).

Minor alterations in the design may eventuate from future applications, however the fundamentals of the design strategy ensure that service provisions will not pose a serious constraint to development.

If you should have any questions regarding this report, please do not hesitate to contact the Premise Office in Rockhampton.





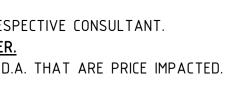
imagine 🛛 create 🖓 deliver

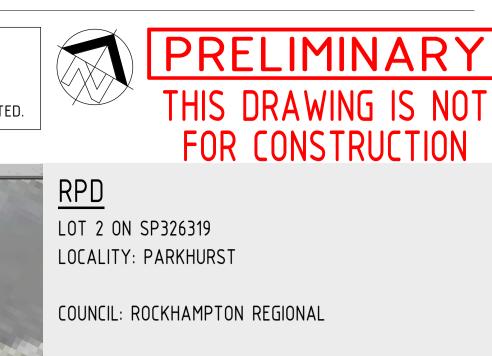


4. ALL AREAS ARE GROSS AREAS, UNLESS NOTED OTHERWISE

LANDSCAPING SHOWN IS FOR 'ARTIST IMPRESSION' PURPOSES ONLY REFERENCE SHOULD BE MADE TO THE LANDSCAPE DRAWINGS

THIS DRAWING PACKAGE IS FOR <u>EOI</u> AND IS <u>NOT</u> TO BE USED FOR TENDER PURPOSES. ALL DESIGN COMPONENTS ARE SHOWN INDICATIVE ONLY AND ARE SUBJECT TO FINAL DESIGN DURING DETAILED DESIGN BY THE RESPECTIVE CONSULTANT. ANY PRICING BASED UPON THE DETAILS SHOWN IN THESE DRAWINGS ARE COMPLETELY AT THE RESPONSIBILITY OF THE TENDERER. VERVE BUILDING DESIGN CO. SHALL NOT BE HELD RESPONSIBLE FOR ANY REQUIRED CHANGES OR UPDATES TO THE DESIGN, POST D.A. THAT ARE PRICE IMPACTED.





	TOTAL SITE AREA LANDSCAPE AREA BLDG SITE COVER (INCLUDES ALL ROOFED AREAS)	– 1.00ha – 515m ² – 33%
	IMPERVIOUS AREAS PRE SITE DEVELOPMENT (INCLUDES BUILDING ROOFED AREAS)	- 0m²
	• POST SITE DEVELOPMENT (INCLUDES BUILDING ROOFED AREAS)	- 9,485m²
	BUILDING AREAS – (GFA) • T1 WAREHOUSE – 3250m ² (INCLUDES ANCILLARY OFFICE AREA – 250m ²)	
OUNCIL	EXTERNAL AREAS - (GFA)· STAFF OUTDOOR· T1 REFUSE· T1 REFUSE· T1 REFUSE· T1 AL EXTERNAL AREA	
the current	 CAR PARKING PARKING REQUIRED (REFER TO TRAFFIC REPORT) PARKING PROVIDED - 33 	
	the second second second	115

Eor 2 Draron C					
Scale @A1 As indicated	Date AUGUST 2022	Job Number - Drawing Number		Revision	
Drawn JC	Approved By GN	22188	DA01	P3	ľ



	PRELIMINARY
	THIS DRAWING IS NOT FOR CONSTRUCTION
	 NOTE: 1. ALL EXTERNAL MATERIALS & FINISHES SHOWN INDICATIVE ONLY & SUBJECT TO FINAL TENANT STANDARDS 2. ALL DIMENSIONS MEASURED FROM FINISHED GROUND FLOOR LEVEL UNLESS NOTED OTHERWISE 3. ALL SIGNAGE INCLUSING LOCATIONS & HEIGHTS ARE SUBJECT TO A SEPERATE SIGNAGE APPLICATION & APPROVAL BY LOCAL AUTHORITY 4. LANDSCAPING IS SHOWN FOR "ARTIST IMPRESSION" PURPOSES ONLY. REFERENCE SHOULD BE MADE TO THE LANDSCAPE DRWAINGS PREPARED BY THE RELEVANT CONSULTANT
	ROCKHAMPTON REGIONAL COUNCIL
OURT	APPROVED PLANS
	These plans are approved subject to the current conditions of approval associated with
	Development Permit No.: D/123-2022 Dated: 20 July 2023
,−SIGNAGE TO TENANT	
STANDARDS	
Image: Constraint of the second se	Image: constrained of the second of the s
NOT TO BE USED FOR TENDER PU	RPOSES. RING DETAILED DESIGN BY THE RESPECTIVE CONSULTANT.
WINGS ARE COMPLETELY AT THE FOR ANY REQUIRED CHANGES OR Project Description	RESPONSIBILITY OF THE TENDERER. UPDATES TO THE DESIGN, POST D.A. THAT ARE PRICE IMPACTED.
PROPOSED WAREHOUSE DE	PERSPECTIVES

Date APR 2023

Approved By

GN

JC

Job Number - Drawing Number

22188

Revision

DA02 P2



SIGNAGE TO TENANT							2° FALL>				-	
		ARC										
	CONCRETE DADO PA FINISH TO TENANT	ANEL WALL. PAINT/TEXTURE STANDARDS			ALL ANY	<u>.</u> Design co (pricing b	MP0 ASE	NENTS ARE SH D UPON THE DE	. A. PURPOSES OWN INDICATIVE TAILS SHOWN I L NOT BE HELD	E ONLY A IN THESE	AND A E DRAN	.R W
	/ERVE	commercial / industri fast food restaurant of	()	ight, all rights reserved. s the ⊖copyright & property of DING DESIGN and must not be	Revisi Rev P1 P2	17.04.2023	Drn LN	PRELIMINARY ISSUE	Description		Appr GN GN	F
	BUILDING DESIGN CO. PH. (07) 3857 0942 HE 4030 E: info@vervebd.com.au	 travel centre / service project concept to co 	estations Do not scale t	ated without authorisation.								