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FRONT ELEVATION- UNIT A 1:100 @ A3

AREA:	
UNIT AREA	: 151.39 m²
BUILDING GFA COVERED AREA	: 130 m ² : 21.39 m ²

KEYNOTE:

- **RS: COLORBOND ROOF SHEETING** FC: FIBRE CEMENT SHEETING+ PAINT FINISH
- AB: ALUMINIUM BATTENS

FLOOR PLAN- UNIT A WD-003 1:100 @ A3

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FRONT ELEVATION- UNIT C 2

1:100 @ A3

AREA:	
UNIT AREA	: 138.7 m²
BUILDING GFA COVERED AREA	: 114.1 m ² : 24.60 m ²

KEYNOTE:

RS: COLORBOND ROOF SHEETING FC: FIBRE CEMENT SHEETING+ PAINT FINISH

AB: ALUMINIUM BATTENS

1:100 @ A3 WD-032



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FRONT ELEVATION- UNIT D 2 1:100 @ A3

AREA:	
UNIT AREA	: 143.82 m²
BUILDING GFA COVERED AREA	: 116.56 m ² : 27.26 m ²

KEYNOTE:

RS: COLORBOND ROOF SHEETING FC: FIBRE CEMENT SHEETING+ PAINT FINISH AB: ALUMINIUM BATTENS



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Stormwater Management Plan

Proposed Estate Development 99, 101 Pennycuick Street, West Rockhampton, Rockhampton

Prepared For: Kele Property Group

ROCKHAMPTON REGIONAL COUNCIL APPROVED PLANS

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

Development Permit No.: D/66-2021

Dated: 31 August 2021

Job No. 036-20-21 27 May 2021 Revision B

> ABN 25 634 181 294 P (07) 4921 1780 E mail@mcmengineers.com

63 Charles Street North Rockhampton Q 4701

Stormwater Management Plan

Rev.	Description	Signature	RPEQ No	Date
В	Amended for RFI response		15243	27.05.21
A	Issued For Approval	LNM	15243	27.04.21

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Stormwater Management Plan

Proposed Estate Development

1.0 INTRODUCTION AND APPROACH

1.1. PROJECT OVERVIEW

McMurtrie Consulting Engineers (MCE) have been commissioned by Kele Property Group to undertake a site-based Stormwater Management Plan (SMP) for a proposed estate development. The site is located at 99 and 101 Pennycuick Street, West Rockhampton on Lots 3 and 4 on RP892683.

The aim of this SMP is to demonstrate that the proposed development will comply with Capricorn Municipal Development Guidelines (CMDG), Queensland Urban Drainage Manual (QUDM 2016), Australian Rainfall and Runoff 2016 (ARR'16) and State Planning Policy (SPP 2017).

1.2. METHODOLOGY

The assessment methodology adopted for this SMP is summarised below.

- Broadly identify the contributing catchments to the project.
- Identify Lawful Point of Discharge (LPOD) for the site stormwater runoff.
- Identify the critical storm events and duration for this project
- Estimate peak discharge runoff for pre-development and post-development scenarios.
- Identify potential mitigation and management strategies to ensure no worsening to downstream catchments and infrastructure.

1.3. DATA SOURCES

The background data used to undertake this assessment were collected from the following sources:

- ARR'16 data hub
 - Rainfall data
 - Design storm ensemble temporal patterns
- Rockhampton Regional Council GIS data
- Preliminary overall layout plan (completed by Design Architecture)
- Pluviograph rainfall data for the 'Rockhampton Aero' station

2.0 SITE CHARCTERISTICS

2.1. SITE LOCATION

The site is located at 99 and 101 Pennycuick Street, West Rockhampton on Lots 3 and 4 on RP892683. Site details have been summarised within Table 1. The proposed site is located as per **Figure 1** below.

Table 1: Site Description

Registered Oumon	Property and Location		
Kegistereu Owner	Lot and Property Description	Address	
Kele Property Group	Lots 3 and 4 on RP892683	99 and 101 Pennycuick Street, West Rockhampton, Rockhampton	



Figure 1: Site Location

The proposed development site is located in the Rockhampton City area within the Rockhampton Regional Council Local Government Area. The site is approximately 0.739 ha in size

2.2. TOPOGRAPHY

The area is presently occupied by 2 residential structures, 2 sheds, 1 driveway, sparse trees and grass. The site is bounded on the west partially by Pennycuick Street and partially by residential lots, and the south, east and north by residential lots. The site falls east to west at nominally 2.5%. The ground level is nominally 11.3 at the western boundary and 14 at the eastern boundary.

3.0 HYDROLOGY ASSESSMENT

3.1. LAWFUL POINT OF DISCHARGE

The existing site is generally falling 2.5% towards Pennycuick Street and into the adjacent western residential lots. Ultimately discharging into the road reserve of Pennycuick Street. This point of discharge is under the lawful control of the local government and satisfies the requirements for Lawful Points of Discharge (LPOD) in accordance with QUDM. For the purposes of this project all stormwater will be routed to the road reserve of Pennycuick Street rather than adjacent residential lots.

Any stormwater volume increase from post development will be detained to ensure there will be no adverse impacts on downstream properties and infrastructure.

3.2. HYDROLOGIC MODELLING

Hydrologic calculations have been undertaken using XPSTORM 2019 V1 for pre and post development scenarios. The modelling within XPSTORM environment has been undertaken to estimate the peak discharge for storms up to 1% AEP. Hydrologic modelling has been undertaken using the Laurenson Runoff Routing Method. Laurenson's Method is an industry leading hydrologic routing method that can be used for catchments ranging between 10m² up to 20,000km². The information required to apply Laurenson's Method include:

- Rainfall Intensity Data (obtained from the Bureau of Meteorology 2016 IFD utility)
- Rainfall Temporal Patterns (obtained from the ARR'16 Data Hub)
- Catchment Area (ha)
- Catchment Slope
- Initial and Continuing Infiltration Data
- Catchment Roughness (Manning's 'n')

Given the relatively limited scope of this hydraulic impact assessment a lumped catchment approach, as defined by ARR'16 and shown in Figure 2 below, was applied to the hydrologic review of the site. The lumped approach is suitable for this site given the relative consistency in land use and the ultimate purpose of the model.



Figure 2: Catchment Analysis Options

3.2.1. CATCHMENT HYDROLOGY PARAMETERS

Table 2 and 3 summarises the input data for the development site in pre-development and post-development conditions.

Parameter		Grass	Concrete	Roof Material
Area (ha)		0.679 0.010		0.050
Impervious (%)		0.0	100	100
Slope (%)		2.5	2.5	57
Laurenson 'n' (storage non- linearity exponent)		-0.285	-0.285	-0.285
Infiltration	Initial Loss (mm/hr) 0.0	0.0	0.0	
mintration	Continuing Loss (mm/hr)	1.7	0.0	0.0
Manning's Roughness (n)		0.035	0.012	0.022

Table 2: Pre-Development Model Parameters (XP Storm)

Table 3: Post-Development Model Parameters (XP Storm)

Parameter		Grass	Garden	Concrete	Roof Material
Area (ha)		0.164	0.063	0.231	0.281
Impervious (%)		0.0	0.0	100	100
Slope (%)		1	1	2.5	57
Laurenson ' linearity	n' (storage non- y exponent)	-0.285	-0.285	-0.285	-0.285
Infiltration	Initial Loss (mm/hr)	0.0	0.0	0.0	0.0
	Continuing Loss (mm/hr)	1.7	1.7	0.0	0.0
Manning's Roughness (n)		0.035	0.060	0.012	0.022

3.2.2. HYDROLOGY RESULTS

Applying the ARR'16 ensemble temporal patterns to the catchment allowed the identification of the critical duration for the mean minor (10% AEP) and major (1% AEP) storm event. Below figures are screen shots of Box and Whisker plot taken from XPSTORM software. This plot shows the comparison of storm ensembles for different durations for minor and major storm events. For complete box and whisker charts for the remainder of recurrence intervals refer Appendix B.



Figure 3: Comparison of Storm Ensembles of different durations for 10% AEP (Pre-development) (XPSTORM Model)



Figure 4: Comparison of Storm Ensembles of different durations for 1% AEP (Pre-development) (XPSTORM Model)



Figure 5: Comparison of Storm Ensembles of different durations for 10% AEP (Post-development) (XPSTORM Model)



Figure 6: Comparison of Storm Ensembles of different durations for 1% AEP (Post-development) (XPSTORM Model)

The peak results of each of the ensembles for minor and major storm events are summarised in Table 4 (Refer Appendix C for storm events for additional durations and recurrence intervals). The same storm events are applied to the hydraulic analysis.

Max. Mean Storm Event **Annual Exceedance Probability (AEP %) Pre development** Post development 10pct_10min_4 10pct_15min_1 10pct_20min_4 10% (Minor Event) 10pct_15min_8 10pct_25min_1 10pct_30min_1 10pct_45min_2 1pct_10min_6 1% (Major Event) 1pct_15min_6 1pct_15min_3 1pct_20min_10

Table 4: Critical Storm Events

3.2.3. EXTERNAL CATCHMENTS

There exists an external catchment to the east with the properties summarized in table 5.

Table 5: External catchment - Development Model Parameters (XP Storm)

Parameter		Grass	Concrete	Roof Material
Area (ha)		0.450	0.070	0.100
Imper	rvious (%)	0.0	100	100
Slope (%)		2.5	2.5	57
Laurenson ' linearit	n' (storage non- y exponent)	-0.285	-0.285	-0.285
Infiltration	Initial Loss (mm/hr)	0.0	0.0	0.0
mmtration	Continuing Loss (mm/hr)	1.7	0.0	0.0
Manning's Roughness (n)		0.035	0.012	0.022

The external catchment will be routed through the network, and to account for this the external catchment will be routed through the pre and post development condition in the hydraulic assessment.

4.0 HYDRAULIC ASSESSMENT

4.1 BACKGROUND

The hydraulic assessment for the site has been carried out using XPSTORM 2019 V1. The aim of the hydraulic modelling is to demonstrate that the post-development minor and major storm peak discharge at the LPOD is equal or less than the peak pre-development discharge. Series of pits and pipes will be utilised to convey discharge to the LPOD at Pennycuick street with a Graf Ecobloc Maxx underground detention system prior to the outlet.

4.2 DETENTION

The proposed development will utilise approximately 55m³ of detention prior to the outlet to ensure no worsening to downstream catchments and infrastructure. The westernmost portion of the development cannot be detained, as such the detention strategy will have to account for this. Table 5 summarises the peak storm events for the pre-development and post-development conditions.

Storm Event (AEP %)	Peak Pre- Development Discharge – excl. External Catchment (m ³ /s)	Peak Pre- Development Discharge – incl. External Catchment (m ³ /s)	Peak Post- Development Discharge – excl. External Catchment - Unmitigated (m ³ /s)	Peak Post- Development Discharge – incl. External Catchment - Unmitigated (m ³ /s)	Peak Post- Development Discharge – incl. External Catchment - mitigated (m ³ /s)
10% (Minor Event)	0.273	0.500	0.319	0.518	0.358
1% (Major Event)	0.437	0.794	0.490	0.853	0.466



Figure 7: Pre-Development Peak Discharge Rate at LPOD – Excl. External Catchment

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Pennycove Estate Development-SMP

077-20-21



Figure 10: Post-Development Peak Discharge Rate at LPOD – Incl. External Catchment- Unmitigated

10

Pennycove Estate Development-SMP

077-20-21

Conduit P outlet from 1/1 to Outlet



Figure 11: Post-Development Peak Discharge Rate at LPOD – Incl. External Catchment- mitigated

Table 7 summarises storage parameters to achieve the target mitigated pre-development flow rates.

Effective Detention Volume (approximate)	59.2m ³
Detention IL	10.24m
Detention OL	10.94m
Peak Water Level in 1% AEP (approximate)	12.366m
Peak Water Depth on road in 1% AEP (approximate)	0.146m
Outlet Structure	250mm

Table 7: Stormwater network Parameters

Outflow from stormwater pit will be discharged into existing swale on Pennycuick Street.

5.0 QUALITY ASSESSMENT

5.1. BACKGROUND

The proposed development will result in a subject site of 7390m². State planning Policy states that water quality assessment benchmarks for MCU are for premises 2500m² or greater, therefore there is requirement for water quality management of the operational phase of the development.

The development of the land has the potential to increase the pollutant loads within stormwater runoff and downstream watercourses. During construction phase of the development, disturbances to the existing ground have the potential to significantly increase sediment loads entering downstream drainage systems and watercourses.

The following sections describe construction phase controls.

5.2. CONSTRUCTION PHASE

5.2.1. KEY POLLUTANTS

During the construction phase a number of key pollutants have been identified for this development. Table 7 illustrates the key pollutants that have been identified.

Pollutant	Sources	
Litter Paper, construction packaging, food packaging, cement bags, material off cuts		
Sediment Exposed soils and stockpiles during earthworks and building works.		
Hydrocarbons	Fuel and oil spills, leaks from construction equipment and temporary car park areas.	

Table 8: Key Pollutants – Construction Phase

5.2.2. EROSION AND SEDIMENT CONTROLS

Erosion and Sediment Control (ESC) devices employed on the site shall be designed and constructed in accordance with CMDG.

PRE CONSTRUCTION

- Stabilised site access/exit.
- Sediment fences to be located along the contour lines downstream of disturbed areas.
- Diversion drains to divert clean runoff around the construction site.
- Educate site personnel to the requirements of the Sediment and Erosion Control Plan.

CONSTRUCTION

- Maintain construction access/exit, sediment fencing, catch drains and all other existing controls as required.
- Progressively surface and revegetate finished areas as appropriate.

During construction, all areas of exposed soils allowing dust generation are to be suitably treated. Treatments will include mulching the soil and watering. Road access is to be regularly cleaned to prevent the transmission of soil on vehicle wheels and eliminate any build-up of typical road dirt and tyre dusts from delivery vehicles.

Adequate waste disposal facilities are to be provided and maintained on the site to cater for all waste materials such as litter hydrocarbons, toxic materials, acids or alkaline substances.

5.3. OPERATIONAL PHASE

The following section describes the preliminary design of the Stormwater Quality Improvement Devices (SQID's) that form a treatment train for the operational phase of the development that complies with State Planning Policy 2016 water quality objectives as follows:

- 85% Total Suspended Solids Reduction
- **60%** Total Phosphorus Reduction

Pennycove Estate Development-SMP

077-20-21

- 45% Total Nitrogen Reduction
- 90% Gross Pollutant Reduction

5.3.1. STORMWATER QUALITY MODELLING

Stormwater Pollutant modelling for the development has been generated using the modelling program 'Model for Urban Stormwater Improvement Conceptualisation' (MUSIC), version 6.3, adhering to the prescribed Water by Design MUSIC modelling guidelines Version 1.0, 2010. A "Split Catchment" approach has been adopted using separate source nodes for the following typical site areas:

- Roof Catchment; and
- Road; and
- Yard; and
- Path;

Further assumptions associated with the model involve:

- Rainfall Station 039083 Rockhampton, 6 Minute Time Step From 1980 To 1989
- Water by Design's MUSIC Modelling Guidelines Version 1.0 2010 utilizing modified % impervious area,
- rainfall threshold, soil properties & pollutant concentration
- No drainage routing between nodes.

Source Node Areas and Impervious Fractions

The ratio of impervious surface used within the MUSIC modelling has been adopted from Tables 3.3 and 3.5 in the Water by Design MUSIC Modelling Guidelines Version 1.0, 2010, in accordance with a 'split node approach' for a land use types of 'Industrial'.

The following table summarises the source node catchment areas and their respective impervious fractions.

Table 9: Source Node Catchment Areas

Source Node	Catchment Area (ha)	Fraction Impervious (%)
Roof (residential)	0.2807	100
Road (residential)	0.1701	100
Yard (residential)	Yard (residential) 0.2261	
Path (Residential	0.0631	100
Total	0.740	

Resultant Sizing Requirements and Treatment Train effectiveness

The proposed treatment train is based on routing all site stormwater discharge, upstream of the detention tank, through OceanGaurd units in stormwater inlets and ultimately through a treatment chamber containing twelve 460mm high StormFilters. An electronic copy of the MUSIC model has been included with the submission of this report. Refer appendix C for preliminary treatment drawings.



Figure 12: Stormwater Quality Treatment Train

6.0 CONCLUSION

The following conclusions are drawn based on the above study of the site;

- Post-development runoff routed through an internal drainage network, with a Graf Ecobloc Maxx underground detention system prior to the outlet.
- Outflow from the stormwater network will be discharged into Pennycuick street swale, the legal point of discharge.
- A stormwater treatment train has been specified to address the State Planning Policy 2016 water quality objectives.

APPENDIX A

Stormwater Management Plan





APPENDIX B

Additional Box and Whisker Charts

Post-Development 1% AEP Box and Whisker Chart



Post-Development 5% AEP Box and Whisker Chart



Post-Development 20% AEP Box and Whisker Chart





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Pre-Development 2% AEP Box and Whisker Chart



Pre-Development 10% AEP Box and Whisker Chart





APPENDIX C

Preliminary Water Quality Treatment Drawings



LAST MODIFIED: 15-10-19

PHONE: 1300 354 722

www.oceanprotect.com.au

MAXIMUM PIT PLAN DIMENSIONS
450mm x 450mm
600mm x 600mm
900mm x 900mm
1200mm x 1200mm
450mm x 450mm 600mm x 600mm 900mm x 900mm 1200mm x 1200mm

BAG DEPTH	OVERALL DEPTH
170	270
300	450
600	700

DEPTH ID		
	2	3

SPECIFICATION DRAWING



LAST MODIFIED: 09-11-18

STORMFILTER DESIGN TABLE

THE STANDARD CONFIGURATION IS SHOWN. ACTUAL CONFIGURATION OF THE SPECIFIED STRUCTURE(S) PER CERTIFYING

• FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF-CLEANING. RADIAL

	690	460	310
	840	600	600
	920	690	540
	1.6	1.1	0.7
s)	0.9	0.46	0.39

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID				
NUMBER OF CARTRIDGES REQ'D			12	
SIPHON HEIGHT (310 / 460 / 690)]
MEDIA TYPE (ZPG / PSORB)]
WATER QUALITY FLOW RATE (L/S)				
HYDRAULIC CAPACITY (L/S)			90	
I.L.	MAT	ERIAL	DIAM	ETER
[]	[]	[]
[]	[]	[]
[]	[]	[]
[]]	[]
PRECAST MANHOLE WEIGHT			j 00kg	
PRECAST LID WEIGHT			2000kg	
	RIDGES REQ 10 / 460 / 69 / PSORB) _OW RATE (L CITY (L/S) [] [] [] [] E WEIGHT	RIDGES REQ'D 10 / 460 / 690) / PSORB) _OW RATE (L/S) CITY (L/S) I.L. MAT [] [[] [[] [[] [.E WEIGHT	I [RIDGES REQ'D [10 / 460 / 690) [/ PSORB) [_OW RATE (L/S) [_OW RATE (L/S) [_OW RATE (L/S) [_OW RATE (L/S) [_ILL MATERIAL [] [IDGES REQ'D 12 10 / 460 / 690) [/ PSORB) [_OW RATE (L/S) [_OW RATE (L/S) [_OW RATE (L/S) 90 I.L. MATERIAL DIAM [1 [OUTY (L/S) 90 90 I.L. MATERIAL DIAM [1 [[1 [[1 [[1 [[1 [[1 [[1 [[1 [[1 [[1 [[1 [[1 [[1 [[1 [[1 [[1 [[1 [[1 [[1 [

1. PRECAST STRUCTURE SUPPLIED WITH CORE HOLES TO SUIT OUTER DIAMETER OF NOMINATED PIPE SIZE / MATERIAL

2. PRECAST STRUCTURE SHALL MEET W80 WHEEL LOAD RATING ASSUMING A MAXIMUM EARTH COVER OF 2.0m AND A GROUND WATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. CERTIFYING ENGINEER TO CONFIRM ACTUAL GROUNDWATER ELEVATION. PRECAST STRUCTURE SHALL BE IN ACCORDANCE WITH AS3600.

3. IF THE PEAK FLOW RATE, AS DETERMINED BY THE SITE CERTIFYING ENGINEER, EXCEEDS THE PEAK HYDRAULIC

1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS

2. CONTRACTOR TO PROVIDE ALL EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE

3. CONTRACTOR TO APPLY SEALANT TO ALL JOINTS AND TO PROVIDE, INSTALL AND GROUT INLET AND OUTLET PIPES.

OCEAN PROTECT 12 CARTRIDGE STORMFILTER SYSTEM DN2250 MANHOLE SPECIFICATION DRAWING



TECHNICAL MEMORANDUM

Project No. 077-20-21

Date: 31-May-21

To: Gideon Genade PO Box 450 Rockhampton QLD 4700 gg@gideontownplanning.com.au

From: Lachlan McMurtrie Director **McMurtrie Consulting Engineers** lachlan@mcmengineers.com

ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

These plans are approved subject to the current conditions of approval associated with **Development Permit No.: D/66-2021** Dated: 31 August 2021

99 and 101 Pennycuick Street, West Rockhampton – Flood Statement

Introduction

A Development Application (DA) has been submitted to Rockhampton Regional Council (Council) for the sites located at 99 Pennycuick Street and 101 Pennycuick Street, West Rockhampton, described as lot 4 and 3 on RP892683, Parish of Rockhampton.

The proposed development includes:

- Construction of 19 habitable dwellings, as shown in the attached reference drawings.

Council issued an Information Request (IR) dated 25th of May 2021 (ref D/66-2021), for the proposed development related to the site's flood hazard:

Flood

2.0 The site is affected by Wandal and West Rockhampton Local Overland Flood Inundation Area and some cut and filling is proposed within the site as part of the development. Furthermore, existing overland flow regime located within the north-western corner of the site will be altered by the proposed retaining wall structure. Please provide a flood statement from a RPEQ engineer considering any impacts to the external properties

This report addresses this IR item and demonstrates compliance to Council's Planning Scheme.

Site Description

Existing Conditions

The site is located on Pennycuick Street, approximately 2.5km from the Rockhampton CBD, as shown on Figure 1. The existing site is relatively flat. The site includes two habitable dwellings designated for removal.

Proposed Conditions

The proposed development includes the construction of 19 habitable dwellings and associated infrastructure as per the attached reference drawings.

The existing retaining wall is proposed to be shifted North approximately 700 to 1200mm to the boundary of Land Parcel 4RP892683, refer Figure 2 and drawing 0772021-P-0002 which details the location of the existing wall and the proposed alignment of the new wall.



Figure 1 – Site Location (Source: Queensland Globe)





Flood Hazard

The site is affected by Wandal and West Rockhampton local overland flooding. Peak flood levels, depths and velocities for the site are detailed in Table 1. The Wandal & West Rockhampton Local Catchment Study (Draft Version 8th February 2018) was used to derive the results shown in Table 1.

Table 1Peak Flood Levels - lot 4 and 3 on RP892683

AEP %	Peak Flood Level (mAHD)	Peak Flood Depth (m)	Peak Flood Velocity (m/s)
1%	11.01m to 13m	0m-0.3m	0.51m/s to 1.0m/s

Flood Impact

The site is subject only to minor local catchment flooding on the North-Western side of the properties. The existing retaining wall protects the site in its current state from flood impacts. The minor relocation of the retaining wall will, similarly, mitigate impacts by diverting the channel flow slightly north into Council's Lot 3 RP602602 which is essentially acting as a drainage reserve and pump station siting. Given the limited flood depth and velocity, and minor nature of the wall relocation it is expected that there will be little to no impact to external properties or infrastructure.

Conclusion

The proposed development will have negligible impact on the Wandal and West Rockhampton local catchment flooding condition. This development will not result in an adverse flood impact to external properties from the site.

Limitations:

- 1. MCE has relied upon third party sources of information to prepare the document which may not have been able to be fully verified. MCE has taken reasonable endeavours to inform itself of the parameters and project and has taken reasonable steps to ensure that the works and document is as accurate as possible given the information upon which it has been based including information that may have been provided or obtained by any third party or external sources which has not been independently verified.
- 2. MCE reserves the right to review and amend any aspect of the works performed including any opinions and recommendations from the works included or referred to in the works if:
 - a. Additional sources of information not presently available (for whatever reason) are provided or becomes known to MCE; or
 - b. MCE considers it prudent to revise any aspect of the works in light of any information which becomes known to it after the date of submission.
 - c. MCE does not give any warranty nor accept any liability in relation to the completeness or accuracy of the works. If any warranty would be implied whether by law, custom or otherwise, that warranty is to the full extent permitted by law excluded. All limitations of liability shall apply for the benefit of the employees, agents and representatives of MCE to the same extent that they apply for the benefit of MCE.

Milton

Lachlan McMurtrie Director RPEQ 1524

PROJECT 99 and 101 Pennycuick Street DATE OUR REF. 31.05.2021 077-20-21

APPENDIX A – PROPOSED SITE LAYOUT





PROJECT 99 and 101 Pennycuick Street DATE 31.05.2021 077-20-21

OUR REF.

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APPENDIX B - FLOOD HAZARD MAP





