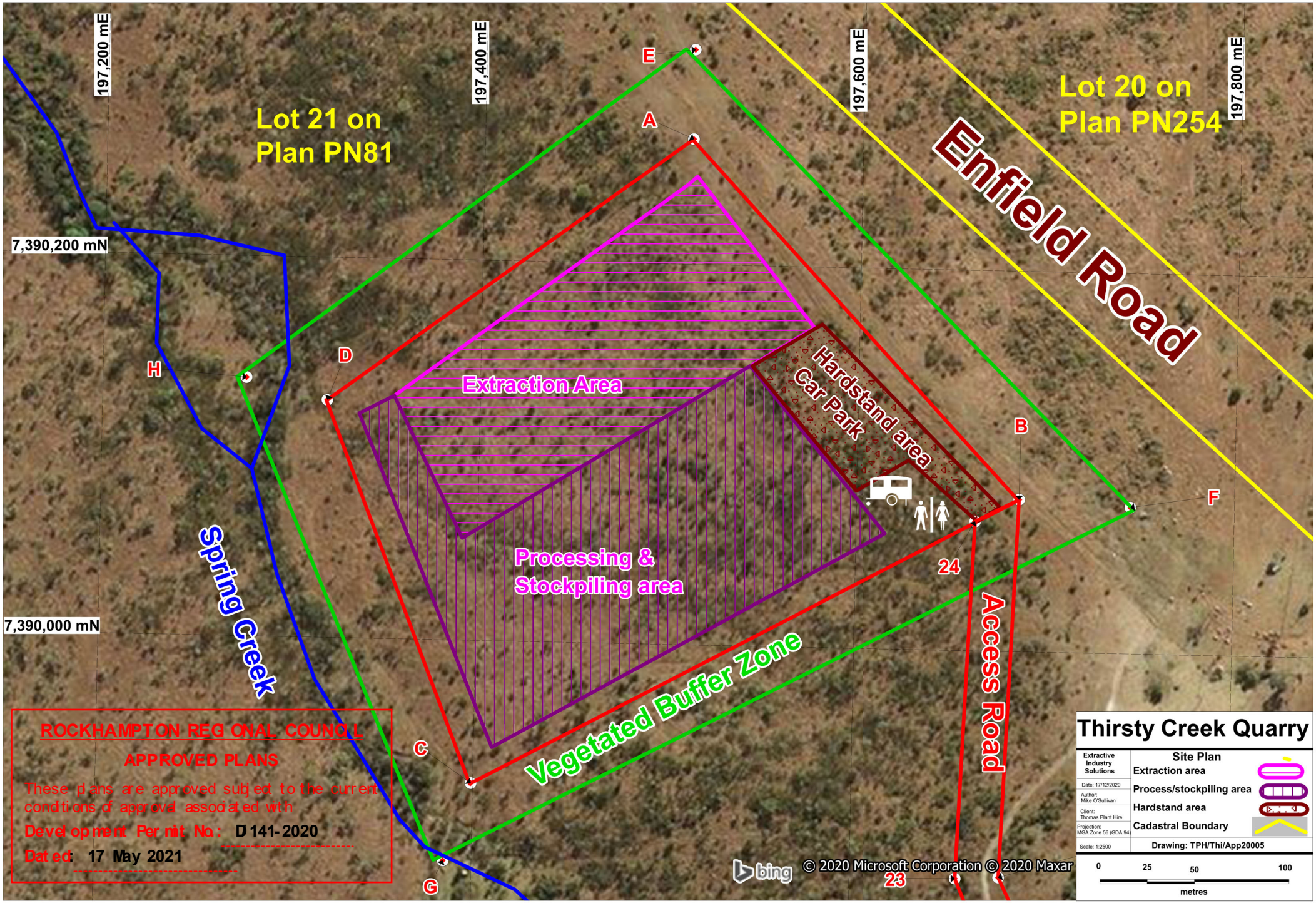
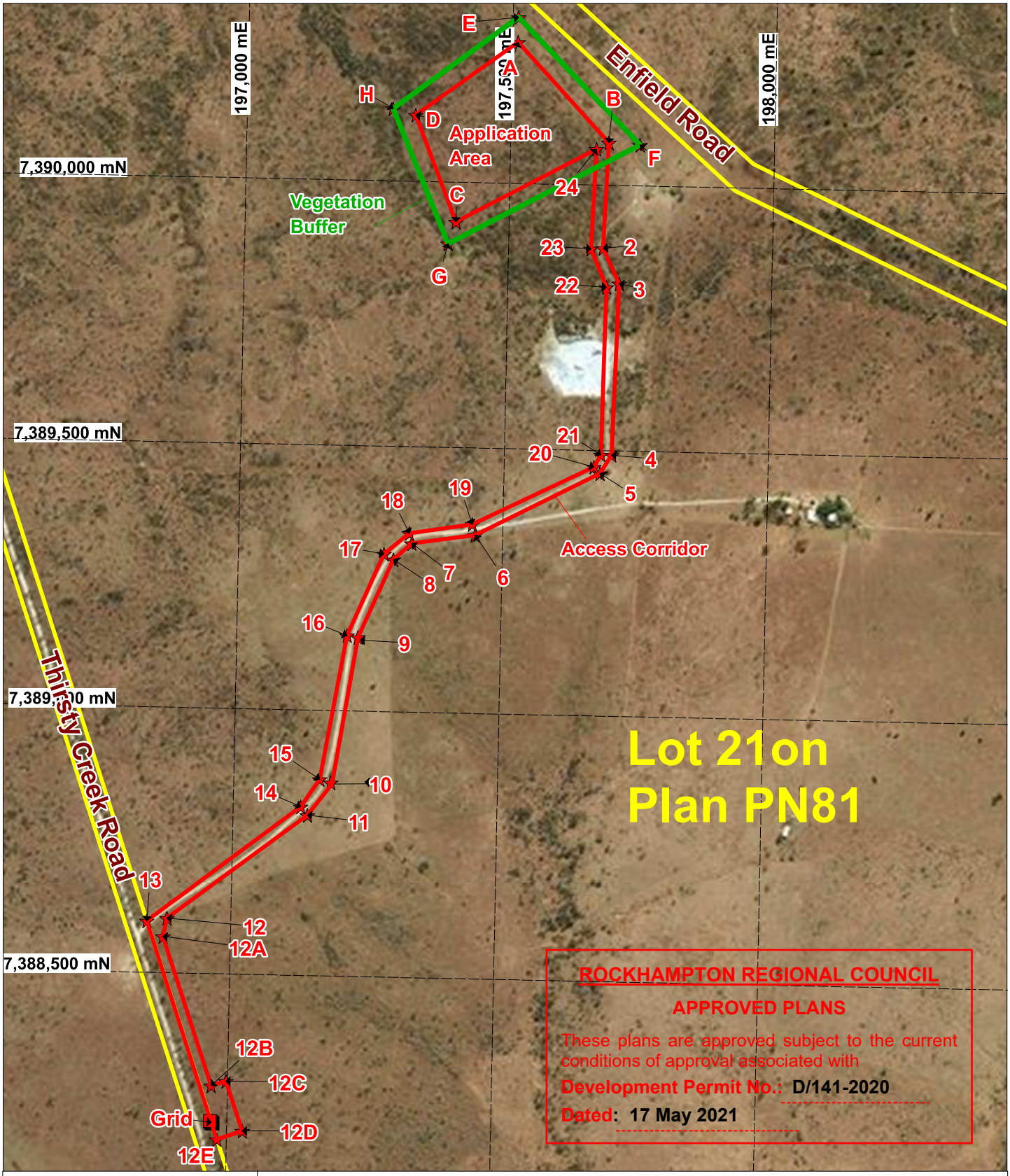

7,390,500 mN
7,390,250 mN
7,390,000 mN
7,389,750 mN
197,000 mE
197,250 mE
197,500 mE
197,750 mE
198,000 mE
Lot 20 on Plan PN254
Lot 21 on Plan PN81
Enfield Road
Extraction & Processing Area
Vegetated Buffer Zone
A
B
C
D
E
F
G
H
24
23
22
2
3
ROCKHAMPTON REGIONAL COUNCIL
APPROVED PLANS
These plans are approved subject to the current conditions of approval associated with
Development Permit No.: D141-2020
Dated: 17 May 2021
bing
© 2020 Microsoft Corporation © 2020 Maxar
Thirsty Creek Quarry
Extractive Industry Solutions
Date: 16/12/2020
Author: Mike O'Sullivan
Client: Thomas Plant Hire
Projection: MGA Zone 56 (GDA 94)
Scale: 1:5000
Extraction & Processing Area co-ordinates
A - 197,510 mE; 7,390,266 mN
B - 197,686 mE; 7,390,080 mN
C - 197,399 mE; 7,389,925 mN
D - 197,319 mE; 7,389,125 mN
Drawing: TPH/Thi/App20002
0
50
100
200
metres


197,200 mE
197,400 mE
197,600 mE
197,800 mE
7,390,200 mN
7,390,000 mN
Lot 21 on Plan PN81
Lot 20 on Plan PN254
Enfield Road
Extraction Area
Hardstand area
Car Park
Processing & Stockpiling area
Vegetated Buffer Zone
Access Road
Spring Creek
A
B
C
D
E
F
G
H
23
24
ROCKHAMPTON REGIONAL COUNCIL
APPROVED PLANS
These plans are approved subject to the current conditions of approval associated with
Development Permit No: D 141-2020
Dated: 17 May 2021
Thirsty Creek Quarry
Extractive Industry Solutions
Site Plan
Extraction area
Process/stockpiling area
Hardstand area
Cadastral Boundary
Date: 17/12/2020
Author: Mike O'Sullivan
Client: Thomas Plant Hire
Projection: MGA Zone 56 (GDA 94)
Scale: 1:2500
Drawing: TPH/Thi/App20005
0 25 50 100
metres
bing
© 2020 Microsoft Corporation © 2020 Maxar


7,390,400 mN
7,390,200 mN
7,390,000 mN
7,389,800 mN
197,000 mE
197,200 mE
197,400 mE
197,600 mE
197,800 mE
198,000 mE
Lot 21 on Plan PN81
Lot 20 on Plan PN254
Enfield Road
Extraction & Processing Area
Vegetated Buffer Zone
A
B
C
D
E
F
G
H
24
23
2
22
3
ROCKHAMPTON REGIONAL COUNCIL
APPROVED PLANS
These plans are approved subject to the current conditions of approval associated with
Development Permit No.: D141-2020
Dated: 17 May 2021
Thirsty Creek Quarry
Extractive Industry Solutions
Date: 16/12/2020
Author: Mike O'Sullivan
Client: Thomas Plant Hire
Projection: MGA Zone 56 (GDA 94)
Scale: 1:5000
Vegetated Buffer Zone co-ordinates
E - 197,510 mE; 7,390,313 mN
F - 197,745 mE; 7,390,077 mN
G - 197,385 mE; 7,389,884 mN
H - 197,276 mE; 7,389,136 mN
Drawing: TPH/Thi/App20004
0 50 100 200
metres
bing
© 2020 Microsoft Corporation © 2020 Maxar



Thirsty Creek Quarry

Access Corridor Co-ordinates

Client: Thomas Plant Hire

Drawing No:TPH/Thi/IR20006

Date: 17/02/2021

Projection: MGA Zone 56 (GDA 94)

Scale: 1:10000

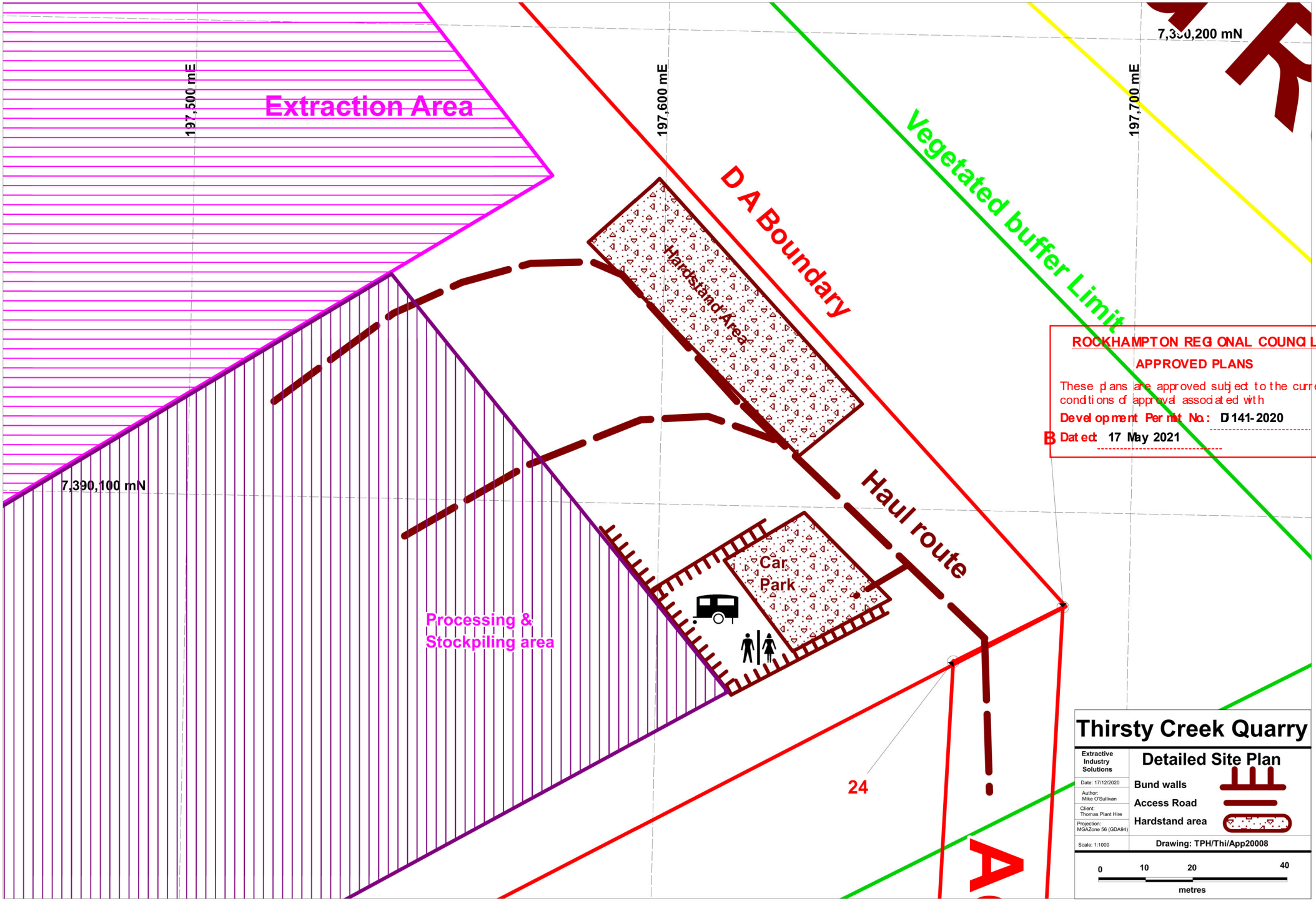
0 100 200 400

metres

A	197,510 mE; 7,390,266 mN	9	197,230 mE; 7,389,139 mN	15	197,163 mE; 7,388,870 mN
B	197,686 mE; 7,390,080 mN	10	197,184 mE; 7,388,864 mN	16	197,209 mE; 7,389,142 mN
C	197,399 mE; 7,389,925 mN	11	197,141 mE; 7,388,802 mN	17	197,276 mE; 7,389,297 mN
D	197,319 mE; 7,390,125 mN	12	196,879 mE; 7,388,603 mN	18	197,323 mE; 7,389,337 mN
2	197,679 mE; 7,389,881 mN	12A	196,872 mE; 7,388,568 mN	19	197,442 mE; 7,389,356 mN
3	197,711 mE; 7,389,815 mN	12B	196,969 mE; 7,388,289 mN	20	197,670 mE; 7,389,469 mN
4	197,703 mE; 7,389,492 mN	12C	196,997 mE; 7,388,298 mN	21	197,683 mE; 7,389,492 mN
5	197,682 mE; 7,389,457 mN	12D	197,030 mE; 7,388,205 mN	22	197,687 mE; 7,389,808 mN
6	197,448 mE; 7,389,336 mN	12E	196,982 mE; 7,388,188 mN	23	197,656 mE; 7,389,880 mN
7	197,328 mE; 7,389,318 mN	13	196,841 mE; 7,388,597 mN	24	197,663 mE; 7,390,068 mN
8	197,294 mE; 7,389,287 mN	14	197,128 mE; 7,388,818 mN		

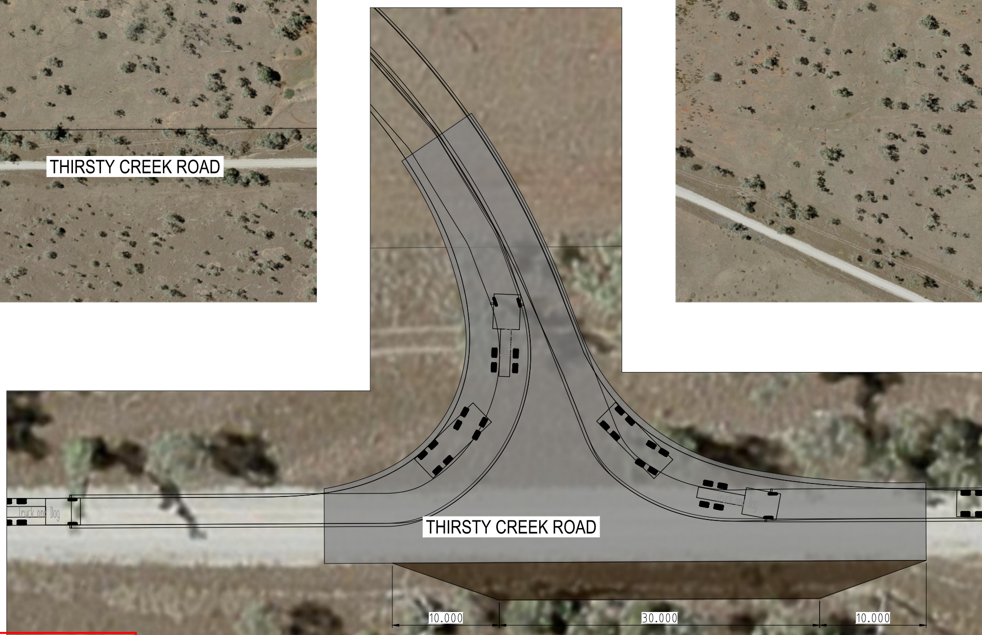
Extractive Industry Solutions

Compiled by: Michael O'Sullivan

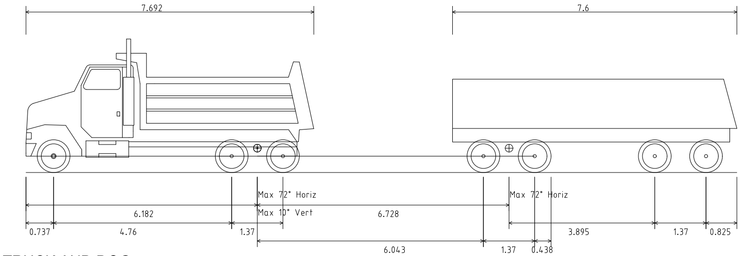

Extraction Area
197,500 mE
197,600 mE
197,700 mE
7,390,200 mN
7,390,100 mN
D A Boundary
Vegetated buffer Limit
Hardstand Area
Haul route
Car Park
Processing & Stockpiling area
24
ROCKHAMPTON REGIONAL COUNCIL
APPROVED PLANS
These plans are approved subject to the current conditions of approval associated with
Development Permit No.: D141-2020
B Dated: 17 May 2021
Thirsty Creek Quarry
Extractive Industry Solutions
Detailed Site Plan
Date: 17/12/2020
Author: Mike O'Sullivan
Client: Thomas Plant Hire
Projection: MGAZone 56 (GDA94)
Bund walls
Access Road
Hardstand area
Scale: 1:1000
Drawing: TPH/Thi/App20008
0 10 20 40
metres

ATTACHMENT 2

PLAN
SCALE 1:2000(A1) 1:4000(A3)



ACCESS DETAIL
SCALE 1:250(A1) 1:500(A3)



TRUCK AND DOG

OVERALL LENGTH	19.000m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	3.571m
MIN BODY GROUND CLEARANCE	0.408m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	6.00s
CURB TO CURB TURNING RADIUS	16.700m

TRUCK AND DOG VEHICLE PROFILE
SCALE: NTS

40 0 40 80 120 160 200m
SCALE 1:2 000 @ A1 SCALE 1:4 000 @ A3

ROCKHAMPTON REGIONAL COUNCIL
APPROVED PLANS
These plans are approved subject to the current conditions of approval associated with
Development Permit No.: D141-2020
Dated: 17 May 2021

INFORMATION ONLY

SURVEYOR										
ADDRESS:										
CO-ORDINATE DATUM										
HEIGHT DATUM			A	15/02/2021	SUBMITTED FOR INFORMATION	SJP	CH	SJP	CH	
	DRAWING No.	REFERENCE DRAWING TITLE	REV	DATE	REVISION DESCRIPTION	DFT	DFT CHK	DES	DES CHK	

REVIEWED | BY | DATE
RPEQ ENG
RPEQ No:

CLIENT
THOMAS PLANT HIRE

NOTE: THIS DRAWINGS IS SOLELY THE PROPERTY OF McMURTRIE CONSULTING ENGINEERS PTY LTD. THE INFORMATION CONTAINED IS NOT TO BE DISCLOSED, REPRODUCED OR COPIED IN WHOLE OR PART WITHOUT WRITTEN APPROVAL FROM McMURTRIE CONSULTING ENGINEERS PTY LTD.

SCALE: AS SHOWN

PREPARED BY 0732021

mcmurtrie CONSULTING ENGINEERS
Address: 63 Charles Street, NORTH ROCKHAMPTON QLD 4701
Postal: PO BOX 2149, WANDAL QLD 4700
E-mail: mail@mcmengineers.com
Phone: (07) 4921 1780
Mobile: 0407 631 066
Fax: (07) 4921 1790

CLIENT THOMAS PLANT HIRE
PROJECT QUARRY ACCESS ROAD
TITLE
THIRSTY CREEK ROAD
PRELIMINARY ACCESS INTERSECTION LAYOUT AND SWEPT PATH

A1 | DRAWING NUMBER 0732021-9001 | REVISION A

ATTACHMENT 1

mcmurtrie
CONSULTING ENGINEERS

STORMWATER MANAGEMENT PLAN

THIRSTY CREEK QUARRY, GOGANGO

ROCKHAMPTON REGIONAL COUNCIL
APPROVED PLANS
These plans are approved subject to the current conditions of approval associated with
Development Permit No.: D141-2020
Dated: 17 May 2021

Prepared for:

M H & B J Thomas

PROJECT NUMBER J21005

FEBRUARY 2021

REVISION R1V1

ABN 69 958 286 371
P (07) 4921 1780
F (07) 4921 1790
E mail@mcmengineers.com

PO Box 2149
Wandal Q 4700
63 Charles Street
North Rockhampton Q 4701

PREPARED

LAURENCE ALLAN
PRINCIPAL ENGINEER

APPROVED

CHRIS HEWITT
PRINCIPAL ENGINEER

DOCUMENT CONTROL

Version	Date	Revision	Prepared	Approved
R1V1	23 February 2021	For Council submission	L. Allan	C. Hewitt

CONTENTS

TABLES

FIGURES

APPENDICES

1.0 INTRODUCTION

McMurtrie Consulting Engineers (MCE) have been engaged by M H & B J, to prepare a Stormwater Management Plan (SMP) for the proposed Thirsty Creek Quarry located at 802 Thirsty Creek Road, Gogango, described as Lot 21 on PN81 as shown on Figure 1.

The site is adjacent to the old Rockhampton Regional Council's (Council) gravel pit which has been used over the past 25 years to supply gravel to the local road network. The proposed site has potential reserves of 1.68 to 2.2 million tonnes of crushable rock, the application is requesting approval to produce a maximum of 300,000 tonnes per annum, of crushed rock products for the first two years and 100,000 tonnes per annum thereafter, with an expected operational life of 20 to 25 years.

The site is currently covered by Environmental Authority EA0002041. The site is subject to the following conditions:

- W1. Stormwater contaminated by the activity must be managed to minimise or prevent adverse impacts on the values of the receiving environment.
- W2. Ponds used for the storage or treatment of aqueous waste must be constructed, installed, and maintained to: -
  - Prevent any release of aqueous waste from the ponds
  - Ensure the stability of the pond structure
- W3. Erosion and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment.
- W4. The stormwater runoff from the facility generated by a 24 hour storm event with an average recurrence interval of one in five years must be retained on site and treated to remove contaminants before release.

The quarry area is not prone to flooding and is drained by an order 1 stream, as shown on Figure 2.

This SMP has been prepared in response to a Item 5 of Council's Information Request (IR) dated 7 January 2021 (ref D/141-2020), for the proposed development, in order to support a Material Change of Use (MCU) Development application (DA).

2.0 SITE DESCRIPTION

2.1 EXISTING SITE

The site is located 10.0 kilometres north of Gogango access to the site, from the Capricorn Highway, will be through Gogango township, 1.95 kilometres along Riverslea Road, 8.00 kilometres along Thirsty Creek Road to Thirsty Creek property and 1.75 kilometres along the old shire haul road which will be used as the access road for the development.

The proposed Enfield Road is located adjacent to the development however, Council has not developed this route and it is used for property access only by landholders. The proposed quarry site will border the road reserve between Lot 21 on PN81 and Lot 20 on PN254.

The quarry site will cover approximately 1.38% of Lot 21 on PN81, which contains a total area of 761.606 hectares that is used for beef cattle production. A Council a gravel pit is located immediately south of the proposed development site.

The site is currently identified as a Rural Zone on Council's Planning Scheme.

2.2 PROPOSED DEVELOPMENT

The proposed quarry operational areas will cover 6.515 hectares when fully developed, as shown on Figure 3, which is expected to take approximately 20 years. The Development Approval application area will cover 14.75 hectares which will include the 30 metre wide vegetated buffer zone required under the Extractive Industry Code – Rockhampton Region Planning Scheme, a 20 metre wide clear buffer zone required under Code 16 – State Development Assessment Provisions (SDAP) and a 20-metre access corridor to Thirsty Creek Road.

The proposed development is purely a project specific operations-based use and does not involve any permanent building works. The activities will be limited to mechanical operations and may include some temporary on-site structures (e.g. amenities block and containers).

The extraction will be conducted in a 2-phase process to gain the most efficient use of the resource and restricted area. Phase 1 will use a processing area at ground level and Phases 2 will use the previously extracted areas for processing and stockpiling areas as well as the existing ground level infrastructure.

The extraction area will consist of a multi bench excavation with the top bench of weathered material and underlying benches of fresh rock. The excavation area will cover 2.16 hectares under stage 1 of the development and 5.5 hectares when fully developed.

The quarry design consists of a 5 to 8 metre shallow bench consisting of weathered material with the walls battered at 1 in 1 with underlying benches to a maximum height of 11 metres battered at 80°. The terminal width of these benches will be 6 metres.

The processing pads and stockpile pads will be constructed adjacent to the extraction area and will cover approximately 2.51 hectares. These pads will drain into a fully functional stormwater management system which will capture and treat all the runoff from the site prior to any releases.

The buffer zone will be fenced so to promote the regeneration of native shrubs and trees in the buffer zone and to limit access to the development.

Organic material and topsoil, from the development, will be stockpile outside the excavation area, adjacent to the processing pad, on the eastern side to form a noise and dust buffer against the adjoining lot and the road reserve. This material will be reused during the rehabilitation processes.

The weathered rock layer will be processed into MRTS05 Type 2.5 (CBR 15) or select fill materials which is a saleable item from the quarry. This will expose the rock suitable for crushing into high value crushed rock products, such as concrete aggregate, cover aggregate and pavement materials.

The amenities and office block, car park and hardstand area will cover 0.36 hectares and this area will also be included in the stormwater catchment area.

2.3 SITE ACCESS

Access to the site will be via the old Council haul road which leads from Thirsty Creek Road to the proposed site through the existing council pit. The new section of access road will follow the existing property road that services the northern end of the property.

The access road is an existing haul road and property access road but one section will require upgrading to meet the requirements of the Capricorn Municipal Development Guidelines.

2.4 TOPOGRAPHY

Limited topographic information for the site is available, with only 30 metre (1 arc second) SRTM topographic information available. It is anticipated that site survey will be obtained at a future stage of the development to facilitate the detailed design of the quarry.

Lot 21 on PN81 is located with the Thirsty Creek catchment a sub-catchment of Spring Creek which discharges to the Fitzroy River, as shown on Figure 1. The quarry site itself is situated within a smaller unnamed tributary that discharges west towards the Fitzroy River, as shown on Figure 2.

The quarry site is lightly timbered with regrowth, however, it has previously been cleared of all vegetation and seeded as an improved pasture and is located on an undulating ridge that varies considerably in relief from 4% to 20% in areas where there is outcropping rock, the quarry falls from approximately 99 mAHD in the north-east corner of the proposed development to approximately 83 mAHD in the south-west corner.

2.5 SOIL TYPES

The dominant soil type, in the extraction area, is derived from the weathering of the underlying basalt. The soil profile changes considerably from no soil profile at the peak of the ridge to a poorly developed soil profile consisting of three layers which include an “A” horizon with a poorly defined boundary with the “B” horizon and an underlying mottled zone. As the distance from the peak of the ridge increases, the depth of these layer increase, as well as the depth of the extremely weathered zone and the distinctly weathered zone. The soil type is described as a montmorillonite rich soil so it is classified as a Vertosols.

The soil types outside the target area are derived from the weathering of the underlying trachyte and possibly other immediate type rocks. This profile has an extremely poorly developed and defined “B” horizon which contain a high percentage of weathered underlying parent rock. These soils are classified as Tenosols.

Although the site is located adjacent to the banks of a small tributary, there is no evidence of any soils derived from transported material.

2.6 RAINFALL

Rainfall data was been sourced from the Bureau of Meteorology 2016 Design Rainfall Data System. The quarry is within in the lower Fitzroy River catchment area which has a defined wet and dry season with the wet season lasting from December to April.

Table 2-1 details the adopted rainfall depths for this SMP.

TABLE 2-1 ADOPTED DESIGN RAINFALL DEPTHS

Parameter	AEP (%)	Duration	Depth (mm)
First Flush Run-off	63.2	30 minute	27.3
Sediment Basin Design Volume	20	24 hour	125
Basin Outlet Structures	5	24 hour	189

The retention period for the runoff entering the sediment pond will be 15.9 hours minimum.

3.0 STORMWATER MANAGEMENT PLAN

3.1 GENERAL

The activities of extracting and crushing rock will be on going at the site and will result in an ongoing risk of contaminating stormwater at the site. As development at the site is in its early stages, there are areas where disturbed topsoil and extremely weathered rock are exposed to stormwater and these areas are considered at greater risk of contaminating run-off. Other risks to stormwater quality include leaks and spill of hydrocarbons, which includes oils and fuel used at the site.

The stormwater management system, at the site, has been designed to minimise disturbance outside the extraction and processing areas.

Stormwater run-off at the Thirsty Creek Quarry site will be managed by:

- Diverting external catchment areas around the quarry and processing area such that no 'clean' run-off enters the site;
- Containing run-off within the quarry and processing area and only release from the site after treatment;
- Maintaining original release points from the site, with similar drainage areas, prior to site development;
- Maintaining a stormwater management system that is suited to the various stages of development at the site;
- Constructing and maintaining all the required structures to capture and treat the onsite stormwater (e.g. bund walls rock lined drains, flat bottom drains, sediment ponds and rock lined release outlets);
- Minimising disturbed areas that contain materials prone to erosion;
- Installing sediment and erosion structures that will control the movement of sediment in areas prone to erosion;
- Regular maintenance inspections of all the associated structures;
- Using the stormwater captured in the sediment ponds for dust suppression;
- Using the water from the sediment ponds in the crushing process to minimised dust emissions and to ensure a conforming product (e.g. no segregation);
- Installing bunded areas refuelling operations where possible;
- Where refuelling occurs outside bunded areas, ensuring that the best practise and documented procedures are used; and
- Retaining spill kits on site and training of all staff in the use of the kits.

3.2 STAGED DEVELOPMENT

The stormwater management system will be developed to suit the level of development that the site is at. Runoff from the uncleared sections of the extraction area will be diverted around the site until the relevant areas are cleared.

Temporary drainage structures will be constructed to divert runoff from uncleared areas of the extraction area around the disturbed areas on the site. As some of the catchment areas within the site are currently smaller than the final design, the sediment ponds have been designed to capture runoff at the respective level. As development of the site continues, the size of the sediment ponds will be increased to capture the required amount of runoff.

3.3 BUFFER ZONES

The Rockhampton Region Planning Scheme requires a 30 metre vegetated buffer surrounding the site to protect the environmental values of the surrounding environment. The State Development Assessment Provisions (SDAP) require a 20-metre clear buffer zone around the development for essential management (bushfire) purposes. This buffer zone will also assist with treating run-off from the site.

3.4 SITE REHABILITATION

A site-specific rehabilitation plan has been prepared by Extractive Industry Solutions (December 2020), and generally includes:

- Stockpiling of topsoil from extraction operations;
- Progressive preparation of areas, that have been fully exploited, for rehabilitation;
- Earthworks to drain the site into sediment ponds for the terminal shape of the site;
- Spreading and preparation of the topsoil for seeding;
- Seeding the topsoil with native species suited to the clayey soil types derived from weathered sediments; and
- Monitoring of the site for stability, plant growth and compliance to the objectives of rehabilitation plan.

The quarry area, when fully rehabilitated, will be returned to grazing land and the extraction area will be utilised as a water storage for stock use.

3.5 REFUSE REMOVAL

A site-specific waste management plan has been prepared by Extractive Industry Solutions (December 2020), and generally includes:

- Domestic refuse from the amenities block will be removed by the quarry operator and taken to the Council Refuse Facility. If required, any other refuse will be placed into skip bins and removed from site by suitably qualified contractors;
- Regulated waste will be stored on site in approved containers in signed areas and removed by suitably qualified contractors. A register of these removals will be maintained at the operator's head office; and
- Any other refuse from the activities will be assessed for recycling purposes, stockpiled, or removed and sold to contractors that process and recycle that particular type of waste, including excess sediment from the sediment basins.

3.6 STORMWATER MANAGEMENT SYSTEM DESIGN

The design of the stormwater management system will include sediment basins to capture the runoff from a 24 hour 20% AEP storm event.

The site has been broken in to two main catchments:

- Catchment A – the main quarry extraction area; and
- Catchment B – the processing and stockpile area.

The runoff from Catchment A will be captured in a sediment sump at the south-western end of the extraction area which will be approximately 11 metres below the adjacent processing area. The area uphill of the extraction area will be drained onto the processing pad and into the catchment system. As the area required for extraction increases, the diversion bank will be moved uphill until there is not requirement for the bank.

Run-off from the processing and stockpile area (Catchment B) will be directed via on-site diversion drains to a single sediment basin in the site's south end, as shown on Figure 3. This will allow the designed release point to be located in the same position as the natural release point prior to development.

Runoff from the areas containing the topsoil stockpiles and other disturbed areas will also be directed into the Catchment B Basin through diversion banks and primary sediment traps.

Sediment basin deign details are contained within Table 5-1, and are conceptually shown on Figure 3.

As no chemicals will be onsite, with the exception of fuel and oil, the stormwater management system will be design with a primary propose of removing sediment from the runoff so that water quality at the site in maintained at an acceptable level.

No fuel or oil will be stored on site. Any refuelling or topping up of oil will occur in a designated area, where a spill kit is accessible.

The design is based on:

- Any releases from the site will be through the same exist drainage lines that existed, prior to the existence of the quarry site for the first half of the life of the development. During the second half of the expected life of the site, the extraction area will encroach on the processing and stockpiling area.
- The stormwater storage capacity on site will be greater than a 24 hour, 1 in 5 year event (20% AEP).
- The release structures will be designed with a capacity to control a 24 hour, 1 in 20 year weather event (5%AEP).
- The retention rate of runoff at the site, including hardstand areas and car park was calculated at 22% (Group C soil) for 125 mm rainfall and for the extraction area the retention rate was calculated at 9% (Group A soil) for 125 mm rainfall.
- The water level in the ponds will be controlled so that at the end of the dry season (1 December), the available capacity of the ponds is greater than the runoff calculated for a 24 hour, 1 in 5 year weather event.
- Construction design utilises a maximum gradient on the topsoil pads, hardstand areas and car park of 4.0% with an average gradient of 2.0%.
- The surface of the hardstand areas consist of a crushed impermeable pavement material.
- Any materials stockpiled in the extraction area will range from coarse sand to fine sand materials with a low to nil clay content.
- Disturbed soil areas will be minimised within the catchment areas for the stormwater management system.
- Runoff from areas where soil is exposed, will pass through sediment traps prior to entering the stormwater management system.
- All runoff will be capture and diverted into a system of diversion drains and banks.

Water from the sediment ponds will be used for dust suppression on the haul roads within the quarry site and the haul road during the drier months of the year.

The management of runoff in the primary sediment ponds, will include lowering the water levels in the sediment ponds so that free board within the ponds is off greater capacity than the runoff from a first flush weather event.

Any materials or sediments removed from the sediment ponds will be used in the production of pavement materials around the site.

All hydrocarbons will be stored in accordance with “AS1940-2004 - The storage and handling of flammable and combustible liquids”. The fuel will be stored in bunded containers and will be connected to bunded areas which are used for refuelling. When refuelling occurs in the extraction area or the processing area, refuelling procedures adopted by the operating company will be used.

4.0 MONITORING AND MAINTENANCE

The system that delivers the runoff to the sediment ponds and structures associated with the sediment ponds required regular monitoring and maintenance too ensure compliance with the Environmental Authority, Development Approval, the SMP. These assessments are the responsibility of the Site Environmental Officer or this delegate. Non-conformances must be reported to the Quarry Manager.

Appendix A contains an "Inspection checklist" that requires completing:

- after each weather event where the rainfall registered at the office exceeds 27.3 millimetres (first flush event) or,
- at the cessation of activities at the beginning of each wet season; and / or
- at the commence of work after the wet season.

Damage to the stormwater management system which could cause a release of untreated stormwater into the surrounding environment is treated as urgent and requires repairing within 7 days or prior to the next weathered event.

Sediment structures that are not working to capacity require maintenance based on a regular maintenance program, based on a monthly to 3 monthly maintenance programme.

All the primary sediment ponds require cleaning out so that their capacity is at the design level, prior to the wet season. The main pond requires checking for capacity and cleaning out if required. Drains that are overgrown with vegetation or silted up require maintenance so that their design capacity is realised. Eroded areas require treatments or the construction of control devices that will prevent that level of erosion occurring again.

4.1 WATER QUALITY MONITORING

The stockpiled quarried material at the site will vary in size from fines in pavement material through to 500-millimetre rock products. The extraction area is all located below the surrounding landform. No groundwater or soaks have been observed or are expected in the extraction area.

As the use of chemicals, outside of hydrocarbons, is not required by the development activities, water quality testing of a release will be restricted to:

- pH;
- Electrical conductivity (µS/cm); and
- Turbidity.

All sampling will be conducted in accordance with "Monitoring and Sampling Manual 2009" version 2 July 2013. Sampling will be conducted as the release points.

In the absent of a Water Quality Objectives Guidelines for the Fitzroy River catchment, the document "Establishing Environmental Values, Water Quality Guidelines and Water Quality Objectives for the Fitzroy Basin", "Queensland Water Quality Guidelines 2009" and "ANZECC Guidelines" 8 May 2014 will be used to determine if any further testing requirements are applicable.

4.2 STORMWATER CAPTURE AND DISCHARGE REQUIREMENTS

The statutory requirements relating to the capture and discharge of runoff from the site, include:

- Building of diversion banks and drains to direct external clean water around the site around, and to direct water from within the site to stormwater management structures;
- Treating stormwater prior to release;
- Minimise the amount of erosion that stormwater runoff may causes on site; and
- A stormwater management system that has a capacity greater than the design runoff from a 20% AEP storm of 24 hours duration.

To meet the statutory requirements, the following data shall be recorded, if a release occurs:

- Date and time, discharge commenced;
- Date and time the discharge was completed;
- Daily rainfall amounts;
- Rate of discharge;
- Amount of discharge;
- Any environmental impacts observed in the release area; and
- The following properties of the release;
    - pH;
    - Electrical Conductivity; and
    - Total Suspended Solids and/or Turbidity.

5.0 RESPONSE TO COUNCIL INFORMATION REQUEST

Council issued an IR dated 7 January 2021 (ref D/141-2020), for the proposed development, as response to Item 2 and 5 of this IR is detailed herein.

2.0 Please provide the Sedimentation Basin design details prepared and certified by a Registered Professional Engineer of Queensland (RPEQ) or suitably qualified professional that as a minimum include:

2.1 Design Flow;

2.2 Size for Treatment;

2.3 Type of Basin;

2.4 Size and Dimension of the Basin:

- 2.4.1 Sedimentation Basin Area;
- 2.4.2 Storage Volume for Sediments;
- 2.4.3 Internal Batters;

2.5 Design inflow systems;

2.6 Design outlet systems (low / high flow);

2.7 Vegetation Specification;

2.8 Maintenance access and plan;

2.9 Sediment disposal method;

2.10 Rehabilitation process for the basin area; and

2.11 Basin's operational procedures.

Note: If the proposal is for weir flow / spillway for high flow then please provide weir hydraulic details including energy dissipation structure, if any required.

Sediment basin parameters are detailed in Table 5-1, designed in accordance with IECA (June 2018).

TABLE 5-1 SEDIMENT BASIN DETAILS

Parameter	Basin A	Basin B1
Design Flow	20% AEP, 24 hour	
Basin Catchment Area (ha)	1.92	3.33
Type of Basin	Type D	
Settling Volume (m^3)	2,406	4,158
Sediment Storage Volume (m^3)	1,203	2,079
Total Basin Volume (m^3)	3,609	6,236
Settling Depth (m)	1.2	
Storage Depth (m)	1.2	
Overall Basin Depth (m)	2.4	
Internal Batters	1 in 4	
Sedimentation Basin Bed Area (m^2)	828	1.687
Design inflow systems	Sheet flow with diversion drains to basins	
Design outlet systems	Not applicable, situated within quarry pit floor, basin will be pumped as required.	10 metre weir, min 0.3m deep situated 2.4m above basin bed with 1 in 2 side batters

Parameter	Basin A	Basin B1
Vegetation Specification	None	
Rehabilitation process for the basin area	As per Site rehabilitation plan (Extractive Industry Solutions, December 2020)	
Operational procedures	In accordance with (IECA, June 2018) guidelines for Type D basins and waste removal per Site waste management plan (Extractive Industry Solutions, December 2020)	

Energy dissipation structure, if required, will be sized as part of the detailed design phase of the development, as the requirements of each basin may differ and detailed ground survey is not currently available. If required, these structres will be designed in accordance with the IECA guidelines (IECA, June 2018).

5.0 Stormwater Management Plan and drawings including all the elements of Stormwater Strategy i.e. channels, bunds, culverts etc must be prepared and certified by a Registered Professional Engineer of Queensland (RPEQ). Further, please provide detailed drawings of those elements.

This SMP has been written and prepared by a RPEQ. Due to the stage of the DA, limited topographic information is available at this time, as such the diversion channels and bunds will be designed and sized at a later stage of the DA process as part of the detailed design of the site.

6.0 CONCLUSION & QUALIFICATIONS

This SMP has been prepared by MCE for the proposed MCU DA the proposed Thirsty Creek Quarry located at 802 Thirsty Creek Road, Gogango, described as Lot 21 on PN81. The development is subject to detailed design, and further supporting analysis may be required as part of future applications.

Stormwater within the site is generally managed by:

- Only capturing stormwater from within the activity area;
- Diverting water from outside the activity area around the site;
- Capturing stormwater and storing the treated runoff on site for a 24 hour 20% AEP storm event;
- Controlled releases into the surrounding environment of treated water only through release structures designed to manage a 5% AEP storm event.

This SMP has been prepared specifically to respond to Item 5 of Council's Information Request (IR) dated 7 January 2021 (ref D/141-2020), for the proposed development, in order to support a MCU DA.

The analysis and overall approach was specifically catered for the particular project requirements, 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.

7.0 REFERENCES

Ball, J., Babister, M., Nathan, R., Weeks, W., Weinmann, E., Retallick, M., & Testoni, I. (Eds.). (2019). *Australian Rainfall and Runoff: A Guide to Flood Estimation*. Commonwealth of Australia (Geoscience Australia).

DILGP. (July 2017). *State Planning Policy*. Department of Infrastructure, Local Government and Planning.

Extractive Industry Solutions. (December 2020). *Rehabilitation Plan for Thirsty Creek Quarry*.

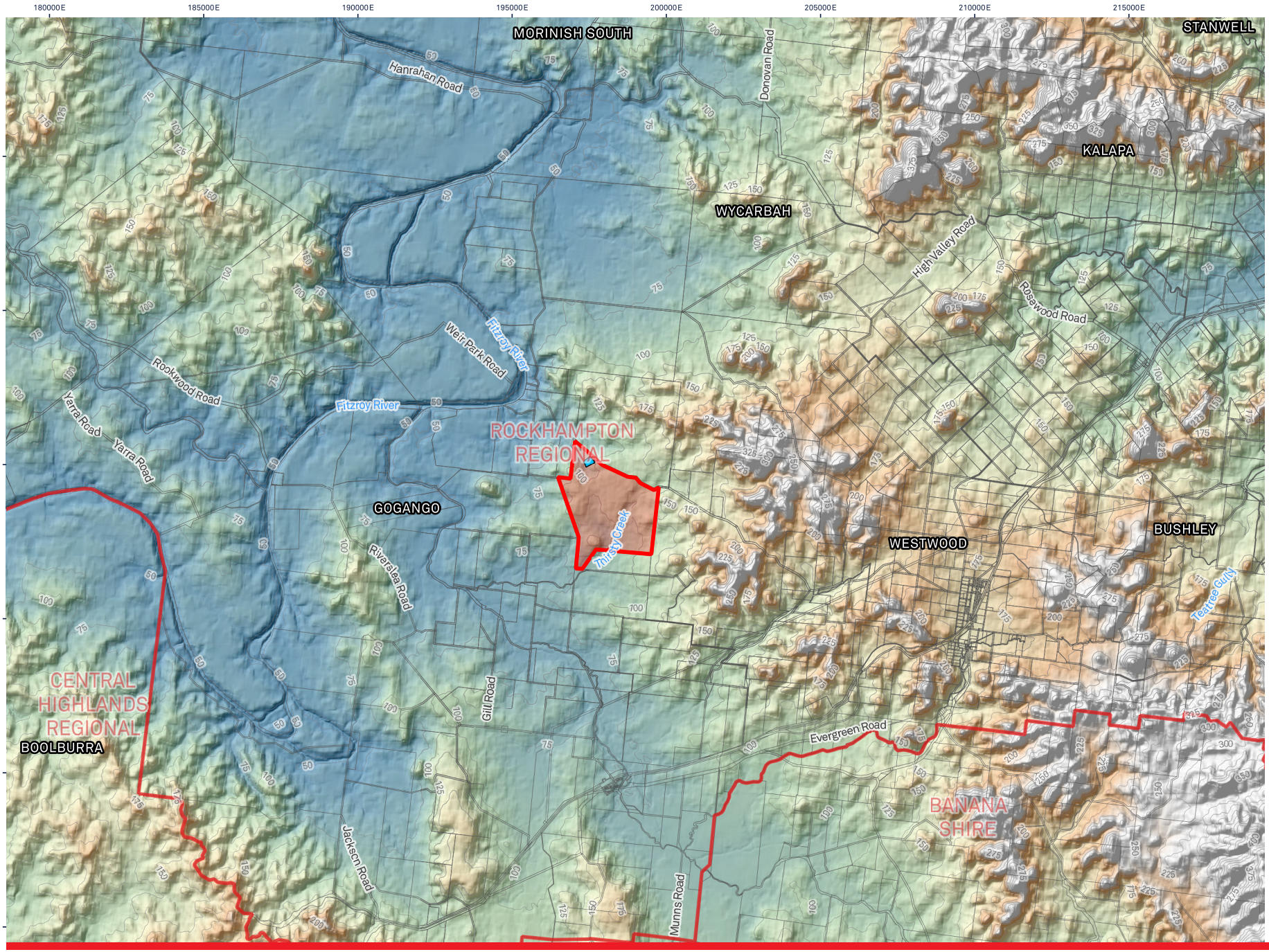
Extractive Industry Solutions. (December 2020). *Waste Management Plan*.

IECA. (June 2018). *Best Practice Erosion and Sediment Control*.

IPWEAQ. (2016). *Queensland Urban Drainage Manual – Forth Edition*. Institute of Public Works Engineering Australasia, Queensland.

Pilgrim, D. H. (Ed.). (1987). *Australian Rainfall & Runoff – A Guide to Flood Estimation – Volume 1*. The Institution of Engineers, Australia.

FIGURES



LEGEND

- Site Boundary
- Proposed Quarry
- Cadastre
- LGA Boundary

Topography (mAHD)

- 50
- 100
- 150
- 200
- 250
- 25m Contour

mcmurtrie CONSULTING ENGINEERS

DATE
23 February 2021

SIZE
A3

REFERENCE
J21005

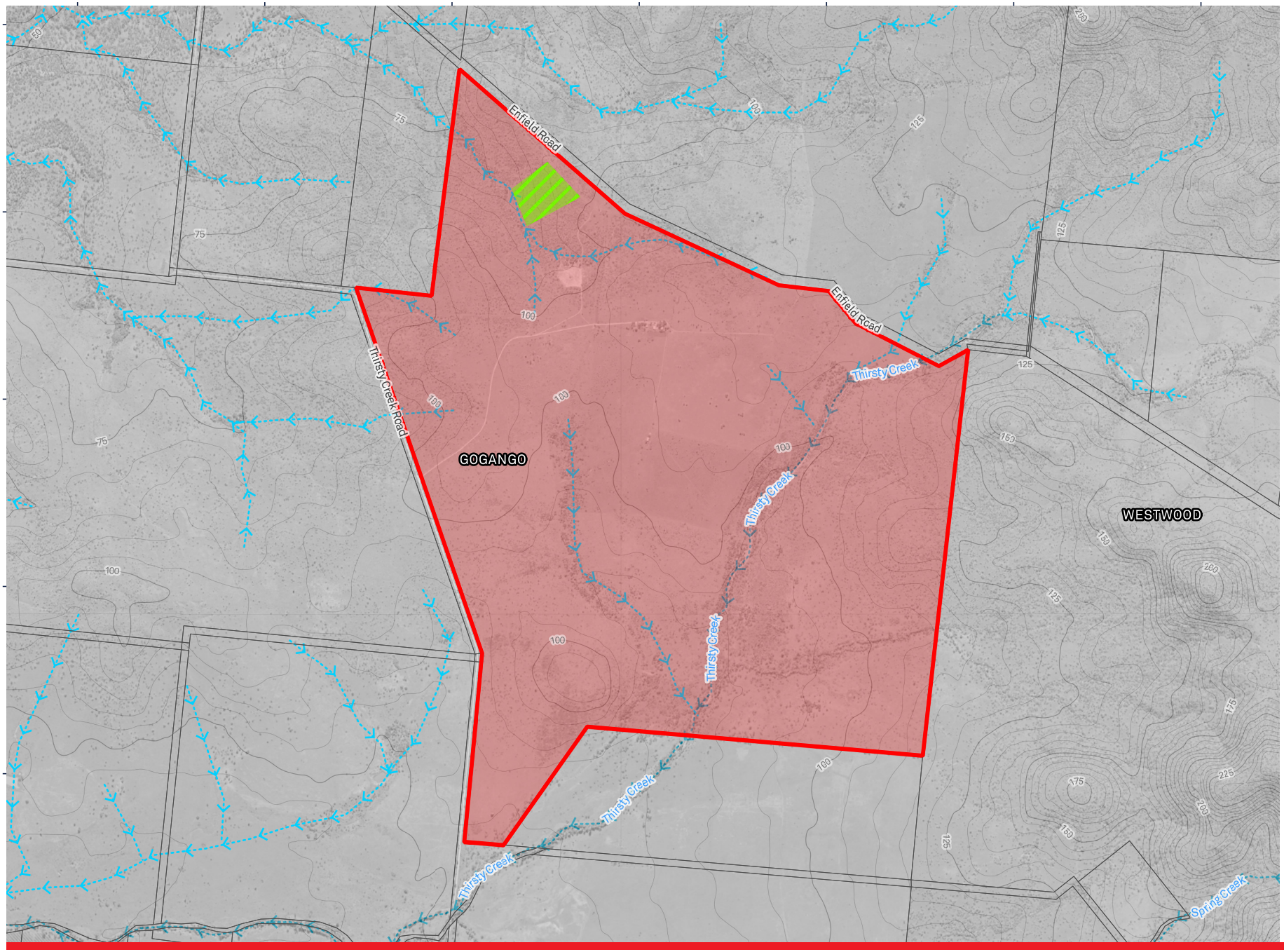
SCALE
1:120,000

0 3 6 9 12 15 km

FIGURE 1

SITE LOCATION

Thirsty Creek Quarry, Gogango
Stormwater Management Plan
M H & B J Thomas



mcmurtrie CONSULTING ENGINEERS

DATE
23 February 2021

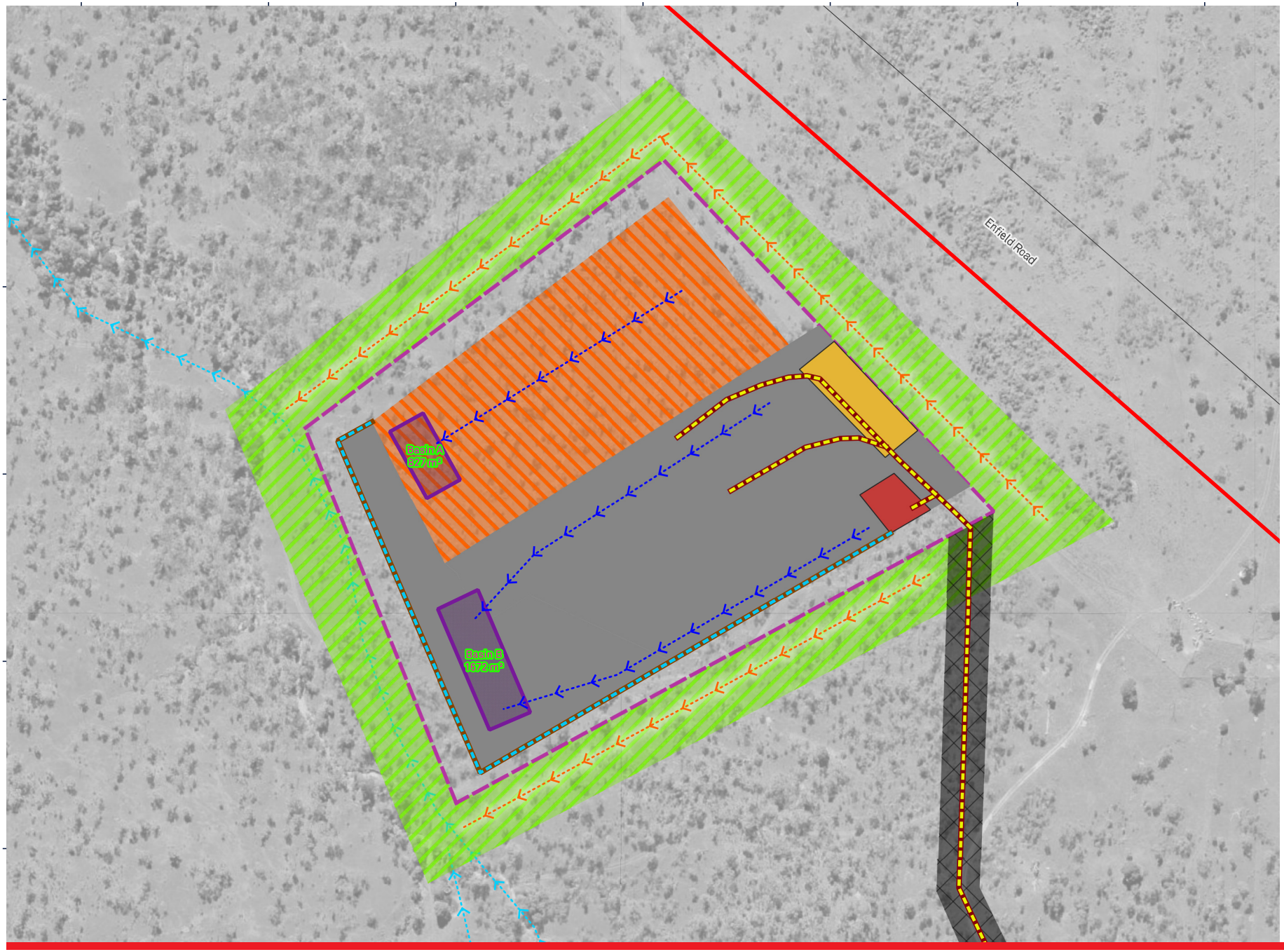
SIZE
A3

REFERENCE
J21005

SCALE
1:20,000

0 0.5 1 1.5 2 2.5 km

FIGURE 2
CATCHMENT FLOW PATHS
Thirsty Creek Quarry, Gogango
Stormwater Management Plan
M H & B J Thomas



mcmurtrie CONSULTING ENGINEERS

DATE
23 February 2021

SIZE
A3

REFERENCE
J21005

SCALE
1:2,000

0 40 80 120 160 200 m

FIGURE 3

PROPOSED QUARRY INDICATIVE LAYOUT & STORMWATER MANAGEMENT

Thirsty Creek Quarry, Gogango
Stormwater Management Plan
M H & B J Thomas

APPENDIX A
INSPECTION CHECKLIST

Table 1.1 Inspection Checklist

Inspection Date:	Inspection by:		Thirsty Creek Quarry Stormwater Management Plan	
Structure	Status W - Working R – Requires repairs M – Requires maintenance D – Requires redesign N – Not applicable	Urgency U – Urgent M – Maintenance Y - Year shutdown	Action required	Completed
Extraction Area				
Main sediment ponds (inlet)				
Release structure (Overflow)				
Sediment ponds associated with the diversion banks				
Processing pad for fuel and/or oil spills				
Haul road and access road.				

Drainage off the bench into primary sediment pond a) scouring b) excessive vegetation build up c) sediment traps working d) erosion or undermining of benches				
Seepage of groundwater from benches				
Diversion banks carrying runoff around the site.				
Diversion banks preventing runoff from entering the site.				
Water quality in main pond for: - 1. discolouration, 2. smell 3. weed growth				

Car park, hardstand, Processing and Stockpiling area				
Primary Sediment Pond (inlet and capacity)				
Outlet into the extraction area				
Vegetated sediment traps				
Stormwater diversion drains and banks within the catchment				
Diversion drains around the hardstand areas				
Pipes and roll over banks across the access roads around the hardstand areas.				
Drainage structures on the main haul road to the extraction area and access roads				
Hardstand areas for oil and fuel spills				

General				
Weeds infestations or unidentified plants.				
Evidence of unauthorised entry onto site				
Signage at entrance to quarry site				
Comments:				

AUSDILAPS
Specialist Building Inspections

ABN: 56 891 923 704 Telephone: 1800 Dilaps (345 277) Email: info@ausdilaps.com.au

PRE CONSTRUCTION CONDITION SURVEY - GEOREFERENCED VIDEO

COMMISSIONED BY:

Acciona Australia
Level 5, 88 Creek Street
BRISBANE QLD 4333

PROJECT:

Rookwood Weir, Rookwood QLD

SITE SURVEYED:

Council Assets
Thirsty Creek Road
GOGANGO QLD 4702

ROCKHAMPTON REGIONAL COUNCIL
APPROVED PLANS
These plans are approved subject to the current conditions of approval associated with
Development Permit No: D141-2020
Dated: 17 May 2021

INSPECTION DATE:

30 November 2020

JOB REFERENCE:

AD3537C

INSPECTOR:

Naser Mahan
Civil Engineer
NER, RPEQ

WEATHER:

Sunny, 39°C

REPORT PREPARED BY:

Brittany Schneider

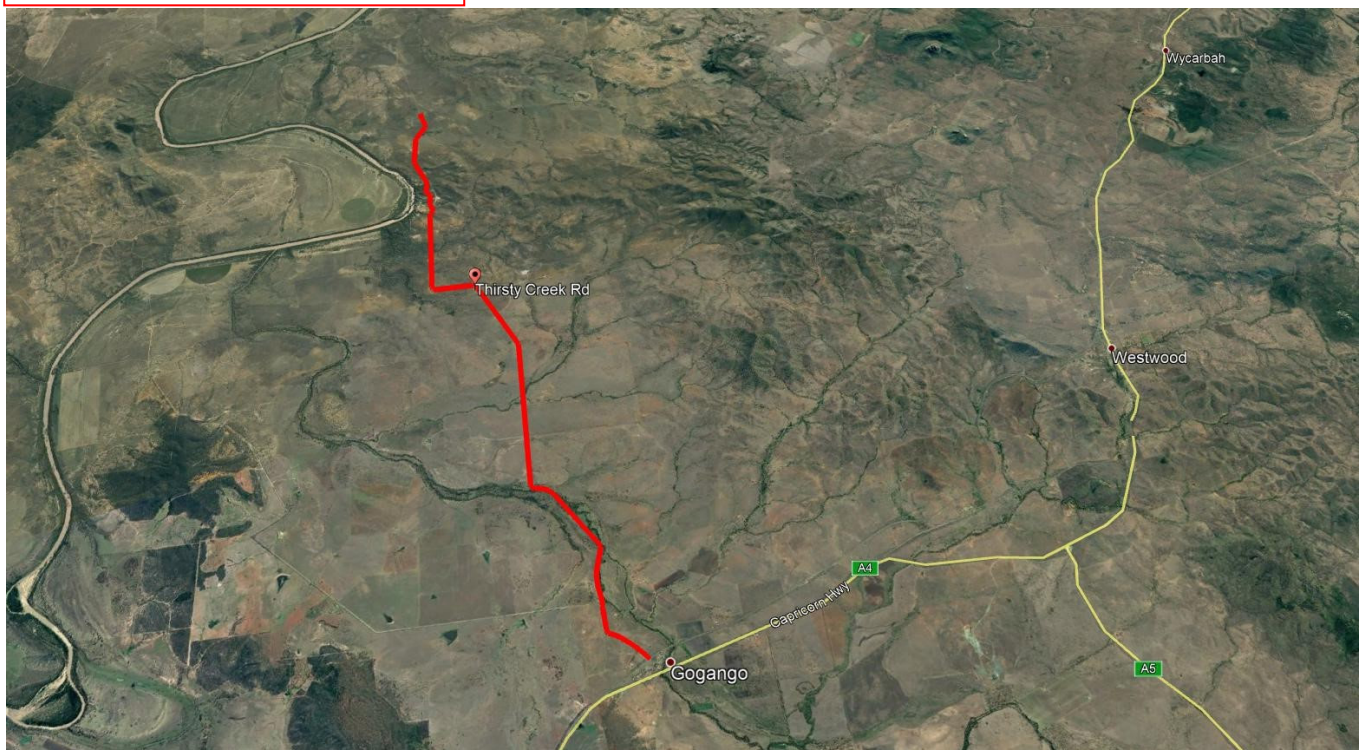


Table of Contents

BRIEF

Australian Dilapidations was commissioned by
Acciona Australia
to carry out pre-construction condition inspection and report in accordance with AS.4349.0 for the
Rookwood Weir, Rookwood QLD project.

PURPOSE OF THIS REPORT

This is a visual pre-construction inspection in accordance with AS 4349.0 and is intended to record the pre-construction condition of the property inspected and the surrounding areas. This is not a structural report and will not provide comment on the structural integrity or design of the inspected property; however it does include a photographic record of the main defects visible at the time of the inspection. The report is intended to be used to determine if change has occurred post-construction and if so, to what extent. This report and included photographs will be retained for use in/or during post-construction condition surveys.

LIMITATIONS

In accordance with AS 4349.0:
1. A visual only inspection may be of limited use to the client. In addition to a visual inspection, to thoroughly inspect the readily accessible areas of the property, further testing may be required whenever necessary.
2. This report does not include the inspection and assessment of items or matters outside the scope of the requested inspection and report.
3. This report does not include the inspection and assessment of items or matters that do not fall within the consultant's direct expertise.
4. The inspection only covers the readily accessible areas of the property and does not include areas, which were inaccessible or obstructed at the time of inspection. Obstructions are defined as any condition or physical limitation which inhibits or prevents inspection.
5. Australian Standard Inspection of Buildings, Part 1: Property Inspections – Residential buildings recognises that a standard property inspection report is not a warranty or an insurance policy against problems developing with the building in the future.

VIDEO LIMITATIONS

1. GPS Trilateration typical accuracy is <4m.
2. The first 15 seconds of an inspection allows for enough time to reach maximum accuracy before movement is commenced.
3. Cellular network reception and other factors outside of AusDilaps control may affect GPS accuracy.
4. In the event that adequate GPS accuracy is unachievable (<10m) we will perform a standard inspection. It is difficult to know whether desired GPS accuracy is able to be achieved until we arrive at site location.

EXCLUSIONS

The client acknowledges that this report does not cover or deal with:
(i) solving or providing costs for any rectification or repair work;
(ii) the structural design or adequacy of any element of construction;
(iii) detection of wood destroying insects such as termites and wood borers;
(iv) the operation of fireplaces and chimneys;
(v) any building services or appliances on the property;
(vi) any swimming pools and associated pool equipment or spa baths and spa equipment or the like;
(vii) whether the ground on which the building rests has been filled, is liable to subside, swell or shrink, is subject to landslip or tidal inundation, or if it is flood prone.

COPYRIGHT

All related council authorities are granted a perpetual non-exclusive license to make use of the copyright in all images supplied of council assets within this report, including the right to make copies available to third parties as though they were council images.

TERMS AND CONDITIONS

Important information regarding the scope and limitations of inspection and this report: Any person who relies upon the contents of this report does so acknowledging that the following clauses form an integral part of the report.

1. **This report is not an all encompassing structural survey.** It is a reasonable attempt to identify any obvious or significant defects apparent at the time of the inspection. Whether a defect is considered significant or not, to a large extent, depends on the age and type of the building or property inspected. This report is not a Certificate of Compliance with the requirements of any act, regulation, ordinance or by-law or, as a warranty or an insurance policy against problems developing with the building or property in the future.

2. **Only areas to which reasonable access is available were inspected.** AS 4349.0 defines reasonable access as “areas where safe, unobstructed access is provided and the minimum clearances specified below are available, or where these clearances are not available, areas within the inspector’s unobstructed line of sight and within arm’s length...”. Reasonable access does not include removing screws and bolts to access covers or the use of destructive/invasive inspection methods, cutting or making access traps, moving heavy furniture, floor coverings or stored goods.

3. **This report does not and cannot make comment upon:**
   - The assessment or detection of defects which may be subject to the prevailing weather conditions.
   - Whether or not services have been used for some time prior to the inspection and whether this will affect the detection of leaks or other defects.
   - The presence or absence of timber pests, gas-fittings, common property areas, environmental concerns, the proximity of the property to flight paths, railways, or busy traffic.
   - Noise levels, health and safety issues, heritage concerns, security concerns or systems; fire protection, site drainage.
   - Detection and identification of illegal building work, illegal plumbing work, durability of exposed finishes, neighbourhood problems, electrical installation, cables or reception systems, any matters that are solely regulated by statute.
   - Accordingly, this report does not guarantee that defects and/or damages do not exist in any inaccessible or partly inaccessible areas or sections of the property.

4. **Asbestos, Lead and Mould Disclaimer:**
   No inspection for asbestos, lead or mould was carried out at the property and no professional report on the presence or absence of them is provided. If asbestos is noted as present within the property or if the building was built prior to 1990 and you are concerned they may be present within the property then you should seek advice from a qualified specialist to identify the amount and importance of their presence and the cost of sealing or removal.

5. **Estimating Disclaimer:**
   This report does not provide any estimates on repair or remedial works. We recommend you consult a licenced builder to give an estimate on any work required.

6. **Disclaimer of Liability:**
   No liability shall be accepted on an account of failure of the report to notify any problems in the area(s) or section(s) of the subject property physically inaccessible during inspection, or to which access is denied. No responsibility can be accepted for defects which are latent or otherwise not reasonably detected on a visual inspection.

7. **Disclaimer of Liability to Third Parties:**
   This report is made solely for the use and benefit of the client named on the front of this report. No liability or responsibility whatsoever, in contract or tort, is accepted to any third party who may rely on the report wholly or in part. Any third party acting or relying on this report, in whole or in part does so at their own risk.

PROPERTY DESCRIPTION

Property Type:

- Council Assets

GENERAL INSPECTION RESTRICTIONS

1. None noted at the time of the inspection.

SAFETY ISSUES

1. Please refer to 'Major Defects' for any Safety Issues related to building defects.

Important Note: Per AS 4349.0 Clause 4.2.f.2, the report shall identify any observed item that may constitute a present or imminent serious safety hazard.

PROPERTY SITES INSPECTED

- ✓ External Building Elements
- ✓ Roudabouts
- ✓ Kerbs/Gutters/Footpaths
- ✓ Roadways

Inspection Records: AD3537C-1 Rookwood Weir_Thirsty Creek Road_1.mp4
Length: Not applicable

Important Note: The areas listed above are a broad indication of the areas inspected. Within these areas, some further restrictions may have been present restricting or preventing our inspection. If any recommendation has been made within this report to gain access to areas, gain further access to areas, or any area has been noted as being at "High Risk" due to limited access then further access must be gained. We strongly recommend that such access be gained to enable a more complete report to be submitted.

Drainage - Surface Water: Not Inspected
Important Notes: The site should be monitored during heavy rain to determine whether the existing drains can cope. If they cannot cope, then additional drains may be required.

Services: Not Inspected
Important Notes: In regard to plumbing or electrical, it should be noted that we are not plumbers or electricians and no comments are made to electrical or plumbing. We recommend that a qualified contractor be engaged to make comment on any matter dealing with plumbing or electrical issues.

EXPLANATION OF REVISIONS

- Not applicable

Yours faithfully

Michael Burford

AUSTRALIAN DILAPIDATIONS
Office: 1800 Dilaps (345 277)
Email: info@ausdilaps.com.au

Project: *Rookwood Weir Project*
Client: *Acciona*
Project #: *AD3537C*

Asset: *Roadways- Thirsty Creek Road*
Inspected By: *N.M.*
Data Entered By : *N.M.*

Inspection Date: *30/11/2020*

Weather: *Sunny*
Temp: *39°*

AUSDILAPS
Specialist Building Inspections

Inspection Codes	AA = Depressions, AB = Ruts in Bituminous Surface, AD = Shoving of Pavement, AF = Rough Surface, AG = Potholes/ Delamination, BG = Crocodile Cracking, BZ = Cracks, CA = Edge Break, CC = Edge Drop-off/ Roolover, DC = Bleeding Seal, DE = Ravelling/ Stripping Seal, EB = Grass, GC = Scour/ Sediment Built-up, GG = Debries, HD = Wheel Ruts, YB = Joints Spalling/ Defects, TB = General Defect

Ref.#	Asset	Road Name	Element	Element Type	Defect Code	Defect Description	Coordination		Type of Inspection	Comment	Photo(s)		
							Lan	Lot			1	2	3
1	Roadway	Thirsty Creek Rd	Road Sign	Others	**TB**	General Defect	23º 31' 21.4" S	150º 1' 21.9" E	Video	Left side - Right Side	00001		
2	Roadway	Thirsty Creek Rd	Road Sign	Others	**TB**	General Defect	23º 31' 25.9" S	150º 1' 22.6" E	Video	Left side - Right Side	00002		
3	Roadway	Thirsty Creek Rd	Road Sign	Others	**TB**	General Defect	23º 31' 30.7" S	150º 1' 24.0" E	Video	Left side	00003		
4	Roadway	Thirsty Creek Rd	Road Sign	Others	**TB**	General Defect	23º 31' 31.9" S	150º 1' 24.3" E	Video	Left side	00004		
5	Roadway	Thirsty Creek Rd	Road Sign	Others	**TB**	General Defect	23º 31' 32.5" S	150º 1' 24.3" E	Video	Left side	00005		
6	Roadway	Thirsty Creek Rd	Road Sign	Others	**TB**	General Defect	23º 31' 33.4" S	150º 1' 24.2" E	Video	Right Side	00006		
7	Roadway	Thirsty Creek Rd	Road Sign	Others	**TB**	General Defect	23º 31' 35.4 S	150º 1' 22.9" E	Video	Left side - Right Side	00007		
8	Roadway	Thirsty Creek Rd	Pavement	Concrete	**BZ**	Cracks	23º 31' 38.1" S	150º 1' 20.5" E	Video	Left side - Right Side	00008		
9	Roadway	Thirsty Creek Rd	Road Sign	Others	**TB**	General Defect	23º 31' 41.9" S	150º 1' 17.1" E	Video	Left side	00009		
10	Roadway	Thirsty Creek Rd	Road Sign	Others	**TB**	General Defect	23º 31' 44.4" S	150º 1' 14.9" E	Video	Left side	00010		
11	Roadway	Thirsty Creek Rd	Road Sign	Others	**TB**	General Defect	23º 31' 46.2" S	150º 1' 13.6" E	Video	Left side	00011		
12	Roadway	Thirsty Creek Rd	Pavement	Concrete	**CA**	Edge Break	23º 31' 57.2" S	150º 1' 11.1" E	Video	-	00012		
13	Roadway	Thirsty Creek Rd	Shoulder	Unsealed/ Gravel	**GC**	Scour/ Sediment Built-up	23º 31' 1.9" S	150º 1' 10.5" E	Video	Right Side	00013		
14	Roadway	Thirsty Creek Rd	Shoulder	Unsealed/ Gravel	**GC**	Scour/ Sediment Built-up	23º 32' 8.8" S	150º 1' 9.0" E	Video	Right Side	00014		
15	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**AF**	Rough Surface	23º 32' 31.8" S	150º 1' 12.8" E	Video	-	00015		
16	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**CA**	Edge Break	23º 32' 33.8" S	150º 1' 13.3" E	Video	Left Side	00016		
17	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**AG**	Potholes/ Delamination	23º 32' 34.7" S	150º 1' 13.6" E	Video	Left side - Right Side	00017		
18	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**AG**	Potholes/ Delamination	23º 32' 35.0" S	150º 1' 13.9" E	Video	Left side - Right Side	00018		
19	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**AG**	Potholes/ Delamination	23º 32' 35.9" S	150º 1' 13.9" E	Video	Left side - Right Side	00019		
20	Culvert	Thirsty Creek Rd	Pavement	Concrete	**CA**	Edge Break	23º 32' 36.8" S	150º 1' 16.0" E	Video	Left side - Right Side	00020		
21	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**AG**	Potholes/ Delamination	23º 32' 39.1" S	150º 1' 17.3" E	Video	Left side - Right Side	00021		
22	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**AG**	Potholes/ Delamination	23º 32' 40.6" S	150º 1' 17.6" E	Video	Left side - Right Side	00022		
23	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**AG**	Potholes/ Delamination	23º 32' 45.0" S	150º 1' 18.3" E	Video	Left side - Right Side	00023		
24	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**AG**	Potholes/ Delamination	23º 32' 48.5" S	150º 1' 19.0" E	Video	Right Side	00024		
25	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**AG**	Potholes/ Delamination	23º 32' 49.3" S	150º 1' 19.1" E	Video	Left Side	00025		
26	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**AG**	Potholes/ Delamination	23º 32' 50.3" S	150º 1' 19.3" E	Video	Left side - Right Side	00026		
27	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**AG**	Potholes/ Delamination	23º 32' 50.8" S	150º 1' 19.4" E	Video	Left Side	00027		
28	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**AG**	Potholes/ Delamination	23º 32' 56.3" S	150º 1' 19.9" E	Video	Left side - Right Side	00028		
29	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**AG**	Potholes/ Delamination	23º 32' 57.9" S	150º 1' 19.3" E	Video	Left side - Right Side	00029		
30	Roadway	Thirsty Creek Rd	Shoulder	Unsealed/ Gravel	**GC**	Scour/ Sediment Built-up	23º 33' 0.2" S	150º 1' 18.1" E	Video	Left Side	00030		
31	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**CA**	Edge Break	23º 33' 0.8" S	150º 1' 17.8" E	Video	-	00031		
32	Culvert	Thirsty Creek Rd	Pavement	Concrete	**BZ**	Cracks	23º 33' 13.9" S	150º 1' 13.0" E	Video	Left side - Right Side	00032		
33	Culvert	Thirsty Creek Rd	Pavement	Concrete	**BZ**	Cracks	23º 33' 14.0" S	150º 1' 13.0" E	Video	Left side - Right Side	00033		
34	Culvert	Thirsty Creek Rd	Pavement	Concrete	**BZ**	Cracks	23º 33' 14.2" S	150º 1' 12.9" E	Video	Left side - Right Side	00034		
35	Culvert	Thirsty Creek Rd	Pavement	Concrete	**BZ**	Cracks	23º 33' 14.9" S	150º 1' 12.9" E	Video	Left side - Right Side	00035		
36	Roadway	Thirsty Creek Rd	Shoulder	Unsealed/ Gravel	**CC**	Edge Drop-off/ Roolover	23º 33' 29.1" S	150º 1' 9.2" E	Video	Left Side	00036		
37	Culvert	Thirsty Creek Rd	Pavement	Concrete	**BZ**	Cracks	23º 33' 50.6" S	150º 1' 6.2" E	Video	Left side - Right Side	00037		

Project: *Rookwood Weir Project*
Client: *Acciona*
Project #: *AD3537C*

Asset: *Roadways- Thirsty Creek Road*
Inspected By: *N.M.*
Data Entered By : *N.M.*

Inspection Date: *30/11/2020*

Weather: *Sunny*
Temp: *39°*

AUSDILAPS
Specialist Building Inspections

Inspection Codes	AA = Depressions, AB = Ruts in Bituminous Surface, AD = Shoving of Pavement, AF = Rough Surface, AG = Potholes/ Delamination, BG = Crocodile Cracking, BZ = Cracks, CA = Edge Break, CC = Edge Drop-off/ Roolover, DC = Bleeding Seal, DE = Ravelling/ Stripping Seal, EB = Grass, GC = Scour/ Sediment Built-up, GG = Debries, HD = Wheel Ruts, YB = Joints Spalling/ Defects, TB = General Defect

Ref.#	Asset	Road Name	Element	Element Type	Defect Code	Defect Description	Coordination		Type of Inspection	Comment	Photo(s)		
							Lan	Lot			1	2	3
38	Culvert	Thirsty Creek Rd	Pavement	Concrete	**BZ**	Cracks	23º 33' 50.8" S	150º 1' 6.2" E	Video	Left side - Right Side	00038		
39	Culvert	Thirsty Creek Rd	Pavement	Concrete	**BZ**	Cracks	23º 33' 50.9" S	150º 1' 6.2" E	Video	Left side - Right Side	00039		
40	Culvert	Thirsty Creek Rd	Pavement	Concrete	**BZ**	Cracks	23º 33' 51.1" S	150º 1' 6.2" E	Video	Left side - Right Side	00040		
41	Culvert	Thirsty Creek Rd	Pavement	Concrete	**BZ**	Cracks	23º 33' 51.3" S	150º 1' 6.2" E	Video	Left side - Right Side	00041		
42	Roadway	Thirsty Creek Rd	Shoulder	Unsealed/ Gravel	**GC**	Scour/ Sediment Built-up	23º 34' 8.3" S	150º 1' 3.2" E	Video	Left side - Right Side	00042		
43	Roadway	Thirsty Creek Rd	Pavement	Concrete	**BZ**	Cracks	23º 34' 8.5" S	150º 1' 3.2" E	Video	Right Side	00043		
44	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DC**	Bleeding Seal	23º 34' 12.6" S	150º 1' 2.7" E	Video	Left Side	00044		
45	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**GC**	Scour/ Sediment Built-up	23º 34' 12.7" S	150º 1' 2.7" E	Video	-	00045		
46	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DE**	Ravelling/ Stripping Seal	23º 34' 13.4" S	150º 1' 2.6" E	Video	Left Side	00046		
47	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**GC**	Scour/ Sediment Built-up	23º 34' 14.8" S	150º 1' 2.3" E	Video	Left side - Right Side	00047		
48	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**GC**	Scour/ Sediment Built-up	23º 34' 17.8" S	150º 1' 1.9" E	Video	Right Side	00048		
49	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**BZ**	Cracks	23º 34' 21.7" S	150º 1' 1.3" E	Video	Middle	00049		
50	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DC**	Bleeding Seal	23º 34' 26.6" S	150º 1' 0.9" E	Video	Left Side	00050		
51	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DC**	Bleeding Seal	23º 34' 29.3" S	150º 1' 3.4" E	Video	Right Side	00051		
52	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**GC**	Scour/ Sediment Built-up	23º 34' 29.8" S	150º 1' 7.6" E	Video	Left side - Right Side	00052		
53	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DC**	Bleeding Seal	23º 34' 30.1" S	150º 1' 10.3" E	Video	Left Side	00053		
54	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**GC**	Scour/ Sediment Built-up	23º 34' 30.6" S	150º 1' 14.3" E	Video	Left side - Right Side	00054		
55	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**AG**	Potholes/ Delamination	23º 34' 31.1" S	150º 1' 19.2" E	Video	Left Side	00055		
56	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**CA**	Edge Break	23º 34' 31.7" S	150º 1' 24.2" E	Video	Left Side	00056		
57	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**GC**	Scour/ Sediment Built-up	23º 34' 31.7" S	150º 1' 24.4" E	Video	Left Side	00057		
58	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**GC**	Scour/ Sediment Built-up	23º 34' 31.8" S	150º 1' 25.6" E	Video	Left side - Right Side	00058		
59	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DE**	Ravelling/ Stripping Seal	23º 34' 32.5" S	150º 1' 31.0" E	Video	Left Side	00059		
60	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**GC**	Scour/ Sediment Built-up	23º 34' 32.6" S	150º 1' 31.4" E	Video	Left side - Right Side	00060		
61	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DE**	Ravelling/ Stripping Seal	23º 34' 33.0" S	150º 1' 34.3" E	Video	Left Side	00061		
62	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**GC**	Scour/ Sediment Built-up	23º 34' 38.9" S	150º 1' 37.2" E	Video	Left side - Right Side	00062		
63	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DC**	Bleeding Seal	23º 34' 41.1" S	150º 1' 37.9" E	Video	Left Side	00063		
64	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**GC**	Scour/ Sediment Built-up	23º 34' 42.8" S	150º 1' 38.5" E	Video	Left Side	00064		
65	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DE**	Ravelling/ Stripping Seal	23º 34' 47.3" S	150º 1' 40.1" E	Video	Left Side	00065		
66	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**BZ**	Cracks	23º 34' 47.8" S	150º 1' 40.2" E	Video	Left Side	00066		
67	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**GC**	Scour/ Sediment Built-up	23º 34' 54.1" S	150º 1' 42.4" E	Video	Left side - Right Side	00067		
68	Roadway	Thirsty Creek Rd	Pavement	Unsealed/ Gravel	**DE**	Ravelling/ Stripping Seal	23º 35' 26.2" S	150º 1' 53.6" E	Video	Left side - Right Side	00068		
69	Roadway	Thirsty Creek Rd	Shoulder	Unsealed/ Gravel	**CC**	Edge Drop-off/ Roolover	23º 35' 56.0" S	150º 1' 54.5" E	Video	Left Side	00069		
70	Roadway	Thirsty Creek Rd	Pavement	Unsealed/ Gravel	**GC**	Scour/ Sediment Built-up	23º 36' 15.2" S	150º 1' 52.2" E	Video	Left side - Right Side	00070		
71	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DC**	Bleeding Seal	23º 36' 19.9" S	150º 1' 51.5" E	Video	Left side - Right Side	00071		
72	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DC**	Bleeding Seal	23º 36' 27.9" S	150º 1' 49.9" E	Video	Left side - Right Side	00072		
73	Culvert	Thirsty Creek Rd	Pavement	Concrete	**BZ**	Cracks	23º 37' 42.2" S	150º 1' 54.6" E	Video	Left side - Right Side	00073		
74	Culvert	Thirsty Creek Rd	Pavement	Concrete	**BZ**	Cracks	23º 37' 42.3" S	150º 1' 54.7" E	Video	Left side - Right Side	00074		

Project: *Rookwood Weir Project*
Client: *Acciona*
Project #: *AD3537C*

Asset: *Roadways- Thirsty Creek Road*
Inspected By: *N.M.*
Data Entered By : *N.M.*

Inspection Date: *30/11/2020*

Weather: *Sunny*
Temp: *39°*

AUSDILAPS
Specialist Building Inspections

Inspection Codes	AA = Depressions, AB = Ruts in Bituminous Surface, AD = Shoving of Pavement, AF = Rough Surface, AG = Potholes/ Delamination, BG = Crocodile Cracking, BZ = Cracks, CA = Edge Break, CC = Edge Drop-off/ Roolover, DC = Bleeding Seal, DE = Ravelling/ Stripping Seal, EB = Grass, GC = Scour/ Sediment Built-up, GG = Debries, HD = Wheel Ruts, YB = Joints Spalling/ Defects, TB = General Defect

Ref.#	Asset	Road Name	Element	Element Type	Defect Code	Defect Description	Coordination		Type of Inspection	Comment	Photo(s)		
							Lan	Lot			1	2	3
75	Culvert	Thirsty Creek Rd	Pavement	Concrete	**BZ**	Cracks	23º 37' 42.3" S	150º 1' 54.7" E	Video	Left side - Right Side	00075		
76	Culvert	Thirsty Creek Rd	Pavement	Concrete	**BZ**	Cracks	23º 37' 42.6" S	150º 1' 54.9" E	Video	Left side - Right Side	00076		
77	Culvert	Thirsty Creek Rd	Pavement	Concrete	**BZ**	Cracks	23º 37' 42.7" S	150º 1' 55.1" E	Video	Left side - Right Side	00077		
78	Culvert	Thirsty Creek Rd	Pavement	Concrete	**BZ**	Cracks	23º 37' 42.8" S	150º 1' 55.2" E	Video	Left side - Right Side	00078		
79	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**AG**	Potholes/ Delamination	23º 37' 43.3" S	150º 1' 55.5" E	Video	Left side - Right Side	00079		
80	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**BZ**	Cracks	23º 38' 15.0" S	150º 2' 12.6" E	Video	Left side - Right Side	00080		
81	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DE**	Ravelling/ Stripping Seal	23º 39' 12.3" S	150º 2' 9.5" E	Video	Left Side	00081		
82	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DE**	Ravelling/ Stripping Seal	23º 39' 15.0" S	150º 2' 9.2" E	Video	Left side - Right Side	00082		
83	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DC**	Bleeding Seal	23º 39' 25.5" S	150º 2' 8.0" E	Video	Left side - Right Side	00083		
84	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DC**	Bleeding Seal	23º 39' 27.8" S	150º 2' 8.7" E	Video	Left Side	00084		
85	Roadway	Thirsty Creek Rd	Shoulder	Asphalft/ Bitumen	**CA**	Edge Break	23º 39' 31.7" S	150º 2' 12.4" E	Video	Left Side	00085		
86	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DC**	Bleeding Seal	23º 39' 32.7" S	150º 2' 13.9" E	Video	Left Side	00086		
87	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**BZ**	Cracks	23º 39' 32.7" S	150º 2' 13.9" E	Video	Right Side	00086		
88	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DE**	Ravelling/ Stripping Seal	23º 39' 36.8" S	150º 2' 19.0" E	Video	Left Side	00087		
89	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**BZ**	Cracks	23º 39' 36.8" S	150º 2' 19.0" E	Video	Right Side	00087		
90	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DC**	Bleeding Seal	23º 39' 39.9" S	150º 2' 21.8" E	Video	Left side - Right Side	00088		
91	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DE**	Ravelling/ Stripping Seal	23º 39' 40.3" S	150º 2' 22.2" E	Video	Left side - Right Side	00089		
92	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DC**	Bleeding Seal	23º 39' 41.5" S	150º 2' 23.2" E	Video	Left side - Right Side	00090		
93	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DE**	Ravelling/ Stripping Seal	23º 39' 44.6" S	150º 2' 25.8" E	Video	Left side - Right Side	00091		
94	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DC**	Bleeding Seal	23º 39' 45.3" S	150º 2' 26.4" E	Video	Left side - Right Side	00092		
95	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**EB**	Grass	23º 39' 46.1" S	150º 2' 27.1" E	Video	Left Side	00093		
96	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**CA**	Edge Break	23º 39' 46.4" S	150º 2' 27.3" E	Video	Left Side	00094		
97	Roadway	Thirsty Creek Rd	Pavement	Others	**TB**	General Defect	23º 39' 48.8" S	150º 2' 28.8" E	Video	Left Side	00095		
98	Roadway	Thirsty Creek Rd	Pavement	Others	**TB**	General Defect	23º 39' 48.8" S	150º 2' 28.8" E	Video	Left Side	00096		
99	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DC**	Bleeding Seal	23º 39' 49.6" S	150º 2' 29.3" E	Video	Left side - Right Side	00097		
100	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**AG**	Potholes/ Delamination	23º 39' 49.8" S	150º 2' 29.4" E	Video	Left Side	00098		
101	Roadway	Thirsty Creek Rd	Pavement	Asphalft/ Bitumen	**DE**	Ravelling/ Stripping Seal	23º 39' 50.4" S	150º 2' 29.7" E	Video	Left Side	00099		

Figure: 0001

Figure: 0002

Figure: 0003

Figure: 0004

Figure: 0005

Figure: 0006

Figure: 0007

Figure: 0008

Figure: 0009

Figure: 0010

Figure: 0011

Figure: 0012

Figure: 0013

Figure: 0014

Figure: 0015

Figure: 0016

Figure: 0017

Figure: 0018

Figure: 0019

Figure: 0020

Figure: 0021

Figure: 0022

Figure: 0023

Figure: 0024

Figure: 0025

Figure: 0026

Figure: 0027

Figure: 0028

Figure: 0029

Figure: 0030

Figure: 0031

Figure: 0032

Figure: 0033

Figure: 0034

Figure: 0035

Figure: 0036

Figure: 0037

Figure: 0038

Figure: 0039

Figure: 0040

Figure: 0041

Figure: 0042

Figure: 0043

Figure: 0044

Figure: 0045

Figure: 0046

Figure: 0047

Figure: 0048

Figure: 0049

Figure: 0050

Figure: 0051

Figure: 0052

Figure: 0053

Figure: 0054

Figure: 0055

Figure: 0056

Figure: 0057

Figure: 0058

Figure: 0059

Figure: 0060

Figure: 0061

Figure: 0062

Figure: 0063

Figure: 0064

Figure: 0065

Figure: 0066

Figure: 0067

Figure: 0068

Figure: 0069

Figure: 0070

Figure: 0071

Figure: 0072

Figure: 0073

Figure: 0074

Figure: 0075

Figure: 0076

Figure: 0077

Figure: 0078

Figure: 0079

Figure: 0080

Figure: 0081

Figure: 0082

Figure: 0083

Figure: 0084

Figure: 0085

Figure: 0086

Figure: 0087

Figure: 0088

Figure: 0089

Figure: 0090

Figure: 0091

Figure: 0092

Figure: 0093

Figure: 0094

Figure: 0095

Figure: 0096

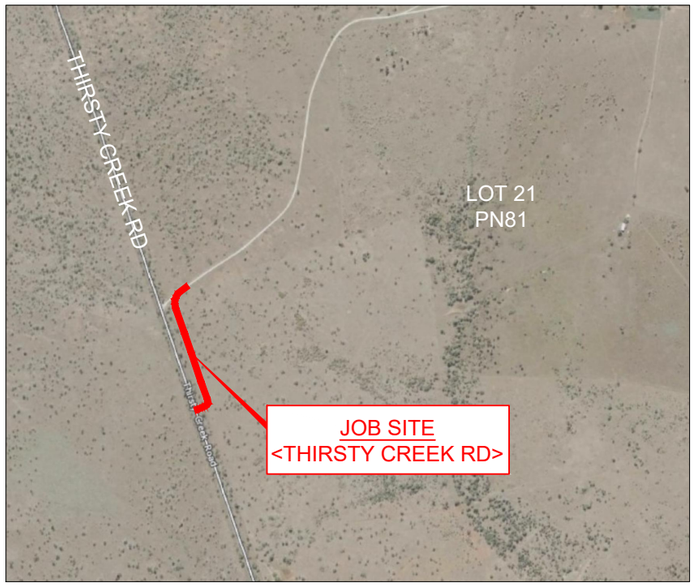
Figure: 0097

Figure: 0098

Figure: 0099

THOMAS PLANT HIRE - QUARRY

LOT 21 PN81 THIRSTY CREEK RD, GOGANGA Q
PROPOSED INTERSECTION & ACCESS



LOCALITY PLAN
NOT TO SCALE

PROPOSD INTERSECTION & ACCESS ROAD - 2021

DESIGN FILE No: CE21025
DESIGN STANDARD: CMDG DESIGN GUIDELINES AUSTROADS & TMR DESIGN GUIDELINES

DESIGN TRAFFIC

DESIGN VEHICLE: 19.0 TRUCK & DOG
ROAD CLASSIFICATION: PRIVATE ACCESS
PAVEMENT DESIGN LIFE: 40 YRS
DESIGN SPEED: 10KM/H
POSTED SPEED: N/A

STORMWATER/FLOOD DATA

ALL CULVERT THAT ARE TO BE REPLACED: DESIGNED TO ≥ ORIGINAL CAPACITY. NEW CULVERT STRUCTURES, COMPLY WITH THE FOLLOWING;
CULVERT 'SAG' FLOW: Q20
CULVERT 'ON GRADE' FLOW: Q10
BLOCKAGE FACTOR: 0.5

GENERAL

1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS.
2. BEFORE PROCEEDING WITH THE WORK ANY DISCREPANCIES IN THE CONTRACT DOCUMENTS SHALL BE REFERRED FOR DECISION TO THE SUPERINTENDENT.
3. DO NOT SCALE FROM DRAWINGS.
4. CONTRACTOR SHALL VERIFY ALL LOCATIONS OF SERVICES, ALL DIMENSIONS AND LEVELS PRIOR TO CONSTRUCTION.
5. ALL MATERIALS/CONSTRUCTION & WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS AND THE LOCAL AUTHORITY'S STANDARD DRAWINGS AND BY-LAWS.
6. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL RELEVANT APPROVALS PRIOR TO COMMENCEMENT OF WORKS.
7. UNDERGROUND SERVICE LOCATIONS SHOWN ON THIS PLAN HAVE BEEN DETERMINED BY FIELD SURVEY AND/OR OFFICE RECORDS, AND MAY NOT REPRESENT ALL SERVICES OR EXACT LOCATIONS. THE CONTRACTOR MUST ACCURATELY LOCATE AND DEPTH ALL SERVICES LIKELY TO BE ENCOUNTERED DURING CONSTRUCTION, PRIOR TO COMMENCING ANY EXCAVATION WORKS.
8. DISPERSIVE SOILS ARE NOT TO BE USED AS FILL/EMBANKMENT MATERIAL. ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH CURRENT RMS SPECIFICATIONS AND TECHNICAL STANDARDS.

CONSTRUCTION SPECIFICATIONS

CMDG CONSTRUCTION SPECIFICATIONS:
C201 CONTROL OF TRAFFIC
C202 RURAL ROAD CLEAR ZONES
C211 CONTROL OF SEDIMENT & EROSION
C212 CLEARING & GRUBBING
C213 EARTHWORKS
C220 STORMWATER DRAINAGE
C221 PIPE DRAINAGE SPECIFICATION
C223 DRAINAGE SPECIFICATIONS
C224 OPEN DRAINS
C242 FLEXIBLE PAVEMENTS
C244 SPRAYED BITUMINOUS SURFACING
C265 BOUNDARY FENCING

STANDARD DRAWINGS

CMDG-G-010 FOUR & SIX BARBED WIRE FENCING
CMDG-G-018 STANDARD COUNCIL GRID
CMDG-R-040 RURAL ROADS ACCESS AND PROPERTY ACCESS OVER TABLE DRAINS
CMDG-D-010 EXCAVATION, BEDDING AND BACKFILLING OF CONCRETED/REINFORCED FIBRE DRAINAGE PIPES
CMDG-D-011 EXCAVATION, BEDDING AND BACKFILLING OF PRECAST BOX CULVERTS
CMDG-D-050 SEDIMENT CONTROL DEVICES SEDIMENT FENCE ENTRY EXIT SEDIMENT TRAP
CMDG-D-051 SEDIMENT CONTROL DEVICES, KERB AND FIELD INLETS, CHECK DAMS & STRAW BALE BANK

DRAWING SCHEDULE

DOCUMENT TITLE	DOCUMENT NO.
COVER SHEET, LOCALITY PLAN & DRG. SCHEDULE	CE21025-001-CO
GENERAL DETAILS PLAN	CE21025-101-GD
ALIGNMENT CONTROL	CE21025-201-AL
GENERAL ARRANGEMENT	CE21025-301-GA
GENERAL ARRANGEMENT - SWEPT PATH	CE21025-302-GA
LONGITUDINAL SECTION	CE21025-401-LS
CROSS SECTIONS SHEET 1 OF 4	CE21025-501-XS
CROSS SECTIONS SHEET 2 OF 4	CE21025-502-XS
CROSS SECTIONS SHEET 3 OF 4	CE21025-503-XS
CROSS SECTIONS SHEET 4 OF 4	CE21025-504-XS
DRAINAGE PLAN	CE21025-701-DR

ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

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

Development Permit No.: D141-2020

Dated: 17 May 2021

DETAIL SURVEY BY:
ACCIONA CONSTRUCTION AUST. - DATE SURVEYED 29/03/21 SURVEY: MGA20 ZONE 56
STANDARD DRAWINGS:
CMDG STANDARD DESIGN DRAWINGS & GUIDELINES / AR&R GUIDELINES / INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALIA (IPWEA)

www.dialbeforeyoudig.com.au
ALL UNDERGROUND SERVICES SHOULD BE LOCATED ON SITE BEFORE ANY WORK IS COMMENCED
DIAL 1100 BEFORE YOU DIG

FIRST ISSUE	CALCS	DRAWN	DATE	AMENDMENT DETAILS
	LM	AB	04/21	
A	LM	AB	12/04/21	100% DETAILED DESIGN

DESIGN CHECK
DRAWN CHECK AB

DATUM
PROJECT No. CE21025

ISSUED FOR APPROVAL
APPROVED RPEQ 7637
FOR & ON BEHALF OF MOLONEY & SONS ENGINEERING

CLIENT THOMAS PLANT HIRE
PROJECT THIRSTY CREEK ROAD

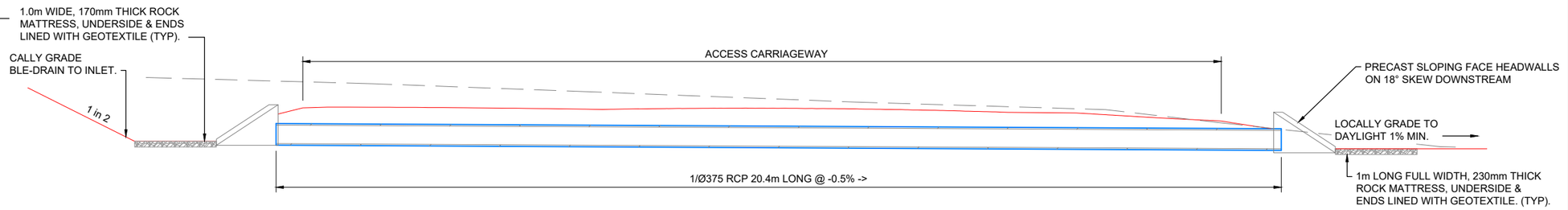
MOLONEY & SONS ENGINEERING
EXCELLENCE - INTEGRITY - INNOVATION
P.O. Box 3203 RED HILL ROCKHAMPTON, Q 4701
www.moloneyandsons.com.au
ROCKHAMPTON • GLADSTONE • ROMA • MILES • CHINCHILLA • BRISBANE
GOLD COAST • COFFS HARBOUR • SYDNEY

DRAWING TITLE
COVER SHEET & LOCALITY PLAN
DRAWING SCHEDULE

DRAWING NUMBER CE21025-001-CO
ISSUE A

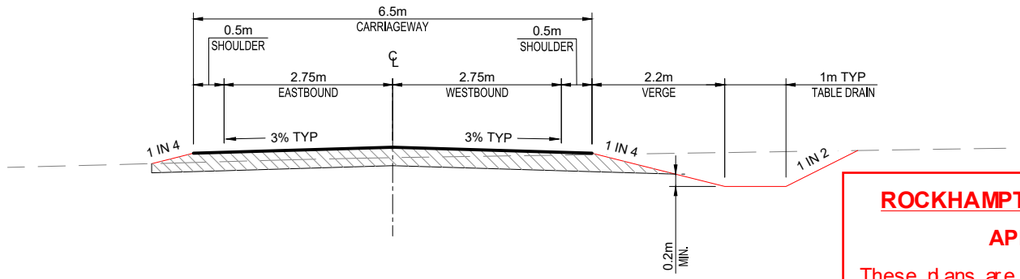
GENERAL LEGEND

- Existing Boundary
- Existing Fence Line
- Existing Top of Batter
- Existing Toe of Batter
- Existing Road Shoulder
- Existing Road Centre line
- Existing to be Demolished
- Existing Surface Contours
- Design Surface Contours
- Proposed Fence line
- Proposed Road Centre Line
- Proposed Sealed Pavement
- Proposed Edge of Unsealed Pavement
- Proposed Top of Batter
- Proposed Ground Interface
- Proposed Table Drain
- Proposed Dumped Rock
- Proposed Rock Mattress



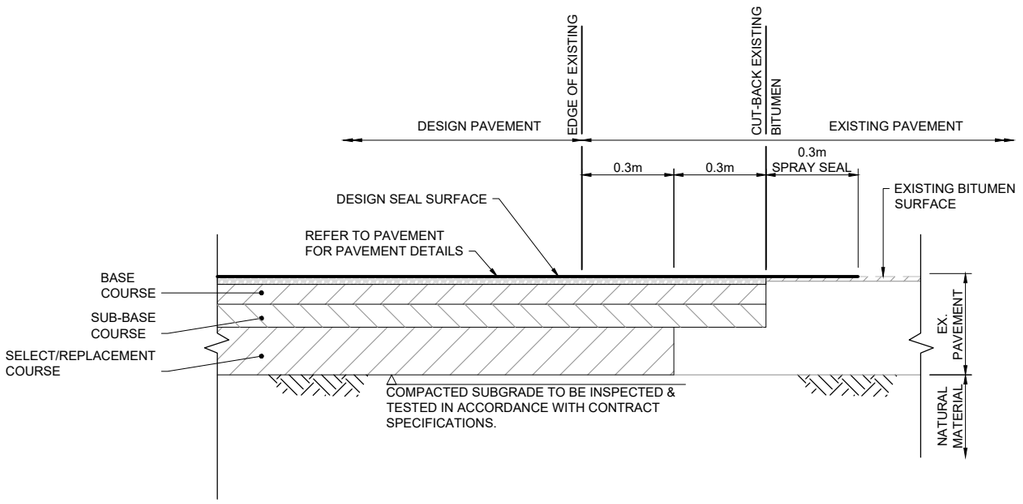
TYPICAL CULVERT 01 SECTION

SCALE 1:100



TYPICAL ACCESS CROSS-SECTION

SCALE 1:100



TYPICAL PAVEMENT TIE-IN DETAIL

SCALE N.T.S

ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

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

Development Permit No.: D141-2020

Dated: 17 May 2021

GENERAL:

1. ALL DIMENSIONS IN MILLIMETERS.
2. BEDDING TO CONFORM TO CMDG, C220 STORMWATER DRAINAGE & C221 PIPE DRAINAGE SPECIFICATIONS.
4. COMPACT AND EVENLY GRADE FINISHED TRENCH FLOOR.
5. EMBEDMENT, TRENCH FILL AND COMPACTION TO MEET THE REQUIREMENT OF CMDG, C220 STORMWATER DRAINAGE & C221 PIPE DRAINAGE SPECIFICATIONS.
6. USE GEOTEXTILE FILTER FABRIC WHERE SPECIFIED.
7. SIDES OF EXCAVATION TO BE KEPT VERTICAL TO AT LEAST 150 ABOVE THE PIPE

PAVEMENT:

1. ALL PAVEMENT PROFILES ARE SUBJECT TO SUBGRADE TESTING OF ALL AREAS PRIOR TO COMMENCING WORKS AND APPROVED BY PRINCIPALS SUPERINTENDENT.
2. PROPOSED ROAD/HARDSTAND ALIGNMENT TO BE STRIPPED TO REMOVE ALL VEGETATION AND TOPSOIL.
3. THE EXPOSED SUBGRADE SHOULD BE RIPPED AND RECOMPACTED TO A DEPTH OF 0.3m AND PROOF ROLLED.
4. ANY WET OR EXCESSIVE DEFLECTING MATERIAL IS TO BE OVER-EXCAVATED AND BACK FILLED WITH SELECT GRANULAR MATERIAL TO CBR OF > 15% AND PI < 15.
5. APPROVED FILL IN LAYERS NOT EXCEEDING 0.15m LOOSE THICKNESS AND COMPACTED TO Min. 98% STANDARD COMPACTION.
6. CLAY SUBGRADE FILL PLACED AND MAINTAINED AT 60% TO 90% OF OPTIMUM MOISTURE CONTENT.
7. THE TOP 0.3m OF FILLED SUBGRADE TO BE COMPACTED TO Min. DENSITY RATIO OF 100% STANDARD COMPACTION OR EQUIVALENT WITHIN ABOVE STATED MOISTURE RANGE.
8. SUB-BASE AND BASE MATERIALS TO BE PLACED IN LAYERS NO GREATER THAN 0.2m THICKNESS AND TO A Min. DENSITY RATIO OF 95% TO 98% MODIFIED COMPACTION RESPECTIVELY AND MAINTAINED AT 60% TO 90% OF OPTIMUM MOISTURE CONTENT.

THIRST CREEK QUARY - INTERSECTION/ACCESS SEAL & PAVEMENT DESIGN:

AREA	CH (km)	ASSUMED SUBGRADE CBR	DESIGN	SURFACE SEAL	BASE COURSE (TYPE 2.5)	SUBBASE (TYPE 3.5)	SUBGRADE (TYPE 4.5)	SELECT FILL	TOTAL PAVEMENT THICKNESS
1	0.000-14.85	5	NEW CONSTRUCTION	REFER BELOW	150mm	150mm	180mm MIN CBR 15	CBR 15 AS REQ'D	480mm
2	14.85-15.1	5	NEW CONSTRUCTION	UN-SEALED	150mm	150mm	180mm MIN CBR 15	CBR 15 AS REQ'D	480mm
SEAL SPECIFICATIONS:									
- 14mm SEAL - (S15E) 1.3L/m² @ 136m²/m³ - 7mm PRIMER SEAL - AMC0 1.1L/m² @ 238m²/m³									

0 2.5 10.0m
0 5.0 20.0m
1:500 (A1)
1:1000 (A3)

FIRST ISSUE	CALCS	DRAWN	DATE	AMENDMENT DETAILS
	LM	AB	04/21	
A	LM	AB	12/04/21	100% DETAILED DESIGN

AMENDMENTS

DESIGN CHECK: lm
DRAWN CHECK: AB

DATUM

PROJECT No.: CE21025

ISSUED FOR APPROVAL

APPROVED: RPEQ 7637

FOR & ON BEHALF OF MOLONEY & SONS ENGINEERING

CLIENT: THOMAS PLANT HIRE

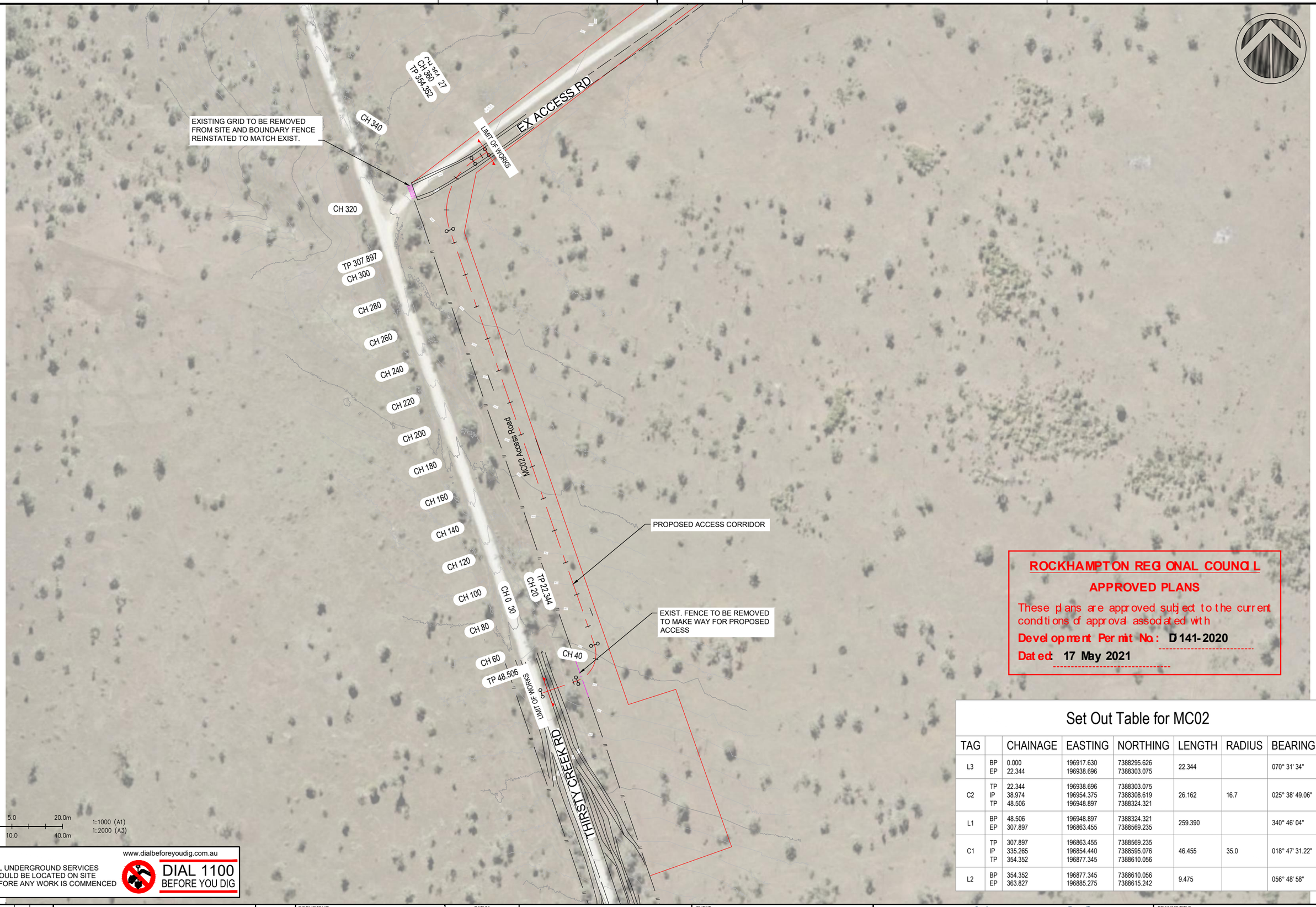
PROJECT: THIRSTY CREEK ROAD

MOLONEY & SONS ENGINEERING
EXCELLENCE - INTEGRITY - INNOVATION
P.O. Box 3203 RED HILL ROCKHAMPTON, Q 4701
www.moloneyandsons.com.au
ROCKHAMPTON • GLADSTONE • ROMA • MILES • CHINCHILLA • BRISBANE
GOLD COAST • COFFS HARBOUR • SYDNEY

DRAWING TITLE: GENERAL DETAILS PLAN

DRAWING NUMBER: CE21025-101-GD

ISSUE: A



0 5.0 20.0m
0 10.0 40.0m
1:1000 (A1)
1:2000 (A3)

www.dialbeforeyoudig.com.au
ALL UNDERGROUND SERVICES SHOULD BE LOCATED ON SITE BEFORE ANY WORK IS COMMENCED
DIAL 1100 BEFORE YOU DIG

ROCKHAMPTON REGIONAL COUNCIL
APPROVED PLANS
These plans are approved subject to the current conditions of approval associated with
Development Permit No: D141-2020
Dated: 17 May 2021

Set Out Table for MC02

TAG		CHAINAGE	EASTING	NORTHING	LENGTH	RADIUS	BEARING
L3	BP	0.000	196917.630	7388295.626	22.344		070° 31' 34"
	EP	22.344	196938.696	7388303.075			
C2	TP	22.344	196938.696	7388303.075	26.162	16.7	025° 38' 49.06"
	IP	38.974	196954.375	7388308.619			
	TP	48.506	196948.897	7388324.321			
L1	BP	48.506	196948.897	7388324.321	259.390		340° 46' 04"
	EP	307.897	196863.455	7388569.235			
C1	TP	307.897	196863.455	7388569.235	46.455	35.0	018° 47' 31.22"
	IP	335.265	196854.440	7388595.076			
	TP	354.352	196877.345	7388610.056			
L2	BP	354.352	196877.345	7388610.056	9.475		056° 48' 58"
	EP	363.827	196885.275	7388615.242			

FIRST ISSUE	CALCS	DRAWN	DATE	AMENDMENT DETAILS
A	LM	AB	04/21	
AMENDMENTS	LM	AB	12/04/21	100% DETAIILED DESIGN

DESIGN CHECK
DRAWN CHECK AB

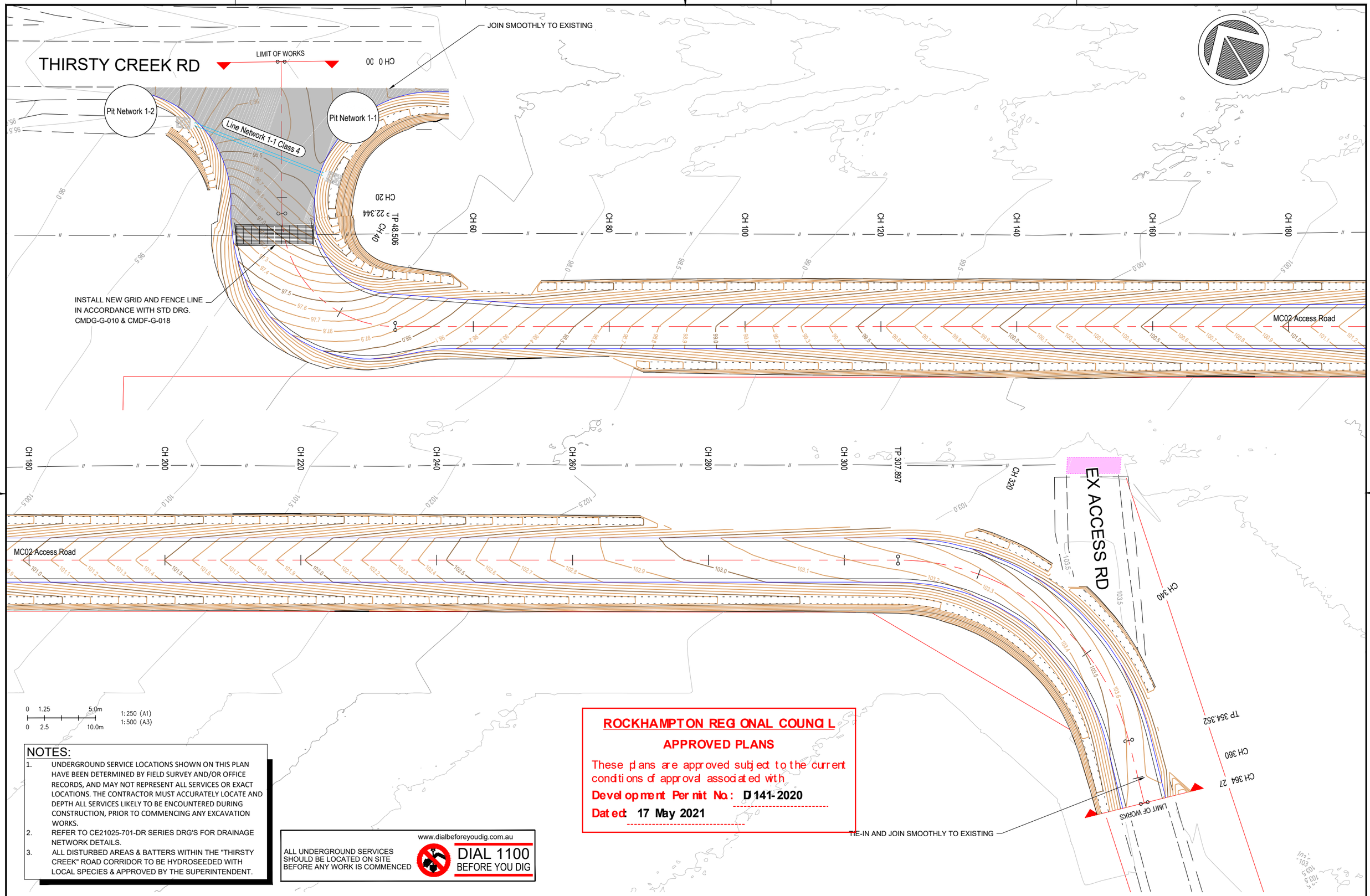
DATUM
PROJECT No. CE21025

ISSUED FOR APPROVAL
APPROVED
RPEQ 7637
FOR & ON BEHALF OF MOLONEY & SONS ENGINEERING

CLIENT THOMAS PLANT HIRE
PROJECT THIRSTY CREEK ROAD

MOLONEY & SONS ENGINEERING
EXCELLENCE - INTEGRITY - INNOVATION
P.O. Box 3203 RED HILL ROCKHAMPTON, Q 4701
www.moloneyandsons.com.au
ROCKHAMPTON • GLADSTONE • ROMA • MILES • CHINCHILLA • BRISBANE
GOLD COAST • COFFS HARBOUR • SYDNEY

DRAWING TITLE ALIGNMENT CONTROL
DRAWING NUMBER CE21025-201-AL
ISSUE A



NOTES:

1. UNDERGROUND SERVICE LOCATIONS SHOWN ON THIS PLAN HAVE BEEN DETERMINED BY FIELD SURVEY AND/OR OFFICE RECORDS, AND MAY NOT REPRESENT ALL SERVICES OR EXACT LOCATIONS. THE CONTRACTOR MUST ACCURATELY LOCATE AND DEPTH ALL SERVICES LIKELY TO BE ENCOUNTERED DURING CONSTRUCTION, PRIOR TO COMMENCING ANY EXCAVATION WORKS.
2. REFER TO CE21025-701-DR SERIES DRG'S FOR DRAINAGE NETWORK DETAILS.
3. ALL DISTURBED AREAS & BATTERS WITHIN THE "THIRSTY CREEK" ROAD CORRIDOR TO BE HYDROSEEDED WITH LOCAL SPECIES & APPROVED BY THE SUPERINTENDENT.

ALL UNDERGROUND SERVICES SHOULD BE LOCATED ON SITE BEFORE ANY WORK IS COMMENCED

www.dialbeforeyoudig.com.au

DIAL 1100 BEFORE YOU DIG

ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

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

Development Permit No: D141-2020

Dated: 17 May 2021

AMENDMENTS	FIRST ISSUE	CALCS	DRAWN	DATE	AMENDMENT DETAILS
		LM	AB	04/21	
	A	LM	AB	12/04/21	PRELIMINARY ISSUE

DESIGN CHECK: lm

DRAWN CHECK: AB

DATUM

PROJECT No. CE21025

ISSUED FOR APPROVAL

APPROVED

RPEQ 7637

FOR & ON BEHALF OF MOLONEY & SONS ENGINEERING

CLIENT: THOMAS PLANT HIRE

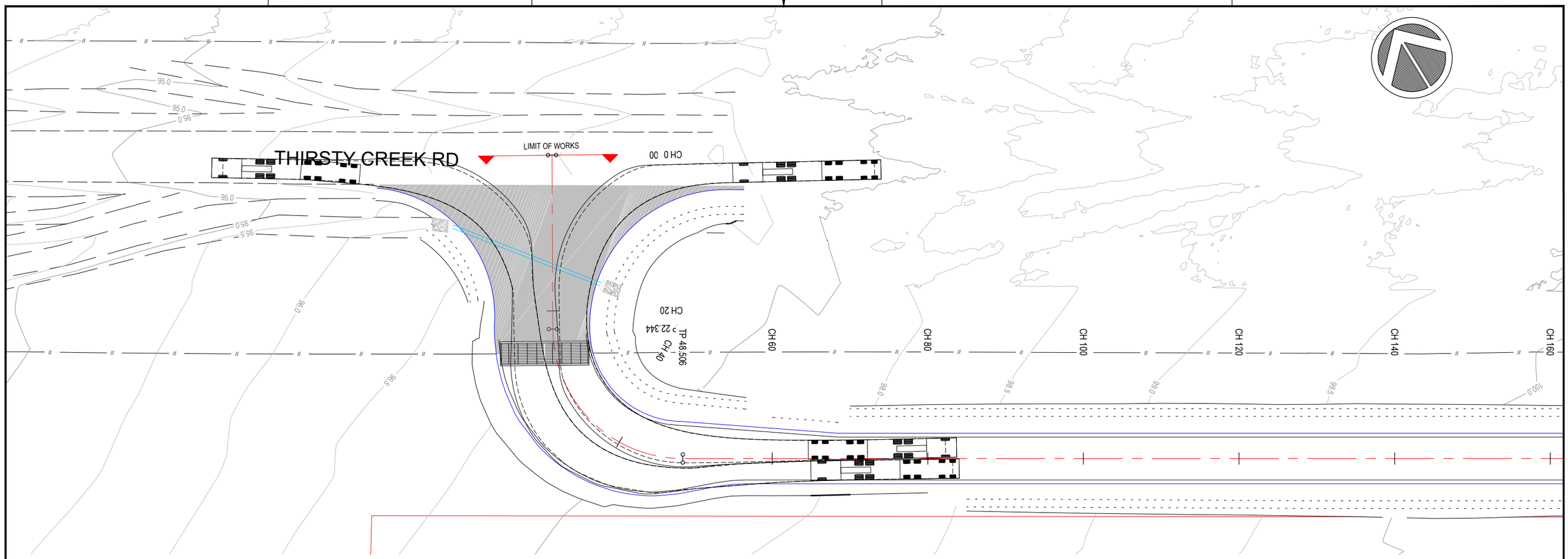
PROJECT: THIRSTY CREEK ROAD

MOLONEY & SONS ENGINEERING
EXCELLENCE - INTEGRITY - INNOVATION
P.O. Box 3203 RED HILL ROCKHAMPTON, Q 4701
www.moloneyandsons.com.au
ROCKHAMPTON • GLADSTONE • ROMA • MILES • CHINCHILLA • BRISBANE
GOLD COAST • COFFS HARBOUR • SYDNEY

DRAWING TITLE: GENERAL ARRANGEMENT

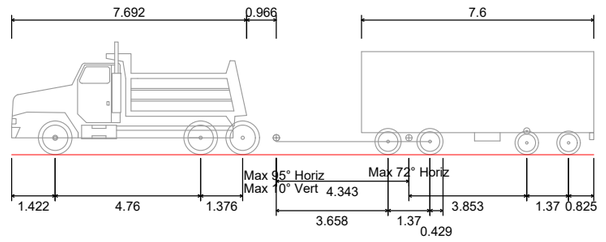
DRAWING NUMBER: CE21025-301-GA

ISSUE: A



PROPOSED VEHICLE SWEPT-PATHS

SCALE 1:500



VEHICLE PROFILE - Truck & Dog

SERVICE VEHICLE	(19.0 m)
OVERALL LENGTH	19.00m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	3.684m
MIN BODY GROUND CLEARANCE	0.429m
TRACK WIDTH	2.470m
LOCK-TO-LOCK TIME	6.00s
CURB TO CURB TURNING RADIUS	16.700m

ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

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

Development Permit No: D141-2020

Dated: 17 May 2021

0 1.25 5.0m
0 2.5 10.0m
1:250 (A1)
1:500 (A3)

www.dialbeforeyoudig.com.au

ALL UNDERGROUND SERVICES SHOULD BE LOCATED ON SITE BEFORE ANY WORK IS COMMENCED

DIAL 1100 BEFORE YOU DIG

NOTES:

1. UNDERGROUND SERVICE LOCATIONS SHOWN ON THIS PLAN HAVE BEEN DETERMINED BY FIELD SURVEY AND/OR OFFICE RECORDS, AND MAY NOT REPRESENT ALL SERVICES OR EXACT LOCATIONS. THE CONTRACTOR MUST ACCURATELY LOCATE AND DEPTH ALL SERVICES LIKELY TO BE ENCOUNTERED DURING CONSTRUCTION, PRIOR TO COMMENCING ANY EXCAVATION WORKS.
2. REFER TO CE21025-701-DR SERIES DRG'S FOR DRAINAGE NETWORK DETAILS.
3. ALL DISTURBED AREAS & BATTERS WITHIN THE "THIRSTY CREEK" ROAD CORRIDOR TO BE HYDROSEEDED WITH LOCAL SPECIES & APPROVED BY THE SUPERINTENDENT.

FIRST ISSUE	CALCS	DRAWN	DATE	AMENDMENT DETAILS
A	LM	AB	04/21	
A	LM	AB	12/04/21	100% DETAILED DESIGN

AMENDMENT SHEET

DESIGN CHECK: lm

DRAWN CHECK: AB

CERTIFIED ISO 9001 JAS-ANZ

DATUM

PROJECT No. CE21025

ISSUED FOR APPROVAL

APPROVED RPEQ 7637

FOR & ON BEHALF OF MOLONEY & SONS ENGINEERING

CLIENT: THOMAS PLANT HIRE

PROJECT: THIRSTY CREEK ROAD

MOLONEY & SONS ENGINEERING
EXCELLENCE - INTEGRITY - INNOVATION
P.O. Box 3203 RED HILL ROCKHAMPTON, Q 4701
www.moloneyandsons.com.au
ROCKHAMPTON • GLADSTONE • ROMA • MILES • CHINCHILLA • BRISBANE
GOLD COAST • COFFS HARBOUR • SYDNEY

DRAWING TITLE: GENERAL ARRANGEMENT SWEPT PATH

DRAWING NUMBER: CE21025-302-GA

ISSUE: A

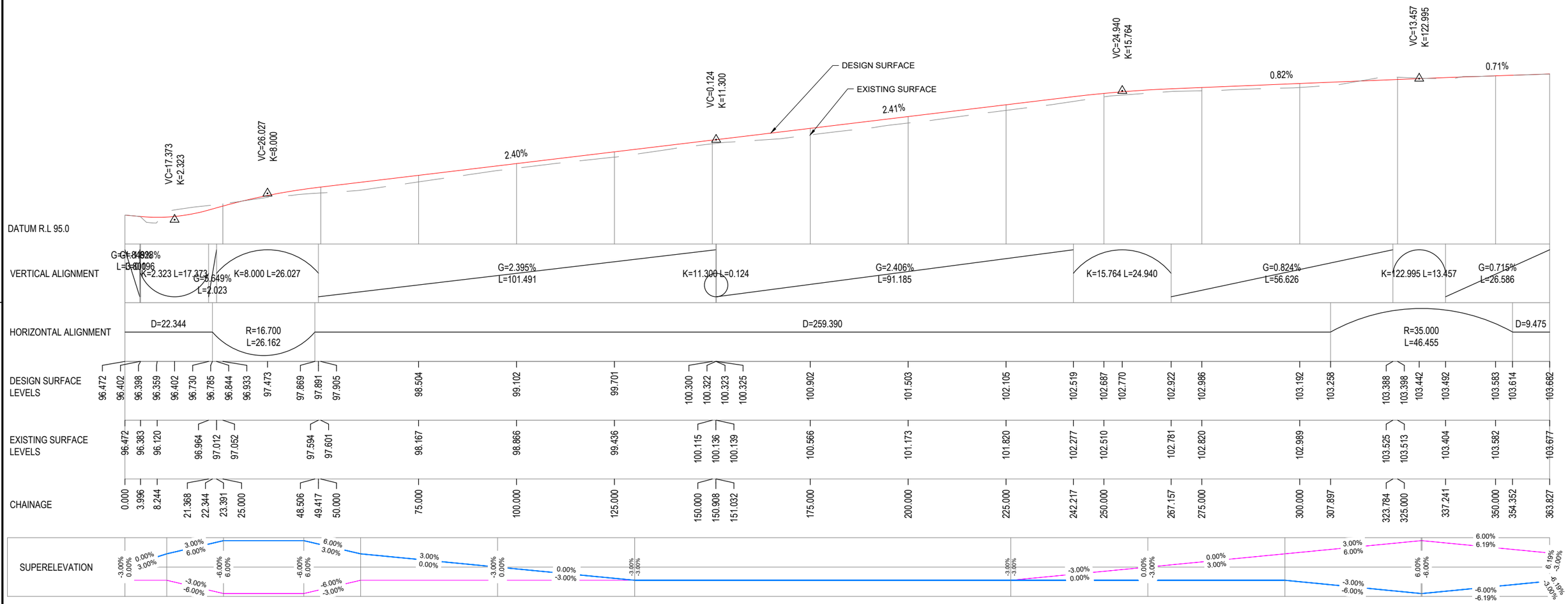
ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

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

Development Permit No.: D141-2020

Dated: 17 May 2021



LONGITUDINAL SECTION - MC02
SCALE - HORIZ 1:200.000, VERT. 1:40.000

V 0 0.5 2.0m — 0 1.0 4.0m — 1:100 (A1) 1:200 (A3)

H 0 2.5 10.0m — 0 5.0 20.0m — 1:500 (A1) 1:1000 (A3)

ISSUE	CALCS	DRAWN	DATE	AMENDMENT DETAILS
A	LM	AB	04/21	
A	LM	AB	12/04/21	100% DETAILED DESIGN

DESIGN CHECK: LM

DRAWN CHECK: AB

DATUM

PROJECT No. CE21025

ISSUED FOR APPROVAL

APPROVED

RPEQ 7637

FOR & ON BEHALF OF MOLONEY & SONS ENGINEERING

CLIENT: THOMAS PLANT HIRE

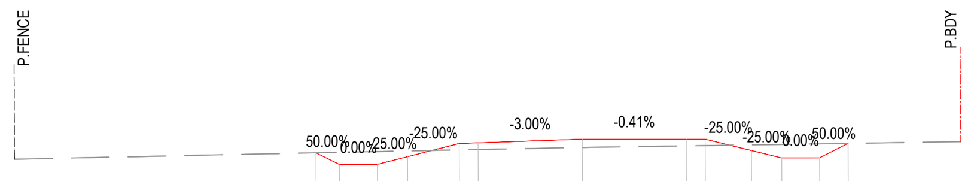
PROJECT: THIRSTY CREEK ROAD

MOLONEY & SONS ENGINEERING
EXCELLENCE - INTEGRITY - INNOVATION
P.O. Box 3203 RED HILL ROCKHAMPTON, Q 4701
www.moloneyandsons.com.au
ROCKHAMPTON • GLADSTONE • ROMA • MILES • CHINCHILLA • BRISBANE
GOLD COAST • COFFS HARBOUR • SYDNEY

DRAWING TITLE: LONGITUDINAL SECTIONS

DRAWING NUMBER: CE21025-401-LS

ISSUE: A

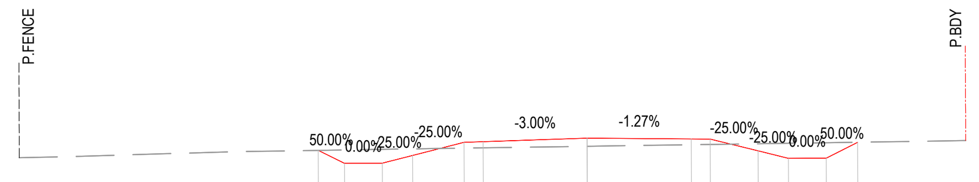


R.L. 90.000

PROPOSED LEVELS	98.775	98.464	98.464	98.664	99.005	99.020	99.102	99.091	99.089	98.784	98.584	98.584	98.960
EXISTING LEVELS	98.775	98.785	98.801	98.813	98.834	98.842	98.884	98.914	98.920	98.933	98.941	98.952	98.960
LEVEL DIFFERENCE	0.000	-0.321	-0.337	-0.149	0.171	0.178	0.219	0.177	0.169	-0.149	-0.357	-0.368	0.000
OFFSETS	-7.035	-6.414	-5.414	-4.614	-3.250	-2.750	0.000	2.750	3.250	4.470	5.270	6.270	7.023

CH: MC02 - SL 100.000

CH 100.000

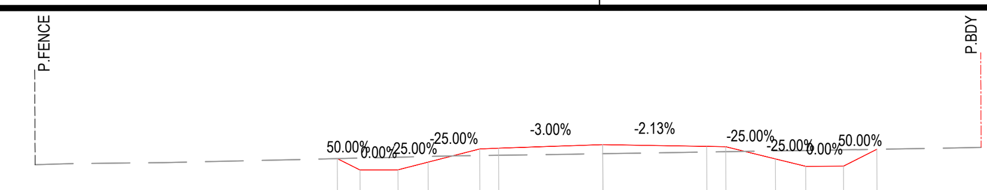


R.L. 90.000

PROPOSED LEVELS	99.050	98.704	98.704	98.904	99.244	99.259	99.342	99.307	99.301	98.985	98.785	98.785	99.201
EXISTING LEVELS	99.050	99.057	99.069	99.078	99.093	99.098	99.125	99.155	99.160	99.173	99.181	99.192	99.201
LEVEL DIFFERENCE	0.000	-0.354	-0.365	-0.174	0.152	0.162	0.217	0.152	0.141	-0.188	-0.397	-0.407	0.000
OFFSETS	-7.106	-6.414	-5.414	-4.614	-3.250	-2.750	0.000	2.750	3.250	4.514	5.314	6.314	7.146

CH: MC02 - SL 110.000

CH 110.000

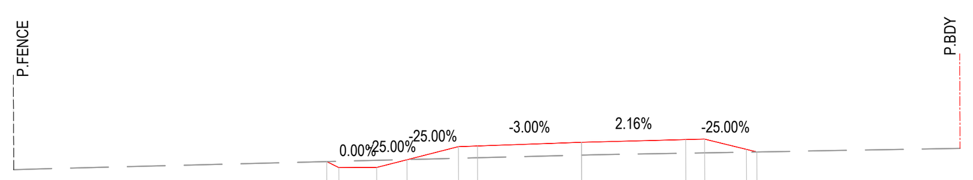


R.L. 90.000

PROPOSED LEVELS	99.244	98.943	98.943	99.143	99.484	99.499	99.582	99.523	99.512	99.184	98.984	98.984	99.425
EXISTING LEVELS	99.244	99.255	99.274	99.289	99.309	99.314	99.343	99.375	99.380	99.396	99.405	99.416	99.425
LEVEL DIFFERENCE	0.000	-0.312	-0.331	-0.146	0.175	0.185	0.239	0.148	0.132	-0.211	-0.420	-0.432	0.000
OFFSETS	-7.016	-6.414	-5.414	-4.614	-3.250	-2.750	0.000	2.750	3.250	4.562	5.362	6.362	7.243

CH: MC02 - SL 120.000

CH 120.000

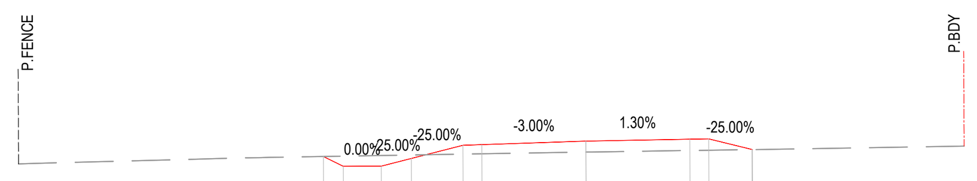


R.L. 90.000

PROPOSED LEVELS	97.905	97.745	97.745	97.945	98.286	98.301	98.384	98.443	98.454	98.178	98.109
EXISTING LEVELS	97.905	97.911	97.932	97.949	97.977	97.988	98.045	98.084	98.091	98.105	98.109
LEVEL DIFFERENCE	0.000	-0.166	-0.187	-0.003	0.309	0.314	0.339	0.359	0.363	0.072	0.000
OFFSETS	-6.732	-6.414	-5.414	-4.614	-3.250	-2.750	0.000	2.750	3.250	4.355	4.630

CH: MC02 - SL 70.000

CH 70.000

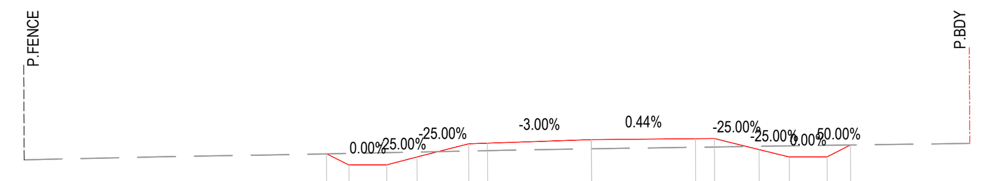


R.L. 90.000

PROPOSED LEVELS	98.247	97.985	97.985	98.185	98.526	98.541	98.623	98.659	98.666	98.381	98.378
EXISTING LEVELS	98.247	98.253	98.266	98.276	98.293	98.299	98.333	98.361	98.366	98.378	98.378
LEVEL DIFFERENCE	0.000	-0.268	-0.281	-0.091	0.233	0.242	0.291	0.298	0.299	0.003	0.000
OFFSETS	-6.937	-6.414	-5.414	-4.614	-3.250	-2.750	0.000	2.750	3.250	4.391	4.401

CH: MC02 - SL 80.000

CH 80.000

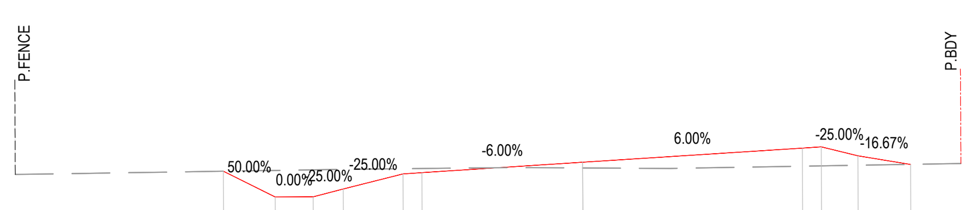


R.L. 90.000

PROPOSED LEVELS	98.521	98.225	98.225	98.425	98.765	98.780	98.863	98.875	98.877	98.583	98.383	98.383	98.691
EXISTING LEVELS	98.521	98.530	98.545	98.557	98.578	98.586	98.621	98.650	98.655	98.667	98.675	98.685	98.691
LEVEL DIFFERENCE	0.000	-0.305	-0.321	-0.133	0.187	0.195	0.242	0.225	0.222	-0.084	-0.293	-0.303	0.000
OFFSETS	-7.006	-6.414	-5.414	-4.614	-3.250	-2.750	0.000	2.750	3.250	4.429	5.229	6.229	6.846

CH: MC02 - SL 90.000

CH 90.000

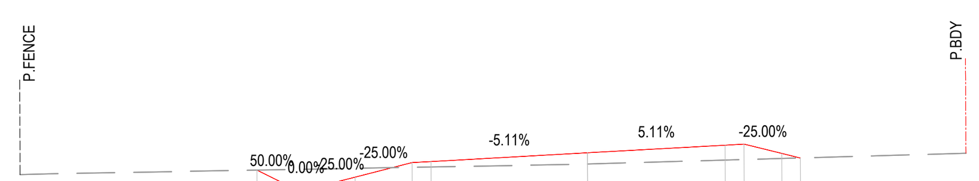


R.L. 90.000

PROPOSED LEVELS	97.415	96.730	96.730	96.930	97.325	97.355	97.610	97.958	97.988	97.746	97.514
EXISTING LEVELS	97.415	97.430	97.441	97.449	97.460	97.464	97.460	97.480	97.486	97.497	97.514
LEVEL DIFFERENCE	0.000	-0.700	-0.711	-0.519	-0.135	-0.109	0.150	0.479	0.503	0.249	0.000
OFFSETS	-9.499	-8.129	-7.129	-6.329	-4.750	-4.250	0.000	5.809	6.309	7.277	8.670

CH: MC02 - SL 40.000

CH 40.000

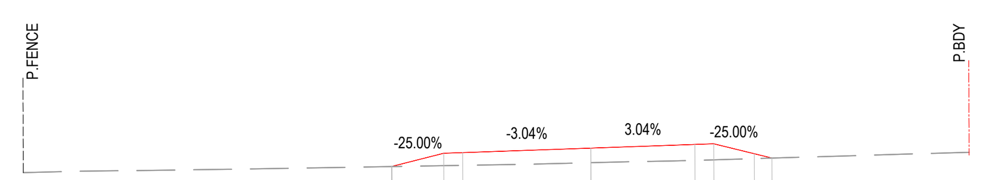


R.L. 90.000

PROPOSED LEVELS	97.489	97.091	97.091	97.291	97.668	97.694	97.905	98.091	98.116	97.867	97.744
EXISTING LEVELS	97.489	97.499	97.513	97.524	97.544	97.551	97.610	97.697	97.709	97.732	97.744
LEVEL DIFFERENCE	0.000	-0.408	-0.422	-0.233	0.124	0.143	0.295	0.394	0.407	0.134	0.000
OFFSETS	-8.741	-7.946	-6.946	-6.146	-4.638	-4.138	0.000	3.638	4.138	5.134	5.625

CH: MC02 - SL 50.000

CH 50.000



R.L. 90.000

PROPOSED LEVELS	97.681	97.685	98.026	98.041	98.144	98.228	98.243	97.976	97.859
EXISTING LEVELS	97.681	97.681	97.698	97.704	97.758	97.808	97.820	97.847	97.859
LEVEL DIFFERENCE	0.000	0.004	0.328	0.337	0.386	0.420	0.423	0.128	0.000
OFFSETS	-5.270	-5.254	-3.888	-3.388	0.000	2.750	3.250	4.320	4.785

CH: MC02 - SL 60.000

CH 60.000

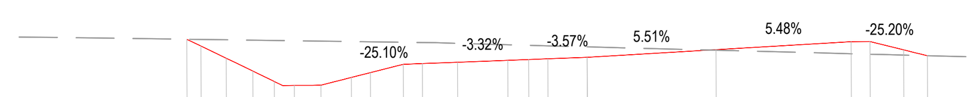
LEVELS	97.188	97.084	96.978	96.864	96.744	96.610	96.475	96.328	96.168	96.155	96.145	96.134	96.197	96.277	96.353	96.430	96.517	96.604	96.622	96.617	96.600	96.585
EVELS	97.188	97.173	97.159	97.145	97.130	97.114	97.098	97.082	97.066	97.048	97.033	97.017	97.000	96.984	96.969	96.953	96.937	96.921	96.906	96.890	96.872	96.857
ERENCE	0.000	-0.089	-0.181	-0.280	-0.386	-0.504	-0.623	-0.754	-0.898	-0.893	-0.888	-0.883	-0.804	-0.707	-0.616	-0.523	-0.421	-0.317	-0.283	-0.273	-0.272	-0.272
	-18.736	-18.154	-17.617	-17.090	-16.571	-16.029	-15.512	-14.976	-14.417	-13.834	-13.327	-12.798	-12.246	-11.689	-11.185	-10.682	-10.141	-9.607	-9.084	-8.565	-7.970	-7.466

LEVELS	96.496	96.478	96.461	96.444	96.430	96.414	96.398	96.385	96.366	96.370	96.371	96.372	96.372	96.371	96.367
EVELS	96.779	96.762	96.746	96.731	96.713	96.691	96.668	96.648	96.620	96.587	96.562	96.538	96.516	96.505	96.493
ERENCE	-0.283	-0.284	-0.285	-0.286	-0.283	-0.277	-0.270	-0.264	-0.254	-0.218	-0.191	-0.167	-0.145	-0.134	-0.126
	-4.621	-3.993	-3.420	-2.860	-2.355	-1.782	-1.224	-0.712	0.000	0.816	1.462	2.043	2.596	3.122	3.758

LEVELS	96.354	96.329	96.304	96.280	96.255	96.237	96.152	96.026	95.902	95.781	95.671	95.614	95.593	95.572	95.675	95.816
EVELS	96.355	96.340	96.325	96.311	96.296	96.282	96.267	96.251	96.235	96.221	96.208	96.193	96.179	96.165	96.152	96.139
ERENCE	-0.002	-0.011	-0.021	-0.031	-0.041	-0.045	-0.116	-0.226	-0.334	-0.440	-0.536	-0.579	-0.587	-0.593	-0.477	-0.323
	8.583	9.109	9.625	10.132	10.635	11.137	11.645	12.206	12.766	13.320	13.831	14.391	14.942	15.466	15.966	16.475

CH: MC02 - SL 10.000

CH 10.000

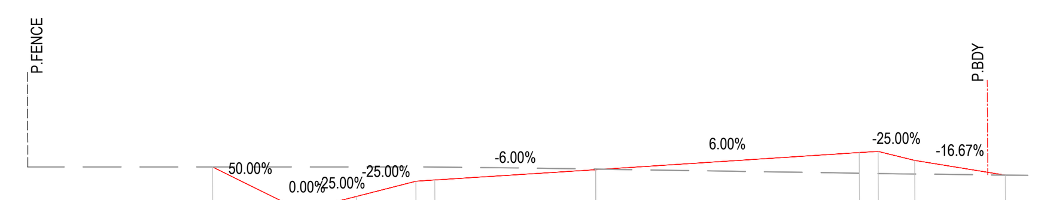


R.L. 90.000

PROPOSED LEVELS	97.182	96.999	96.672	96.328	96.050	95.942	95.945	96.147	96.274	96.492	96.508	96.539	96.583	96.603	96.619	96.657	96.844	97.040	97.039	96.816	96.657
EXISTING LEVELS	97.182	97.175	97.163	97.150	97.139	97.130	97.117	97.102	97.092	97.076	97.067	97.042	96.999	96.981	96.965	96.932	96.828	96.719	96.703	96.676	96.657
LEVEL DIFFERENCE	0.000	-0.176	-0.491	-0.822	-1.089	-1.187	-1.172	-0.954	-0.818	-0.584	-0.558	-0.502	-0.416	-0.378	-0.345	-0.275	0.016	0.321	0.335	0.139	0.000
OFFSETS	-10.576	-10.202	-9.534	-8.833	-8.267	-7.739	-7.037	-6.230	-5.725	-4.857	-4.354	-3.426	-2.100	-1.546	-1.041	0.000	3.402	6.973	7.473	8.358	8.985

CH: MC02 - SL 20.000

CH 20.000



R.L. 90.000

PROPOSED LEVELS	97.307	96.310	96.310	96.510	96.905	96.935	97.190	97.608	97.638	97.396	96.998
EXISTING LEVELS	97.307	97.298	97.294	97.290	97.283	97.277	97.204	97.065	97.055	97.037	96.998
LEVEL DIFFERENCE	0.000	-0.988	-0.983	-0.780	-0.378	-0.342	-0.014	0.543	0.583	0.359	0.000
OFFSETS	-10.123	-8.129	-7.129	-6.329	-4.750	-4.250	0.000	6.964	7.464	8.432	10.823

CH: MC02 - SL 30.000

CH 30.000

H 0 0.5 2.0m 1:100 (A1)
0 1.0 4.0m 1:200 (A3)

V 0 0.005 0.02m 1:1 (A3)
0 0.01 0.04m 1:2 (A3)

FIRST ISSUE	CALCS	DRAWN	DATE	AMENDMENT DETAILS
	LM	AB	04/21	
A	LM	AB	12/04/21	100% DETAILED DESIGN

AMENDMENTS

DESIGN CHECK: lm

DRAWN CHECK: AB

JAS-ANZ ISO 9001 CERTIFIED

DATUM

PROJECT No. CE21025

ISSUED FOR APPROVAL

APPROVED

RPEQ 7637

FOR & ON BEHALF OF MOLONEY & SONS ENGINEERING

CLIENT: THOMAS PLANT HIRE

PROJECT: THIRSTY CREEK ROAD

MOLONEY & SONS ENGINEERING
EXCELLENCE - INTEGRITY - INNOVATION
P.O. Box 3203 RED HILL ROCKHAMPTON, Q 4701
www.moloneyandsons.com.au
ROCKHAMPTON - GLADSTONE - ROMA - MILES - CHINCHILLA - BRISBANE
GOLD COAST - COFFS HARBOUR - SYDNEY

DRAWING TITLE: CROSS-SECTIONS SHEET 1 OF 4

DRAWING NUMBER: CE21025-501-XS

ISSUE: A

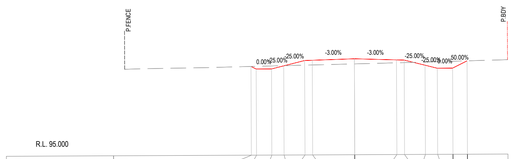
ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

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

Development Permit No.: D141-2020

Dated: 17 May 2021

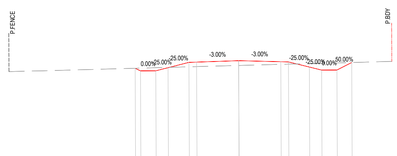


R.L. 95.000

PROPOSED LEVELS	100.794	100.624	100.624	100.824	101.165	101.180	101.262	101.180	100.988	100.999	101.165	100.824	100.624	101.096
EXISTING LEVELS	100.794	100.800	100.820	100.835	100.863	100.873	100.930	100.988	101.031	101.050	101.074	101.096		
LEVEL DIFFERENCE	0.000	-0.176	-0.196	-0.011	0.302	0.307	0.332	0.192	0.166	-0.207	-0.426	-0.450	0.000	
OFFSETS	-6.753	-6.414	-5.414	-4.614	-3.250	-2.750	0.000	2.750	3.250	4.614	5.414	6.414	7.358	

CH: MC02 - SL 190.000

CH 190.000

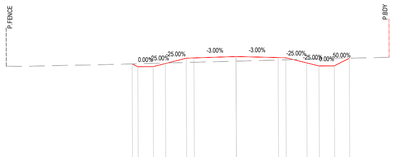


R.L. 95.000

PROPOSED LEVELS	101.038	100.865	100.865	101.065	101.406	101.421	101.503	101.421	101.406	101.065	100.865	101.349		
EXISTING LEVELS	101.038	101.046	101.069	101.087	101.117	101.128	101.190	101.251	101.262	101.282	101.301	101.325	101.349	
LEVEL DIFFERENCE	0.000	-0.181	-0.204	-0.022	0.288	0.292	0.313	0.170	0.143	-0.217	-0.436	-0.460	0.000	
OFFSETS	-6.760	-6.414	-5.414	-4.614	-3.250	-2.750	0.000	2.750	3.250	4.614	5.414	6.414	7.381	

CH: MC02 - SL 200.000

CH 200.000

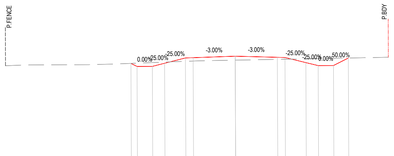


R.L. 95.000

PROPOSED LEVELS	101.290	101.105	101.105	101.305	101.646	101.661	101.744	101.661	101.646	101.543	101.305	101.105	101.597	
EXISTING LEVELS	101.290	101.298	101.319	101.337	101.367	101.378	101.440	101.501	101.512	101.543	101.559	101.578	101.597	
LEVEL DIFFERENCE	0.000	-0.192	-0.214	-0.032	0.279	0.283	0.304	0.160	0.134	-0.237	-0.454	-0.473	0.000	
OFFSETS	-6.783	-6.414	-5.414	-4.614	-3.250	-2.750	0.000	2.750	3.250	4.614	5.414	6.414	7.397	

CH: MC02 - SL 210.000

CH 210.000

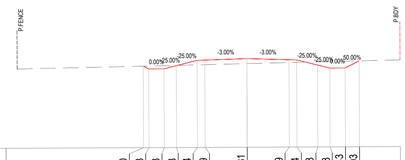


R.L. 90.000

PROPOSED LEVELS	100.101	99.902	99.902	100.102	100.443	100.458	100.541	100.458	100.443	100.102	99.902	100.388		
EXISTING LEVELS	100.101	100.114	100.148	100.174	100.220	100.237	100.283	100.322	100.329	100.348	100.360	100.374	100.388	
LEVEL DIFFERENCE	0.000	-0.212	-0.245	-0.072	0.223	0.221	0.258	0.136	0.114	-0.246	-0.458	-0.472	0.000	
OFFSETS	-6.811	-6.414	-5.414	-4.614	-3.250	-2.750	0.000	2.750	3.250	4.614	5.414	6.414	7.385	

CH: MC02 - SL 160.000

CH 160.000

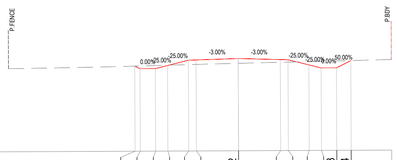


R.L. 95.000

PROPOSED LEVELS	100.320	100.143	100.143	100.343	100.684	100.699	100.781	100.699	100.684	100.343	100.143	100.603		
EXISTING LEVELS	100.320	100.326	100.343	100.359	100.380	100.401	100.458	100.512	100.522	100.549	100.565	100.584	100.603	
LEVEL DIFFERENCE	0.000	-0.183	-0.200	-0.016	0.294	0.297	0.323	0.186	0.161	-0.206	-0.422	-0.442	0.000	
OFFSETS	-6.767	-6.414	-5.414	-4.614	-3.250	-2.750	0.000	2.750	3.250	4.614	5.414	6.414	7.333	

CH: MC02 - SL 170.000

CH 170.000

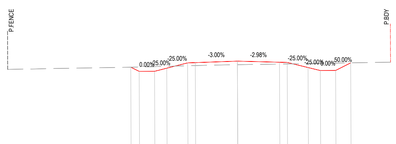


R.L. 95.000

PROPOSED LEVELS	100.555	100.383	100.383	100.583	100.924	100.939	101.022	100.939	100.924	100.583	100.383	100.854		
EXISTING LEVELS	100.555	100.563	100.586	100.604	100.635	100.647	100.709	100.763	100.772	100.799	100.814	100.834	100.854	
LEVEL DIFFERENCE	0.000	-0.180	-0.202	-0.021	0.289	0.293	0.313	0.177	0.152	-0.215	-0.431	-0.450	0.000	
OFFSETS	-6.757	-6.414	-5.414	-4.614	-3.250	-2.750	0.000	2.750	3.250	4.614	5.414	6.414	7.354	

CH: MC02 - SL 180.000

CH 180.000

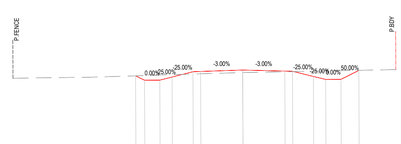


R.L. 90.000

PROPOSED LEVELS	99.459	99.183	99.183	99.383	99.724	99.739	99.821	99.739	99.724	99.383	99.183	99.676		
EXISTING LEVELS	99.459	99.470	99.490	99.506	99.534	99.544	99.589	99.621	99.627	99.643	99.653	99.664	99.676	
LEVEL DIFFERENCE	0.000	-0.287	-0.307	-0.124	0.189	0.194	0.232	0.118	0.097	-0.260	-0.469	-0.481	0.000	
OFFSETS	-6.966	-6.414	-5.414	-4.614	-3.250	-2.750	0.000	2.750	3.250	4.613	5.413	6.413	7.398	

CH: MC02 - SL 130.000

CH 130.000

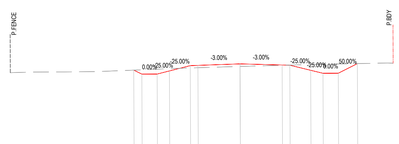


R.L. 90.000

PROPOSED LEVELS	99.713	99.422	99.422	99.622	99.963	99.978	100.061	99.978	99.963	99.822	99.422	100.007		
EXISTING LEVELS	99.713	99.728	99.754	99.775	99.811	99.825	99.860	99.933	99.940	99.961	99.974	99.989	100.007	
LEVEL DIFFERENCE	0.000	-0.306	-0.332	-0.153	0.152	0.153	0.170	0.045	0.023	-0.339	-0.551	-0.567	0.000	
OFFSETS	-6.995	-6.414	-5.414	-4.614	-3.250	-2.750	0.000	2.750	3.250	4.614	5.414	6.414	7.583	

CH: MC02 - SL 140.000

CH 140.000



R.L. 90.000

PROPOSED LEVELS	99.925	99.662	99.662	99.862	100.203	100.218	100.300	100.218	100.203	99.862	99.662	100.286		
EXISTING LEVELS	99.925	99.944	99.980	100.010	100.048	100.063	100.132	100.198	100.210	100.237	100.250	100.266	100.286	
LEVEL DIFFERENCE	0.000	-0.282	-0.319	-0.148	0.154	0.155	0.168	0.020	-0.007	-0.376	-0.588	-0.604	0.000	
OFFSETS	-6.940	-6.414	-5.414	-4.614	-3.250	-2.750	0.000	2.750	3.250	4.614	5.414	6.414	7.661	

CH: MC02 - SL 150.000

CH 150.000

H 0 0.5 2.0m / 0 1.0 4.0m — 1:100 (A1) 1:200 (A3)

V 0 0.005 0.02m / 0 0.01 0.04m — 1:1 (A3) 1:2 (A3)

FIRST ISSUE	CALCS	DRAWN	DATE	AMENDMENT DETAILS
A	LM	AB	04/21	
A	LM	AB	12/04/21	100% DETAIILED DESIGN

DESIGN CHECK: lm

DRAWN CHECK: AB

DATUM

PROJECT No. CE21025

ISSUED FOR APPROVAL

APPROVED

RPEQ 7637

FOR & ON BEHALF OF MOLONEY & SONS ENGINEERING

CLIENT: THOMAS PLANT HIRE

PROJECT: THIRSTY CREEK ROAD

MOLONEY & SONS ENGINEERING
EXCELLENCE - INTEGRITY - INNOVATION
P.O. Box 3203 RED HILL ROCKHAMPTON, Q 4701
www.moloneyandsons.com.au
ROCKHAMPTON • GLADSTONE • ROMA • MILES • CHINCHILLA • BRISBANE
GOLD COAST • COFFS HARBOUR • SYDNEY

DRAWING TITLE: CROSS-SECTIONS SHEET 2 OF 4

DRAWING NUMBER: CE21025-502-XS

ISSUE: A

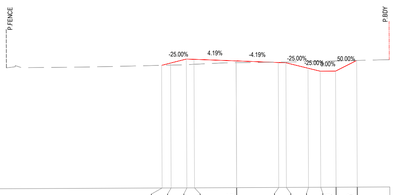
ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

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

Development Permit No.: D141-2020

Dated: 17 May 2021

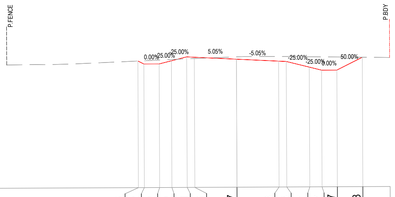


R.L. 95.000

PROPOSED LEVELS	103.007	103.154	103.411	103.390	103.275	103.160	103.139	102.778	102.578	103.270
EXISTING LEVELS	103.007	103.018	103.044	103.065	103.157	103.182	103.186	103.211	103.226	102.578	103.244	103.270
LEVEL DIFFERENCE	0.000	0.136	0.367	0.325	0.118	-0.022	-0.048	-0.432	-0.647	-0.666	0.000
OFFSETS	-4.865	-4.278	-3.250	-2.750	0.000	2.750	3.250	4.691	5.491	6.491	7.875

CH: MC02 - SL 310.000

CH 310.000

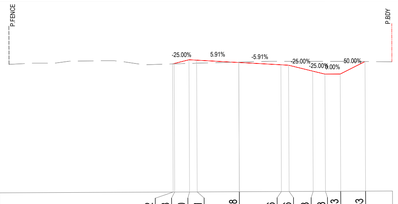


R.L. 95.000

PROPOSED LEVELS	103.266	103.072	103.072	103.272	103.521	103.496	103.357	103.218	103.193	102.817	102.617	103.448
EXISTING LEVELS	103.266	103.282	103.323	103.355	103.395	103.412	103.507	103.517	103.515	103.496	103.485	103.471	103.448
LEVEL DIFFERENCE	0.000	-0.210	-0.251	-0.084	0.126	0.084	-0.150	-0.299	-0.322	-0.678	-0.868	-0.854	0.000
OFFSETS	-6.437	-6.048	-5.048	-4.248	-3.250	-2.750	0.000	2.750	3.250	4.754	5.554	6.554	8.216

CH: MC02 - SL 320.000

CH 320.000

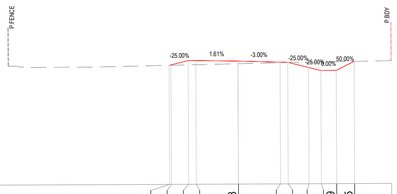


R.L. 95.000

PROPOSED LEVELS	103.362	103.388	103.630	103.601	103.438	103.276	103.246	102.853	102.653	103.463
EXISTING LEVELS	103.362	103.365	103.390	103.403	103.464	103.503	103.500	103.491	103.486	102.653	103.460	103.463
LEVEL DIFFERENCE	0.000	0.023	0.240	0.197	-0.026	-0.228	-0.254	-0.638	-0.833	-0.827	0.000
OFFSETS	-4.322	-4.220	-3.250	-2.750	0.000	2.750	3.250	4.822	5.622	6.622	8.241

CH: MC02 - SL 330.000

CH 330.000

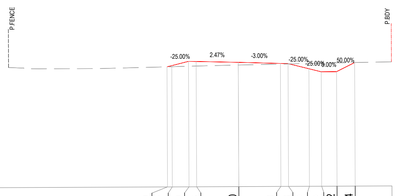


R.L. 95.000

PROPOSED LEVELS	102.769	102.798	103.080	103.072	103.028	102.945	102.930	102.589	102.389	102.975
EXISTING LEVELS	102.769	102.771	102.793	102.802	102.853	102.909	102.921	102.932	102.943	102.958	102.975
LEVEL DIFFERENCE	0.000	0.027	0.287	0.270	0.174	0.036	0.009	-0.342	-0.554	-0.568	0.000
OFFSETS	-4.492	-4.377	-3.250	-2.750	0.000	2.750	3.250	4.614	5.414	6.414	7.585

CH: MC02 - SL 280.000

CH 280.000

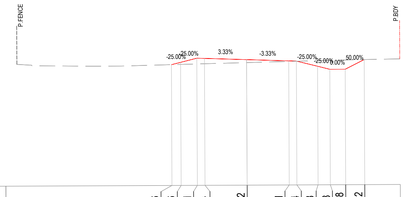


R.L. 95.000

PROPOSED LEVELS	102.839	102.917	103.190	103.178	103.110	103.028	103.013	102.672	102.472	103.064
EXISTING LEVELS	102.839	102.846	102.869	102.880	102.933	102.984	102.993	103.018	103.032	103.047	103.064
LEVEL DIFFERENCE	0.000	0.071	0.321	0.298	0.177	0.044	0.019	-0.347	-0.561	-0.575	0.000
OFFSETS	-4.654	-4.342	-3.250	-2.750	0.000	2.750	3.250	4.614	5.414	6.414	7.599

CH: MC02 - SL 290.000

CH 290.000

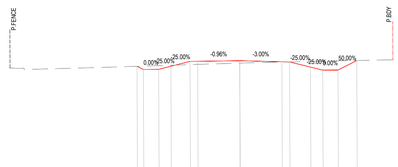


R.L. 95.000

PROPOSED LEVELS	102.886	103.036	103.301	103.284	103.192	103.062	103.073	103.104	102.538	103.138	103.162
EXISTING LEVELS	102.886	102.899	102.924	102.935	102.998	103.062	103.073	103.104	102.738	102.538	103.162
LEVEL DIFFERENCE	0.000	0.136	0.377	0.349	0.194	0.039	0.011	-0.365	-0.581	-0.600	0.000
OFFSETS	-4.909	-4.309	-3.250	-2.750	0.000	2.750	3.250	4.634	5.434	6.434	7.681

CH: MC02 - SL 300.000

CH 300.000

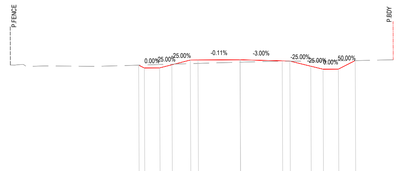


R.L. 95.000

PROPOSED LEVELS	102.350	102.144	102.144	102.344	102.656	102.661	102.687	102.605	102.590	102.249	102.049	102.662
EXISTING LEVELS	102.350	102.361	102.388	102.409	102.443	102.495	102.530	102.586	102.594	102.615	102.628	102.643	102.662
LEVEL DIFFERENCE	0.000	-0.217	-0.244	-0.065	0.213	0.204	0.157	0.018	-0.005	-0.367	-0.579	-0.595	0.000
OFFSETS	-6.710	-6.298	-5.298	-4.498	-3.250	-2.750	0.000	2.750	3.250	4.614	5.414	6.414	7.641

CH: MC02 - SL 250.000

CH 250.000

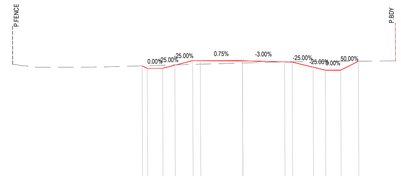


R.L. 95.000

PROPOSED LEVELS	102.526	102.342	102.342	102.542	102.843	102.844	102.847	102.764	102.749	102.408	102.208	102.760
EXISTING LEVELS	102.526	102.535	102.560	102.580	102.610	102.623	102.689	102.739	102.741	102.747	102.751	102.760
LEVEL DIFFERENCE	0.000	-0.194	-0.219	-0.039	0.233	0.221	0.157	0.025	0.008	-0.339	-0.543	-0.547	0.000
OFFSETS	-6.624	-6.255	-5.255	-4.455	-3.250	-2.750	0.000	2.750	3.250	4.614	5.414	6.414	7.517

CH: MC02 - SL 260.000

CH 260.000

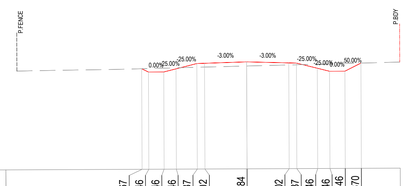


R.L. 95.000

PROPOSED LEVELS	102.646	102.478	102.478	102.678	102.970	102.966	102.945	102.863	102.848	102.507	102.307	102.885
EXISTING LEVELS	102.646	102.654	102.678	102.697	102.724	102.736	102.802	102.865	102.867	102.873	102.880	102.885
LEVEL DIFFERENCE	0.000	-0.175	-0.199	-0.018	0.245	0.230	0.143	-0.002	-0.020	-0.366	-0.574	0.000
OFFSETS	-6.550	-6.215	-5.215	-4.415	-3.250	-2.750	0.000	2.750	3.250	4.614	5.414	6.414	7.570

CH: MC02 - SL 270.000

CH 270.000

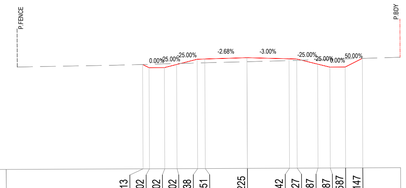


R.L. 95.000

PROPOSED LEVELS	101.567	101.346	101.346	101.546	101.887	101.902	101.984	101.902	101.887	101.546	101.346	101.870
EXISTING LEVELS	101.567	101.576	101.597	101.614	101.642	101.653	101.711	101.769	101.779	101.808	101.825	101.847	101.870
LEVEL DIFFERENCE	0.000	-0.230	-0.251	-0.068	0.244	0.249	0.274	0.133	0.108	-0.262	-0.480	-0.501	0.000
OFFSETS	-6.855	-6.414	-5.414	-4.614	-3.250	-2.750	0.000	2.750	3.250	4.614	5.414	6.414	7.461

CH: MC02 - SL 220.000

CH 220.000

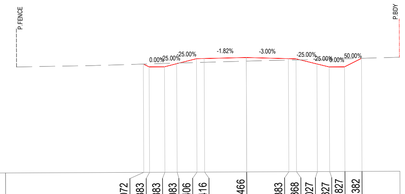


R.L. 95.000

PROPOSED LEVELS	101.813	101.602	101.602	101.802	102.138	102.151	102.225	102.142	102.127	101.787	101.587	102.147
EXISTING LEVELS	101.813	101.822	101.845	101.863	101.894	101.906	101.963	102.025	102.038	102.073	102.093	102.119	102.147
LEVEL DIFFERENCE	0.000	-0.220	-0.243	-0.061	0.244	0.246	0.262	0.117	0.090	-0.286	-0.507	-0.532	0.000
OFFSETS	-6.815	-6.394	-5.394	-4.594	-3.250	-2.750	0.000	2.750	3.250	4.614	5.414	6.414	7.535

CH: MC02 - SL 230.000

CH 230.000



R.L. 95.000

PROPOSED LEVELS	102.072	101.883	101.883	102.083	102.406	102.416	102.466	102.383	102.368	102.027	101.827	102.392
EXISTING LEVELS	102.072	102.081	102.105	102.124	102.155	102.166	102.232	102.287	102.294	102.316	102.331	102.355	102.382
LEVEL DIFFERENCE	0.000	-0.198	-0.222	-0.041	0.262	0.249	0.234	0.096	0.074	-0.288	-0.503	-0.528	0.000
OFFSETS	-6.722	-6.344	-5.344	-4.544	-3.250	-2.750	0.000	2.750	3.250	4.614	5.414	6.414	7.523

CH: MC02 - SL 240.000

CH 240.000

H 0 0.5 2.0m 1:100 (A1) 1:200 (A3)
0 1.0 4.0m

V 0 0.005 0.02m 1:1 (A3) 1:2 (A3)
0 0.01 0.04m

FIRST ISSUE	CALCS	DRAWN	DATE	AMENDMENT DETAILS
	LM	AB	04/21	
A	LM	AB	12/04/21	100% DETAIILED DESIGN

AMENDMENTS

DESIGN CHECK: lm

DRAWN CHECK: AB

DATUM

PROJECT No. CE21025

ISSUED FOR APPROVAL

APPROVED

RPEQ 7637

FOR & ON BEHALF OF MOLONEY & SONS ENGINEERING

CLIENT: THOMAS PLANT HIRE

PROJECT: THIRSTY CREEK ROAD

MOLONEY & SONS ENGINEERING
EXCELLENCE - INTEGRITY - INNOVATION
P.O. Box 3203 RED HILL ROCKHAMPTON, Q 4701
www.moloneyandsons.com.au
ROCKHAMPTON • GLADSTONE • ROMA • MILES • CHINCHILLA • BRISBANE
GOLD COAST • COFFS HARBOUR • SYDNEY

DRAWING TITLE: CROSS-SECTIONS SHEET 3 OF 4

DRAWING NUMBER: CE21025-503-XS

ISSUE: A

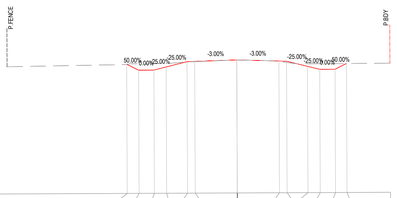
ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

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

Development Permit No.: D141-2020

Dated: 17 May 2021

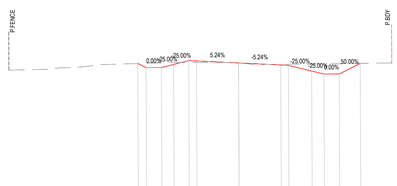


R.L. 95.000

PROPOSED LEVELS		103.432	103.044	103.044	103.244	103.585	103.600	103.682	103.600	103.585	103.244	103.044	103.044	103.417
EXISTING LEVELS		103.432	103.455	103.464	103.470	103.561	103.582	103.682	103.573	103.503	103.407	103.410	103.414	103.417
LEVEL DIFFERENCE		0.000	-0.412	-0.420	-0.226	0.024	0.018	0.000	0.027	0.082	-0.164	-0.367	-0.370	0.000
OFFSETS		-7.191	-6.414	-5.414	-4.614	-3.250	-2.750	0.000	2.750	3.250	4.614	5.414	6.414	7.160

CH: MC02 - SL 363.827

CH 363.827

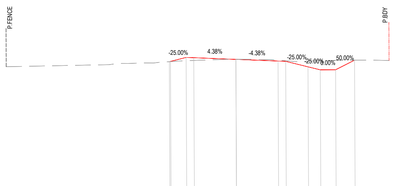


R.L. 95.000

PROPOSED LEVELS		103.504	103.234	103.234	103.434	103.682	103.656	103.512	103.368	103.341	102.962	102.762	102.762	103.447
EXISTING LEVELS		103.504	103.518	103.544	103.554	103.553	103.552	103.506	103.410	103.408	103.414	103.423	103.433	103.447
LEVEL DIFFERENCE		0.000	-0.284	-0.310	-0.120	0.129	0.103	0.005	-0.042	-0.066	-0.453	-0.661	-0.071	0.000
OFFSETS		-6.582	-6.042	-5.042	-4.242	-3.250	-2.750	0.000	2.750	3.250	4.768	5.568	6.568	7.940

CH: MC02 - SL 340.000

CH 340.000

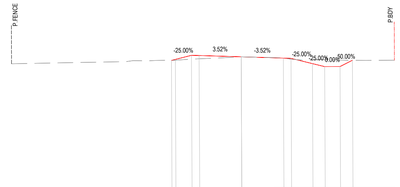


R.L. 95.000

PROPOSED LEVELS		103.451	103.470	103.726	103.704	103.583	103.463	103.441	103.077	102.877	102.877	103.497		
EXISTING LEVELS		103.451	103.466	103.506	103.526	103.587	103.519	103.461	103.441	103.478	103.486	103.497		
LEVEL DIFFERENCE		0.000	0.015	0.220	0.178	-0.004	-0.057	-0.040	-0.364	-0.601	-0.609	0.000		
OFFSETS		-4.349	-4.271	-3.250	-2.750	0.000	2.750	3.250	4.705	5.505	6.505	7.745		

CH: MC02 - SL 350.000

CH 350.000



R.L. 95.000

PROPOSED LEVELS		103.442	103.506	103.769	103.751	103.655	103.558	103.540	103.191	102.991	102.991	103.397		
EXISTING LEVELS		103.442	103.449	103.518	103.540	103.655	103.556	103.487	103.438	103.440	103.414	103.397		
LEVEL DIFFERENCE		0.000	0.057	0.251	0.212	0.000	0.002	0.054	-0.247	-0.449	-0.423	0.000		
OFFSETS		-4.559	-4.302	-3.250	-2.750	0.000	2.750	3.250	4.647	5.447	6.447	7.258		

CH: MC02 - SL 360.000

CH 360.000

H 0 0.5 2.0m (1:100 (A1), 1:200 (A3))
0 1.0 4.0m

V 0 0.005 0.02m (1:1 (A3), 1:2 (A3))
0 0.01 0.04m

FIRST ISSUE	CALCS	DRAWN	DATE	AMENDMENT DETAILS
	LM	AB	04/21	
A	LM	AB	12/04/21	100% DETAIILED DESIGN

AMENDMENTS

DESIGN CHECK: LM

DRAWN CHECK: AB

DATUM

PROJECT No.: CE21025

ISSUED FOR APPROVAL

APPROVED: RPEQ 7637

FOR & ON BEHALF OF MOLONEY & SONS ENGINEERING

CLIENT: THOMAS PLANT HIRE

PROJECT: THIRSTY CREEK ROAD

MOLONEY & SONS ENGINEERING
EXCELLENCE - INTEGRITY - INNOVATION
P.O. Box 3203 RED HILL ROCKHAMPTON, Q 4701
www.moloneyandsons.com.au
ROCKHAMPTON • GLADSTONE • ROMA • MILES • CHINCHILLA • BRISBANE
GOLD COAST • COFFS HARBOUR • SYDNEY

DRAWING TITLE: CROSS-SECTIONS SHEET 4 OF 4

DRAWING NUMBER: CE21025-504-XS

ISSUE: A

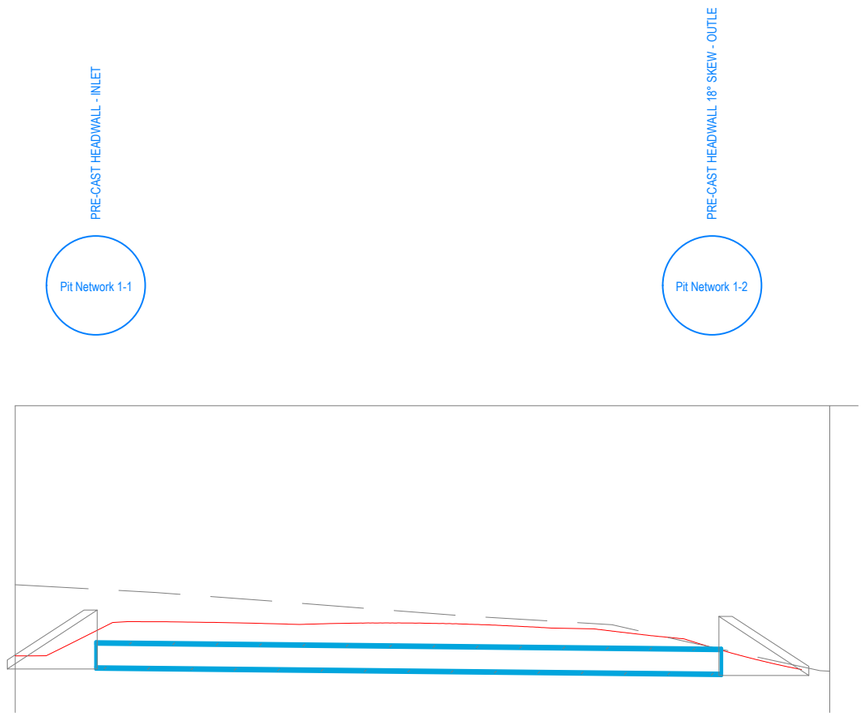
ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

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

Development Permit No.: D141-2020

Dated: 17 May 2021



VERT EXAG 1:2

Datum 95.000

Line Network 1-1 Class 4

PIPE DETAILS

Line Network 1-1 Class 4
375 mm Concrete Pipe
2D Length 20.40m

INVERT LEVEL	95.742		95.637
GRADE %		0.51%	
DESIGN LEVEL AT MH CL	96.599		96.494
EXISTING SURFACE	97.009		96.030
EASTING & NORTHING SET-OUT	E 196931.224 N 7388306.978		E 196930.493 N 7388286.591

PIPE CULVERT 01 LONG SECTION

FIRST ISSUE	CALCS	DRAWN	DATE	AMENDMENT DETAILS
	LM	AB	04/21	
A	LM	AB	12/04/21	100% DETAILED DESIGN

AMENDMENTS

DESIGN CHECK

DRAWN CHECK AB

DATUM

PROJECT No. CE21025

ISSUED FOR APPROVAL

APPROVED RPEQ 7637

FOR & ON BEHALF OF MOLONEY & SONS ENGINEERING

CLIENT THOMAS PLANT HIRE

PROJECT THIRSTY CREEK ROAD

MOLONEY & SONS ENGINEERING
EXCELLENCE - INTEGRITY - INNOVATION
P.O. Box 3203 RED HILL ROCKHAMPTON, Q 4701
www.moloneyandsons.com.au
ROCKHAMPTON • GLADSTONE • ROMA • MILES • CHINCHILLA • BRISBANE
GOLD COAST • COFFS HARBOUR • SYDNEY

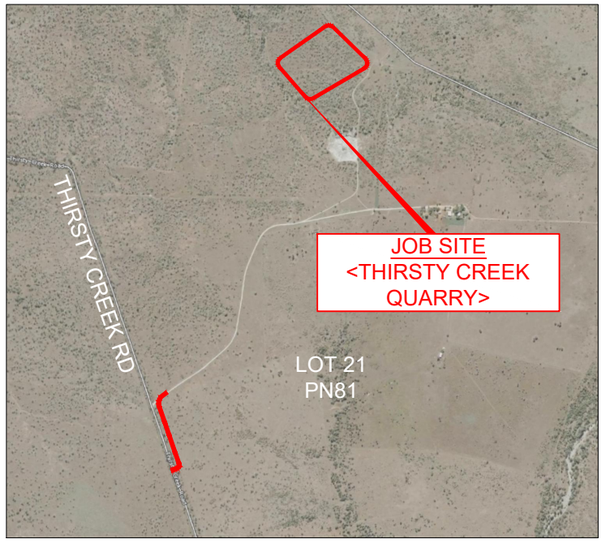
DRAWING TITLE DRAINAGE PLANS

DRAWING NUMBER CE21025-701-DR

ISSUE A

THOMAS PLANT HIRE - QUARRY

LOT 21 PN81 THIRSTY CREEK RD, GOGANGA Q
PROPOSED QUARRY CARPARK



LOCALITY PLAN
NOT TO SCALE

PROPOSD QUARRY CARPARK - 2021

DESIGN FILE No: CE21025
DESIGN STANDARD: CMDG DESIGN GUIDELINES AUSTROADS & TMR DESIGN GUIDELINES

DESIGN TRAFFIC

DESIGN VEHICLE: 19.0 TRUCK & DOG & 5.2m PASSENGER VEHICLE
ROAD CLASSIFICATION: PRIVATE ACCESS
PAVEMENT DESIGN LIFE: 40 YRS
DESIGN SPEED: 10KM/H
POSTED SPEED: N/A

STORMWATER/SEDIMENT & EROSION DATA

STORMWATER REPORT: STORMWATER MANAGEMENT PLAN by McMurtrie Consulting Engineers dated 23/02/2021
EVENT FLOW: 20% AEP

GENERAL

1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS.
2. BEFORE PROCEEDING WITH THE WORK ANY DISCREPANCIES IN THE CONTRACT DOCUMENTS SHALL BE REFERRED FOR DECISION TO THE SUPERINTENDENT.
3. DO NOT SCALE FROM DRAWINGS.
4. CONTRACTOR SHALL VERIFY ALL LOCATIONS OF SERVICES, ALL DIMENSIONS AND LEVELS PRIOR TO CONSTRUCTION.
5. ALL MATERIALS/CONSTRUCTION & WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS AND THE LOCAL AUTHORITY'S STANDARD DRAWINGS AND BY-LAWS.
6. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL RELEVANT APPROVALS PRIOR TO COMMENCEMENT OF WORKS.
7. UNDERGROUND SERVICE LOCATIONS SHOWN ON THIS PLAN HAVE BEEN DETERMINED BY FIELD SURVEY AND/OR OFFICE RECORDS, AND MAY NOT REPRESENT ALL SERVICES OR EXACT LOCATIONS. THE CONTRACTOR MUST ACCURATELY LOCATE AND DEPTH ALL SERVICES LIKELY TO BE ENCOUNTERED DURING CONSTRUCTION, PRIOR TO COMMENCING ANY EXCAVATION WORKS.
8. DISPERSIVE SOILS ARE NOT TO BE USED AS FILL/EMBANKMENT MATERIAL. ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH CURRENT RMS SPECIFICATIONS AND TECHNICAL STANDARDS.

CONSTRUCTION SPECIFICATIONS

CMDG CONSTRUCTION SPECIFICATIONS:
C201 CONTROL OF TRAFFIC
C202 RURAL ROAD CLEAR ZONES
C211 CONTROL OF SEDIMENT & EROSION
C212 CLEARING & GRUBBING
C213 EARTHWORKS
C220 STORMWATER DRAINAGE
C221 PIPE DRAINAGE SPECIFICATION
C223 DRAINAGE SPECIFICATIONS
C224 OPEN DRAINS
C265 BOUNDARY FENCING

STANDARD DRAWINGS

CMDG-G-010	FOUR & SIX BARBED WIRE FENCING
CMDG-D-050	SEDIMENT CONTROL DEVICES SEDIMENT FENCE ENTRY EXIT SEDIMENT TRAP
CMDG-D-051	SEDIMENT CONTROL DEVICES, KERB AND FIELD INLETS, CHECK DAMS & STRAW BALE BANK

DRAWING SCHEDULE

DOCUMENT TITLE	DOCUMENT NO.
COVER SHEET, LOCALITY PLAN & DRG. SCHEDULE	CE21025.2-001-CO
GENERAL DETAILS PLAN	CE21025.2-101-GD
GENERAL ARRANGEMENT	CE21025.2-201-GA

ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

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

Development Permit No.: D/141-2020

Dated: 17 May 2021

DETAIL SURVEY BY:
ACCIONA CONSTRUCTION AUST. - DATE SURVEYED 29/03/21 SURVEY: MGA20 ZONE 56
STANDARD DRAWINGS:
CMDG STANDARD DESIGN DRAWINGS & GUIDELINES / AR&R GUIDELINES / INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALIA (IPWEA)

www.dialbeforeyoudig.com.au
ALL UNDERGROUND SERVICES SHOULD BE LOCATED ON SITE BEFORE ANY WORK IS COMMENCED
DIAL 1100 BEFORE YOU DIG

FIRST ISSUE	CALCS	DRAWN	DATE	AMENDMENT DETAILS
A	LM	AB	04/21	
AMENDMENTS A	LM	AB	23/04/21	100% DETAIILED DESIGN

DESIGN CHECK: lm
DRAWN CHECK: AB

DATUM
PROJECT No. CE21025.2

ISSUED FOR APPROVAL
APPROVED
RPEQ 7637
FOR & ON BEHALF OF MOLONEY & SONS ENGINEERING

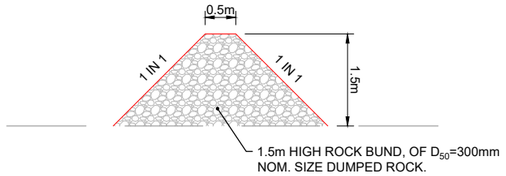
CLIENT: THOMAS PLANT HIRE
PROJECT: PROPOSED QUARRY LOT 21 PN 81 THIRSTY CREEK RD GOGANO Q

MOLONEY & SONS ENGINEERING
EXCELLENCE - INTEGRITY - INNOVATION
P.O. Box 3203 RED HILL ROCKHAMPTON, Q 4701
www.moloneyandsons.com.au
ROCKHAMPTON • GLADSTONE • ROMA • MILES • CHINCHILLA • BRISBANE
GOLD COAST • COFFS HARBOUR • SYDNEY

DRAWING TITLE: COVER SHEET & LOCALITY PLAN DRAWING SCHEDULE
DRAWING NUMBER: CE21025.2-001-CO
ISSUE: A

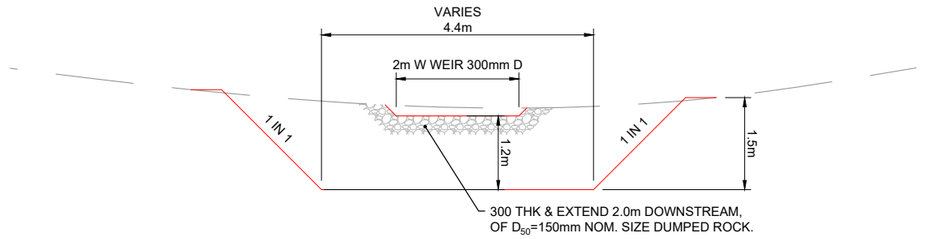
GENERAL LEGEND

- Existing Boundary
- Existing Fence Line
- Existing Access/Haul Road
- Existing Surface Contours Major (12.0)
- Existing Surface Contours Minor (12.0)
- Existing Vegetated Buffer Zone
- Existing Extraction Area
- Existing Processing Area
- Proposed Gravel Area
- Proposed Top Basin
- Proposed Toe Basin
- Proposed Diversion Bund
- Proposed Dumped Rock
- Proposed Water Flow
- Proposed Parking
- Proposed Weir Location
- Proposed New Sign
- Indicative Line Marking Arrows For Information Only



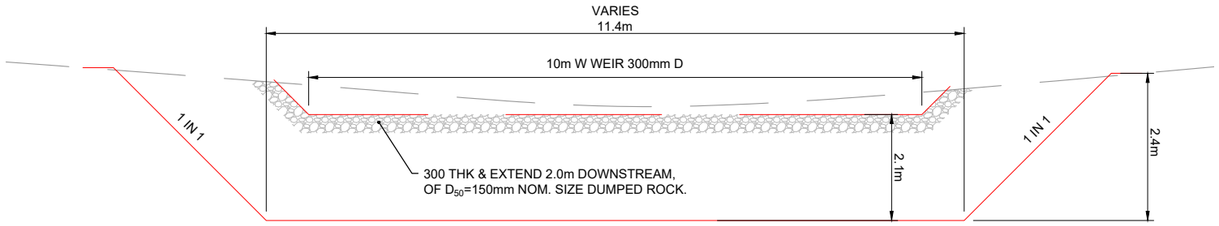
TYPICAL DIVERSION BUND DETAIL

SCALE 1:100



TYPICAL SED. BASIN SECTION 'B'

SCALE 1:100



TYPICAL SED. BASIN SECTION 'A'

SCALE 1:100

ROCK GRADING REQUIREMENTS

PARTICLE SIZE	% (BY WEIGHT) OF RIP-RAP SMALLER THAN
2 x D_{50}	100
D_{50}	50
0.3 x D_{50}	10-20
WHERE D_{50} IS NOM. DIAMETER OF THE RIP-RAP	

GENERAL:

1. ALL DIMENSIONS IN MILLIMETERS UNO.
2. ALL DUMPED ROCK SHALL BE UNDERLAIN BY APPROVED GEOTEXTILE SUITABLE FOR SUBMERSION IN WATER. DUMPED ROCK SHALL COMPRISE ROCK MATERIAL WHICH IS NOT SUSCEPTIBLE TO BREAKDOWN UNDER WETTING & DRYING.
3. DUMPED ROCK SHOULD NOT BE SINGLE SIZED, BUT WELL GRADED MIXTURE DESIGNED TO ENSURE THAT ALL INTERSTICES BETWEEN LARGE ROCKS ARE FILLED WITH ROCK OF PROGRESSIVELY SMALLER SIZE.
4. THE THICKNESS OF THE DUMPED ROCK SHALL NOT BE LESS THAT THE 2.1xD_{50}.
5. DUMPED ROCK SHALL BE PLACED IN A MANNER AS TO AVOID DAMAGE TO THE UNDERLYING GEOTEXTILE.
6. DUMPED ROCK SIZING IS BASED ON A MINIMUM SPECIFIC GRAVITY OF 2.50.
7. THE RATIO OF DUMPED ROCK LENGTH TO THICKNESS SHALL BE LESS THAN 2.0.
8. ROCK FILLED MATTRESS SHALL BE GALVANISED WIRE MESH OR PLASTIC COATED FILLED WITH ROCK SECURELY FIXED.
   - 8.1. GEOTEXTILE ENDS & UNDERSIDE LINING;
   - 8.2. MIN. Ø75mm ROCK SIZE & MAX. TO BE TWO THIRDS OF MATTRESS THICKNESS; &
   - 8.3. MESH APERTURE SIZE MUST NOT EXCEED 60x80mm, WITH A WIRE DIAMETER OF NOT LESS THAN 2.0mm.
9. THERE SHALL BE MINIMUM DISTURBANCE OF THE BED & BANKS OF THE WATER COURSE & APPROPRIATE PROTECTION AT & IMMEDIATELY UPSTREAM & DOWNSTREAM OF THE CROSSING.

SEDIMENT BASIN DETAILS

PARAMETER	BASIN A	BASIN B1	BASIN B2
DESIGN FLOW	20% AEP, 24 Hour		
BASIN CATCHMENT AREA (HA)	1.92	1.27	2.06
TYPE OF BASIN	TYPE D		
SETTLING VOLUME (m^3)	1928	1826	1499
STORAGE DEPTH (m)	1687	1603	1365
TOTAL BASIN VOLUME (m^3)	3616	3429	2864
SETTLING DEPTH (m)	1.2	1.2	0.75
STORAGE DEPTH (m)	1.2	1.2	0.75
OVERALL BASIN DEPTH (m)	2.4	2.4	1.5
INTERNAL BATTERS	1 in 1	1 in 1	1 in 1
SEDIMENTATION BASIN BED AREA (m^2)	1310	1246	1731
DESIGN INFLOW SYSTEMS	SHEET FLOW WITH DIVERSION BUNDS TO BASINS		
DESIGN OUTFLOW SYSTEMS	NA, SITUATED WITHIN QUARRY PIT FLOOR, BASIN WILL BE PUMPED AS REQUIRED	10m WEIR, MIN 0.3m DEEP SITUATED 2.4m ABOVE BASIN BED WITH 1 IN 2 SIDE BATTERS	2m WEIR, MIN 0.3m DEEP SITUATED 2.4m ABOVE BASIN BED WITH 1 IN 2 SIDE BATTERS
VEGETATION SPECIFICATION	NONE		
REHABILITATION PROCESS FOR THE BASIN AREA	AS PER SITE REHABILITATION PLAN (by EIS dated 12/2020)		
OPERATIONAL PROCEDURES	IN ACCORDANCE WITH (IECA, JUNE 2018) GUIDELINES FOR TYPE D BASINS & WASTE REMOVAL PER SITE WASTE MANAGEMENT PLAN (by EIS dated 12/2020)		
ABOVE TABLE IN ACCORDANCE WITH AND AS PER McMurtrie Consulting Engineers "Stormwater Management Plan" Report dated 23/02/21.			

ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

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

Development Permit No: D141-2020

Dated: 17 May 2021

0 2.5 10.0m
0 5.0 20.0m
1:500 (A1)
1:1000 (A3)

AMENDMENTS	FIRST ISSUE	CALCS	DRAWN	DATE	AMENDMENT DETAILS
		LM	AB	04/21	
	A	LM	AB	23/04/21	100% DETAILED DESIGN

DESIGN CHECK: lm
DRAWN CHECK: AB

DATUM

PROJECT No. CE21025.2

ISSUED FOR APPROVAL

APPROVED

RPEQ 7637

FOR & ON BEHALF OF MOLONEY & SONS ENGINEERING

CLIENT: THOMAS PLANT HIRE

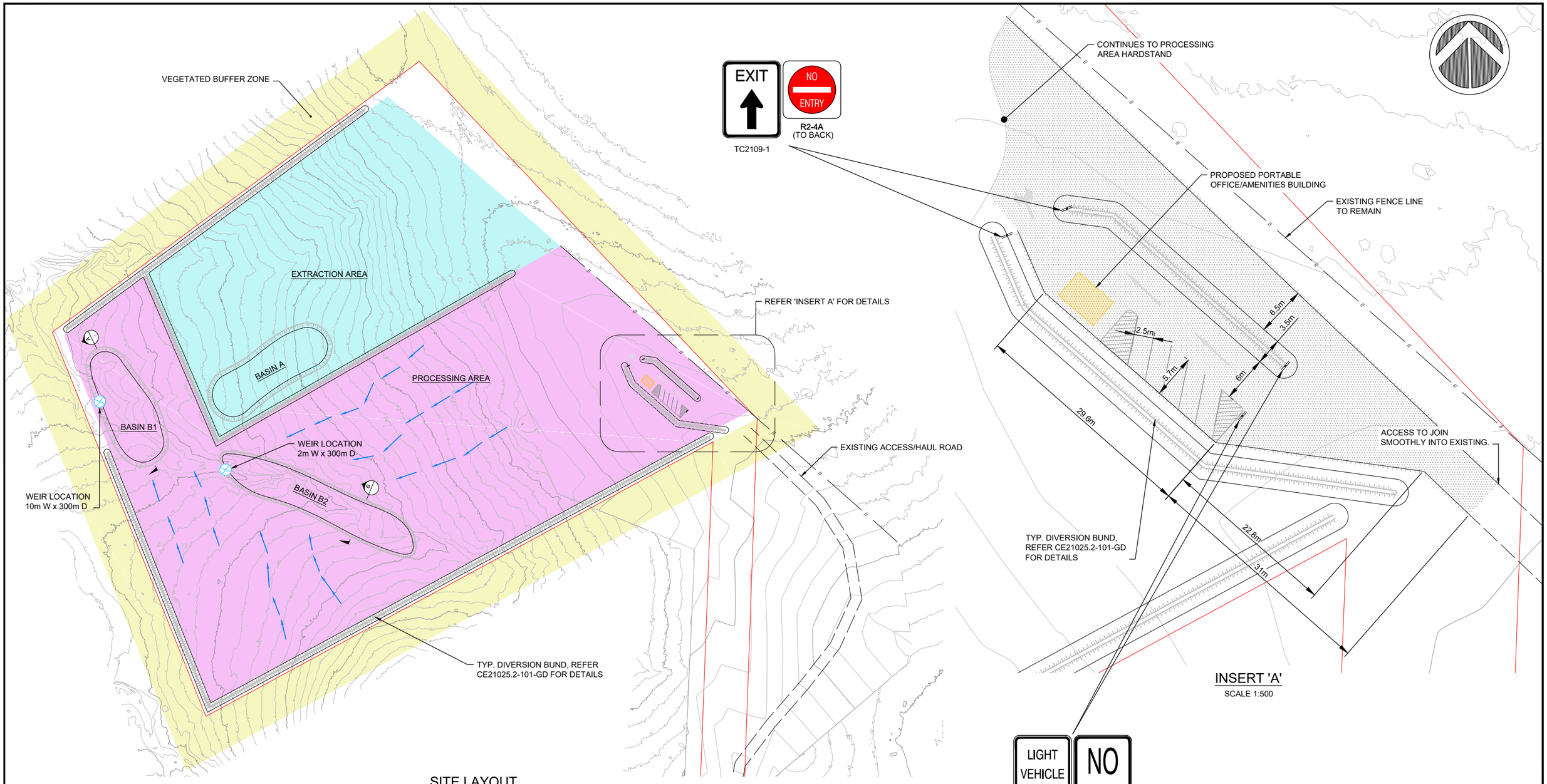
PROJECT: PROPOSED QUARRY
LOT 21 PN 81 THIRSTY CREEK RD
GOGANO Q

MOLONEY & SONS ENGINEERING
EXCELLENCE - INTEGRITY - INNOVATION
P.O. Box 3203 RED HILL ROCKHAMPTON, Q 4701
www.moloneyandsons.com.au
ROCKHAMPTON • GLADSTONE • ROMA • MILES • CHINCHILLA • BRISBANE
GOLD COAST • COFFS HARBOUR • SYDNEY

DRAWING TITLE: GENERAL DETAILS PLAN

DRAWING NUMBER: CE21025.2-101-GD

ISSUE: A



SITE LAYOUT
SCALE 1:2000

INSERT 'A'
SCALE 1:500

0 5.0 20.0m
0 10.0 40.0m
1:1000 (A1)
1:2000 (A3)

www.dialbeforeyoudig.com.au
ALL UNDERGROUND SERVICES SHOULD BE LOCATED ON SITE BEFORE ANY WORK IS COMMENCED
DIAL 1100 BEFORE YOU DIG

ROCKHAMPTON REGIONAL COUNCIL
APPROVED PLANS
These plans are approved subject to the current conditions of approval associated with
Development Permit No.: D/141-2020
Dated: 17 May 2021

FIRST ISSUE	CALCS	DRAWN	DATE
	LM	AB	04/21

AMENDMENTS

	AMENDMENT DETAILS	CALCS	DRAWN	DATE
A	100% DETAILED DESIGN	LM	AB	23/04/21

DESIGN CHECK: bm
DRAWN CHECK: AB

DATUM
PROJECT No. CE21025.2

ISSUED FOR APPROVAL
APPROVED
RPEQ 7637
FOR & ON BEHALF OF MOLONEY & SONS ENGINEERING

CLIENT: THOMAS PLANT HIRE
PROJECT: PROPOSED QUARRY
LOT 21 PN 81 THIRSTY CREEK RD
GOGANO Q

MOLONEY & SONS ENGINEERING
EXCELLENCE - INTEGRITY - INNOVATION
P.O. Box 3203 RED HILL ROCKHAMPTON, Q 4701
www.moloneyandsons.com.au
ROCKHAMPTON • GLADSTONE • ROMA • MILES • CHINCHILLA • BRISBANE
GOLD COAST • COFFS HARBOUR • SYDNEY

DRAWING TITLE: GENERAL ARRANGEMENT
DRAWING NUMBER: CE21025.2-201-GA
ISSUE: A