PROPERTY DETAILS

LOT 14 ON RP606310 AREA: 1788 sq.m



SITE PLAN NOTES:

- 1. Earthworks to comply with AS3798 and AS2870.1.
- 2. Figured dimensions shall be taken in preference to those scaled from the drawing. Builder to verify all dimensions on site prior to construction.
- 3. Finished surface lines shown on elevations and platform layout shall be confirmed on site prior to commencement of building work.
- 4. Structure designed for Wind Gust Speed : C1 (W41C)
- 5. All construction shall be in accordance with the requirements of the Building Code of Australia, the Building Act 1975 and the Local Authorities' requirements.
- 6. Timber members to be sized and fixed in accordance with C1 to A.S. 1684.
- Builder to provide a fall around the building of :
 1 in 20 for the first 1.0m around building
 1 in 80 for the next 1.0m around building
- 8. Connect all new downpipes as shown and fall pipes to kerb and channel or intra allotment drainage system. Stormwater drainage design is indicative only. Plumber to verify on site the suitability of the design and adjust accordingly to suit conditions. All plumbing work to comply with relevant plumbing codes and standards.
- 9. Install a sleeve joint where wall downpipes meet ground stormwater lines to allow for movement.
- 10. Confirm location of any underground services prior to commencement of building work.
- 11. Check position of current mains water connection and provide connecting link to dwelling to the requirements of the Local Authority and current Water & Sewerage Supply Act. Good pressure to be achieved in supply line to building.
- 12. Extent of principal Builder and relevant Subcontractors to be within the confines of the property boundaries and portion of the footpath immediately adjoining front property alignment. Seek neighbours consent if access or additional construction is required outsides the confines of the subject property.





FLOOR PLAN NOTES:

- Figured dimensions shall taken in preference to those scaled 1. from the drawing.
- 2. Builder to verify all dimensions on site prior to commencement of building work.
- 3. Finished surface lines shown on elevations and platform layout shall be confirmed on site prior to commencement of building work.
- Structure designed for Wind Gust Speed : C1 (W41C) 4.
- Construction to be in accordance with the Building Code of 5. Australia, Qld Home Building Manual and all other relevant SAA Codes and Standards.
- Builder to ensure adequate surface drainage and that no low 6. spots capable of ponding are created during construction.
- Where applicable, WC doors that swing inwards to be fitted 7. with demountable hinges. Gaps to be provide at the top to allow door to be lifted off when in the closed postion.
- Required number of new stair count is indicative only. Verify 8. number of treads on site as per finished ground level.
- Termite protection to be installed in accordance with 9. AS3660.1-2000. A certificate is to be supplied to the Building Approval Authority as evidence of treatment where necessary.

MEMBER SCHEDULE:

ec1	EXISTING 200 DIA. HW POSTS
ec2	EXISTING 75 x 75 SHS POSTS
eb1	EXISTING 125 x 75 HW BEARER
C1	75 x 75 x 4.0 GALV. SHS POSTS
C2	100 x 100 HW (F14) POSTS (FULL HEIGHT)
C3	100 x 100 HW (F14) POSTS (HANDRAIL HEIGHT)
SC1	75 x 75 x 4.0 GALV. SHS SUPPORT POSTS
B1	200 x 75 HW (F14) BEARER (CONT.)
B2	200 x 75 HW (F14) BEARER (CONT.)
B3	200 x 75 HW (F14) BEARER
B4 ———	200 x 75 HW (F14) BEARER
PP1	225 x 50 HW (F14) POLE PLATE
PP2	225 x 50 HW (F14) POLE PLATE
J1	225 x 50 HW (F14) OR 240 x 45 MGP10 H3 JOISTS @ 450 MAX. CRS.
RB1	170 x 45 'HYSPAN' L.V.L. ROOF BEAM (CONT.)
RB2	200 x 63 'HYSPAN' L.V.L. ROOF BEAM (CONT.)







	-		
	No.	Date	Amendment
s to Owners'	A	22.03.24	For Building Approval
& NCC	1	21.03.24	For Engineers Check
	P1	15.03.24	Preliminary Issue
<u>, </u>			
•			
оскнам	рто	N REGI	ONAL COUNCIL
- A	PPR		PLANS
se plans ar	e ap	proved s	subject to the current
litions of ap	prova	al associ	ated with
elopment	Pern	nit No.:	D/108-2024
d: 23 Sep	temk	oer 2024	
		212	Building Design
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P 07 4927 7464 M 0407 599 727 E trent@skdrafting.com.au Shop 2/149 Canning Street **skdrafting.com.au** Rockhampton Qld 4700 T E Mayall Pty Ltd QBCC Lic No 15396881







22 Port Curtis Road, Port Curtis 4700

Flood Statement

ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

These plans are approved subject to the current conditions of approval associated with

Development Permit No.: D/108-2024

Dated: 23 September 2024

DATE 14 August 2024 REF R002-24-25-001 CLIENT SK Drafting COMMERCIAL IN CONFIDENCE

Contact Information

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Document Information			
Prepared for	SK Drafting		
Document Name	Flood Statement		
Job Reference	R002-24-25-001		
Revision	А		

Document History						
Revision	Date Description of Revision Prepared by	Description of Revision	Prepared	Approved by		
		Name	Signature	RPEQ No		
A	14/08/2024	Original Issue	T. Lisle	R. Bywater	Aby to	23569

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Appendices

Appendix A: Flood Hazard Overlay Code Responses Appendix B: Site Layout & Structure Plans Appendix C: Flood Search Report

1 Introduction

McMurtrie Consulting Engineers (MCE) have been engaged by SK Drafting to provide a Flood Statement report to support the proposed construction of a structure in the Flood Overlay zone. The site is located at 22 Port Curtis Road, Port Curtis 4700, on land described as Lot 14 on RP606310.

The proposed development includes:

- A 50 square meter deck added onto the south-western side of the existing house

2 Flooding Assessment

2.1 Existing Conditions

The site a residential lot with a single dwelling located on the north-eastern side of the property.

The site is located within the Flood Hazard Overlay area as defined by the Rockhampton Regional Council (RRC) Planning Scheme. Specifically, the proposed development is affected by the following overlay triggers:

- Fitzroy River Flood, category H4/H5
- Local Catchment Flood, Planning Area 1/Planning Area 2

In order to assess the existing flooding characteristics at the site, a Flood Search was requested from RRC, which has been attached in Appendix C. The results of the flood search have been summarised in Table 1.

	Fitzroy River Flooding			Local Catchment Flooding					
	Level (m AHD) V		Velocit	Velocity (m/s)		Level (m AHD)		Velocity (m/s)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
1% AEP	8.21	8.24	0.27	0.61	6.16	6.28	0.00	0.39	
2% AEP	7.84	7.86	0.1	0.47	6.05	6.23	0.00	0.39	
5% AEP	7.25	7.25	0.07	0.23	N/A	N/A	0.00	0.31	
10% AEP	6.58	6.58	0.01	0.15	0.00	0.31	0.00	0.31	
18% AEP	N/A	N/A	0.00	0.31	5.84	6.00	0.00	0.31	
39% AEP	N/A	N/A	N/A	N/A	5.88	5.97	0.00	0.22	

Table 1 - Summary of Flood Search Results

Based on the expected ground surface level at the location of the proposed development, 6.00m AHD, the expected range of flooding depths are presented in Table 2.

Table 2 - 1% AEP Flooding Depths

	Fitzroy River Flooding		Local Catchment Flooding	
	Depth (m)		Depth (m)	
	Min.	Max.	Min.	Max.
1% AEP	2.21	2.24	0.16	0.28



Figure 1 - Site Layout Plan

The location and extent of the structure are more accurately represented in Appendix B.

2.2 Flood Impact

The results of the flood search indicate that the riverine flooding event is slow moving, and typically indicative of overbank or backwater flooding. All areas of the site experience significant depths of flooding during the defined flood event, with an expected velocity of 0.0m/s to 0.61m/s. The deck's finished floor level of 2.2m from the ground matches the maximum depth of flooding expected for the 1% AEP event, however given the minor to negligible cross-sectional area of obstruction to the flow this represents, there is no measurable afflux expected.

With reference to the Australian Disaster Resilience Handbook *Guideline 7-3 Flood Hazard*, the flooding at the location of the proposed development would be categorised as H4-H5 flooding, which indicates it is unsafe for people and vehicles, as well as rendering buildings vulnerable to structural damage. While the low velocity of flow is unlikely to be a risk to the structural integrity of the deck, the columns should be sized to ensure that they are suitably robust.

The creek catchment event is of a significantly lower magnitude, with an approximate max depth of 0.28m and an approximate max velocity of 0.39m/s, which would correlate to a hazard category of H1, which is generally safe for people, buildings and vehicles.

Given the proposed structure is a deck that is an extension onto the existing house, if built accordingly should be able to withstand the flooding similarly to the existing house.

2.3 Emergency Management Procedure

Given the flooding that affects the site is riverine in nature, significant warning time can be expected due to the size of the basin catchment. The creek catchment flooding does not pose a risk to people and therefore sheltering in place would be more appropriate in such events.

The occupants of the dwelling on the site should monitor the Bureau of Meteorology website prior to and during extended rainfall events in order to ensure they are prepared to evacuate the site if needed. It is expected that evacuation will be via Port Curtis Road. All stored items should be moved to ground that is above the flood zone, as well as the site cleaned of debris that could otherwise impact neighbouring properties.

Following the event, the occupants should wait until given advice from the relevant authorities that it is safe to return to the site.

3 Conclusion

The proposed development is a carport structure in the Flood Overlay zone located at 22 Port Curtis Road, Port Curtis 4700, on land described as Lot 14 on RP606310. The development is not expected to result in a material increase in flood level or flood hazard upstream, downstream or adjacent to the site.

3.1 Qualifications

This flood statement has been prepared by MCE to support a Building Works Assessable Against the Planning Scheme application, for a proposed structure located within the Flood Hazard Overlay zone.

The analysis and overall approach were specifically catered to the requirement of this project and may not be applicable beyond this scope. For this reason, any other third parties are not authorised to utilise this report without further input and advice from MCE.

Appendix A: Flood Hazard Overlay Code Responses

Table 3 - RRC Flood Hazard Overlay Code Table 8.2.8.3.1

Performance Outcomes	Acceptable Outcomes	Responses			
Development in Fitzroy River flood areas – H1 (low h catchment flood - planning area 2	Development in Fitzroy River flood areas – H1 (low hazard area) or H2 (medium hazard area) or North Rockhampton flood management area or Local catchment flood - planning area 2				
Editor's note-Refer to overlay maps OM-8A and OM-8	3C				
P01	AO1.1	AO1.1			
Development (including extensions) for non- residential purposes is able to provide a safe refuge for people and for the storage of goods during times of flood inundation.	For non-residential development, at least thirty (30) per cent of the gross floor area of all new buildings and structures is located a minimum of 500 millimetres above the defined flood level.	Alternative solution – given the semi-rural nature of the site it is not likely that an increased area of refuge is necessitated to be provided by the proposed deck. It is also noted that the deck FFL is similar to the dwelling FFL.			
	Editor's note—Areas less than those nominated above may be supported where accompanied by a flood impact report in accordance with SC6.10— Flood hazard planning scheme policy.				
	AND				
	AO1.2 A report from a registered professional engineer of Queensland certifies that the development in the flood area will not result in a material increase in flood level or flood hazard on upstream, downstream or adjacent properties.	AO1.2 Complies – as provided in this document.			

PO2	AO2.1	AO2.1
Development is located to minimise susceptibility to and potential impacts of flooding.	For residential uses the finished floor levels of all habitable rooms shall be constructed a minimum of 500 millimetres above the defined flood level.	Not Applicable – not for a residential use.
	AND	
	AO2.2 A report from a registered professional engineer of Queensland certifies that the development in the flood area will not result in a material increase in flood level or flood hazard on upstream, downstream or adjacent properties.	AO2.2 Complies – as provided in this document.
	Editor's note—Report to be prepared in accordance with SC6.10—Flood hazard planning scheme policy.	
PO3	AO3.1	AO3.1
Development avoids the release of hazardous materials into floodwaters.	All hazardous materials and hazardous manufacturing equipment and hazardous containers are located and stored a minimum of 500 millimetres above the defined flood level.	Will Comply – no hazardous materials or manufacturing equipment will be stored on the site.
	Editor's note—Refer to the Work Health and Safety Act 2011 and associated regulation, the Environmental Protection Act 1994 and the relevant building assessment provisions under the Building Act 1975 for requirements related to the manufacture and storage of hazardous substances.	

Table 4 - RRC Flood Hazard Overlay Code Table 8.2.8.3.1

Performance Outcomes	Acceptable Outcomes	Responses
Development in Fitzroy River flood areas - H3-H4 (h	igh hazard areas) or H5-H6 (extreme hazard areas) o	or Local catchment flood - planning area 1

Editor's note-Refer to overlay maps OM-8A and OM-8C



PO4	AO4.1.1	PO4
Development does not involve the further intensification of land uses and does not increase the risk to people and property.	Development does not involve new buildings or structures. OR	Complies – the proposed structure does not intensify the land use or increase the risk to people or property, as demonstrated by this report.
	AO4.1.2	
Editor's Note—Flood hazard risk assessment can be undertaken in accordance with SC6.10 — Flood	Where involving the replacement or alteration to an existing non-residential building or structure:	AO4.1.2 Not Applicable.
hazard planning scheme policy.	 (a) there is no increase in the existing or previous buildings' gross floor area; and (b) the finished floor level of any replacement or alteration to an existing building is constructed a minimum of 500 millimetres above the defined flood level. 	
	OR	
	AO4.1.3	
	Where involving the replacement or alteration to an existing caretaker's accommodation, dwelling house or dwelling unit:	AO4.1.3
	 (a) there is no increase in the number of dwellings; (b) there is no increase in the existing or previous buildings' gross floor area; and (c) the finished floor level of all habitable rooms shall be constructed a minimum of 500 millimetres above the defined flood level. 	
	AND	AO4.1.4
	AO4.1.4	Complies, the structure does not exceed 50m ² and
	Where located in the rural zone, the total floor area of class 10a buildings and structures on the site do not exceed a total of fifty (50) square metres, and	is set back from Port Curtis Rd by greater than 20m. Setbacks to the side boundaries are limited by the

	are set back a minimum of twenty (20) metres from all site boundaries.	narrow shape of the lot however do not encroach further than the existing dwelling.
P05	AO5.1	AO5.1
Development avoids the release of hazardous materials into floodwaters.	Materials manufactured, used or stored on site are not hazardous in nature.	Will Comply – no hazardous materials or manufacturing equipment will be stored on the site.

Table 5 - RRC Flood Hazard Overlay Code Table 8.2.8.3.1

Performance Outcomes	Acceptable Outcomes	Responses
Development in floodplain investigation area		
Editor's note-Refer to overlay map overlay map OM-8	В	
PO6	AO6.1	AO6.1
Development is located to minimise susceptibility to and potential impacts of flooding.	Development does not involve new buildings or structures.	Not applicable – not within the floodplain investigation area.
Editor's note—The floodplain investigation area is mapping supplied by the Queensland Reconstruction Authority for possible flood affected areas, where local verification is yet to be completed. A flood hazard assessment in accordance with SC6.10 — Flood hazard planning scheme policy can be undertaken to verify the potential risk of a flood event occurring.		
P07	A07.1	A07.1
Development avoids the release of hazardous materials into floodwaters.	Materials manufactured, used or stored on site are not hazardous in nature.	Not applicable – not within the floodplain investigation area.

Table 6 - RRC Flood Hazard Overlay Code Table 8.2.8.3.2

Performance Outcomes	Acceptable Outcomes	Responses						
Development in Fitzroy River flood area – all hazard areas, North Rockhampton flood management area or Local catchment flood – all planning areas								
Editor's note-Refer to overlay maps OM-8A and OM-8	C							
PO8		PO8						
Development is located to minimise susceptibility to and potential impacts of flooding.	No acceptable outcome is nominated.	Complies – the proposed structure has been sited on the highest area of available ground.						
PO9	AO9.1	AO9.1						
Underground car parks are designed to prevent the intrusion of floodwaters.	Development with underground car parking is designed to prevent the intrusion of floodwaters by the incorporation of a bund or similar barrier a minimum of 500 millimetres above the defined flood level.	Not Applicable – no underground car parking proposed.						



PO10		PO10
 Development: (a) does not result in any reduction of onsite flood storage capacity; or (b) does not result in any change to depth, duration or velocity of floodwaters within the premises; and (c) does not change flood characteristics outside the premises, including but not limited to causing: a. loss of flood storage; or b. loss of or changes to flow paths; or c. acceleration or retardation of flows; or d. any reduction in flood warning times elsewhere on the floodplain. 	No acceptable outcome is nominated.	Complies – the proposal does not result in a loss of flood storage, increase in depth/velocity and does not change the characteristics of flooding.
Editor's note—Council may require the applicant to submit a site-based flood study that investigates the impact of the development on the floodplain and demonstrates compliance with the relevant performance outcome.		
PO11	AO11.1	AO11.1
Essential community infrastructure and community facilities are protected from, and able to function effectively during and immediately after, a defined flood event.	 A use for a purpose listed in Table 8.2.8.3.3: (a) is not located within the flood hazard area; and (b) has at least one (1) flood free access road. 	Not Applicable – not for a use listed in the table.

P012	AO12.1	P012
 Development provides safe and trafficable access to the local evacuation centres and evacuation services and have regard to: (a) evacuation time; (b) number of persons affected; (c) types of vehicles necessary for evacuation purposes; (d) the distance to flood free land; and (e) the evacuation route. 	Trafficable access to and from the development complies with the Capricorn Municipal Guidelines. AND AO12.2 Trafficable access to and from the development within the local catchment planning areas are in accordance with the Queensland Urban Drainage Manual.	Complies – the structure is not for a residential use (Class 10a) and therefore does not correlate to a need to evacuate that didn't already exist due to the existing dwelling. Notwithstanding, the nature of the riverine flooding means significant warning time will allow for evacuation prior to flooding occurring.
	Note—Trafficable access for emergency services or community related uses is obtained from at least one (1) route (minor collector or higher) for emergency services purposes. The development is to ensure that safe access, to the road network between the development site and the closest centre zone, is provided.	
	Editor's note—Trafficable access requirements for local catchment planning areas has not been identified and reference has been made to the provisions under the Queensland Urban Drainage Manual. This is due to the short period that property may be isolated.	

Table 7 - RRC Flood Hazard Overlay Code Table 8.2.8.3.2

Performance Outcomes	Acceptable Outcomes	Responses						
Development in Fitzroy River flood areas – H3-H4 (high hazard areas) or H5-H6 (extreme hazard areas), North Rockhampton flood management area or Local catchment flood – planning area 1								
Editor's note-Refer to overlay maps OM-8A and OM-8	3C							
P013		PO13						
Development that involves temporary or moveable residential structures (for example caravan parks and camping grounds) are not located with the Fitzroy River high and extreme hazard areas, North Rockhampton flood management area and Local catchment planning area 1.	No acceptable outcome is nominated.	Complies – does not include temporary or movable structures.						

Table 8 - RRC Flood Hazard Overlay Code Table 8.2.8.3.2

Performance Outcomes	Acceptable Outcomes	Responses					
Reconfiguring a lot							
Development in Fitzroy River flood area – all hazard Editor's note—Refer to overlay map OM-8A and OM-8C	areas, North Rockhampton flood management area o	or Local catchment flood - all planning areas					
PO14 Development does not result in the creation of additional lots.	AO14.1 Reconfiguring a lot does not result in new lots.	AO14.1 Not Applicable – not an ROL					

Table 9 - RRC Flood Hazard Overlay Code Table 8.2.8.3.2

Performance Outcomes	Acceptable Outcomes	Responses
Development in floodplain investigation area		
Editor's note-Refer to overlay map OM-8B		

PO15 Development provides vehicle access to a road network that is sufficient to enable safe access.	No acceptable outcome is nominated.	PO15 Not applicable – not within the floodplain investigation area.
Editor's note—The floodplain investigation area is mapping supplied by the Queensland Reconstruction Authority for possible flood affected areas, where local verification is yet to be completed. A flood hazard assessment in accordance with SC6.10 — Flood hazard planning scheme policy can be undertaken to verify the potential risk of a flood event occurring.		
PO16	AO16.1	AO16.1
Onsite access is provided to a building envelope or fill area in which a building is to be constructed. The access is located on land classified as a low flood hazard in the defined flood event.	Onsite access is provided to a building envelope or fill area in which a building is to be constructed. The access is located on land classified as a low flood hazard in the defined flood event.	Not applicable – not within the floodplain investigation area.
	Editor's note—For the purposes of the above requirements in respect of an access area or a road which provides access to the development a low flood hazard means:	
	(a) inundation is a maximum depth of 300 millimetres during events up to and including the defined flood event;	
	(b) inundation extends for a maximum distance of 200 metres during events up to and including the defined flood event; and	
	(c) The product of velocities and depth does not exceed D*V=0.4m2/s.	

Table 10 - RRC Flood Hazard Overlay Code Table 8.2.8.3.2

Performance Outcomes	Acceptable Outcomes	Responses
Operational work		
P017	AO17.1	P017
Development does not materially impede the flow of floodwaters through the site or worsen flood flows external to the site.	 Development does not involve: (a) filling with a height greater than 100 millimetres; or (b) block or solid walls or fences; or (c) garden beds or other structures with a height more than 100 millimetres; or (d) the planting of dense shrub hedges. 	Complies – no material impedance of flow expected or worsening of flood flows external to the site expected.



Appendix B: Site Layout & Structure Plans

REFER TO ATTACHMENT

PROJECT: 22 Port Curtis Road, Port Curtis 4700 DATE: 14/08/24 OUR REF: R002-24-25-001 Document Set ID: 40881482 Version: 1, Version Date: 15/08/2024





	PP1 PP2 RB1 RB2	ec2 ec2 B2 B2 B2 B2 B2 B2 B2 B2 B2 B2 B2 B2 B2		<u>9</u>	<u>.</u> ∞	7.	<u>6</u>	្មប	4	<u>ω</u>	<u>2</u>	<u>-</u> `		
	200 X /3 HW (F14) BEARER 200 X 75 HW (F14) BEARER 225 X 50 HW (F14) POLE PLATE 225 X 50 HW (F14) POLE PLATE 225 X 50 HW (F14) OR 240 X 45 MGP10 H3 JOISTS @ 450 MAX. CRS. 225 X 50 HW (F14) OR 240 X 45 MGP10 H3 JOISTS @ 450 MAX. CRS. 170 X 45 'HYSPAN' L.V.L. ROOF BEAM (CONT.) 200 X 63 'HYSPAN' L.V.L. ROOF BEAM (CONT.)	EXISTING 200 DPA: INV FOSTS EXISTING 75 x 75 SHS POSTS TOU 75 x 75 x 4.0 GALV. SHS POSTS (FULL HEIGHT) 100 x 100 HW (F14) POSTS (FULL HEIGHT) 75 x 75 x 4.0 GALV. SHS SUPPORT POSTS 75 x 75 x 4.0 GALV. SHS SUPPORT POSTS 200 x 75 HW (F14) BEARER (CONT.) 200 x 75 HW (F14) BEARER (CONT.)	EMBER SCHEDULE:	Termite protection to be installed in accordance with AS3660.1-2000. A certificate is to be supplied to the Building Approval Authority as evidence of treatment where necessary.	Required number of new stair count is indicative only. Verify number of treads on site as per finished ground level.	Where applicable, WC doors that swing inwards to be fitted with demountable hinges. Gaps to be provide at the top to allow door to be lifted off when in the closed postion.	Builder to ensure adequate surface drainage and that no low spots capable of ponding are created during construction.	Construction to be in accordance with the Building Code of Australia, Qld Home Building Manual and all other relevant SAA Codes and Standards.	Structure designed for Wind Gust Speed : C1 (W41C)	Finished surface lines shown on elevations and platform layout shall be confirmed on site prior to commencement of building work.	Builder to verify all dimensions on site prior to commencement of building work.	Figured dimensions shall taken in preference to those scaled from the drawing.	FLOOR PLAN NOTES:	
PRO				PR(4970		,	anufacturers' pecifications	olarspan' roofing /stem or equival	
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Z	<u>لا مر</u>			Z	<u>6</u>		00	3901	50		<u>-</u> 1			









FOOTINGS

- -Footings designed for a minimum capacity of 100 kPa.
- \mathbf{N} backfill. removed and replaced with an approved compacted granular All unsuitable materials (eg. soft soil, organic material) is to be
- ယ certificate from a NATA registered company stating the accrodance with AS2870-1996 Clause 6.4.2 (ie. provide a compaction. For fill depths in excess of 400mm, site soil above) testing is to be conducted to classify the fill as controlled fill in Granular backfill is to be compacted to 95% standard
- 4 should be located at least 3.0m for the side of the slab. For at least a 3.0m width around the perimetre of the slab level (20mm heights for each 1.0m width) is to be provided for 3.0m from the side of the slab. In addition, a 2% grade in soil slad or water from these is to be piped to discharge at least downpipes are to be located at least 3.0m from the side of the Class H and M sites, hose points HWS overflow and reasonably stable, gardens, shrubs and septic trenched To ensure the natural moisture content of the soil remains
- S general foundation maintenance Performance" for location restaints on large treese and Owners on Foundation Maintenance and Footing Refer to CSIRO Sheet No. 10-91 of the "Guide to Home
- <u>ი</u> Site Classification: Type 'P' Assumed

GENERAL NOTES

- <u>.</u> Local Authorities requirements of the Building Code of Australia, The Building Act and to the All construction shall be in accordance with the requirements
- \mathbf{N} commencement of construction. The Builder to check all dimensions on site prior to
- ယ္ Locate and identify all existing underground services prior to construction.

4 // Denotes N12 bars 1500mm long and placed as extra reinforcement in top layer.

STEEL WORK

- <u>.</u> Steel work shall comply with AS/NZS4600 & AS 4100.
- \mathbf{N} details shall conform with AISC standardised structural connections. Unless otherwise shown on the drawings, standard connection
- Structural steel shall be Grade 300.
- ் ந Cold formed sections to be Grade 350 RHS shall be Grade 350.
- ယ a) Welding shall be performed by an experienced operator welded using 5mm continuous fillet welds, unless noted b) All shop fabricated joint for structural steel shall be fully accordance with as1554-Category GP. otherwise. Ð.
- c) Site welds to be 6mm continuous fillet welds, unless noted otherwise (see AS1554.1-2000).
- d) Cleats to be 10mm plate, unless noted otherwise. nominal thickness plates and continuous fillet welds, unless e) The ends of all tubular members shall be sealed with
- smooth. f) All plated, gussets, etc. shall have sharp edges ground noted otherwise
- 4 All bolts M20 Grade 8.8/S, unless noted otherwise.
- S Abrasive blast clean steel work to Class 2 (AS1627) and primed with British Paints Luxaprime Zinc Phosphate.
- <u>_</u> Until permanent bracing elements are constructed, the Builder necessary to stabilise the structure during erection shall provide and leave in place temporory bracing as

TERMITE PROTECTION

- Termite protection to be applied in accordance with AS3660
- A certificate is to be supplied to the Building Approval Authority as evidence of treatment where applicable.

 \mathbf{N}

CONCRETE

- <u>.</u> All concrete work to be in accordance with AS3600 with special consideration of exposure classification and cover requirements.
- \mathbf{N} a) Footing concrete to be N20, 20mm maximum aggregate, 80mm slump.
- b) Slab concrete Class N25, 20mm maximum aggregate, 80mm slump.
- <u>ယ</u> 0.2mm thick damp proof membrane and Termite proof in accordance with as3660 and 50mm sand blinding. Unless noted otherwise. Ground slabs shall be nominated on foundation plan and laid on
- placement of tiles should be delayed or provision made for movement. Proved an extra layer of slab mesh in areas to be covered with brittle floor tiles to reduce shrinkage and cracking. Alternatively, the

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 a) Cure all slabs mimimum 10 days.
 b) A water retaining agent such as "Confilm" to be applied in accordance with Manufacturer's specifications.

- <u>с</u>л All reinforcing steel shall comply with AS4671.
- Reinforcement symbols shall be :

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- i) N SL Grade 500 Low Ductility Class squarely configured welded Grade 500 Normal Ductility Class deformed bar
- mesh
- iii) R Grade 250 Normal Ductility Class round bar
- V (vi v) LxTM Grade 500 Low Ductility Class trench mesh Grade 500 Low Ductility Class round bar
- 7. Welding of reinforcement shall not be permitted without the written approval of the Engineer.

Alinimum cover to reinforcing : c) Foundations against ground b) Slabs external 40 tops & edges ß

All reinforcement shall be firmly supported on plastic tipped steel. both ways. Rods shall be tied at alternate intersections. plastic or concrete chairs generally at not greater than 900 centres

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- <u>9</u> Superintendent. Construction joints where not shown shall be to the approval of the
- Beams & Slabs Minimum lap lengths N16 N12 French Mesh R-Bar 600 500 500 40 x bar diameter (300 min.)

Slab Mesh

2 Transverse wires plus 25mm

<u>0</u>



Appendix C: Flood Search Report

REFER TO ATTACHMENT

PROJECT: 22 Port Curtis Road, Port Curtis 4700 DATE: 14/08/24 OUR REF: R002-24-25-001 Document Set ID: 40881482 Version: 1, Version Date: 15/08/2024

Rockhampton Office 232 Bolsover St, Rockhampton

Gracemere Office 1 Ranger St, Gracemere Mount Morgan Office 32 Hall St, Mount Morgan

18 July 2024

Your Ref: Telephone: Email: Nil 07 4936 8099 developmentadvice@rrc.qld.gov.au

McMurtrie Consulting Engineers PO BOX 2149 WANDAL QLD 4700

Dear Sir / Madam

FLOOD INFORMATION REQUEST FOR 22 PORT CURTIS ROAD, PORT CURTIS QLD 4700 DESCRIBED AS LOT 14 ON RP606310

Council is in receipt of your application dated 16 July 2024 requesting flood information for 22 Port Curtis Road, Port Curtis QLD 4700, and more properly described as Lot 14 on RP606310.

Please find attached a Flood Search Property Report for your reference. The purpose of this report is to provide flood level information to support the application of Council's planning scheme Flood Hazard overlay code, floodplain planning provisions, and applicable flood planning levels.

Council records show that the abovementioned property parcel is identified as being at risk of flood in a 1% AEP Fitzroy River and Local Catchment flooding event. Annual Exceedance Probability (AEP) is the probability of a flood event of a given magnitude being equalled or exceeded in any one year. A 1% AEP event means there is statistically a 1% (or 1 in 100) probability that an event of that magnitude will occur or be exceeded in any year.

The design flood level information contained within this report provide water surface levels for a range of typical planning and development design standards. The flood planning level for most development in the Flood Hazard overlay area is the Defined Flood Event (DFE). Council has adopted a DFE of 1% AEP as a planning standard for the management of development in Rockhampton Region. As such, for most development types - the floodplain planning provisions of Council's planning scheme apply relative to the 1% AEP defined flood event. Exceptions apply for critical infrastructure. The Defined flood event may change as Council undertakes further flood risk analysis and profiling as part of its long-term floodplain management planning for the catchment.

The flood levels contained within this flood search report have been sourced from Council's adopted flood modelling and flood study at this location and are based on the best available information at the time of completing the study. The flood levels are measured in metres Australian Height Datum (mAHD), where mean sea level is approximately zero (0) mAHD.

Council is committed to providing residents with the most up to date flood risk information. The current flood study for this catchment area has assessed flood risk for a number of flood events including rare flood events greater than the 1%AEP flood, to provide a better understanding of the flood behaviour in the catchment. As such, the flood search report contains flood levels for flood events such as the 0.2%AEP (1 in 500-year AEP), 0.05% AEP (1 in 2000-year flood event), and the PMF (probable maximum flood). This information is being provided for completeness and may not be applicable for development assessment purposes.

Please note: All reasonable steps have been undertaken to ensure the information presented in this report is accurate at the time of generation. Changes to the topography and condition of the local creeks and waterways may have an impact on flooding. Over time, Council may also undertake further technical studies to maintain the understanding of flooding across the city and update the information available.

Should you have any queries regarding this information please contact Council's Development Engineering section using the contact information above.

Yours faithfully

Rem

Jamie McCaul Coordinator Development Engineering Planning and Regulatory Services

Enc Flood Search Property Report and Flood Property Map

Rockhampton Regional Council Flood Search Property Report

Property Address:	22 Port Curtis Road
	Port Curtis QLD 4700
Lot Details:	Lot 14 on RP606310
Date of Issue:	18 July 2024

Flood Search Property Report Overview

It is possible for one or more sources of flooding to occur, especially where a property is near a creek or waterway. These flooding sources can include riverine, creek and overland flow flooding which can each behave differently and impact how a building or development is designed. All flood hazard triggers should be considered when designing and planning with flooding in mind.

The Rockhampton Regional Council Flood Search Report is provided to support planning and development, in accordance with the current version of the Rockhampton Region Planning Scheme 2015.

This report summaries flood information for this property to inform and supplement the application of the Council's planning scheme Flood Hazard overlay code, floodplain planning provisions, and the applicable flood planning levels. The contents of this report have been derived from Council's flood studies and flood modelling and should be considered along with all other applicable planning and development requirements. Flood studies and associated modelling assist Council to better understand flooding in the Rockhampton region and implement plans to avoid and mitigate its impacts on

the community.

Flood modelling of the Fitzroy River has been progressively refined over a long period of time. The flood modelling addresses riverine impacts on Rockhampton City and surrounding areas, including Alton Downs, Pink Lily, Nine Mile, Fairy Bower, Midgee and Port Curtis. Local Creek and Catchment Flood Studies provide Council with information on flood behaviour of the creeks, and how they are expected to respond during varying intensities and durations of rainfall events.

Understanding your flood risk can help you prepare for flooding at your home or business. The information provided in this report utilises information from the most up to date flood studies available to Council at the date of issue of this report. All reasonable steps have been undertaken to ensure the information presented in this report is accurate at the time of generation. Changes to the topography and condition of the local creeks and waterways may have an impact on flooding. Over time, Council may undertake further technical studies to maintain the understanding of flooding across the city and update the information available.

Copies of Council's current Flood Studies are available on Council's website at <u>www.rrc.qld.gov.au</u>

What is flood modelling?

Flood modelling uses sophisticated computer software to estimate how rainfall of various intensities and duration produce stormwater flows along creek and river catchments.

Flood modelling is used to estimate:

- The inundation extents of the areas that may be flooded;
- The peak depths of flood waters; and
- The hazard related to the depth of water or how quickly the water flows (velocity).

Flood modelling estimates a range of design floods based on a statistical analysis of rainfall information provided by the Bureau of Meteorology. This information is used to establish the likelihood of a rainfall or flood event.

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Rockhampton Regional Council Flood Search Property Report

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When reading this report, please consider:

- If a property is identified as being at risk of being affected by Fitzroy River and/ or Local Creek Catchment flooding, the highest maximum flood heights should be used to establish minimum building and development levels. For large property parcels - there may be a significant difference between the minimum and maximum flood heights for a particular flood type. In these situations, you may need to seek further advice from Council regarding the flood height that is appropriate for the exact location of the proposed building or development.
- The flood maps included with this report display the flood inundation extent only. All maps generated from the Flood Studies are available on Council's website.
- The flood maps provided depict the flood inundation extents under existing climate and catchment conditions.
- If preparing a new building and/or development application, it is recommended that you confirm all flood related provisions within Council's Planning Scheme relevant to the property.

Rockhampton Regional Council Flood Search Property Report

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Property Details

Address: Lot and plan: 22 Port Curtis Road, Port Curtis QLD 4700 Lot 14 on RP606310

Property Ground Levels:

Property ground levels can be found on the attached property flood report. The ground level data has been sourced from Aerial LiDAR survey, and as such, these levels are approximate.

Should the extent of flooding at a property need to be more accurately predicted, then individual property level information (e.g. surveyed site levels, and building floor levels) could be utilised in conjunction with Council's flood information. Council does not undertake this level of investigation or survey on behalf of property owners.

For your information:

AHD (Australian Height Datum) is the National Mapping Datum used throughout Australia. The level of o.om AHD is approximately mean sea level.

Elevation Data Source: The digital elevation model used in the flood modelling is generated on a regional scale and utilises ground level elevations from aerial laser surveys performed in2016. The survey data used to determine the extent and depth of potential inundation is captured and updated periodically and may not reflect inundation of land that has recently been modified, such as a new subdivision that has changed the existing landform.

Flood Information

Riverine Flood: Affected

The property is identified as being at risk of flooding from the Fitzroy River. A property flood report displaying the 1% AEP (Annual Exceedance Probability) flood extent on the property is attached. Planning and development must consider risk to people and property, natural floodplain characteristics, and flood free/low flood hazard access outcomes during a river flood event.

For your information:

AEP (Annual Exceedance Probability) is the probability of a flood event of a given size occurring or being exceeded in any one year. Information in relation to more or less likely floods and the full flood plain extent can be accessed on Council's website.

Local Storm Event /Overland Flood: Affected

The property is identified as being at risk of flooding from Local Storm Events / Overland Flow flooding. The attached map displays the 1% AEP flood extent on the property due to the Local Storm Event / Overland Flow Flooding. Planning and development must consider risk to people and property, natural floodplain characteristics, and flood free/low flood hazard access outcomes during local storm and overland flow flood events.

For your information:

AEP (Annual Exceedance Probability) is the probability of a flood event of a given size occurring or being exceeded in any

Rockhampton Regional Council Flood Search Property Report

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one year. Information in relation to more or less likely floods and the full flood plain extent can be accessed on Council's website.

Rockhampton Regional Council Flood Search Property Report

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Elevation / WSL: mAHD Velocity: m/sec

Riverine

MGA 56, GDA 2020

Creek	\ Local	Catchment	t

PMF WSL Min:	11.88	AEP 2% WSL Min:	7.84	PMF WSL Min:	7.05	AEP 5% WSL Min:	N/A
PMF WSL Max:	11.92	AEP 2% WSL Max:	7.86	PMF WSL Max:	7.07	AEP 5% WSL Max:	N/A
PMF Velocity Min:	0.82	AEP 2% Velocity Min:	0.16	PMF Velocity Min:	0.06	AEP 5% Velocity Min:	0.00
PMF Velocity Max:	1.35	AEP 2% Velocity Max:	0.47	PMF Velocity Max:	0.55	AEP 5% Velocity Max:	0.31
AEP 0.05% WSL Min:	9.52	AEP 5% WSL Min:	7.25	AEP 0.05% WSL Min:	6.64	AEP 10% WSL Min:	0.00
AEP 0.05% WSL Max:	9.57	AEP 5% WSL Max:	7.25	AEP 0.05% WSL Max:	6.64	AEP 10% WSL Max:	0.31
AEP 0.05% Velocity Min:	0.58	AEP 5% Velocity Min:	0.07	AEP 0.05% Velocity Min:	0.02	AEP 10% Velocity Min:	0.00
AEP 0.05% Velocity Max:	1.06	AEP 5% Velocity Max:	0.23	AEP 0.05% Velocity Max:	0.43	AEP 10% Velocity Max:	0.31
AEP 0.2% WSL Min:	8.97	AEP 10% WSL Min:	6.58	AEP 0.2% WSL Min:	6.28	AEP 18% WSL Min:	5.84
AEP 0.2% WSL Max:	9.01	AEP 10% WSL Max:	6.58	AEP 0.2% WSL Max:	6.36	AEP 18% WSL Max:	6.00
AEP 0.2% Velocity Min:	0.45	AEP 10% Velocity Min:	0.01	AEP 0.2% Velocity Min:	0.00	AEP 18% Velocity Min:	0.00
AEP 0.2% Velocity Max:	0.88	AEP 10% Velocity Max:	0.15	AEP 0.2% Velocity Max:	0.41	AEP 18% Velocity Max:	0.31
AEP 0.5% WSL Min:	8.55	AEP 18% WSL Min:	N/A	AEP 0.5% WSL Min:	6.16	AEP 39% WSL Min:	5.88
AEP 0.5% WSL Max:	8.59	AEP 18% WSL Max:	N/A	AEP 0.5% WSL Max:	6.26	AEP 39% WSL Max:	5.97
AEP 0.5% Velocity Min:	0.36	AEP 18% Velocity Max:	0.00	AEP 0.5% Velocity Min:	0.00	AEP 39% Velocity Min:	0.00
AEP 0.5% Velocity Max:	0.74	AEP 18% Velocity Max:	0.31	AEP 0.5% Velocity Max:	0.40	AEP 39% Velocity Max:	0.22
AEP 1% WSL Min:	8.21	AEP 39% WSL Min:	N/A	AEP 1% WSL Min:	6.16	AEP 63% WSL Min:	N/A
AEP 1% WSL Max:	8.24	AEP 39% WSL Max:	N/A	AEP 1% WSL Max:	6.28	AEP 63% WSL Max:	N/A
AEP 1% Velocity Min:	0.27	AEP 39% Velocity Min:	N/A	AEP 1% Velocity Min:	0.00	AEP 63% Velocity Min:	N/A
AEP 1% Velocity Max:	0.61	AEP 39% Velocity Max:	N/A	AEP 1% Velocity Max:	0.40	AEP 63% Velocity Max:	N/A
Pr	operty	Elevation		AEP 2% WSL Min:	6.05		
				AEP 2% WSL Max:	6.23		
Ground Elevation (Min):	5.67			AEP 2% Velocity Min:	0.00		
Ground Elevation (Max)	6.67			AEP 2% Velocity Max:	0.39		

Ground Elevation (Max): 6.67

Horizontal Datum:

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