Notice of Meeting

Local Traffic Committee Meeting

A Local Traffic Committee Meeting of Byron Shire Council will be held as follows:

Venue	**Conference Room, Station Street, Mullumbimby**
Date	**Tuesday, 15 August 2023**
Time	**9.00am**

Phil Holloway
Director Infratructure Services

I2023/1193
Distributed 11/08/23

BYRON SHIRE COUNCIL

BYRON SHIRE COUNCIL

LOCAL TRAFFIC COMMITTEE MEETING

BUSINESS OF MEETING

REGULATORY MATTERS

Report No. 6.1 Gilmore Crescent, Byron Bay - Regulatory Signage, new carpark.

File No: I2023/907

The purpose of this report is to gain endorsement for the implementation of parking restrictions within Gilmore Crescent.

Gilmore Crescent has recently been upgraded and extended to cater for Byron Bay's new skate park.

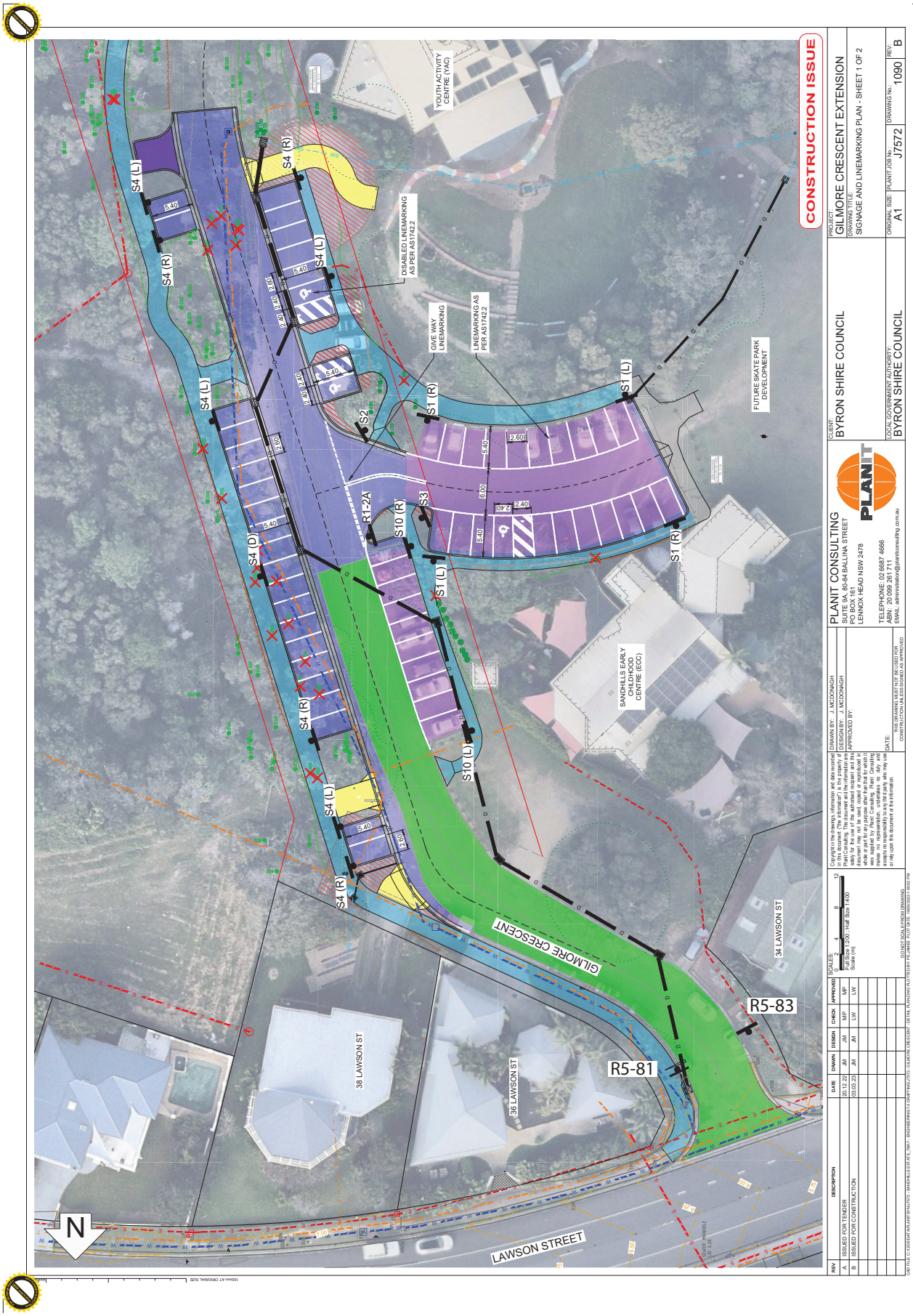
As part of these upgrades additional parking bays have been provided. All parking in the surrounding area is restricted, to ensure parking equity for the greater community and to prevent nuisance camping. Council staff are proposing the restrictions contained within the plan in attachment 1 (E2023/58247).

RECOMMENDATION:

That the Local Traffic Committee endorse the proposed parking restrictions within Gilmore Crescent, Byron Bay as per attachment 1 (E2023/58247)

Attachments:

1 Signage Plans_Gilmore Cres, E2023/58247 , page 4


CONSTRUCTION ISSUE
YOUTH ACTIVITY CENTRE (YAC)
DISABLED LINEMARKING AS PER AS1742.2
GIVE WAY LINEMARKING
LINEMARKING AS PER AS1742.2
FUTURE SKATE PARK DEVELOPMENT
SANDHILLS EARLY CHILDHOOD CENTRE (ECC)
GILMORE CRESCENT
LAWSON STREET
34 LAWSON ST
36 LAWSON ST
38 LAWSON ST
R5-83
R5-81
S1 (L)
S1 (R)
S2
S3
S4 (L)
S4 (R)
S4 (D)
R1-2A
S10 (L)
S10 (R)
N
PLANIT CONSULTING
SUITE 9A, 80-84 BALLINA STREET
PO BOX 845
LENNOX HEAD NSW 2478
TELEPHONE: 02 6687 4666
ABN: 20 099 261 711
EMAIL: administration@planitconsulting.com.au
CLIENT: BYRON SHIRE COUNCIL
LOCAL GOVERNMENT AUTHORITY: BYRON SHIRE COUNCIL
PROJECT: GILMORE CRESCENT EXTENSION
DRAWING TITLE: SIGNAGE AND LINEMARKING PLAN - SHEET 1 OF 2
ORIGINAL SIZE: A1
PLANIT JOB No.: J7572
DRAWING No.: 1090
REV: B
REV DESCRIPTION DATE DRAWN DESIGN CHECK APPROVED
A ISSUED FOR TENDER 20.12.22 JH JM MP MP
B ISSUED FOR CONSTRUCTION 03.03.23 JH JH LH LH
SCALES: Full Size 1:200 - Half Size 1:400 Scale (m)
DO NOT SCALE FROM DRAWING
DRAWN BY: J. MCDONAGH
DESIGN BY: J. MCDONAGH
APPROVED BY:
DATE:
THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS APPROVED

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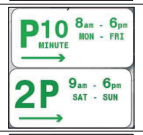
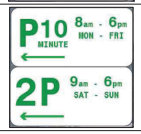
S1 (L)	2	
S10 (R)	1	
S10 (L)	1	
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S3	1	
R2-3 L	2	
D4-1-2	2	
R1-2 (375mm ht)	2	

SIGN LIST		
SIGN CODE	QUANTITY	IMAGE
S4 (R)	4	
S4 (L)	4	
S4 (D)	1	
R1-2A	2	
R5-83	1	
R5-81	1	
W6-9A & W8-23A	2	
R5-400	2	

CONSTRUCTION ISSUE

REV	DESCRIPTION	DATE	DRAWN	DESIGN	CHECK	APPROVED
A	ISSUED FOR TENDER	20.12.22	JM	JM	MP	MP
B	ISSUED FOR CONSTRUCTION	03.03.23	JM	JM	LW	LW

SCALES: NOT TO SCALE

DO NOT SCALE FROM DRAWING

DRAWN BY: J. MCDONAGH
DESIGN BY: J. MCDONAGH
APPROVED BY:
DATE:

THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION UNLESS SIGNED AS APPROVED

PLANIT CONSULTING
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TELEPHONE: 02 6687 4666
ABN: 20 099 261 711
EMAIL: administration@planitconsulting.com.au

CLIENT: BYRON SHIRE COUNCIL

LOCAL GOVERNMENT AUTHORITY: BYRON SHIRE COUNCIL

PROJECT: GILMORE CRESCENT EXTENSION

DRAWING TITLE: SIGNAGE LEGEND

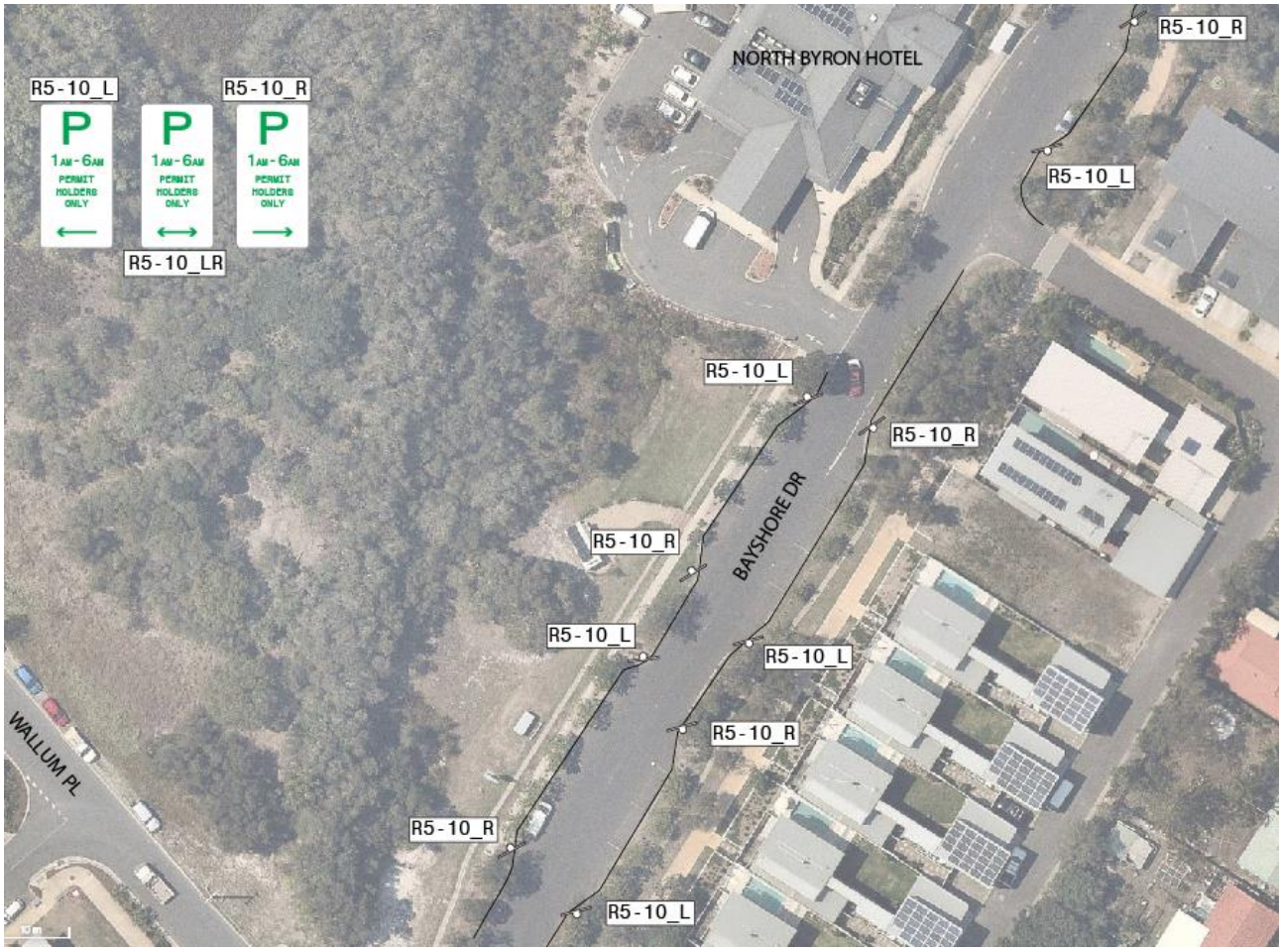
ORIGINAL SIZE:	PLANIT JOB No.:	DRAWING No.:	REV:
A1	J7572	1110	B

CAD FILE: C:\12DSD\DATA\PLANITS\YNU7572 - SANDHILLS ESTATE_7867 - ENGINEERING\7.4 DRAFTING\J7572 - GILMORE CRESCENT - DETAIL PLAN.DWG PLOTTED BY: PE.JAMES PLOT DATE: 19/05/2023 1:40:37 PM

Report No. 6.2 Bayshore Drive - Parking Signage Exception For Permit Holders.

File No: I2023/909

The purpose for this report is to gain support for an internal exception inside an approved No Parking Area (as per plan below). The purpose of the current No Parking Area (1am – 6am) was to prevent nuisance campers, however there are residents within the Parking Area which require the use of a section of the kerb space for overnight parking. The exception will be for residents who have a parking area permit.



RECOMMENDATION:

That the Local Traffic Committee endorse the permit holder exception from 1am – 6am on Bayshore Drive, between Wallum Place and the railway tracks to the north.

Report No. 6.3 544 Coolamon Scenic Drive - Regulatory Signage & Line Marking for upgrade driveway crossovers - Road Safety Audit

File No: I2023/1125

The purpose of this report is to gain endorsement for the implementation of Regulatory Signage and new line marking within Coolamon Scenic Drive, Coorabell road reserve for the purpose of upgrading existing driveways associated with Development Consent Approval 10.2021.0433.1 and Roads Act Application 51.2021.433.1.

The regulatory signage and new line marking is as a result of Road Safety Audit undertaken by the developers Level 3 accredited consultant.

Audit in attachment 1 (E2023/63903)

Plans in attachment 2 (E2023/63902)

The proposed works involves the upgrading of 2 existing driveways, The Road Safety Audit has identified that the southern driveway is to be an exit only driveway with regulatory signage to enforce this recommendation. The regulatory signage consists of:

- No Left Turn – facing vehicles heading south along Coolamon Scenic Drive, identifying no access into the private property.
- No Entry – facing vehicles parallel to the property boundary.

Note: Concealed driveway signage is not a regulated sign.

The line marking proposed consists of a painted stopping line and a driveway centre line to the northern driveway to ensure vehicles exiting the property driveway do not spill onto the active traffic lane of Coolamon Scenic Drive and the centre line is keep vehicles exiting the driveway to the left of the driveway.

The works also include Traffic Guidance Schemes certified by suitably accredited person.

RECOMMENDATION:

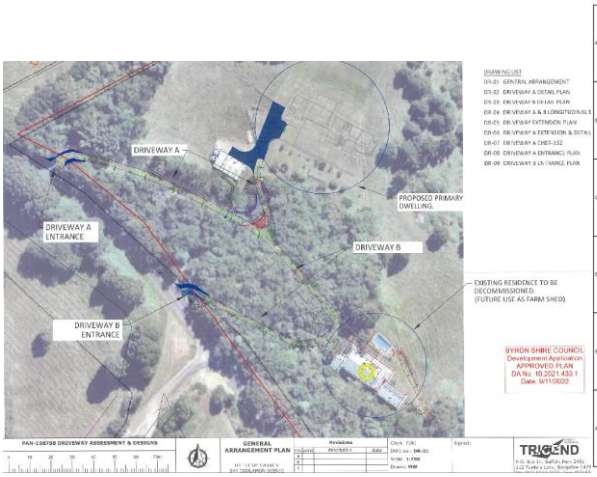
That the Local Traffic Committee endorse the proposed regulatory signage and line marking within Coolamon Scenic Drive, Coorabell as per attachment 1 (#E2023/63902).

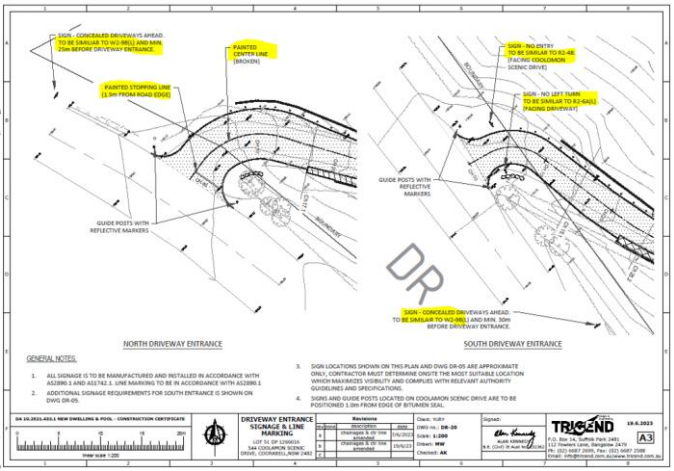
Attachments:

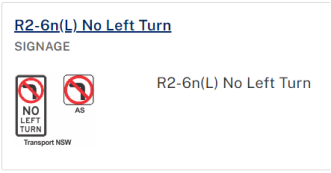
1 51.2021.433.1 - Amended Road Safety Audit Report 21 Jun 23_RA-2023-4629, E2023/63903 , page 9⇩

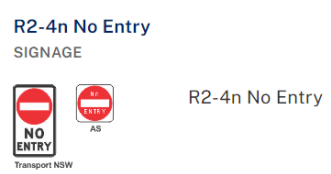
2 51.2021.433.1 - Updated Driveway Plans_19 Jun 23_RA-2023-4629, E2023/63902 , page 37⇩

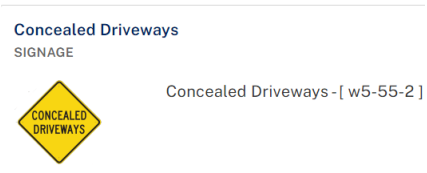
5











Ardill Payne & PARTNERS

ENGINEERS PLANNERS SURVEYORS ENVIRONMENTAL PROJECT MANAGEMENT

ROAD SAFETY AUDIT

EXISTING ROAD and DETAIL DESIGN - DRIVEWAYS
544 Coolamon Scenic Drive,
Coorabell

for:
Yury Shar

January 2023

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45 River Street
PO Box 20
BALLINA NSW 2478
02 6686 3280

GUNNEDAH
Germane House
285 Conadilly Street
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Document Control Sheet

Filename:	11621 2023-01 544 Coolamon RSA				
Job No.:	11621				
Job Captain:	Tony Cromack				
Author:	Tony Cromack				
Client:	Yury Shar				
File/Pathname	S:\01 Jobs\11600-11699\11621 Civil_544 Coolamon Scenic Dr_Coorabell\01 Administration\02 Reports\11621 2023-01 544 Coolamon RSA.docx				
Revision No:	Date:	Checked By		Issued By	
		Name	Signed	Name	Signed
0	31/01/23	A. Hyde		T Cromack	
1					
2					

Revision No:	Description
0	Original Issue
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2	

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1. Project Information

1.1 Introduction

Tricend Design & Engineering, on behalf of the property owner Yury Shar (Client), has engaged Ardill Payne & Partners (APP) to undertake a Road Safety Audit (RSA) of the existing driveway entrances at 544 Coolamon Scenic Drive, Coorabell.

The locality plan is shown in **Figure 1.** An aerial photo of the site is shown in **Figure 2.**

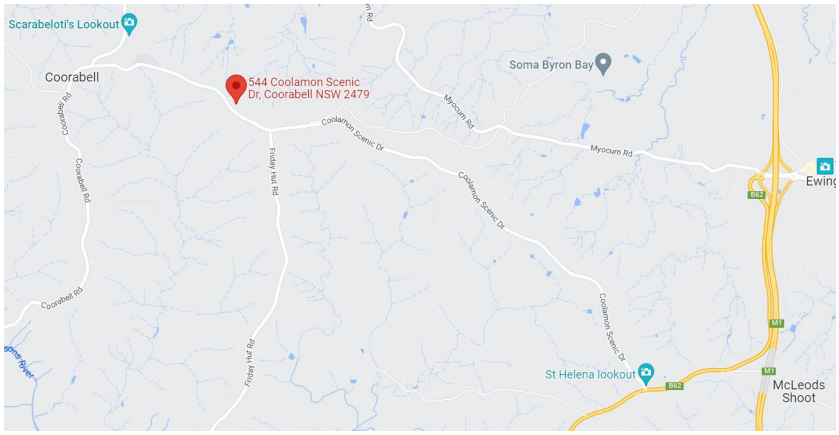

Figure 1: Locality Plan

Figure 2: Aerial Photo

1.2 Description of the Site

Coolamon Scenic Drive is designated as Tourist Drive No. 28 and is an important scenic drive in Byron Shire. The road at the subject site is sealed and centre and edge line marked and has an 80 km/h speed limit. The road is rural in nature (roadside shoulders and table drains).

There are two driveways to 544 Coolamon Scenic Drive, with both located on the eastern side of Coolamon Scenic Drive, just north of the Lofts Road intersection.

Site photographs are provided in **Attachment 1**.

1.3 Description of Proposal

DA 10.2021.433.1 gives consent to the decommissioning of an existing dwelling house (for use as a shed) and the erection of a new dwelling house and swimming pool. Ancillary works include the upgrade of the two driveways onto Coolamon Scenic Drive.

1.4 Information Provided by Client

The current design plans for the driveways were provided by Tricend Design & Engineering (Drawings DR-01 to DR-03, DR-08, DR-09). On these plans, the northern driveway is referred to as 'Driveway A' and the southern driveway as 'Driveway B'. These drawings are included in **Attachment 2**.

1.5 Traffic and Crash Data

Council has provided the following traffic volume data:

- Coolamon Scenic Drive, 100m E of Coorabell Road intersection – ADT 1824 (2016); peak hourly traffic 228 vph

Crash data has been obtained from the *'Transport for NSW, Centre for Road Safety'* website. Between 2017 and 2021, there has been 1 crash recorded within the audit section:

- Occurred in 2017, just north of the Lofts Road intersection
- Crash type: off road left/right hand bend, into object
- Resulted in 1 moderate injury
- Occurred in daylight.

Note: traffic and crash data was not reviewed until after the RSA findings were documented.

1.6 Audit Scope and Objective

This report is a Road Safety Audit of two existing driveway entrances onto Coolamon Scenic Drive at 544 Coolamon Scenic Drive, Coorabell. The audit includes the approaches to the driveways

but is not an audit of Coolamon Scenic Drive. The audit will also provide comment on design solutions proposed by Tricend Design & Engineering to improve the driveway entrances.

The scope of the RSA has been limited to assessment of the driveway entrances and approaches from the perspective of all road users, and during daylight and night conditions.

The objective of the RSA is to identify any potential road safety issues/deficiencies associated with the existing driveway arrangements and the proposed improvements from the perspective of all road users that may need to be investigated and rectified. Deficiencies raised will be described and given a risk rating. Positive aspects of the road environment have not been recorded.

This RSA is not a design check, although some design issues may be raised during the audit process.

The RSA has been carried out in accordance with the prescribed methods in Austroads '*Guide to Road Safety, Part 6: Road Safety Audit*' (2022), with consideration of the NSW TfNSW '*Guidelines for Road Safety Audit Practices, Part 1: Road Safety Audit*' (2011).

The TfNSW Guide does not permit the inclusion of recommendations in a RSA. However, the Austroads Guide does permit the inclusion of recommendations, if requested by the Client. We have included a supplement to the RSA documenting our 'Suggested Mitigation Measures' to improve road safety at the site. The suggested mitigation measures indicate the nature or direction of a solution rather than precise details. Responsibility for that will rest with the Client.

1.7 Audit Team

The RSA has been carried out by Tony Cromack (APP – Lead Auditor) and Arthur Hyde (APP).

Lead Auditor – Tony Cromack

- Senior Civil Engineer and Principal at Ardill Payne & Partners, with over 35 years' experience in urban and rural road design
- Bachelor of Technology (Engineering), University of Southern Queensland, (1999)
- Technologist Member – Engineers Australia
- Member – Institute of Public Works Engineering Australasia (IPWEA)
- Prepare Work Zone Traffic Management Plans, SafeWork NSW (2020)
- 'Road Safety Auditor' course, IPWEA (2014)
- 'Lead Road Safety Auditor' course, IPWEA (2017)
- 'Safe System Principles' and 'Safe System Assessments' courses, Safe System Solutions Pty Ltd, Victoria (2019)
- 'Treatment of Crash Locations' course, IPWEAQ (2019)
- Registered Level 3 Road Safety Auditor (NSW) – Auditor # RSA-02-0414

Auditor – Arthur Hyde

- Civil Engineer at Ardill Payne & Partners, with over 5 years' experience in urban and rural road design
- Bachelor of Engineering (Honours), Southern Cross University (2019)
- Prepare Work Zone Traffic Management Plans, SafeWork NSW (2020)
- 'Road Safety Auditor' Course, IPWEA (2021)
- Registered Level 2 Road Safety Auditor (NSW) – Auditor # RSA-02-1612

2. Road Safety Audit Program

2.1 Commencement Meeting

The commencement meeting was held via email correspondence in December 2022. Matt Wierzbicki of Tricend Design & Engineering represented the Client and Tony Cromack represented the audit team.

A summary of the correspondence is as follows:

- Mr. Wierzbicki confirmed that the purpose of the audit is to address Condition 10 of Council's DA 10.2021.433.1 and to identify any safety issues associated with the existing and proposed driveway entrances.
- There are no know existing or previous Road Safety Audits dealing with this specific site. APP did conduct a Road Safety Evaluation of the whole length of Coolamon Scenic Drive in 2017.
- The main concerns for these driveways are:
  - Sight distances
  - Turn movements in and out.
- The Client is not aware of the any environmental issues which affect the driveways and approaches.
- Further detail and specifics of any Client or Council concerns were not raised or discussed to ensure the audit team could undertake an unbiased RSA.
- Mr. Cromack explained the audit process, reiterating that it is not a compliance or design check, and advised that recommendations are only provided if requested. Mr. Wierzbicki requested that recommendations for improvements identified by the team be provided. Suggested mitigation measures will be included as a supplement to the final report.
- Mr. Wierzbicki was advised that it is the audit teams' task to identify and document safety issues, and the Client's task to respond and act on those issues.
- APP will source road traffic volume and crash data.

2.2 Field Audit

The field audit was carried out by the audit team on the afternoon and evening of Friday 20 January 2023. The team drove through the site in each direction and filmed the drive from the dashboard of the vehicle.

The daylight audit took place between 10:30 and 11:00am. Tony Cromack undertook the evening audit between 8:00 and 8:15pm.

The weather on the day was showery. The road surface was generally dry during the inspection.

Photographs of any deficiencies found were taken and notes were made. Site photographs are provided in **Attachment 1**.

Some key physical and observed features of the driveways and road approaches are:

- Steep (uphill) approach grades on the driveways
- Acute angle of intersection of driveways with Coolamon Scenic Drive
- Width of driveways at the entrance
- Downhill grade on Coolamon Scenic Drive on northbound approach to the driveways
- Roadside vegetation impacting sight distances
- Narrow shoulders on Coolamon Scenic Drive
- Proximity of Lofts Road intersection to southern driveway.

2.3 Desktop Audit

The RSA of the driveway entrances was carried out as a desktop study using the information described within this report, in accordance with the prescribed methods in the Austroads '*Guide to Road Safety, Part 6: Road Safety Audit'* (2022).

2.4 Completion Meeting

A completion meeting generally involves the auditor and the Client and is an opportunity for clarification of aspects of the audit. A completion meeting has not been held at the time of preparing this report.

Completion meeting held on 20th April 2023 between
Tony Cormack & Design Engineer Matt Wierzbicki
(TRICEND Eng) to discuss findings and design issues.

3. Risk Level Determination

Risks/hazards raised in relation to the audit have been given a risk level based on the associated safety priority, as categorised using **Table 1** and **Table 2**. The risk tables below are reproduced from Austroads '*Guide to Road Safety Part 6: Road Safety Audit*' (2022).

Table 1: Austroads RSA Risk Matrix

Likelihood (includes exposure)			Severity*				
			Insignificant	Minor	Moderate	Serious	Fatal
			Property damage	Minor first aid	Major first aid and/or presents to hospital (not admitted)	Admitted to hospital	Death within 30 days of the crash
	Almost Certain	One per quarter	Medium	High	High	Extreme (FSI)	Extreme (FSI)
	Likely	Quarter to 1-year	Medium	Medium	High	Extreme (FSI)	Extreme (FSI)
	Possible	1 to 3 Years	Low	Medium	High	High (FSI)	Extreme (FSI)
	Unlikely	3 to 7 Years	Negligible	Low	Medium	High (FSI)	Extreme (FSI)
	Rare	7 years+	Negligible	Negligible	Low	Medium (FSI)	High (FSI)

*see Severity Guidance Sheet

Safe System crash outcome threshold

Table 2: Austroads Severity Guidance Sheet

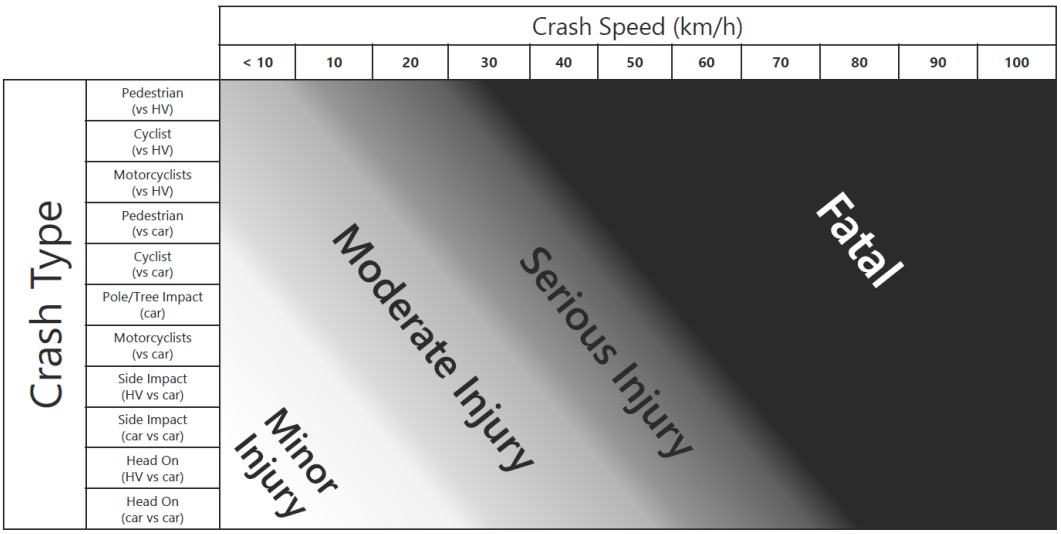

Table 3: Treatment

Risk	Suggested Treatment Approach
Intolerable	Must be corrected
High	Should be corrected or the risk significantly reduced, even if the treatment cost is high.
Medium	Should be corrected or the risk significantly reduced, if the treatment cost is moderate, but not high.
Low	Should be corrected or the risk reduced, if the treatment cost is low.

4. Road Safety Audit Findings

The audit findings in **Table 4** were identified during the RSA field inspection. The audit findings in **Table 5** were identified during the desktop audit of the design plans.

Audit findings are a listing of identified safety deficiencies: what is potentially dangerous about the road or what could lead to crashes occurring or injury resulting. Relevant photographs of the findings are provided in **Attachment 1**.

Table 4: Field Audit Findings

Number	Description	Risk Rating
1	**Width of Driveways at Entrance** If a vehicle is stopped in either of the driveways waiting to exit, there is insufficient room for another vehicle to enter the driveway. The entering vehicle may be forced to stop on Coolamon Scenic Drive, increasing the risk of a collision with through traffic.	Frequency: Possible Severity: Serious Risk: High Nth diveway widened.
2	**Angle of Intersection of Driveways** The angle at which the driveways intersect with Coolamon Scenic Drive makes it more difficult for exiting drivers to check sight distances to the left (south). It also makes it more difficult for a driver exiting the driveways to the left to keep their vehicle within traffic lanes. There is a risk that a driver may not see an oncoming vehicle and pull out in front of a northbound through vehicle. There is a further risk of drivers turning into opposed through lanes on exit.	Frequency: Possible Severity: Serious Risk: High Angle of interesction now close to 90 deg.
3	**Downhill Grade (Northbound) – Coolamon Scenic Drive** Can increase the speed of vehicles in the northbound approach to the driveways. The downhill grade may increase the speed of approaching vehicles and may increase the likelihood of a crash, or the severity of a rear-end collision.	Frequency: Rare Severity: Serious Risk: Medium
4	**Sight Distances** The sight distances from the driveways are generally acceptable. However, the sight distance from each driveway looking left (south) can be partially obscured by vegetation. There is a risk that a driver may not have sufficient sight distance to oncoming vehicles and pull out in front of a through vehicle. *Refer to Photo 1, 2*	Frequency: Possible Severity: Serious Risk: High Sight distance improved at Nth & Sth entrance with removal of trees shown on plan.

5	**Concealed Driveways** There is no advance warning for the driveways. The driveways are partially concealed due to their gradient away from the road and roadside vegetation. There is a risk that approaching vehicles on Coolamon Scenic Drive may not clearly see the driveways, especially at night. Vehicles exiting from the driveways may be struck by through traffic. *Refer to Photo 3, 4*	Frequency: Unlikely Severity: Serious Risk: High Vegetation is to be removed at both Nth & Sth entrance. Signage to be included indicating concealed driveways.
6	**Narrow Shoulders – Coolamon Scenic Drive** The shoulder on Coolamon Scenic Drive opposite the northern driveway is too narrow for a vehicle to pass another turning into the driveway. The roadside vegetation is overgrown. A vehicle turning right into the driveway may be required to stop. With narrow shoulders, a through vehicle has no room to pass on the left, increasing the risk of a rear-end collision.	Frequency: Rare Severity: Serious Risk: Medium

Table 5: Desktop Audit Findings

Item	Dwg No.	Description	Response
1	DR-03	**Sign Confusion** Signage restricting movements on Driveway B may be confusing. There is a risk that drivers may ignore confusing signage. Frequency: Unlikely Severity: Minor Risk: Low	**Client acceptance** Y/N ____ **Client response:** _____ Signage amended.
2	DR-08	**Driveway A – Pavement Return South Side** The radius of the driveway return, south side, may not be sufficient to allow for the swept path of a left turn exit vehicle. There is a risk that a vehicle exiting the driveway may cross into oncoming traffic due to lack of sufficient driveway width. Frequency: Possible Severity: Serious Risk: High	**Client acceptance** Y/N ____ **Client response:** _____ Pavement return extended with 3m radius.
3	DR-08	**Driveway A – Painted Centre Line** There is no separation of entering and exiting vehicles. There is a risk that an exiting vehicle may block the driveway resulting in the need for an entering vehicle to stop on Coolamon Scenic Drive, increasing the risk of a rear-end collision. Frequency: Possible Severity: Serious Risk: High	**Client acceptance** Y/N ____ **Client response:** _____ Painted centre line included at Nth entrance.

Painted centre line
included at Nth entrance.

4	DR-08 DR-09	**Swept Paths** The drawings do not demonstrate that vehicles turning in and out of the driveways can stay within lanes. There is a risk that a vehicle exiting the driveways may cross into oncoming traffic if insufficient driveway width is provided. Frequency: Possible Severity: Serious Risk: High	**Client acceptance** Y/N ____ **Client response:** _____ Swept paths added - see Dwg DR-19.
5	DR-09	**Driveway B – Width of Entrance** Drawing is not clear as to what *"make good existing driveway"* note entails. If it means that the existing pavement and seal is upgraded, it will potentially result in a driveway entrance width suitable for all entry and exit movements. This is contrary to the intended movements at this driveway. There is a risk that drivers may enter or exit the driveway contrary to the intended useage. Frequency: Unlikely Severity: Serious Risk: High	**Client acceptance** Y/N ____ **Client response:** _____ width maintained at 4.0m which permits single vehicle use only.
6	DR-09	**Driveway B – Signage at Entrance** The signage shown may not be visible to drivers approaching from either direction on Coolamon Scenic Drive. There is a risk that approaching drivers may attempt to enter the driveway contrary to the intended useage. Frequency: Unlikely Severity: Minor Risk: Low	**Client acceptance** Y/N ____ **Client response:** _____ NO ENTRY sign placed at entrance to the southern driveway. (after discussion with the author of this report this was deemed the most appropriate form of signage)

5. Concluding Statement

We, the audit team, declare that we are independent of the project and have appropriate experience and training.

The audit has been carried out for the sole purpose of identifying any features of the road which could compromise road safety at the site. The identified issues have been noted in this report in **Tables 4 and 5**. The accompanying 'Suggested Mitigation Measures' (**Attachment 3**) are put forward for consideration by the Client for implementation. The suggested mitigation measures indicate the nature or direction of a solution rather than precise details. Responsibility for that will rest with the Client. APP does not take any responsibility for any suggested design changes made in this report.

It should be noted that while every effort has been made to identify potential safety hazards, there is no guarantee that every deficiency has been identified.

No 'intolerable' risks were identified during the audit. As per **Table 3:**

- risks with a 'high' ranking '*should be corrected or the risk significantly reduced, even if the treatment cost is high'.*
- risks with a 'medium' ranking '*should be corrected or the risk significantly reduced, if the treatment cost is moderate, but not high*.'

It is recommended that audit findings be investigated with satisfactory corrective actions identified and implemented.

31/01/2023

Tony Cromack
AUDIT TEAM LEADER # RSA-02-0414

31/01/2023

Arthur Hyde
LEVEL 2 AUDITOR # RSA-02-1612

6. Attachments

Attachment 1	Site Photographs
Attachment 2	Tricend Design Plans
Attachment 3	Suggested Mitigation Measures

ATTACHMENT 1

Attachment 1: Site Photographs

Photo 1: Sight distance left from northern driveway (Driveway A). Note vegetation obscuring sight line

Photo 2: Sight distance left from southern driveway (Driveway B). Note vegetation obscuring sight line

Photo 3: Northbound approach to driveways (Driveway B in foreground, just beyond Lofts Rd intersection)

Photo 4: Southbound approach to driveways (Driveway A in foreground, at end of safety barrier)

ATTACHMENT 2

Attachment 2: Tricend Design Plans

DRAWING LIST

DR-01 GENERAL ARRANGEMENT
DR-02 DRIVEWAY A DETAIL PLAN
DR-03 DRIVEWAY B DETAIL PLAN
DR-04 DRIVEWAY A & B LONGITUDINAL SECTIONS
DR-05 DRIVEWAY EXTENSION PLAN
DR-06 DRIVEWAY A EXTENSION & DETAILS
DR-07 DRIVEWAY A CH87-132
DR-08 DRIVEWAY A ENTRANCE PLAN
DR-09 DRIVEWAY B ENTRANCE PLAN

BYRON SHIRE COUNCIL
Development Application
APPROVED PLAN
DA No. 10.2021.433.1
Date: 9/11/2022

PAN-108788 DRIVEWAY ASSESSMENT & DESIGNS

0 10 20 30 40 50 60 70m

linear scale 1:750

GENERAL ARRANGEMENT PLAN

LOT 51 DP 1266016
544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a			
b			
c			
d			
e			

Client: YURI
DWG no.: **DR-01**
Scale: **1:750**
Drawn: **MW**
Checked: **AK**

Signed:

TRICEND Design & Engineering

28.6.2022

A3

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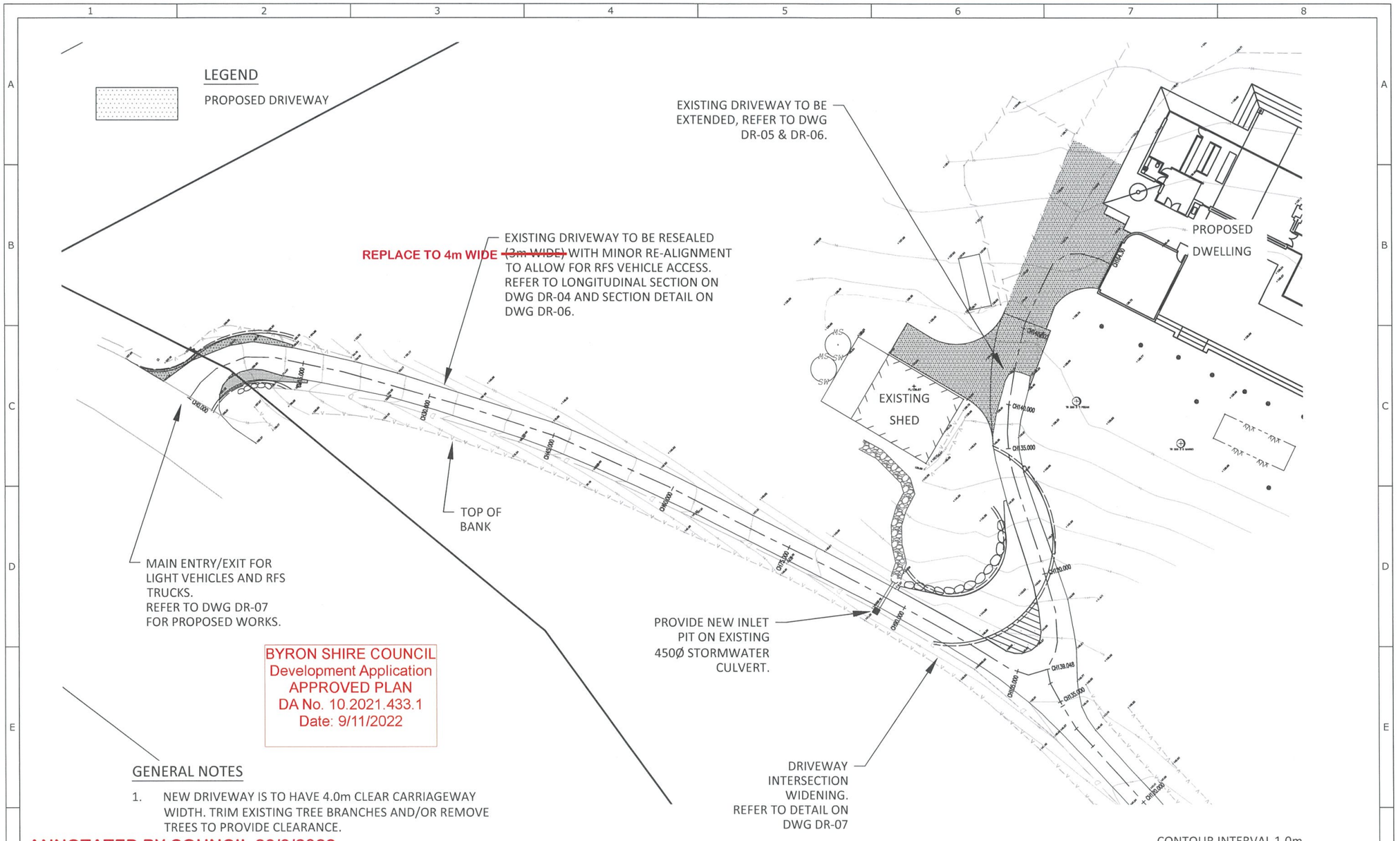
Email: info@tricend.com.au|www.tricend.com.au



PAN-108788 DRIVEWAY ASSESSMENT & DESIGNS

0 10 20 30 40m

linear scale 1:400

DRIVEWAY A PLAN

LOT 51 DP 1266016
544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482

Revisions			
rev	zone	description	date
a			
b			
c			
d			
e			

Client: YURI
DWG no.: **DR-02**
Scale: **1:400**
Drawn: **MW**
Checked: **AK**

Signed:

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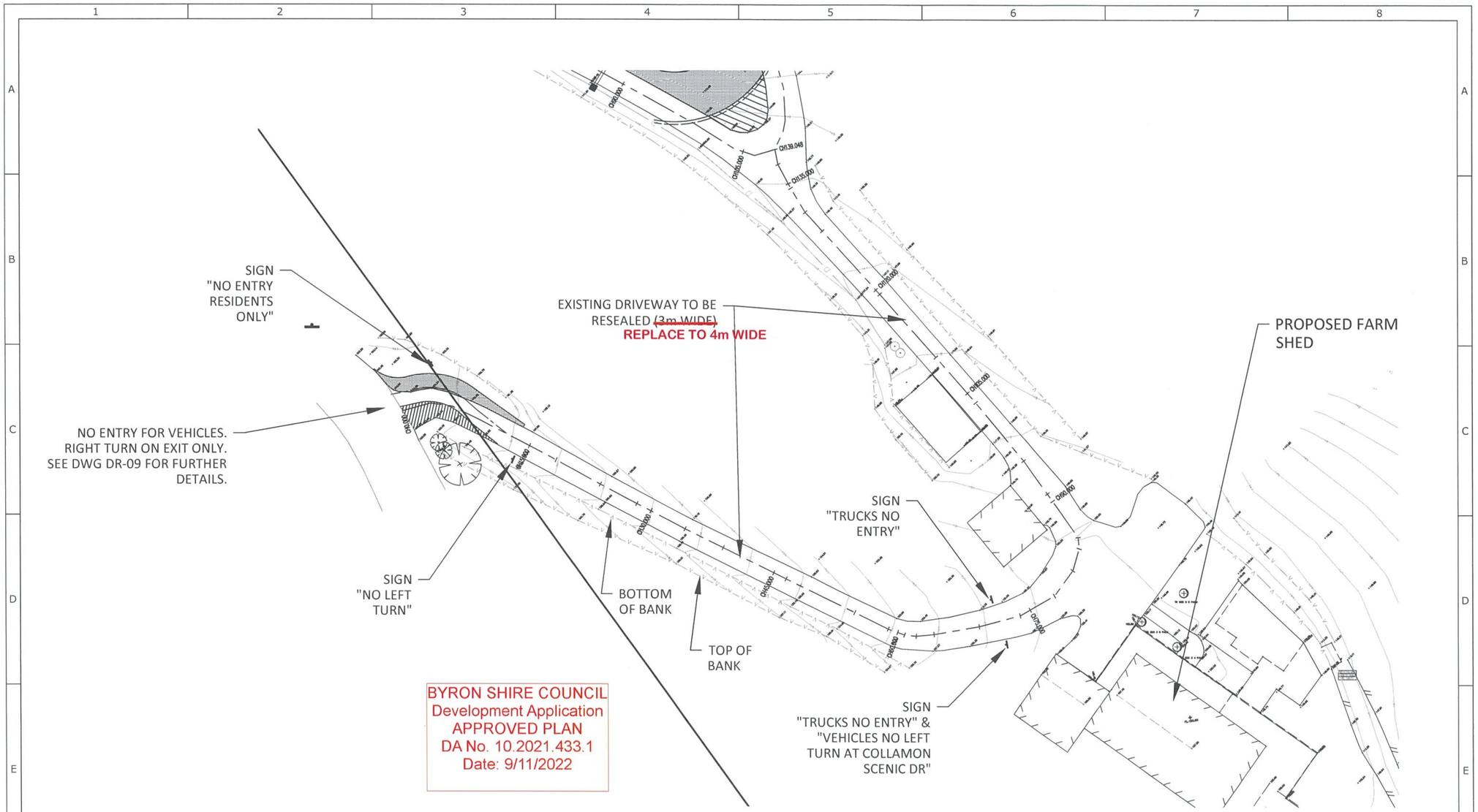

ANNOTATED BY COUNCIL 23/9/2022

CONTOUR INTERVAL 1.0m

PAN-108788 DRIVEWAY ASSESSMENT & DESIGNS

0 10 20 30 40m

linear scale 1:400

DRIVEWAY B PLAN

LOT 51 DP 1266016
544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482

Revisions			
rev	zone	description	date
a			
b			
c			
d			
e			

Client: YURI
DWG no.: **DR-03**
Scale: **1:400**
Drawn: **MW**
Checked: **AK**

Signed:

TRICEND Design & Engineering

28.6.2022

A3

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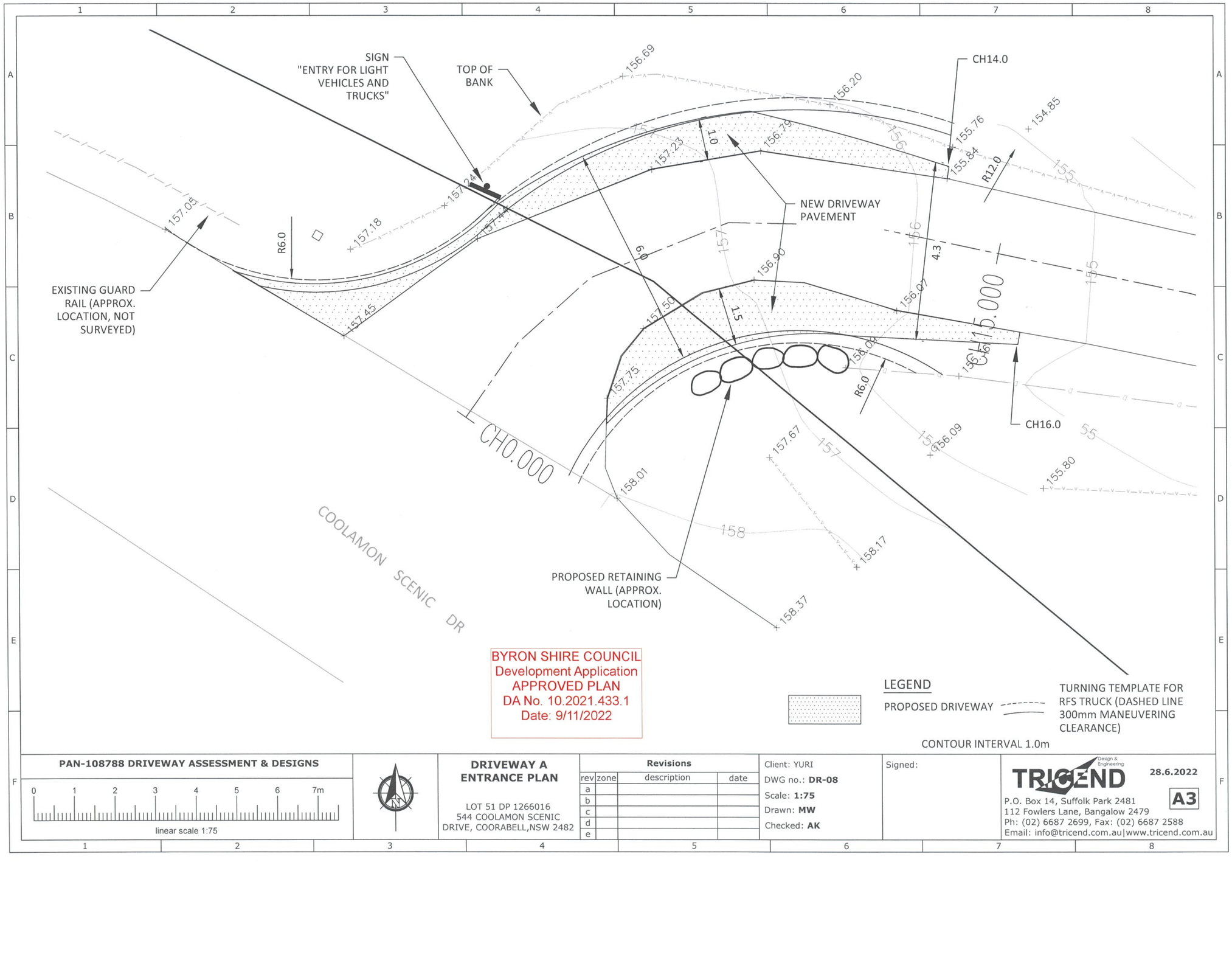

BYRON SHIRE COUNCIL
Development Application
APPROVED PLAN
DA No. 10.2021.433.1
Date: 9/11/2022

PAN-108788 DRIVEWAY ASSESSMENT & DESIGNS

0 1 2 3 4 5 6 7m

linear scale 1:75

DRIVEWAY A ENTRANCE PLAN

LOT 51 DP 1266016
544 COOLAMON SCENIC
DRIVE, COORABELL,NSW 2482

Revisions			
rev	zone	description	date
a			
b			
c			
d			
e			

Client: YURI
DWG no.: **DR-08**
Scale: **1:75**
Drawn: **MW**
Checked: **AK**

Signed:

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112 Fowlers Lane, Bangalow 2479
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28.6.2022

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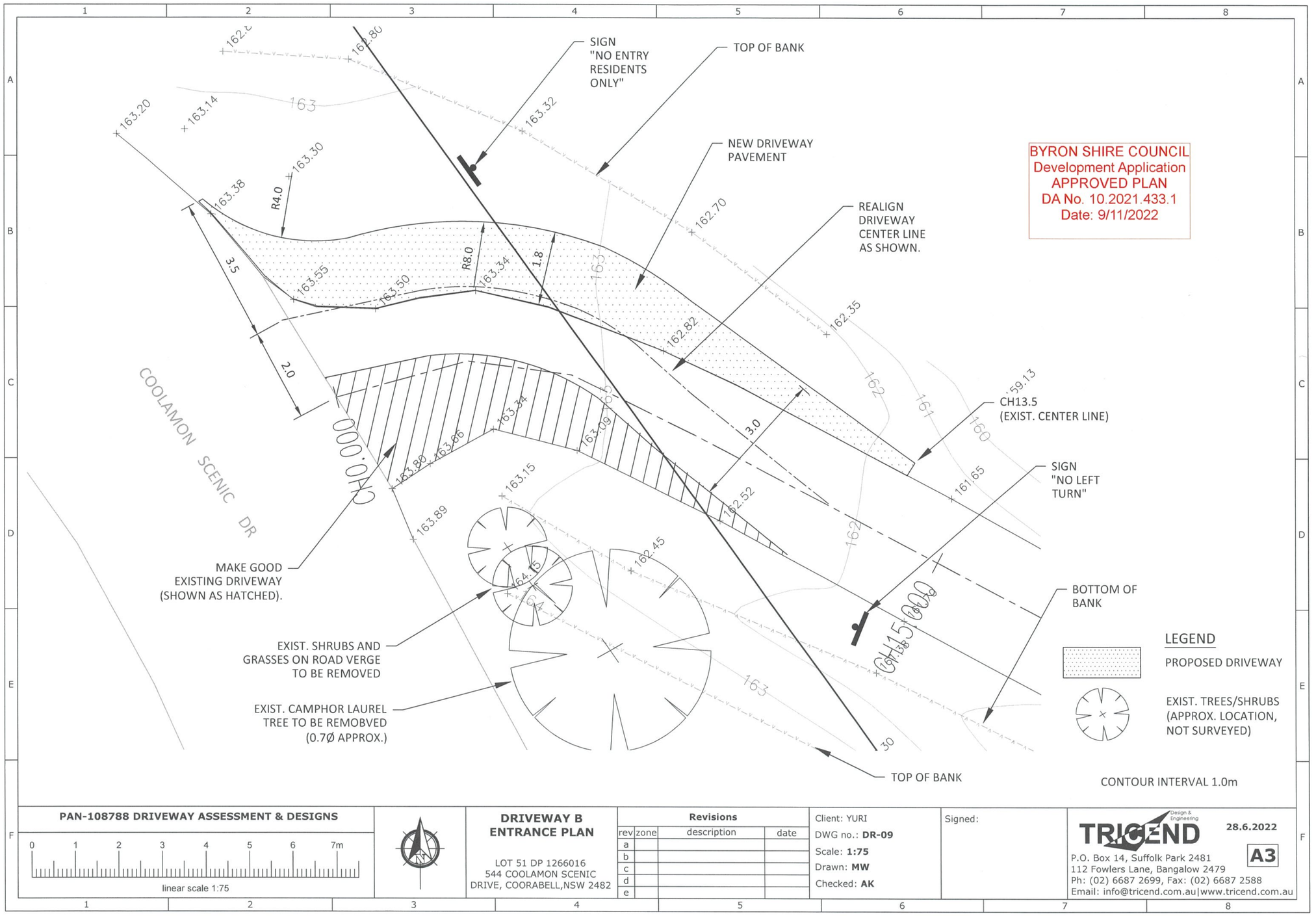


PAN-108788 DRIVEWAY ASSESSMENT & DESIGNS 0 1 2 3 4 5 6 7m linear scale 1:75		**DRIVEWAY B ENTRANCE PLAN** LOT 51 DP 1266016 544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482	**Revisions** rev zone description date a b c d e	Client: YURI DWG no.: **DR-09** Scale: **1:75** Drawn: **MW** Checked: **AK**	Signed:	TRICEND Design & Engineering 28.6.2022 A3 P.O. Box 14, Suffolk Park 2481 112 Fowlers Lane, Bangalow 2479 Ph: (02) 6687 2699, Fax: (02) 6687 2588 Email: info@tricend.com.au|www.tricend.com.au

ATTACHMENT 3

Attachment 3: Suggested Mitigation Measures

Suggested Mitigation Measures

Following is a list of suggested mitigation measures which may be of some use to the Client. It should be noted that while every effort has been made to identify potential safety hazards, there is no guarantee that every safety hazard has been identified, therefore the list of suggested mitigation measures may not be exhaustive.

The suggested mitigation measures indicate the nature or direction of a solution rather than precise details. Responsibility for that will rest with the Client.

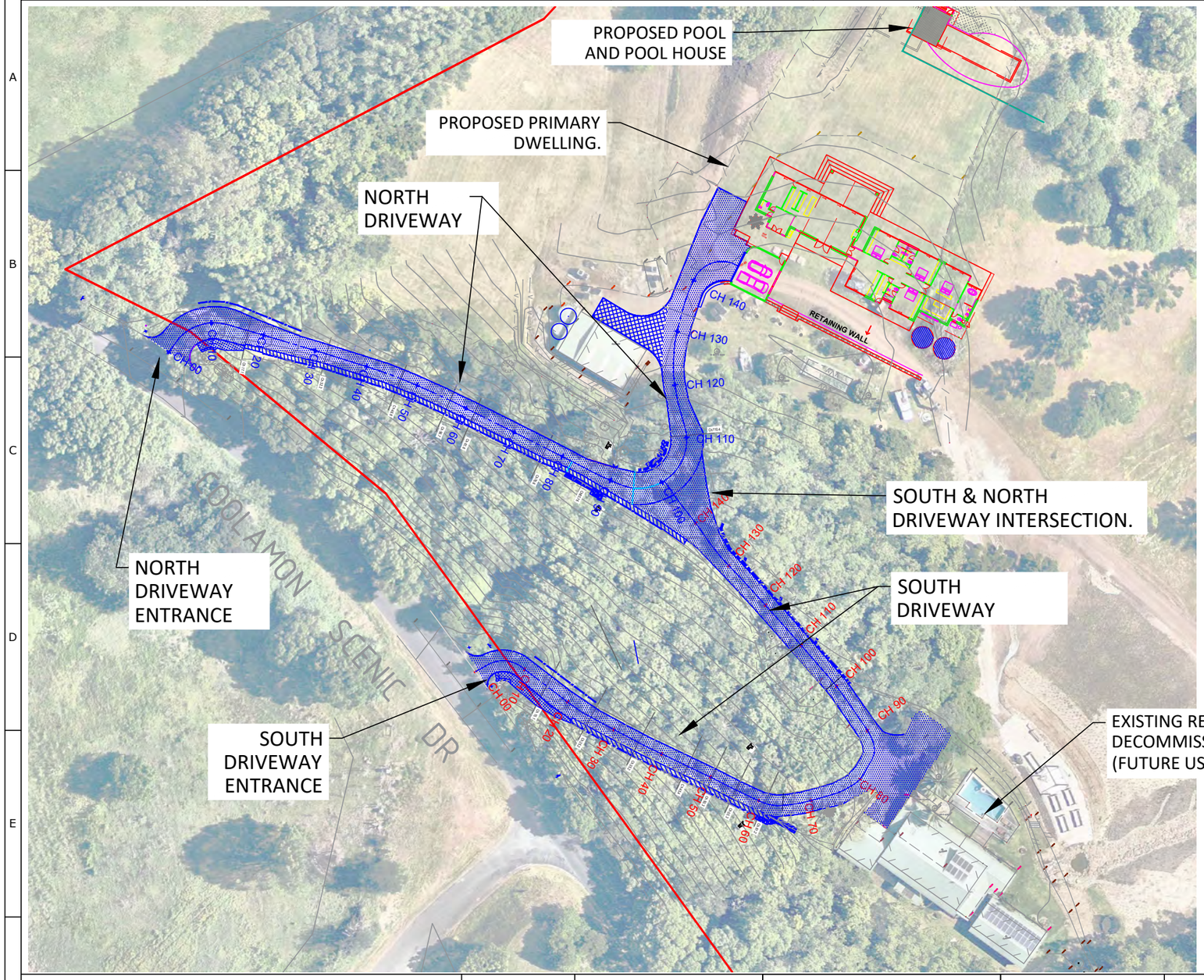
The suggested mitigation measures do not take into consideration future project budgets, community objectives, project constraints, political agendas, or possible competing interests from other project needs (e.g., landscaping, utilities, etc.).

Suggested mitigation measures based on field audit of existing road (from Table 4):

- Widen driveway entries (achieved in design).
- In widening the entries, make some provision to square up the angle of the driveway (achieved in design).
- Cut back roadside vegetation to improve sight distances at the driveways, particularly on the southern side of each driveway (achieved in design – will require regular maintenance).
- Consider installing 'Concealed Driveway' signage in the approaches to the driveways.
- Consider providing a reflectorised guide post each side of each driveway to improve visibility of the driveway location, particularly at night.

Suggested mitigation measures based on desktop audit of detail design (from Table 5):

- Consider making Driveway B a one-way exit only driveway for all vehicles (retain proposed 'No Left Turn' at exit). This would make signage and on-site management of vehicle movements simpler. It would also reduce the amount of widening needed at its junction with Coolamon Scenic Drive.
- Widen the pavement return Driveway A (southern side) to provide improved left turn out movements.
- Consider adding a short painted centre line to Driveway A to provide improved separation of entering and exiting vehicles.
- Provide swept path diagrams for both driveway entrances to demonstrate that vehicles can turn in and out of the driveways and stay within traffic lanes.
- If vehicle directions for Driveway B stay as detailed on Tricend drawings, clarify pavement widths required for these movements. The pavement area as shown on the drawings will potentially result in a driveway entrance width suitable for all entry and exit movements. This is contrary to the intended movements at this driveway.
- Relocate proposed signage at Driveway B entrance to make it more visible to drivers approaching from either direction on Coolamon Scenic Drive.



DRAWING LIST

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

0 10 20 30 40 50 60 70m

linear scale 1:750

DRIVEWAY PLANS GENERAL ARRANGEMENT

LOT 51 DP 1266016
544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a		chainages & ctr line amended	7/6/2023
		drawing 14A added	
b		chainages & ctr line amended	19/6/23

Client: YURY
DWG no.: **DR-01**
Scale: **1:750**
Drawn: **MW**
Checked: **AK**

Signed:

ALAN KENNEDY
B.E. (Civil) IE Aust No. 232362

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19.6.2023

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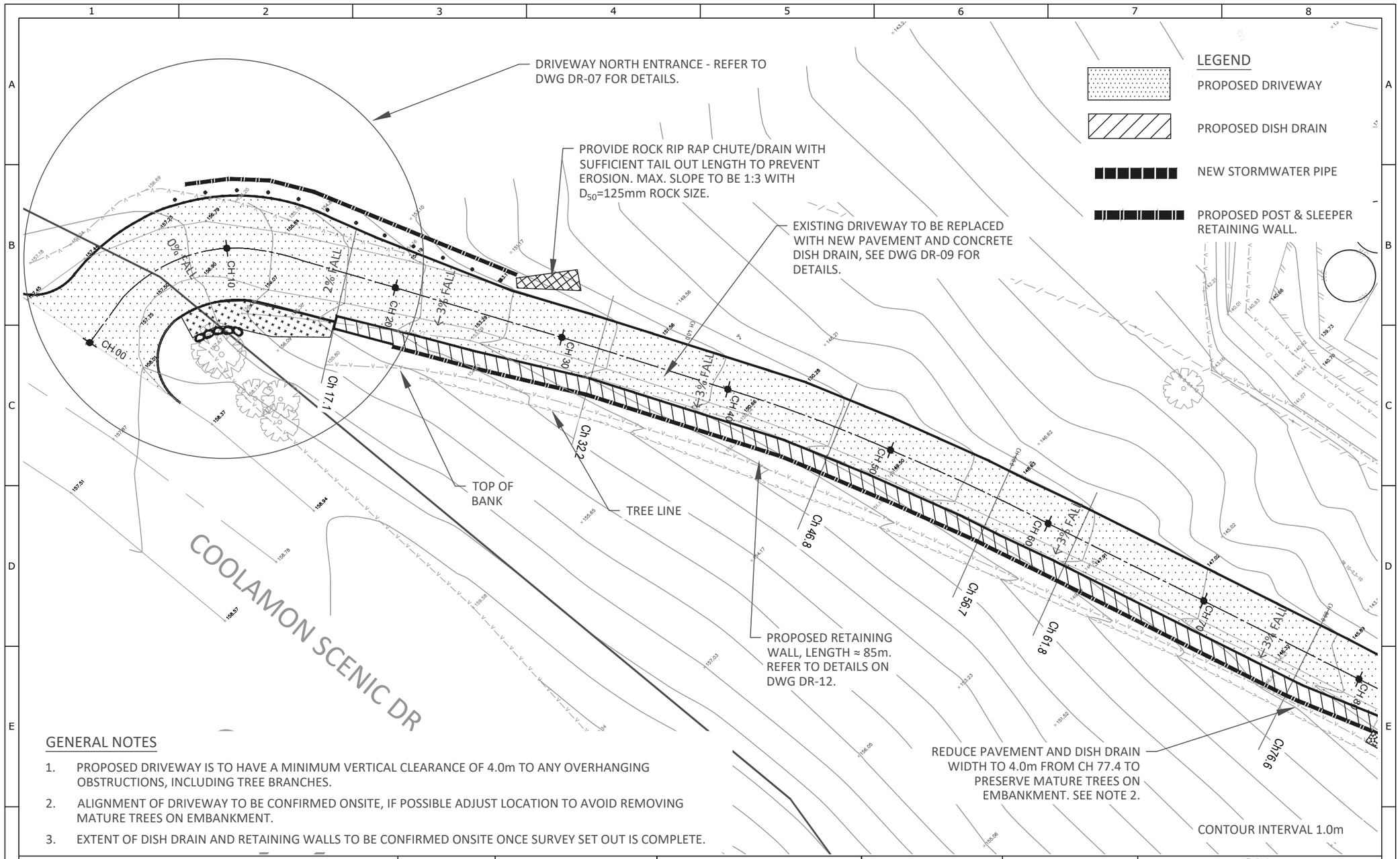

GENERAL NOTES

1. PROPOSED DRIVEWAY IS TO HAVE A MINIMUM VERTICAL CLEARANCE OF 4.0m TO ANY OVERHANGING OBSTRUCTIONS, INCLUDING TREE BRANCHES.
2. ALIGNMENT OF DRIVEWAY TO BE CONFIRMED ONSITE, IF POSSIBLE ADJUST LOCATION TO AVOID REMOVING MATURE TREES ON EMBANKMENT.
3. EXTENT OF DISH DRAIN AND RETAINING WALLS TO BE CONFIRMED ONSITE ONCE SURVEY SET OUT IS COMPLETE.

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

0 10 20 30 40m

linear scale 1:400

DRIVEWAY NORTH PLAN SHT 1 OF 3

LOT 51 DP 1266016
544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482

Revisions			
rev	zone	description	date
a		chainages & ctr line amended	7/6/23
b		chainages & ctr line amend, rd moved 0.5m	19/6/23

Client: YURY
DWG no.: **DR-02**
Scale: **1:400**
Drawn: **MW**
Checked: **AK**

Signed:

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19.6.2023

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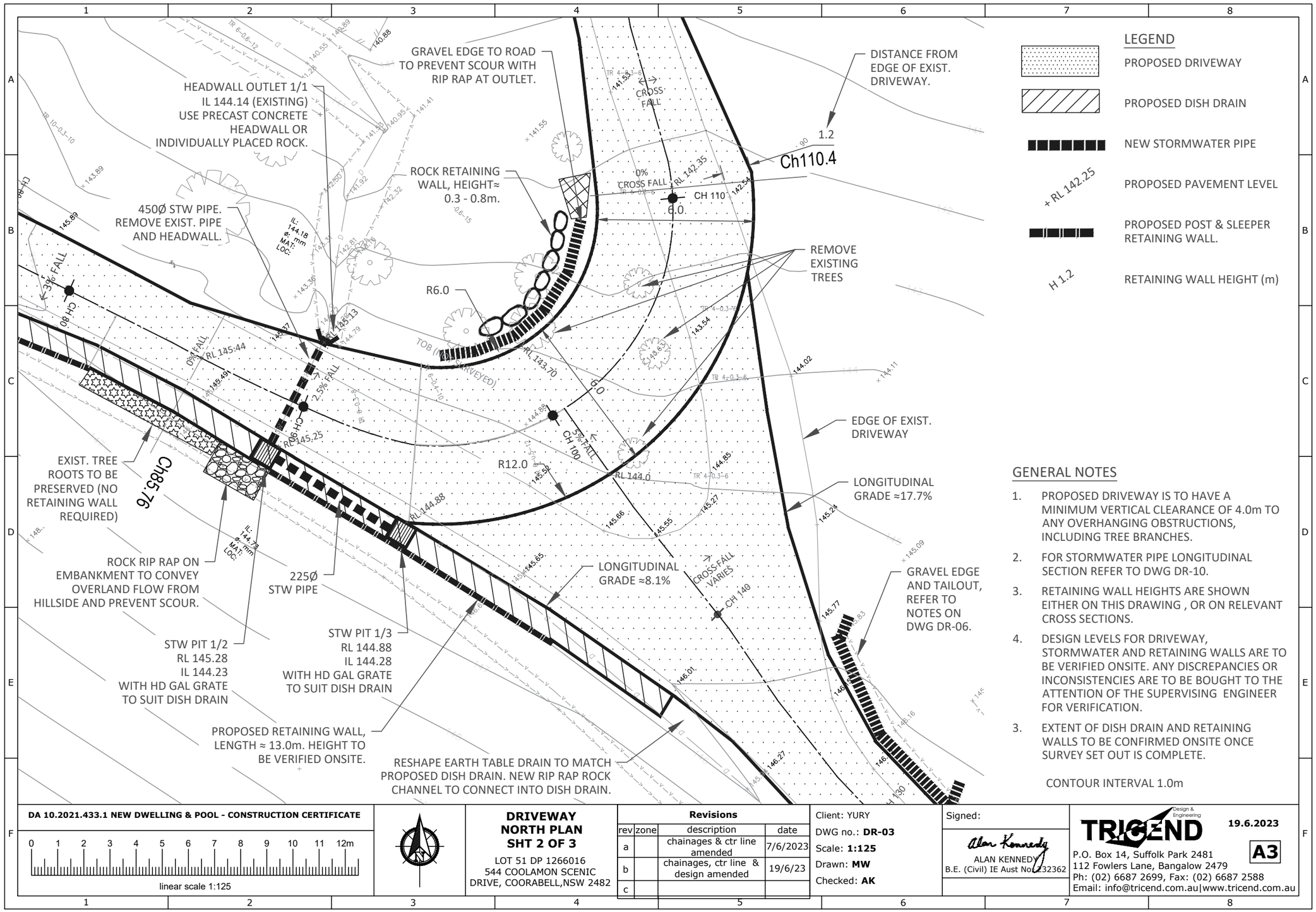

GENERAL NOTES

1. PROPOSED DRIVEWAY IS TO HAVE A MINIMUM VERTICAL CLEARANCE OF 4.0m TO ANY OVERHANGING OBSTRUCTIONS, INCLUDING TREE BRANCHES.
2. FOR STORMWATER PIPE LONGITUDINAL SECTION REFER TO DWG DR-10.
3. RETAINING WALL HEIGHTS ARE SHOWN EITHER ON THIS DRAWING , OR ON RELEVANT CROSS SECTIONS.
4. DESIGN LEVELS FOR DRIVEWAY, STORMWATER AND RETAINING WALLS ARE TO BE VERIFIED ONSITE. ANY DISCREPANCIES OR INCONSISTENCIES ARE TO BE BOUGHT TO THE ATTENTION OF THE SUPERVISING ENGINEER FOR VERIFICATION.
3. EXTENT OF DISH DRAIN AND RETAINING WALLS TO BE CONFIRMED ONSITE ONCE SURVEY SET OUT IS COMPLETE.

CONTOUR INTERVAL 1.0m

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

0 1 2 3 4 5 6 7 8 9 10 11 12m

linear scale 1:125

DRIVEWAY NORTH PLAN SHT 2 OF 3

LOT 51 DP 1266016
544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a		chainages & ctr line amended	7/6/2023
b		chainages, ctr line & design amended	19/6/23
c			

Client: YURY
DWG no.: **DR-03**
Scale: **1:125**
Drawn: **MW**
Checked: **AK**

Signed:

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B.E. (Civil) IE Aust No. 232362

TRICEND Design & Engineering

19.6.2023

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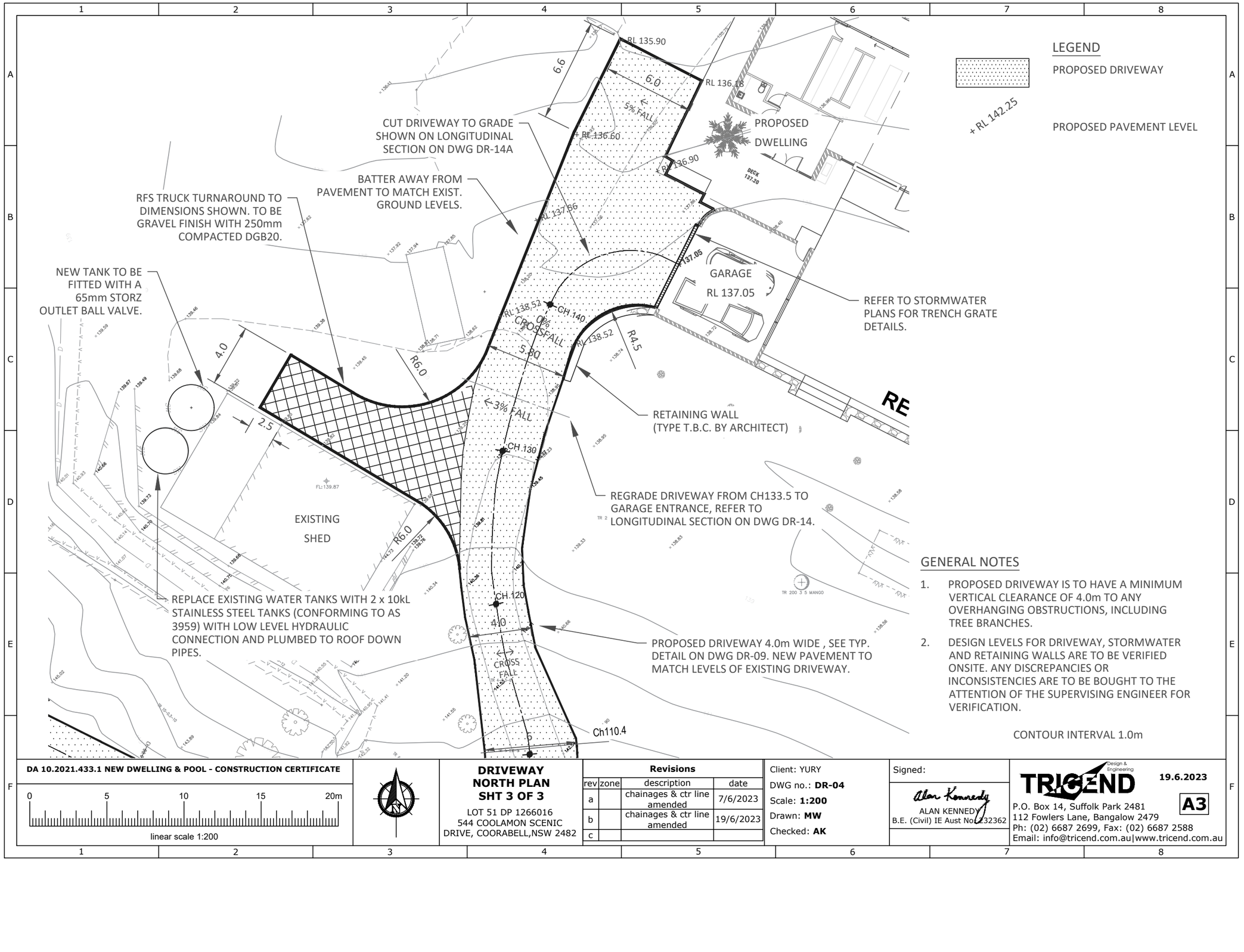

GENERAL NOTES

1. PROPOSED DRIVEWAY IS TO HAVE A MINIMUM VERTICAL CLEARANCE OF 4.0m TO ANY OVERHANGING OBSTRUCTIONS, INCLUDING TREE BRANCHES.
2. DESIGN LEVELS FOR DRIVEWAY, STORMWATER AND RETAINING WALLS ARE TO BE VERIFIED ONSITE. ANY DISCREPANCIES OR INCONSISTENCIES ARE TO BE BOUGHT TO THE ATTENTION OF THE SUPERVISING ENGINEER FOR VERIFICATION.

CONTOUR INTERVAL 1.0m

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

0 5 10 15 20m

linear scale 1:200

DRIVEWAY NORTH PLAN SHT 3 OF 3

LOT 51 DP 1266016
544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a		chainages & ctr line amended	7/6/2023
b		chainages & ctr line amended	19/6/2023
c			

Client: YURY
DWG no.: **DR-04**
Scale: **1:200**
Drawn: **MW**
Checked: **AK**

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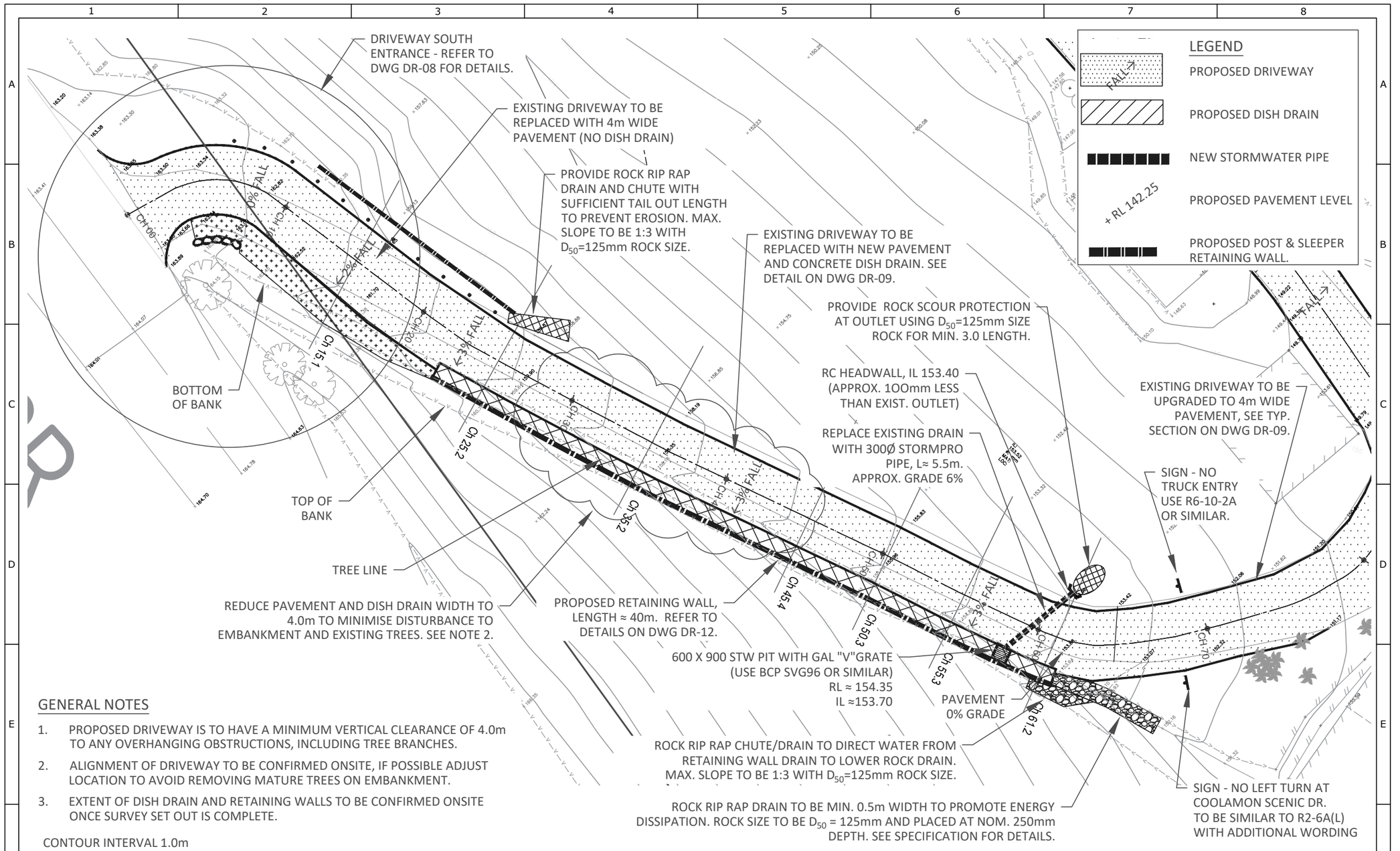
19.6.2023

A3



GENERAL NOTES

1. PROPOSED DRIVEWAY IS TO HAVE A MINIMUM VERTICAL CLEARANCE OF 4.0m TO ANY OVERHANGING OBSTRUCTIONS, INCLUDING TREE BRANCHES.
2. ALIGNMENT OF DRIVEWAY TO BE CONFIRMED ONSITE, IF POSSIBLE ADJUST LOCATION TO AVOID REMOVING MATURE TREES ON EMBANKMENT.
3. EXTENT OF DISH DRAIN AND RETAINING WALLS TO BE CONFIRMED ONSITE ONCE SURVEY SET OUT IS COMPLETE.

CONTOUR INTERVAL 1.0m

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

0 5 10 15 20m

linear scale 1:200

DRIVEWAY SOUTH PLAN SHT 1 OF 2

LOT 51 DP 1266016
544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a		chainages & ctr line amended	7/6/2023
b			
c			

Client: YURY
DWG no.: **DR-05**
Scale: **1:200**
Drawn: **MW**
Checked: **AK**

Signed:

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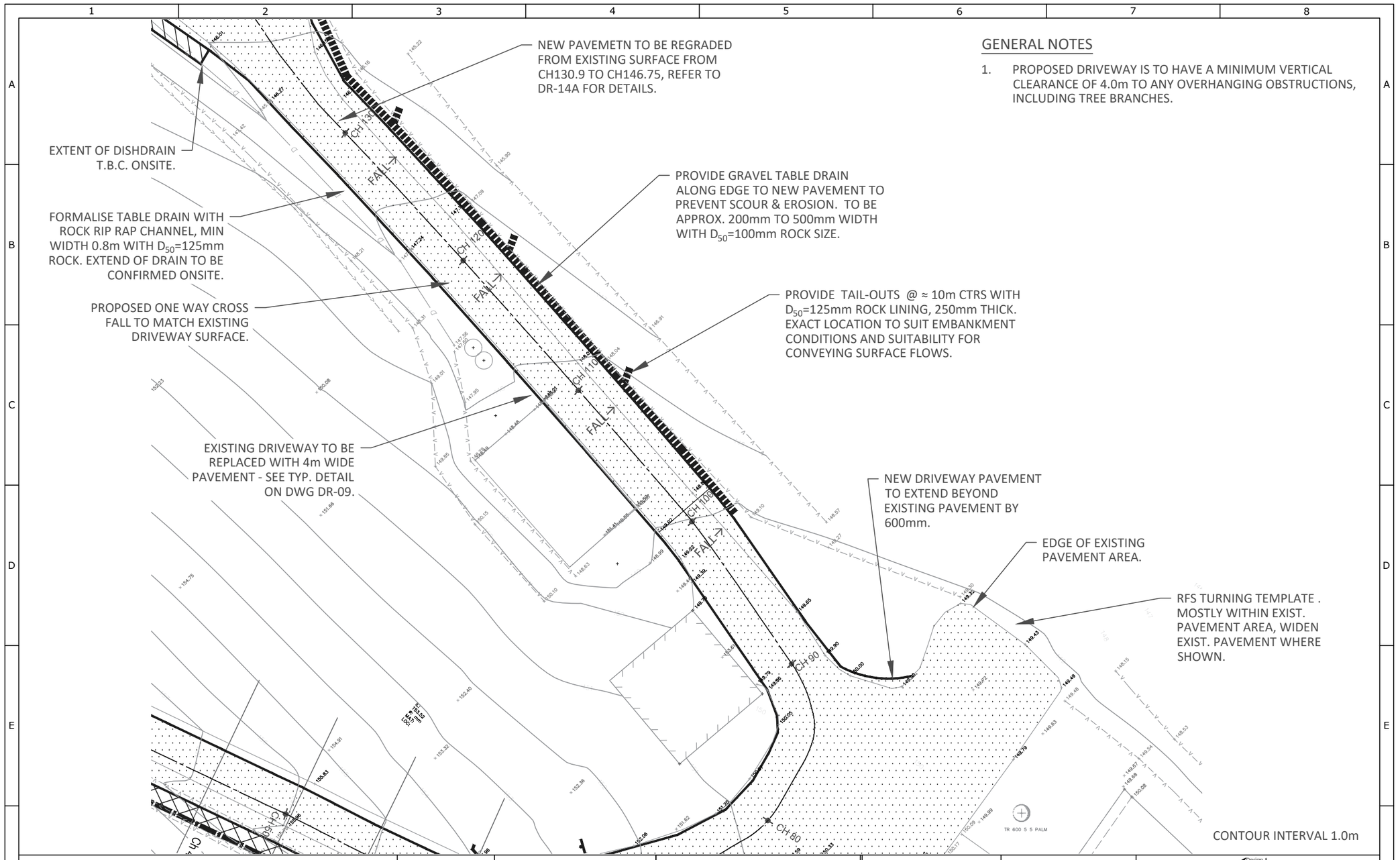
19.6.2023

A3



GENERAL NOTES

1. PROPOSED DRIVEWAY IS TO HAVE A MINIMUM VERTICAL CLEARANCE OF 4.0m TO ANY OVERHANGING OBSTRUCTIONS, INCLUDING TREE BRANCHES.

CONTOUR INTERVAL 1.0m

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

0 5 10 15 20m

linear scale 1:200

DRIVEWAY SOUTH SHT 2 OF 2

LOT 51 DP 1266016
544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a		chainages & ctr line amended	7/6/2023
b		chainages & ctr line amended	19/6/2023
c			

Client: YURY
DWG no.: **DR-06**
Scale: **1:200**
Drawn: **MW**
Checked: **AK**

Signed:

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B.E. (Civil) IE Aust No. 232362

TRICEND Design & Engineering

19.6.2023

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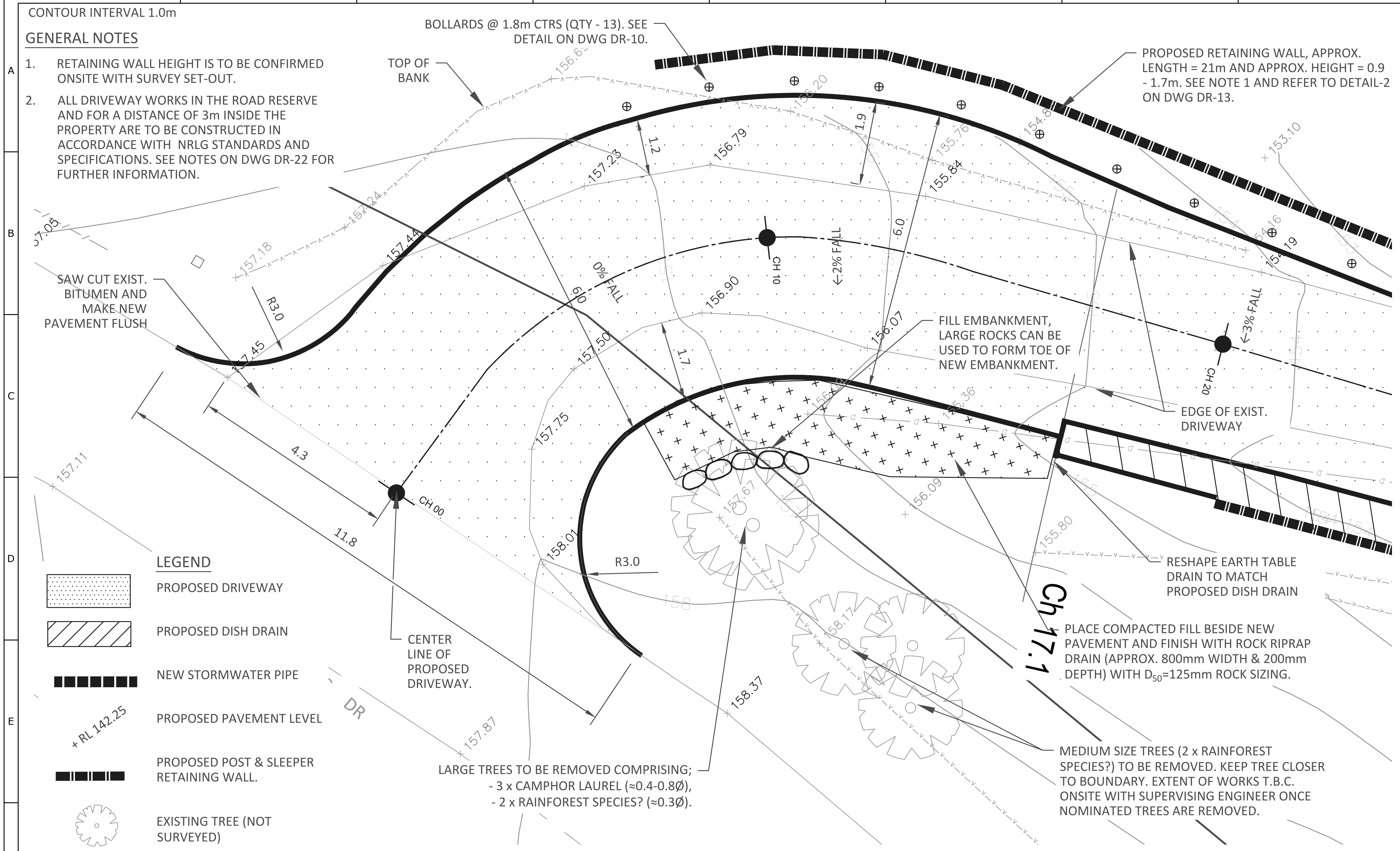
CONTOUR INTERVAL 1.0m
GENERAL NOTES
1. RETAINING WALL HEIGHT IS TO BE CONFIRMED ONSITE WITH SURVEY SET-OUT.
2. ALL DRIVEWAY WORKS IN THE ROAD RESERVE AND FOR A DISTANCE OF 3m INSIDE THE PROPERTY ARE TO BE CONSTRUCTED IN ACCORDANCE WITH NRLG STANDARDS AND SPECIFICATIONS. SEE NOTES ON DWG DR-22 FOR FURTHER INFORMATION.
BOLLARDS @ 1.8m CTRS (QTY - 13). SEE DETAIL ON DWG DR-10.
TOP OF BANK
PROPOSED RETAINING WALL, APPROX. LENGTH = 21m AND APPROX. HEIGHT = 0.9 - 1.7m. SEE NOTE 1 AND REFER TO DETAIL-2 ON DWG DR-13.
SAW CUT EXIST. BITUMEN AND MAKE NEW PAVEMENT FLUSH
FILL EMBANKMENT, LARGE ROCKS CAN BE USED TO FORM TOE OF NEW EMBANKMENT.
EDGE OF EXIST. DRIVEWAY
RESHAPE EARTH TABLE DRAIN TO MATCH PROPOSED DISH DRAIN
PLACE COMPACTED FILL BESIDE NEW PAVEMENT AND FINISH WITH ROCK RIPRAP DRAIN (APPROX. 800mm WIDTH & 200mm DEPTH) WITH D_{50}=125mm ROCK SIZING.
CENTER LINE OF PROPOSED DRIVEWAY.
LARGE TREES TO BE REMOVED COMPRISING;
- 3 x CAMPHOR LAUREL (≈0.4-0.8Ø),
- 2 x RAINFOREST SPECIES? (≈0.3Ø).
MEDIUM SIZE TREES (2 x RAINFOREST SPECIES?) TO BE REMOVED. KEEP TREE CLOSER TO BOUNDARY. EXTENT OF WORKS T.B.C. ONSITE WITH SUPERVISING ENGINEER ONCE NOMINATED TREES ARE REMOVED.
CH 00
CH 10
CH 20
Ch 17.1
0% FALL
←2% FALL
←3% FALL
R3.0
R3.0
4.3
11.8
6.0
6.0
1.2
1.9
1.7
157.45
157.44
157.23
156.79
156.20
155.76
155.84
154.8
153.10
154.16
154.19
157.18
157.24
157.05
156.90
156.07
157.50
157.75
158.01
158.37
157.87
157.11
157.67
158.17
156.09
155.36
155.80
DR
LEGEND
PROPOSED DRIVEWAY
PROPOSED DISH DRAIN
NEW STORMWATER PIPE
+ RL 142.25
PROPOSED PAVEMENT LEVEL
PROPOSED POST & SLEEPER RETAINING WALL.
EXISTING TREE (NOT SURVEYED)

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

0 1 2 3 4 5 6 7m
linear scale 1:75

DRIVEWAY NORTH ENTRANCE PLAN

LOT 51 DP 1266016
544 COOLAMON SCENIC
DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a		chainages & ctr line amended	7/6/2023
b		chainages & ctr line amended	19/6/2023
c			
d			

Client: YURY
DWG no.: **DR-07**
Scale: **1:75**
Drawn: **MW**
Checked: **AK**

Signed:
Alan Kennedy
ALAN KENNEDY
B.E. (Civil) IE Aust No. 232362

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19.6.2023

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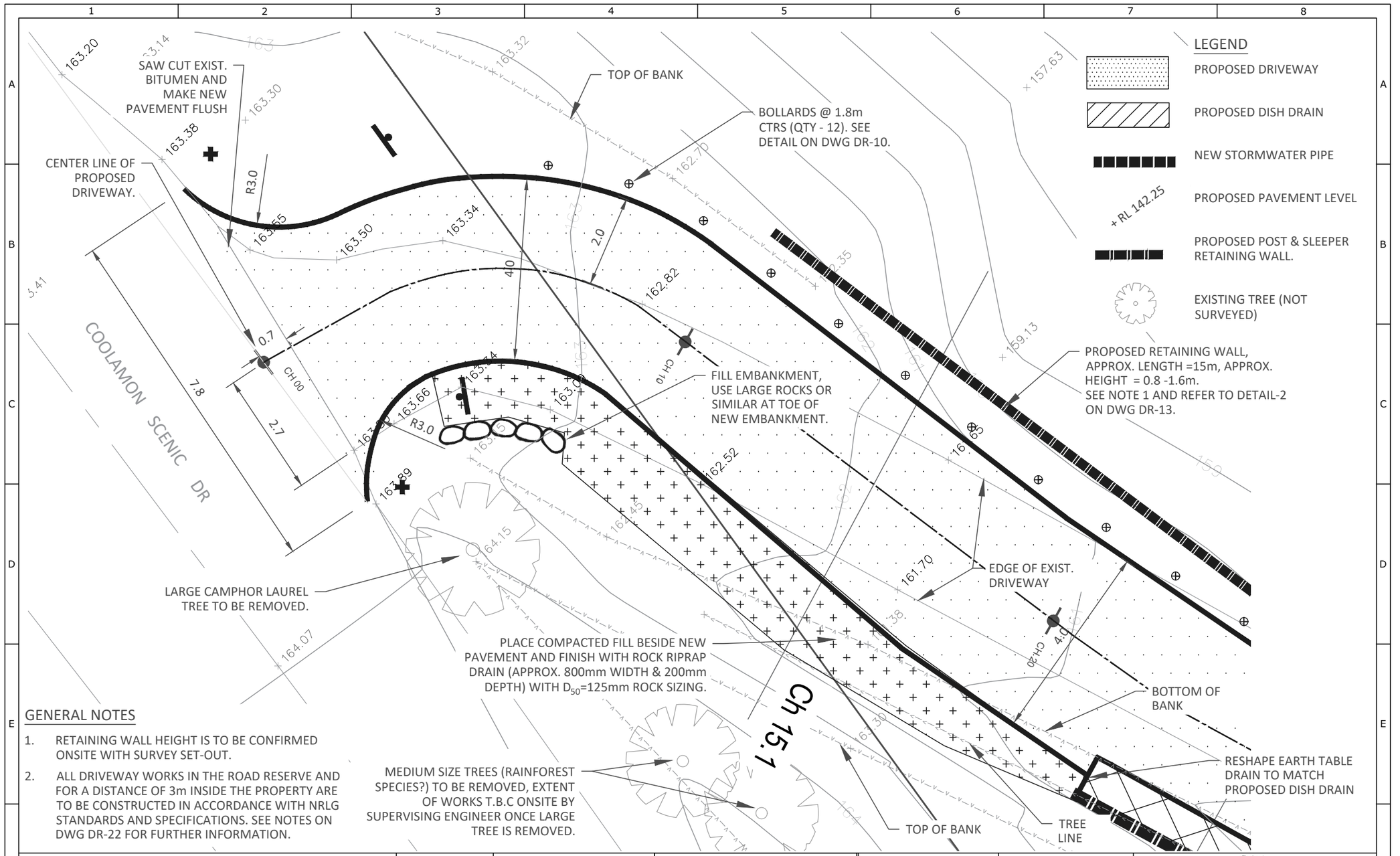

GENERAL NOTES

1. RETAINING WALL HEIGHT IS TO BE CONFIRMED ONSITE WITH SURVEY SET-OUT.
2. ALL DRIVEWAY WORKS IN THE ROAD RESERVE AND FOR A DISTANCE OF 3m INSIDE THE PROPERTY ARE TO BE CONSTRUCTED IN ACCORDANCE WITH NRLG STANDARDS AND SPECIFICATIONS. SEE NOTES ON DWG DR-22 FOR FURTHER INFORMATION.

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

0 1 2 3 4 5 6 7m

linear scale 1:75

DRIVEWAY SOUTH ENTRANCE PLAN

LOT 51 DP 1266016
544 COOLAMON SCENIC
DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a		chainages & ctr line amended	7/6/2023
b		chainages & ctr line amended	19/6/2023
c			

Client: YURY
DWG no.: **DR-08**
Scale: **1:75**
Drawn: **MW**
Checked: **AK**

Signed:

ALAN KENNEDY
B.E. (Civil) IE Aust No. 232362

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19.6.2023

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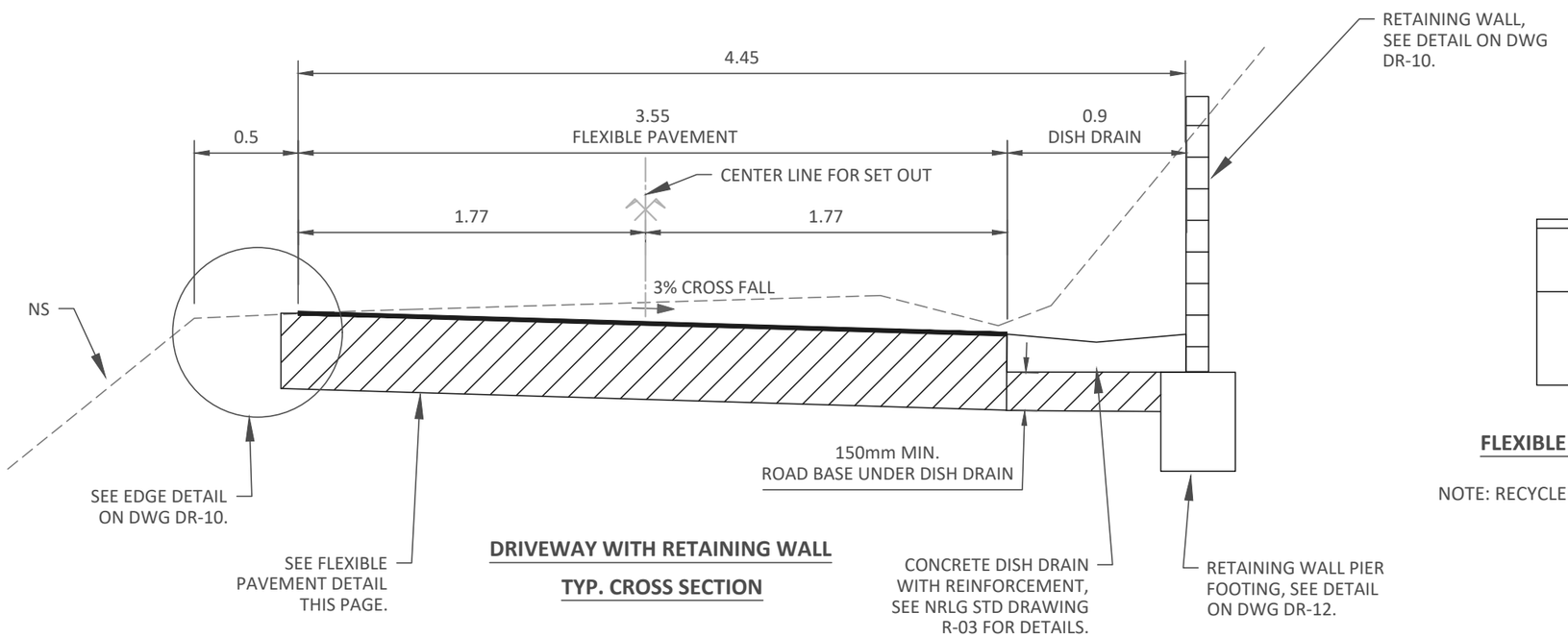
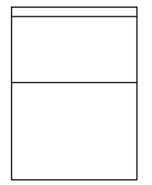


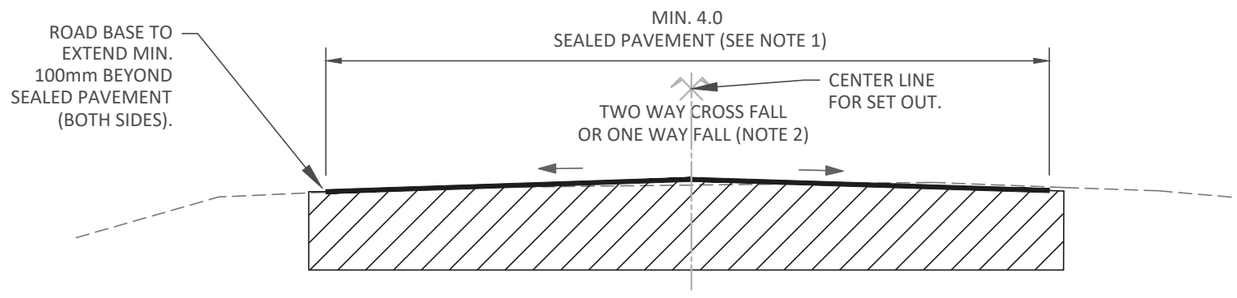
DRIVEWAY WITH RETAINING WALL

TYP. CROSS SECTION



FLEXIBLE PAVEMENT DETAIL

NOTE: RECYCLED ROADBASE IS ACCEPTABLE



DRIVEWAY - TYP. CROSS SECTION

LEGEND

NATURAL SURFACE (APPROX.)

NEW PAVEMENT (SEE DETAIL THIS PAGE)

GENERAL NOTES

1. SEALED PAVEMENT TO BE MIN. 4.0m WIDE, OR WIDER WHERE SHOWN ON THE PLANS.
2. DRIVEWAY CROSS FALLS ARE INDICATED ON PLANS AS A GUIDE. CONTRACTOR TO VERIFY IF EITHER TWO WAY OR ONE-WAY CROSS FALL DEPENDING ON LOCATION AND EXISTING DRAINAGE FEATURES.

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

DRIVEWAY TYP. SECTION & DETAILS SHT 1 OF 2

LOT 51 DP 1266016
544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a	3	ctr line added	7/6/2023
b			
c			
d			
e			

Client: YURY
DWG no.: **DR-09**
Scale: **NTS**
Drawn: **MW**
Checked: **AK**

Signed:

ALAN KENNEDY
B.E. (Civil) IE Aust No. 232362

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19.6.2023

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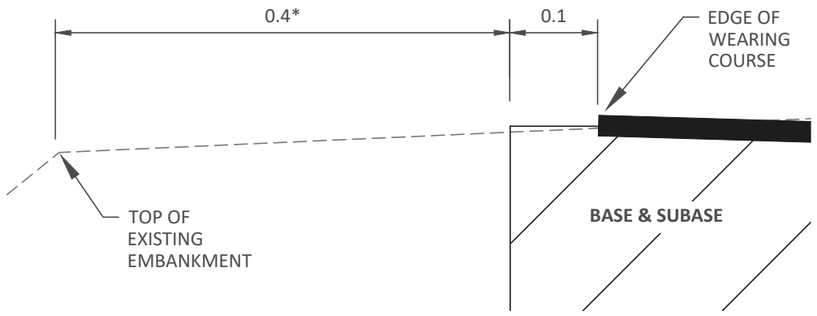
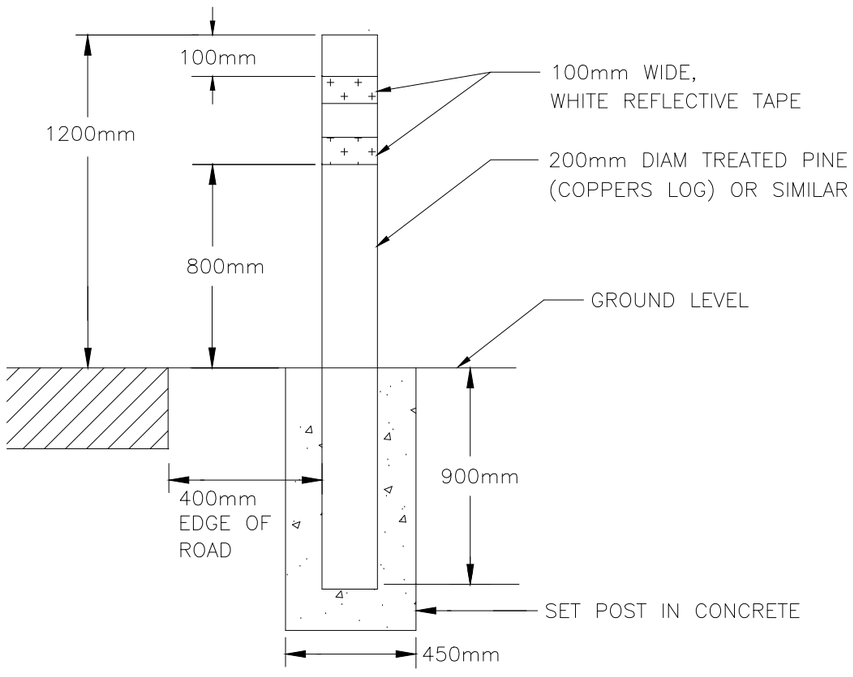
* THIS CAN BE LESS DEPENDING ON CONDITION OF EXISTING EMBANKMENT EDGE. TO BE VERIFIED ONSITE.

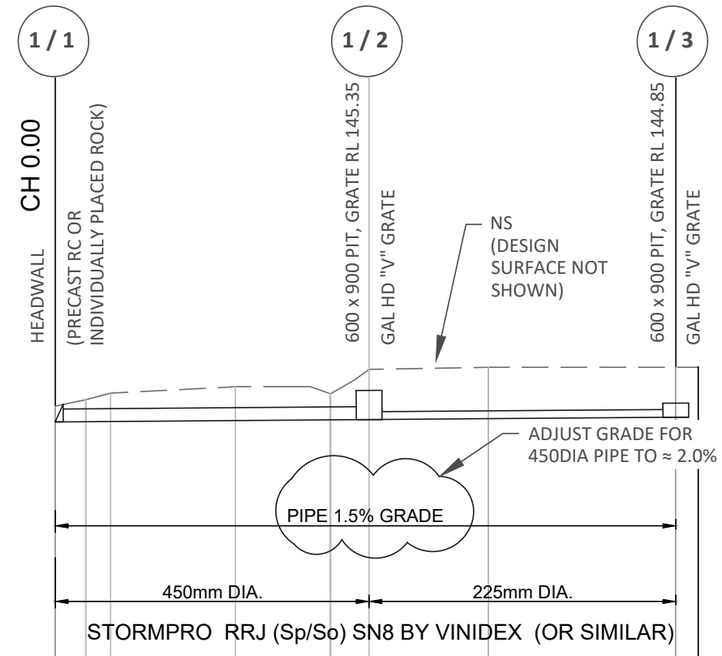


DRIVEWAY SETOUT & PAVEMENT EDGE DETAIL (SEE DWG DR-02 & 05)

N.T.S.



BOLLARD DETAIL N.T.S.



DATUM : 134

DIFFERENCE	+0.61					+1.94	+1.99	+1.97	
DESIGN INVERT	144.14					144.23	144.26	144.28	
EXISTING GL	144.75	145	145.25	145.5	145.23	146.17	146.25	146.25	146.25
CHAINAGE	0	0.59	1.07	3.48	5.32	6.06	8.37	11.98	12.42

STORMWATER LONGITUDINAL SECTION

SCALE: H 1:100, V: 1:200

NOTE: ADJUST PIPE GRADE FOR REVISED STORMWATER DESIGN SHOWN ON DWG DR-03. KEEP PIPE INVERT LEVELS AS SHOWN ABOVE

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

0 1 2 3 4 5 6 7 8 9 10m

linear scale 1:100

DRIVEWAY DETAILS SHT 2 OF 2.

LOT 51 DP 1266016
544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482

Revisions			
rev	zone	description	date
a	5-7	notes add for stw longsection	19/6/23
b			
c			
d			

Client: YURY
DWG no.: **DR-10**
Scale: **SEE DWG**
Drawn: **MW**
Checked: **AK**

Signed:

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19.6.2023

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NOT USED

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

DRIVEWAY LONG SECTION IN/OUTER EDGE

LOT 51 DP 1266016
544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a	e:7	note added	7/6/23
b		designs superceded	19/6/23
c			
d			
e			

Client: YURY
DWG no.: **DR-11**
Scale: **AS SHOWN**
Drawn: **MW**
Checked: **AK**

Signed:

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19.6.2023

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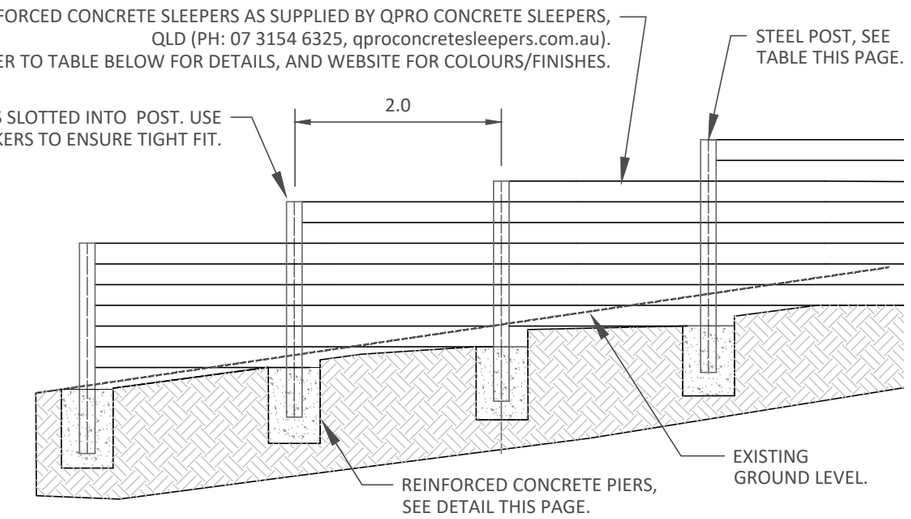
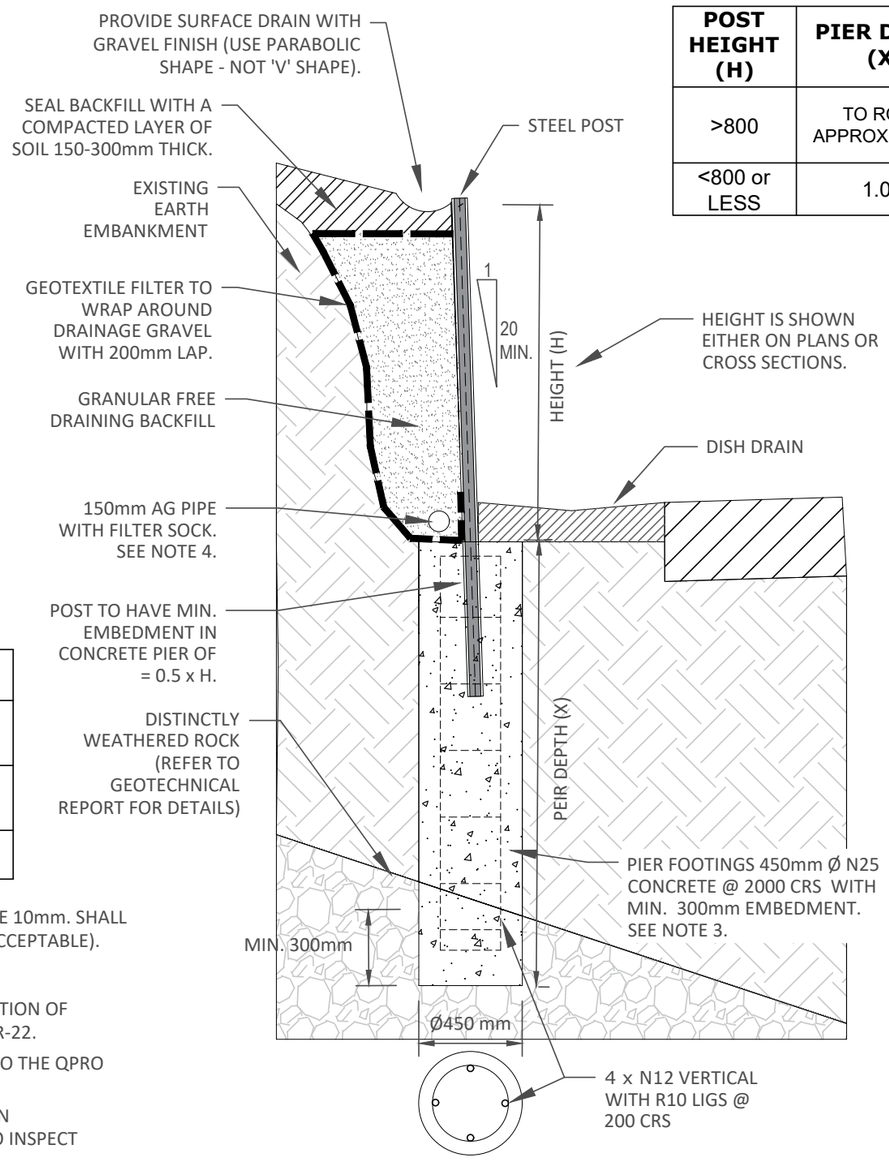


TYPICAL SECTION OF POST AND SLEEPER RETAINING WALL

SCALE 1:50

(ABOVE IS REPRESENTATIVE OF ≈ 15% LONGITUDINAL DRIVEWAY GRADE)

RETAINING WALL HEIGHT	POST	WALL THICKNESS	SIZE (mm) & REINFORCEMENT
0.4 - 1.6m G.L. BEHIND WALL LESS THAN 1:10 SLOPE	100 UC 14 (100 PFC END POST)	SINGLE SLEEPER	2000 x 200 X 75 (N12)
0.4 - 1.6m G.L. BEHIND WALL EXCEEDS 1:10 SLOPE	180 UB 22 (180 PFC END POST)	DOUBLE SLEEPER	2000 x 200 X 75 (N12)
1.6 - 2.0m		DOUBLE SLEEPER	2000 x 200 X 75 (N16)



POST HEIGHT (H)	PIER DEPTH (X)
>800	TO ROCK, APPROX. 2- 2.5m
<800 or LESS	1.0m

TYPICAL SECTION OF RETAINING WALL & FOOTING (DETAIL-1) - NTS

RETAINNG WALL GRANULAR BACK FILL SPECIFICATIONS- USE FREE DRAINING DURABLE SINGLE SIZE GRAVEL, MAXIMUM SIZE 10mm. SHALL BE CLEAN AND FREE OF FOREIGN MATERIALS INCLUDING CLAY, SILT, ORGANIC MATTER ETC. (RECYCLED PRODUCT IS ACCEPTABLE).

GENERAL NOTES.

1. REFER TO MANUFACTURERS TECHNICAL DESIGN GUIDE FOR FURTHER INFORMATION ON DESIGN AND INSTALLATION OF POST AND SLEEPER RETAINING WALL SYSTEM (SEE WEBSITE FOR DETAILS), AND ADDITIONAL NOTES ON DWG DR-22.
2. ALTERNATIVE PROPRIETARY RETAINING WALL SYSTEMS ARE PERMITTED THAT ARE OF EQUIVALENT STANDARD TO THE QPRO SYSTEM, ANY SUCH ALTERNATIVES SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR APPROVAL.
3. RETAINING WALL PIER FOOTING MUST INTERSECT DINSTINCTLY WEATHERED ROCK WITH 300mm EMBEDMENT IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY OB GEOTECHNICS. GEOTECHNICAL ENGINEER TO INSPECT PIER DRILLING TO ENSURE COMPLIANCE.
4. RETAINING WALL SUB SOIL DRAINAGE MUST BE CONNECTED TO A PROPOSED STORMWATER PIT WITH LENGTH NOT EXCEEDING 30m, OR HAVE OUTLETS THROUGH THE WALL @ ≈ 30m CTRS DISCHARGING INTO DISHDRAIN.

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

0 1 2 3 4 5m

linear scale 1:50

DRIVEWAY RETAINING WALL DETAIL 1

LOT 51 DP 1266016
544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a			
b			
c			
d			
e			

Client: YURY
DWG no.: **DR-12**
Scale: **NTS**
Drawn: **MW**
Checked: **AK**

Signed:

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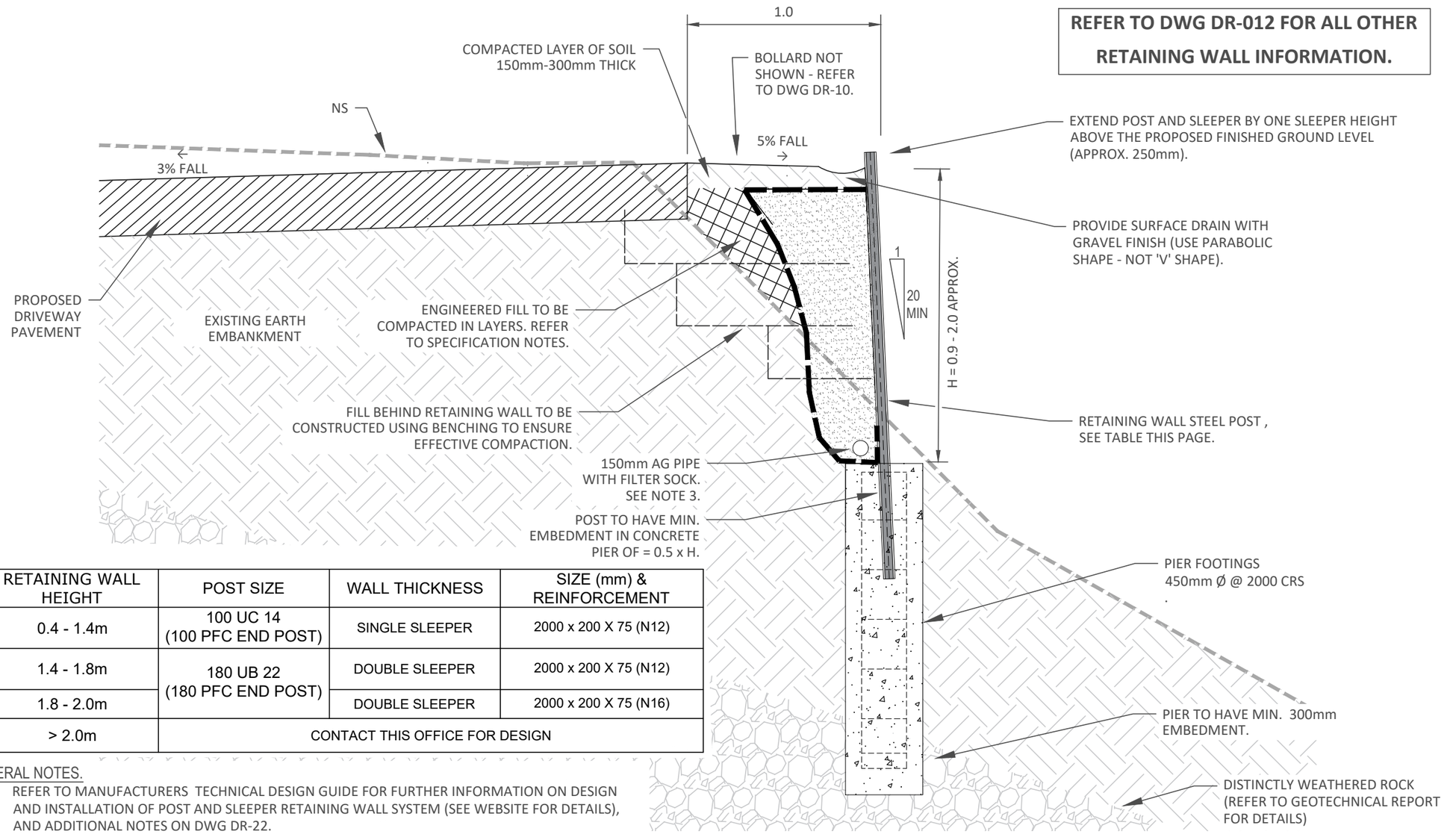
19.6.2023

A3



RETAINING WALL HEIGHT	POST SIZE	WALL THICKNESS	SIZE (mm) & REINFORCEMENT
0.4 - 1.4m	100 UC 14 (100 PFC END POST)	SINGLE SLEEPER	2000 x 200 X 75 (N12)
1.4 - 1.8m	180 UB 22 (180 PFC END POST)	DOUBLE SLEEPER	2000 x 200 X 75 (N12)
1.8 - 2.0m		DOUBLE SLEEPER	2000 x 200 X 75 (N16)
> 2.0m	CONTACT THIS OFFICE FOR DESIGN		

GENERAL NOTES.

1. REFER TO MANUFACTURERS TECHNICAL DESIGN GUIDE FOR FURTHER INFORMATION ON DESIGN AND INSTALLATION OF POST AND SLEEPER RETAINING WALL SYSTEM (SEE WEBSITE FOR DETAILS), AND ADDITIONAL NOTES ON DWG DR-22.
2. EMBANKMENT BENCHING SHOWN IS DIAGRAMMATIC ONLY AND MUST BE SUITED TO COMPACTION EQUIPMENT THAT WILL BE USED.
3. RETAINING WALL SUB SOIL DRAINAGE MUST HAVE OUTLET THE END OF THE RETIAING WALL WITH PRECAST HEADWALL AND ROCK SCOUR PROTECTION.

TYPICAL SECTION OF RETAINING WALL (DETAIL 2)

(N.T.S.)

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

DRIVEWAY RETAINING WALL DETAIL 2

LOT 51 DP 1266016
544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a			
b			
c			
d			
e			

Client: YURY
DWG no.: **DR-13**
Scale: **NTS**
Drawn: **MW**
Checked: **AK**

Signed:
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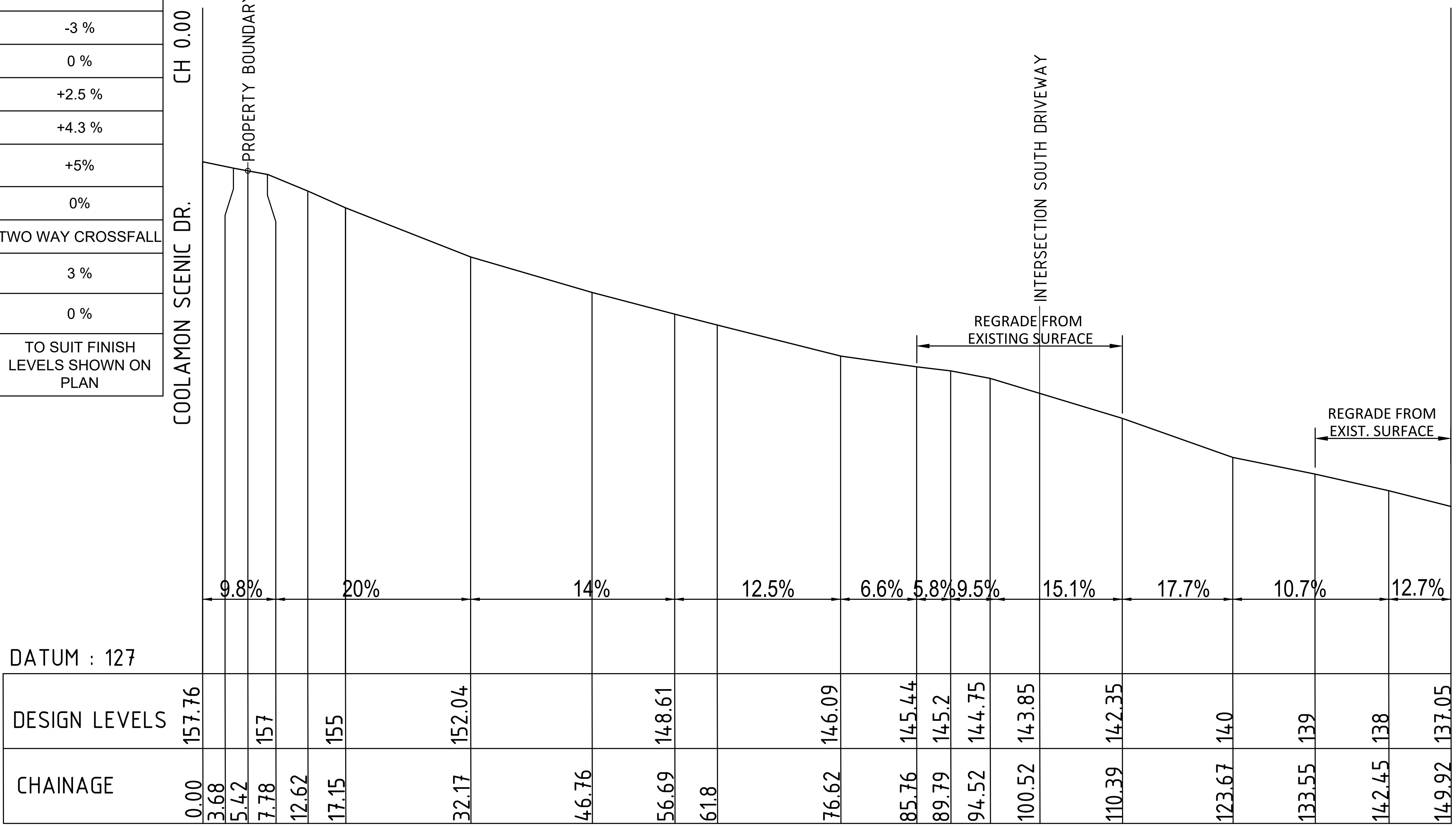
19.6.2023

A3

CHAINAGE	CROSS FALL
CH 0.00	MATCH EXISTING ROAD (APPROX. +7%)
CH 8	0 %
CH 17.1	-2 %
CH 20.0 - 81.0	-3 %
CH 85.76	0 %
CH 90.00	+2.5 %
CH 94.52	+4.3 %
CH 100.52	+5%
CH 110.4	0%
CH 113 -121.5	TWO WAY CROSSFALL
CH 121.5 - 135	3 %
CH 138	0 %
CH 138 - 149.92	TO SUIT FINISH LEVELS SHOWN ON PLAN

LONGITUDINAL SECTION NORTH DRIVEWAY

SCALE: H: 1:500 V: 1:250



DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

0 10 20 30 40 50m

linear scale 1:500

DRIVEWAY
LONG SECTIONS
SHT 1 OF 2

LOT 51 DP 1266016
544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a		long section added	7/6/2023
b		long section amended	19/6/2023
c			
d			

Client: YURY
DWG no.: **DR-14**
Scale: **1:500**
Drawn: **MW**
Checked: **AK**

Signed:
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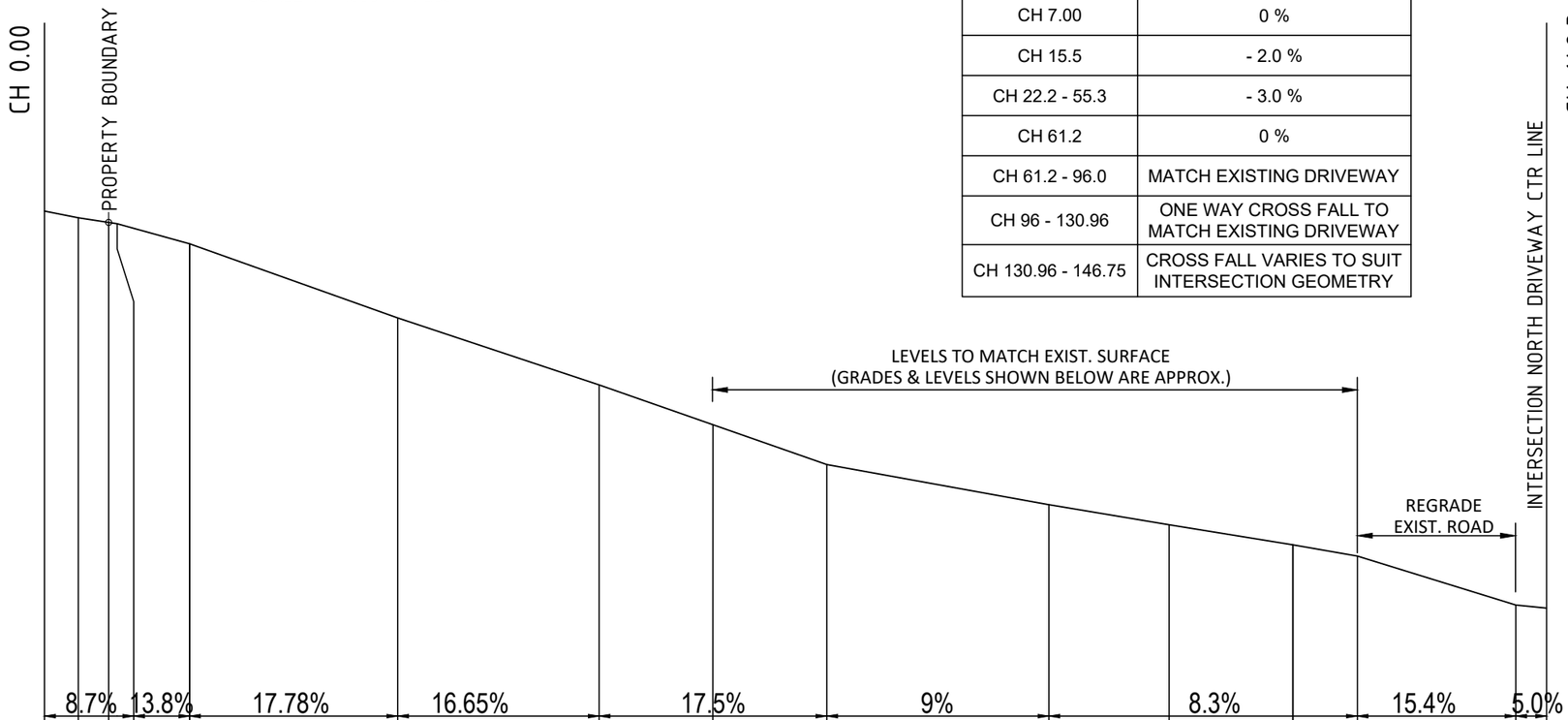
19.6.2023

A3

LONGITUDINAL SECTION SOUTH DRIVEWAY

SCALE: H: 1:500 V: 1:250

CHAINAGE	CROSS FALL
CH 0.00	MATCH EXISTING ROAD (5% APPROX.)
CH 7.00	0 %
CH 15.5	- 2.0 %
CH 22.2 - 55.3	- 3.0 %
CH 61.2	0 %
CH 61.2 - 96.0	MATCH EXISTING DRIVEWAY
CH 96 - 130.96	ONE WAY CROSS FALL TO MATCH EXISTING DRIVEWAY
CH 130.96 - 146.75	CROSS FALL VARIES TO SUIT INTERSECTION GEOMETRY



DATUM : 134

DESIGN LEVELS	163.63	163.3	163.06	163	162	158.31	154.97	151	149	148	147	146.44	144.00	143.85
CHAINAGE	0.00	3.37	6.40	7.25	14.48	35.23	55.32	66.5	78.03	100.19	112.17	124.53	130.96	146.75	149.75

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

0 10 20 30 40 50m

linear scale 1:500

DRIVEWAY LONG SECTIONS SHT 2 OF 2

LOT 51 DP 1266016
544 COOLAMON SCENIC
DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a		long section amended	19/6/2023
b			
c			
d			

Client: YURY
DWG no.: **DR-14A**
Scale: **1:500**
Drawn: **MW**
Checked: **AK**

Signed:

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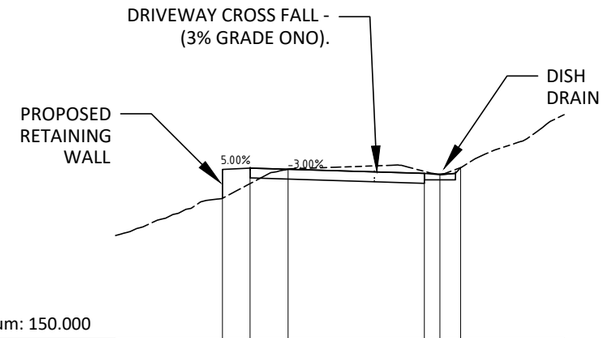
19.6.2023

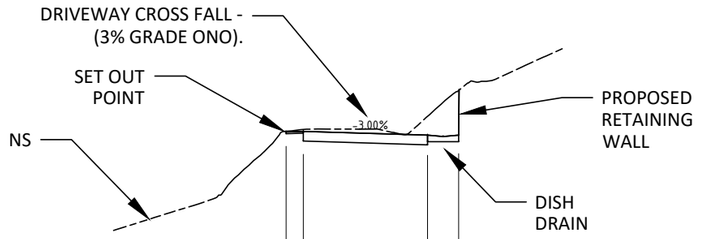
A3



Datum: 150.000

PROPOSED LEVELS	154.93	154.97				154.81	154.77	154.99		
EXISTING LEVELS	154.09	154.53	154.94			154.88	154.80	154.99		
LEVEL DIFFERENCE	0.85	0.44				-0.04	-0.03	0.00		
OFFSETS	-1.9	-1.1	0.00			4.00	4.40	5.00		

Chainage 17.1

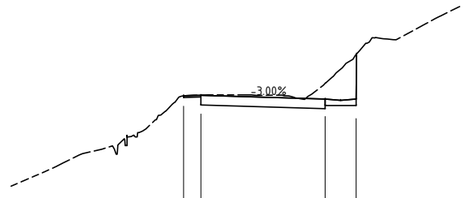


Datum: 145.000

PROPOSED LEVELS	152.08	152.10				151.99	151.99	153.29		
EXISTING LEVELS	152.10	152.15	152.10			152.54	153.28	153.29		
LEVEL DIFFERENCE	-0.02	-0.06				-0.55	-1.29	0.00		
OFFSETS	0.00	0.50				4.10	5.00	5.01		

Chainage 32.22

NOTE:DOES NOT SHOW MOVING OF
DRIVEWAY 0.5m.



Datum: 145.000

PROPOSED LEVELS	149.94	149.97				149.85	149.85	151.15		
EXISTING LEVELS	149.94	149.96	151.15			150.30	151.14	151.15		
LEVEL DIFFERENCE	0.00	0.00				-0.45	-1.29	0.00		
OFFSETS	0.00	0.50				4.10	5.00	5.01		

Chainage 46.74

NOTE:DOES NOT SHOW MOVING OF
DRIVEWAY 0.5m.

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

0 5 10 15m

linear scale 1:150

DRIVEWAY NORTH CROSS SECTIONS SHT 1 OF 2

LOT 51 DP 1266016
544 COOLAMON SCENIC
DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a		chainages amended	7/6/2023
b			
c			
d			

Client: YURY
DWG no.: **DR-15**
Scale: **1:150**
Drawn: **MW**
Checked: **AK**

Signed:

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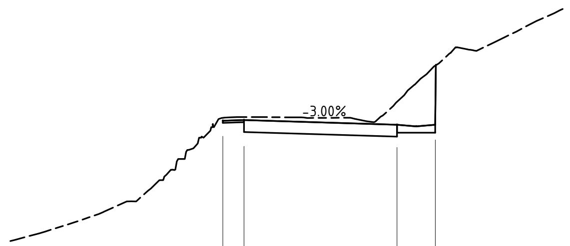
19.6.2023

A3

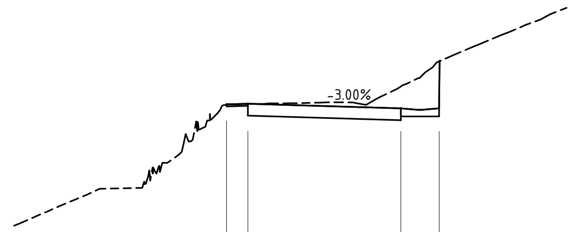


Datum: 145.000

PROPOSED LEVELS	148.67	148.65	148.67	148.56	148.56	149.96
EXISTING LEVELS	148.74	148.72	148.74	149.10	149.95	149.96
LEVEL DIFFERENCE	-0.07	-0.07	-0.07	-0.54	-1.39	0.00
OFFSETS	0.50	0.00	0.50	4.10	5.00	5.01

Chainage 56.66

NOTE:DOES NOT SHOW MOVING OF DRIVEWAY 0.5m.



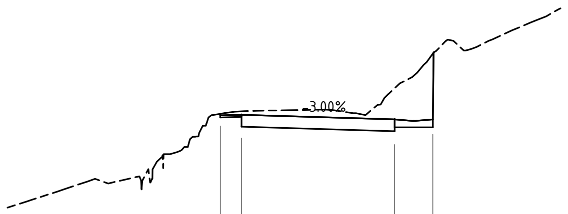
Datum: 140.000

PROPOSED LEVELS	146.13	146.14	146.04	146.04	147.15
EXISTING LEVELS	146.12	146.14	146.55	147.14	147.15
LEVEL DIFFERENCE	0.01	0.01	-0.52	-1.11	0.00
OFFSETS	0.00	0.50	4.10	5.00	5.01

Chainage 76.6

NOTE:DOES NOT SHOW MOVING OF DRIVEWAY 0.5m.

TREE ROOTS TO BE PRESERVED (NO RETAINING WALL REQUIRED)

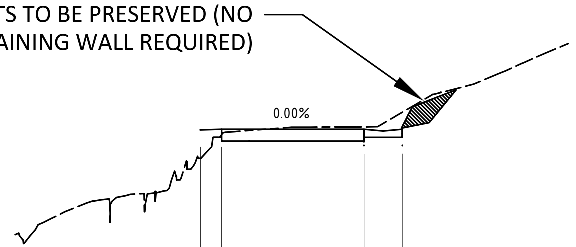


Datum: 145.000

PROPOSED LEVELS	147.99	148.01	147.90	147.90	149.47
EXISTING LEVELS	148.03	148.09	148.63	149.45	149.47
LEVEL DIFFERENCE	-0.04	-0.08	-0.73	-1.55	0.00
OFFSETS	0.00	0.50	4.10	5.00	5.02

Chainage 61.78

NOTE:DOES NOT SHOW MOVING OF DRIVEWAY 0.5m.



Datum: 140.000

PROPOSED LEVELS		145.42	145.44	145.44
EXISTING LEVELS		145.31	145.49	145.84
LEVEL DIFFERENCE		0.11	-0.05	-0.40
OFFSETS	-0.65	-0.15	3.20	4.10

Chainage 85.76

NOTE:INCLUDES MOVING DRIVEWAY 0.5m TO AVOID EXISTING TREE.

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

0 5 10 15m

linear scale 1:150

DRIVEWAY NORTH CROSS SECTIONS SHT 2 OF 2

LOT 51 DP 1266016
544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a		chainages amended	7/6/2023
b		chainages amended + change to ch85.76	19/6/2023
c			
d			

Client: YURY
DWG no.: **DR-16**
Scale: **1:150**
Drawn: **MW**
Checked: **AK**

Signed:
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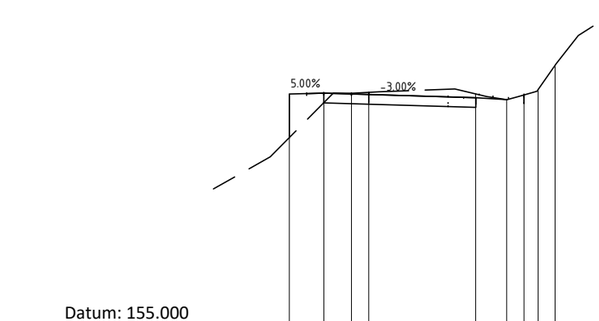
19.6.2023

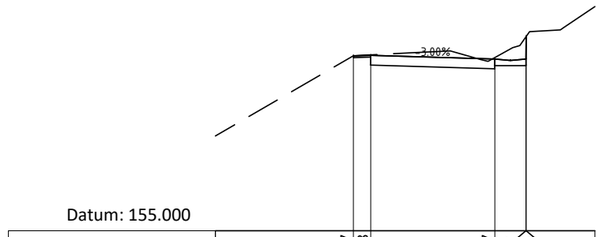
A3



Datum: 155.000

PROPOSED LEVELS	161.79	161.84			161.72	161.73					
EXISTING LEVELS	160.56	161.56	161.84	161.86	161.82	161.71	161.79	161.95	162.65		
LEVEL DIFFERENCE	1.24	0.28			-0.11	0.00					
OFFSETS	-1.8	-0.8	0.00	0.50	3.6	4.5	5.00	5.41	5.90		

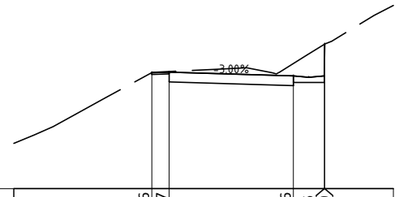
Chainage 15.1



Datum: 155.000

PROPOSED LEVELS	160.07	160.08			159.97	159.97	160.63				
EXISTING LEVELS	160.07	160.10			160.02	160.62	160.63				
LEVEL DIFFERENCE	0.00	-0.01			-0.05	-0.65	0.00				
OFFSETS	0.00	0.50			4.10	5.00	5.01				

Chainage 25.2



Datum: 155.000

PROPOSED LEVELS	158.36	158.37			158.26	158.26	159.19				
EXISTING LEVELS	158.36	158.39			158.62	159.18	159.19				
LEVEL DIFFERENCE	0.00	-0.02			-0.36	-0.92	0.00				
OFFSETS	0.00	0.50			4.10	5.00	5.01				

Chainage 35.2

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

0 5 10 15m

linear scale 1:150

DRIVEWAY SOUTH CROSS SECTIONS SHT SHT 1 OF 2

LOT 51 DP 1266016
544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a		chainages amended	7/6/2023
b		chainages amended	19/6/2023
c			
d			

Client: YURY
DWG no.: **DR-17**
Scale: **1:150**
Drawn: **MW**
Checked: **AK**

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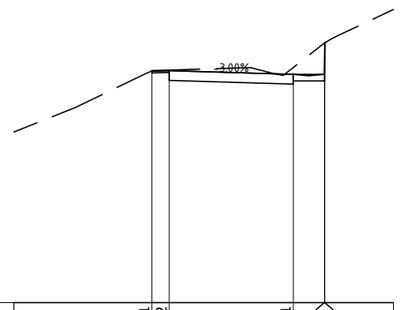
19.6.2023

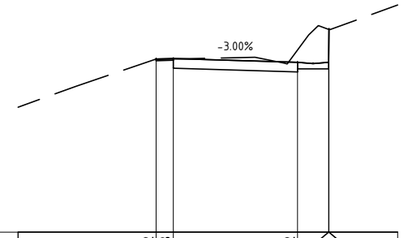
A3



Datum: 150.000

PROPOSED LEVELS	156.71	156.72		156.61	156.61	157.52			
EXISTING LEVELS	156.72	156.74		156.82	157.52	157.52			
LEVEL DIFFERENCE	-0.01	-0.02		-0.20	-0.91	0.00			
OFFSETS	0.00	0.50		4.10	5.00	5.01			

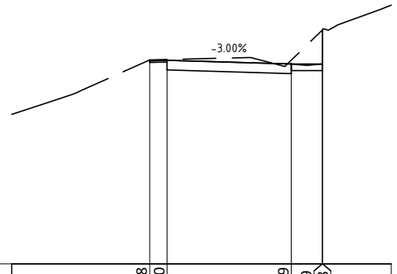
Chainage 45.4



Datum: 150.000

PROPOSED LEVELS	155.02	155.03		154.92	154.92	155.88			
EXISTING LEVELS	155.01	155.02		155.28	155.88	155.88			
LEVEL DIFFERENCE	0.01	0.01		-0.36	-0.96	0.00			
OFFSETS	0.00	0.50		4.10	5.00	5.01			

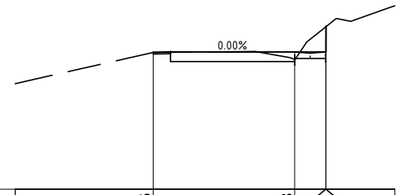
Chainage 55.3



Datum: 150.000

PROPOSED LEVELS	155.88	155.90		155.79	155.79	156.78			
EXISTING LEVELS	155.91	155.92		155.90	156.77	156.78			
LEVEL DIFFERENCE	-0.02	-0.02		-0.11	-0.98	0.00			
OFFSETS	0.00	0.50		4.10	5.00	5.01			

Chainage 50.3



Datum: 150.000

PROPOSED LEVELS	153.96			153.98	153.98	154.71			
EXISTING LEVELS	153.96			153.76	154.70	154.71			
LEVEL DIFFERENCE	0.00			0.22	-0.72	0.00			
OFFSETS	0.00			4.10	5.00	5.01			

Chainage 61.2

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

0 5 10 15m

linear scale 1:150

DRIVEWAY SOUTH CROSS SECTION SHT 2 OF 2

LOT 51 DP 1266016
544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a		chainages amended	7/6/2023
b			
c			
d			
e			

Client: YURY
DWG no.: **DR-18**
Scale: **1:150**
Drawn: **MW**
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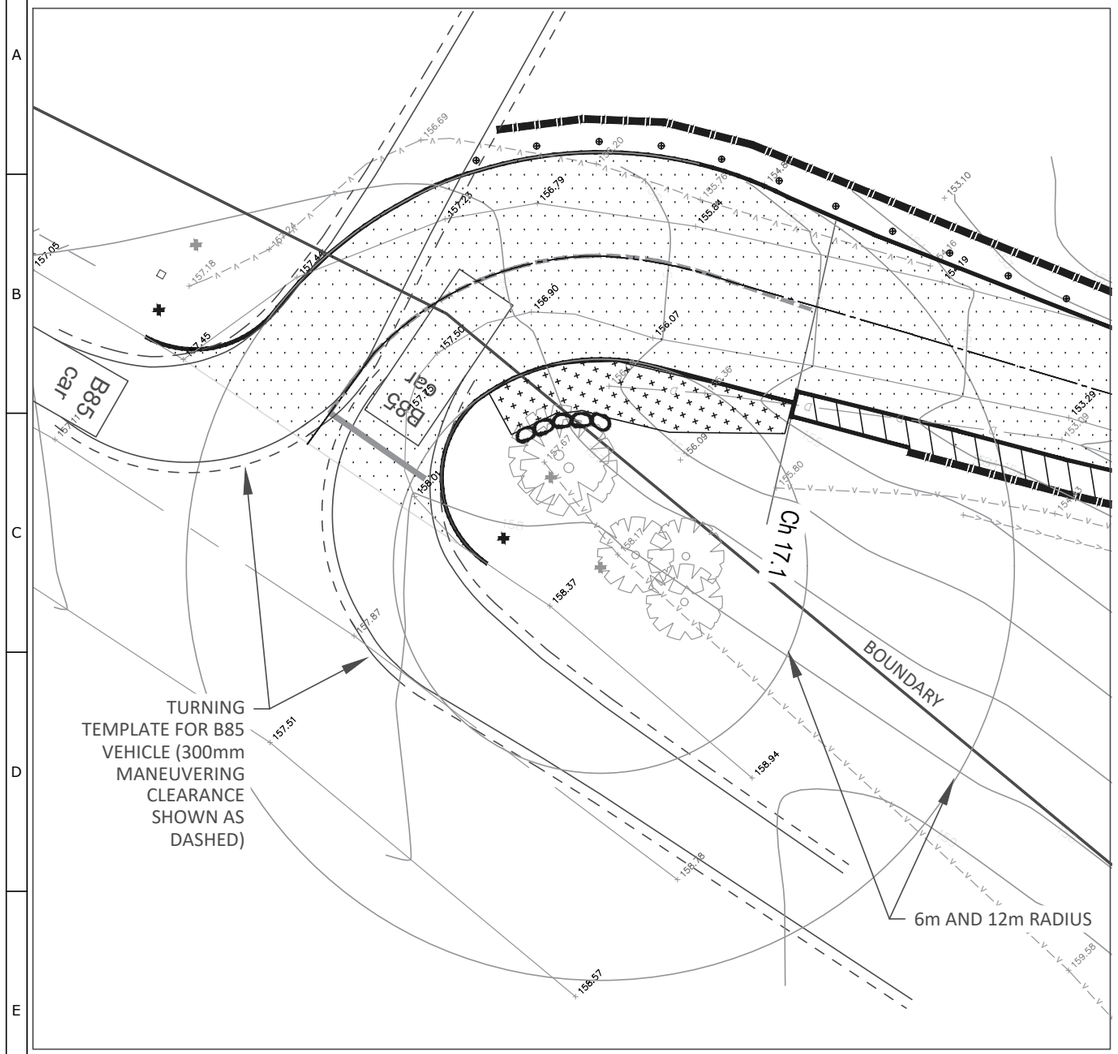

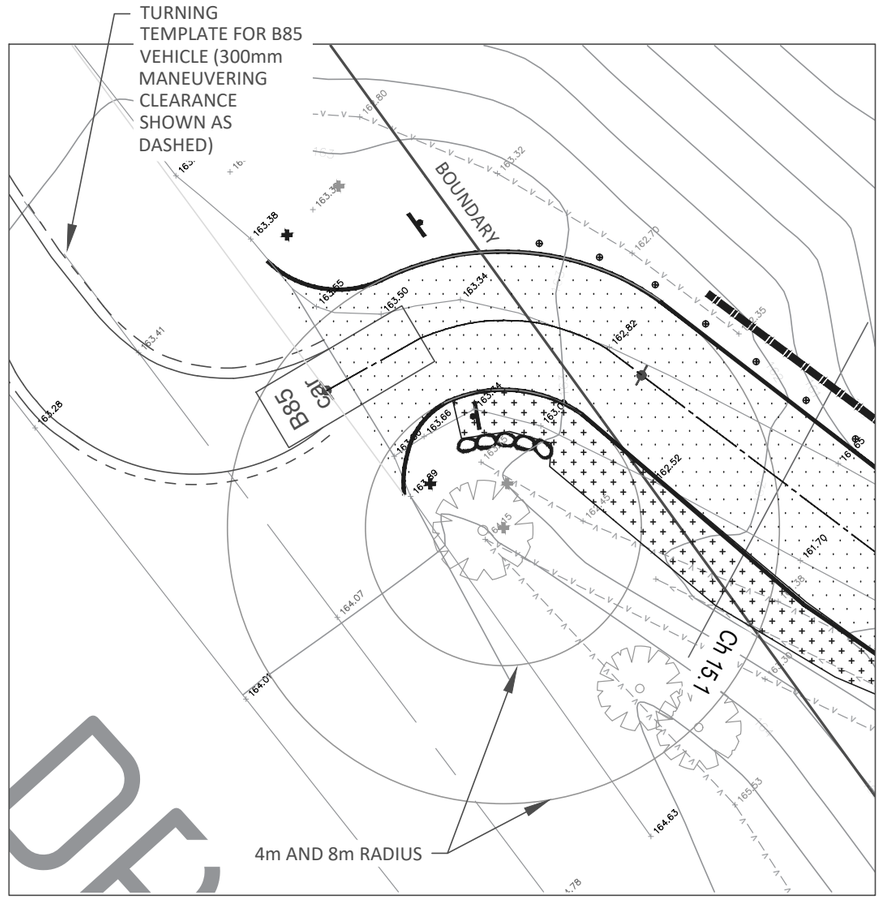

NORTH DRIVEWAY ENTRANCE

(ENTRY & EXIT)

SOUTH DRIVEWAY ENTRANCE

(EXIT ONLY WITH NO LEFT TURN)

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

0 5 10 15m

linear scale 1:150

DRIVEWAY ENTRANCE TURNING TEMPLATES

LOT 51 DP 1266016
544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a		ctr line amended	19/6/2023
b			
c			
d			

Client: YURY
DWG no.: **DR-19**
Scale: **1:150**
Drawn: **MW**
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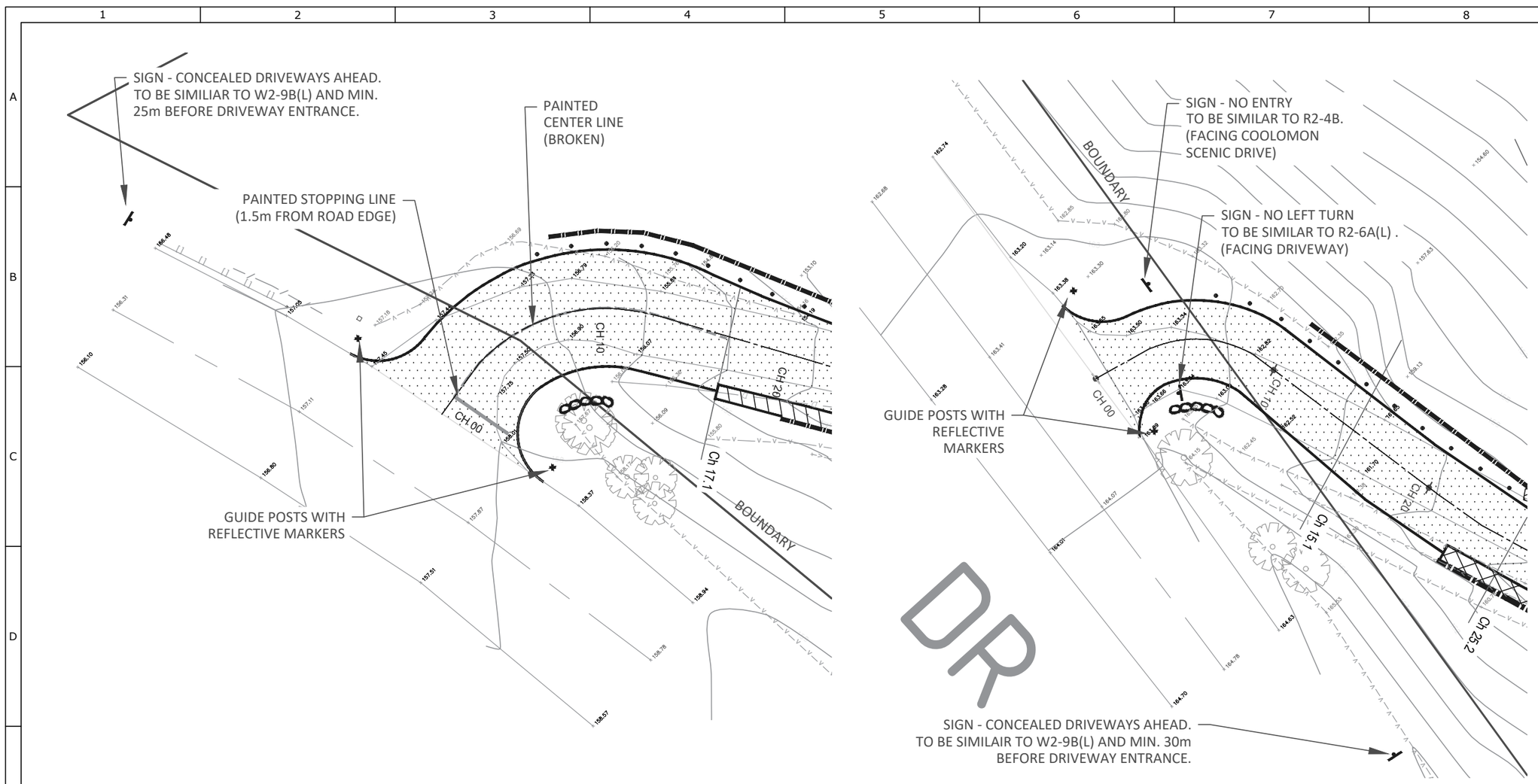

NORTH DRIVEWAY ENTRANCE

SOUTH DRIVEWAY ENTRANCE

GENERAL NOTES.

1. ALL SIGNAGE IS TO BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH AS2890.1 AND AS1742.1. LINE MARKING TO BE IN ACCORDANCE WITH AS2890.1
2. ADDITIONAL SIGNAGE REQUIREMENTS FOR SOUTH ENTRANCE IS SHOWN ON DWG DR-05.
3. SIGN LOCATIONS SHOWN ON THIS PLAN AND DWG DR-05 ARE APPROXIMATE ONLY, CONTRACTOR MUST DETERMINE ONSITE THE MOST SUITABLE LOCATION WHICH MAXIMIZES VISIBILITY AND COMPLIES WITH RELEVANT AUTHORITY GUIDELINES AND SPECIFICATIONS.
4. SIGNS AND GUIDE POSTS LOCATED ON COOLAMON SCENIC DRIVE ARE TO BE POSITIONED 1.0m FROM EDGE OF BITUMEN SEAL.

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

0 5 10 15 20m

linear scale 1:200

DRIVEWAY ENTRANCE SIGNAGE & LINE MARKING

LOT 51 DP 1266016
544 COOLAMON SCENIC
DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a		chainages & ctr line amended	7/6/2023
b		chainages & ctr line amended	19/6/23
c			

Client: YURY
DWG no.: **DR-20**
Scale: **1:200**
Drawn: **MW**
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19.6.2023

A3

NOTES & SPECIFICATION

1. ALL DIMENSIONS ARE IN METRES U.N.O. ALL LEVELS ARE AUSTRALIAN HEIGHT DATUM
2. VEHICULAR ACCESSES AND ALL SERVICES TO BE MAINTAINED AT ALL TIMES TO ADJOINING PROPERTIES AFFECTED BY THE WORKS. PARTICULAR ATTENTION IS TO BE GIVEN TO MINIMISATION OF DISRUPTION TO LOCAL TRAFFIC AND EXISTING SERVICES ALONG THE ROAD WHERE PROPOSED CIVIL WORKS ARE INTENDED.
3. CONTRACTOR TO PROVIDE TRAFFIC CONTROL WHICH COMPLIES WITH A.S. 1742.3 (1995), WHILST WORKING ON COUNCIL ROADS AND/OR WITHIN COUNCIL ROAD RESERVES.

4. QUALITY SYSTEM

CONTRACTOR SHALL HAVE A QUALITY CONTROL SYSTEM INPLACE FOR THE PROJECT WHICH RECORDS WORK UNDERTAKEN AND TESTING AND VERIFICATION UNDERTAKEN BY THE CONTRACTOR. THIS SHOULD BE INACCORDANCE WITH COUNCILS' DEVELOPMENT CONSTRUCTION SPECIFICATION CQS QUALITY SYSTEM REQUIREMENTS, AND DEVELOPMENT CONSTRUCTION SPECIFICATION CQC QUALITY CONTROL REQUIREMENTS.

5. WITNESS AND HOLD POINTS

TO ASSURE COMPLIANCE WITH THE DESIGN INTENT SPECIFIED MANDATORY WITNESS & HOLD POINTS SHALL APPLY AS OUTLINED BELOW.

HOLD POINT 1 - INSPECT SUBGRADE PRIOR TO PLACING DRIVEWAY EMBANKMENT/ENGINEERED FILL.

HOLD POINT 2 - GEOTECHNICAL ENGINEER TO INSPECT RETAINING WALL FOOTING DURING PIER DRILLING.

WITNESS POINT 2 - INSPECT SET OUT OF ROAD AND RETAINING WALLS PRIOR TO CONSTRUCTION.

WITNESS POINT 3 - COMPACTION TEST RESULTS FOR IMPORTED FILL AND PAVEMENT MATERIALS.

HOLD POINTS ARE THOSE STAGES DURING THE CONSTRUCTION PROCESS WHERE WORKS OR MATERIALS ARE TO BE INSPECTED BY THE SUPERVISING ENGINEER. THE CONTRACTOR SHALL NOT PROCEED PAST THE H.P. UNTIL APPROVAL HAS BEEN RECEIVED FROM THE SUPERVISING ENGINEER. WITNESS POINTS REQUIRE THE SUPERVISING ENGINEER TO INSPECT CONSTRUCTION WORK AND PROVIDE GUIDANCE IF REQUIRED.

THE CONTRACTOR IS TO PROVIDE MINIMUM 48 HOURS NOTICE FOR ANY INSPECTIONS.

6. STRIPPING & CLEARING

THE GROUND TO BE CLEARED FOR THE DRIVEWAY CONSTRUCTION MUST BE CLEARED OF TOPSOIL, VEGETATION, TREE ROOTS, SILT AND ANY OTHER ORGANIC OR UNSUITABLE MATERIAL.

ALL TOPSOIL IS TO BE STRIPPED AND STOCKPILES FOR LATER RE-USE.

10. TOPSOIL

TOPSOIL MATERIAL WON FROM THE SITE IS TO BE ADEQUATELY PREPARED AND STOCKPILED FOR LATER REUSE. THE STOCKPILING PROCESS SHOULD AIM TO START THE COMPOSTING PROCESS.

TOPSOIL SHALL BE SPREAD ON ALL EMBANKMENT AREAS AND DRIVEWAY VERGES. WHEN PLACING TOPSOIL USE A SPREADER BAR OR SIMILAR TO ACHIEVE A NOMINAL THICKNESS.

11. EMBANKMENT CONSTRUCTION

THE DRIVEWAY EMBANKMENT IS TO BE CONSTRUCTED FROM CLEAN ENGINEERING FILL EITHER WON FROM SITE OR IMPORTED FROM OFFSITE. CONTRACTOR TO SEEK APPROVAL FROM ENGINEER FOR EACH DIFFERENT MATERIAL TYPE OR SOURCE.

EMBANKMENT FILL MATERIAL SHALL BE FREE OF TREE STUMPS, ROOTS, CLAY, TOPSOIL, STEEL, ORGANIC MATERIAL AND OTHER CONTAMINANTS AND SHALL BE CAPABLE OF BEING COMPACTED TO THE VALUE SHOWN IN NOTE 13.

THE EXISTING EMBANKMENTS, WHEN STEEPER THAN 4 HORIZONTAL TO 1 VERTICAL, SHALL BE CUT IN THE FORM OF HORIZONTAL TERRACES PRIOR TO PLACING FILL MATERIAL.

12. FOUNDATIONS

FOUNDATION AREAS ARE;

- EMBANKMENT FILLING SUBRGADE
- DRIVEWAY PAVEMENT SUBGRADE
- BED OF TRENCH OF STORMWATER PIPE
- RETAINING WALL FOUNDATIONS/PIERS.

INSPECTION OF THE FOUNDATIONS IS REQUIRED BY THE SUPERINTENDENT/ENGINEER PRIOR TO PLACEMENT OF FILL MATERIAL.

UNSUITABLE FOUNDATION MATERIAL MAY BE REQUIRED TO BE REMOVED UNDER THE DIRECTION OF THE INSPECTING ENGINEER.

EMBANKMENT FOUNDATIONS SHALL BE COMPACTED (4 PASSES OF A MIN. 6 TON COMPACTOR), ANY UNSUITABLE MATERIAL IS TO BE REMOVED AND REPLACED WITH SUITABLE MATERIAL OR A BRIDGING LAYER.

13. COMPACTION

EMBANKMENT FILL MATERIAL SHALL BE COMPACTED IN LAYERS NO GREATER THAN 200mm. COMPACTION IS TO PRODUCE A RELATIVE COMPACTION OF 95% STANDARD.

COMPACTION TESTING IS TO BE UNDERTAKEN FOR EACH NEW TYPE OF FILL MATERIAL TO ENSURE THAT THE METHODOLOGY AND COMPACTION EQUIPMENT USED IS ADEQUATE. ONCE THIS IS ESTABLISHED THEN NO FURTHER TESTING IS REQUIRED, UNLESS THE FILL MATERIAL PROPERTIES AND SOURCE CHANGES.

ALL OTHER COMPACTIONS REQUIREMENTS FOR DRIVEWAY PAVEMENT IS TO BE IN ACCORDANCE WITH NRLG CONSTRUCTION MANUALS AND STANDARDS.

14. STORMWATER DRAINAGE

STORMWATER DRAINAGE WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH AS3500.3 AND NRLG STANDARDS.

STORMWATER PIPE IS TO BE STORMPRO RRJ (BY VINIDEX) OR SIMILAR. USE MIN. SN8 CLASS. INSTALL INACCORDANCE WITH MANUFACTURERS REQUIREMENTS AND SPECIFICATIONS - SEE 'BELOW GROUND INSTALLATION' INFORMATION ON WEBSITE .

PIPE BEDDING MATERIAL TO BE SUPPLIED AND PLACED IN ACCORDANCE WITH MANUFACTURERS GUIDELINES AND SPECIFICATIONS - SEE 'BELOW GROUND INSTALLATION' INFORMATION ON WEBSITE.

STORMWATER PITS FOR DRIVEWAY DRAINAGE REPLACEMENT IS TO BE REINFORCED CONCRETE, EITHER CAST INSITU, OR SUITABLY APPROVED PRE-CAST PITS CERTIFIED TO AUSTRALIAN STANDARDS.

STORMWATER PITS FOR HOUSE AND BUILDING DRAINAGE IS TO BE SUITABLY APPROVED PRE-CAST PITS CERTIFIED TO AUSTRALIAN STANDARDS.

STORMWATER V GRATES ARE TO BE CLASS D BIKE AND PEDESTRIAN SAFE, IN ACCORDANCE WITH AS3996-2019, HEAVY DUTY SOLID BAR HINGE AND TRAFFICABLE. ALL OTHER STORMWATER GRATES ARE TO BE MIN. CLASS C.

15. GEOTEXTILE

WHERE SPECIFIED IN THE DESIGNS, A NON-WOVEN HEAVY-DUTY GEOTEXTILE IS TO BE USED FOR THE PURPOSE OF SEPARATION WHICH MUST BE MANUFACTURED IN ACCORDANCE WITH ISO 9001. THE GRADE OF THIS IS TO BE EQUIVALENT TO A64 BIDIM PRODUCT AS SUPPLIED BY GEOFABRICS AUSTRALIA.

NOTE:GEOTEXTILE MADE FROM RECYCLED POLYMERS SUCH AS GEOFABRICS “BIDIM GREEN” WHICH ARE MANUFACTURED IN ACCORDANCE WITH ISO 9001 ARE ACCEPTABLE. THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENT OF THE INTENTION TO USE RECYCLED BIDIM PRIOR TO INCORPORATING INTO THE WORKS TOGETHER WITH PRODUCT/MANUFACTURING DETAILS FOR APPROVAL.

ROLLS SHALL BE JOINED BY OVERLAPPING AT LEAST 400 MM, OR BY SEWING THE EDGES TOGETHER WHERE LARGE DISPLACEMENTS ARE ANTICIPATED

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

DRIVEWAY NOTES & SPEC SHT 1 OF 2

LOT 51 DP 1266016
544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a			
b			
c			
d			
e			

Client: YURY
DWG no.: **DR-21**
Scale:
Drawn: **MW**
Checked: **AK**

Signed:

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19.6.2023

A3

NOTES & SPECIFICATION CONT'D

ROCK WORK

1. GENERAL

THE ROCK SIZE AND PLACEMENT MUST CONFORM TO THE INTENT SPECIFIED IN THE DRAWINGS. THE ROCKWORK SHOWN IS SCHEMATIC ONLY AS EACH ROCK HAS VARYING DIMENSIONS.

2. ROCK SUPPLY

ROCK INCORPORATED IN THE WORKS MUST BE HARD, DURABLE SANDSTONE AND/OR GRANITE. ROCK IS TO BE PROVIDED BY THE CONTRACTOR AND MUST BE INSPECTED AND APPROVED BY THE SUPERVISING ENGINEER BOTH PRIOR TO IMPORTING IT TO THE SITE AND PRIOR TO INCORPORATING INTO WORKS. THE SUPERINTENDENT HAS THE RIGHT TO REJECT THE ROCK PRIOR TO IMPORTATION. THE SUPERINTENDENT ALSO HAS THE RIGHT TO REJECT THE ROCK FOLLOWING IMPORTATION IF THERE IS REASON TO BELIEVE THE MATERIAL IS DIFFERENT TO THAT APPROVED PRIOR TO IMPORTATION.

3. ROCK SPECIFICATION

ALL OTHER ROCK STRUCTURES, UNLESS NOTED OTHERWISE ON THE DRAWING, ARE TO CONTAIN ROCK HAVING A PARTICULAR GRADING AS EXPLAINED BELOW. D_{50} IS THE MEDIAN (50^{TH} PERCENTILE) RIP RAP PARTICLE SIZE.

THE GRADUATION OF STONE IN RIPRAP REVETMENTS AFFECTS THE RIPRAP'S RESISTANCE TO EROSION. THE STONE SHOULD BE REASONABLY WELL GRADED THROUGHOUT THE RIPRAP LAYER THICKNESS AND TO THE GRADUATION LIMITS SHOWN IN THE TABLE 1.

EACH LOAD OF RIPRAP SHOULD BE REASONABLY WELL GRADED FROM THE SMALLEST TO THE MAXIMUM SIZE SPECIFIED. STONES SMALLER THAN THE SPECIFIED 5 OR 10 PERCENT SIZE SHOULD NOT BE PERMITTED IN AN AMOUNT EXCEEDING 20 PERCENT BY WEIGHT OF EACH LOAD.

IF THE MAJORITY OF ROCK RIPRAP IS ROUNDED AND SMOOTH THEN THE ROCK SIZING SHOWN IN TABLE 1 IS TO BE INCREASED BY 30%.

TABLE 1: ROCK RIPRAP SIZING AND GRADUATION

	STW RIP RAP CHANNEL ROCK SIZE mm
D_{100}	250
D_{90}	230
D_{50}	125
D_{10}	65

RETAINING WALLS

4. RETAINING WALL AND FOUNDATIONS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH INFORMATION SHOWN ON THESE PLANS & SPECIFICATIONS, TECHNICAL DESIGN GUIDE QPRO, AND NRLG COUNCIL CONSTRUCTION MANUAL & SPECIFICATION.
5. PROPRIETARY RETAINING WALL PRODUCTS ARE TO BE SUPPLIED WITH RELEVANT CERTIFICATION TO AUSTRALIAN STANDARDS.
6. COVER TO FOOTING REINFORCEMENT SHALL BE 50mm.
7. CHANGES IN WALL ALIGNMENT UP TO 30° CAN BE ACCOMMODATED BY USING 2 x PFC EMBEDDED IN A 450DIA CONCRETE PIER. CHANGE IN ALIGNMENT GREATER THAN 30° WILL REQUIRE A 600DIA CONCRETE PIER.
8. ALTERNATIVE PROPRIETARY RETAINING WALL SYSTEMS ARE PERMITTED THAT ARE OF EQUIVALENT STANDARD TO THE QPRO SYSTEM, ANY SUCH ALTERNATIVES SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR APPROVAL PRIOR TO THE COMMENCEMENT OF WORKS.

STRUCTURAL STEEL

9. WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH A.S. 4100-1990, "SAA STEEL STRUCTURES CODE," AND THE CONSULTING ENGINEER'S "REFERENCE SPECIFICATION FOR CONSTRUCTION IN STRUCTURAL STEELWORK" (COPY AVAILABLE UPON REQUEST).
10. STEEL SHALL CONFORM TO THE FOLLOWING GRADES A.S. 3679.1, GRADE 300 OR BHP GRADE 300PLUS.
11. STEELWORK MEMBERS SHALL BE FABRICATED FROM FULL LENGTH SECTIONS, AND SHALL NOT BE JOINED BY WELDING WITHIN THEIR LENGTH
12. STEELWORK MEMBERS WHICH ARE NOT ENTIRELY ENCLOSED WITHIN THE CONCRETE FOOTING SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH THE RECOMMENDATIONS OF A.S. 4680-1999, "HOT-DIP GALVANIZED COATINGS ON FABRICATED FERROUS ARTICLES," AND THE MANUAL "AFTER-FABRICATION HOT-DIP GALVANIZING" PRODUCED BY THE GALVANIZERS ASSOCIATION OF AUSTRALIA. SITE WELDING OF GALVANIZED STEELWORK IS NOT PERMITTED.
13. ALL COLD-FORMED FRAMING SECTIONS SHALL BE MANUFACTURED FROM CONTINUOUSLY GALVANIZED STEEL CONFORMING TO A.S. 1397-1977.
14. GALVANIZED COATINGS SHALL HAVE A MINIMUM AVERAGE COATING MASS OF 350G PER M^2 (Z350).

PAVEMENT CONSTRUCTION

15. WHERE INDICATED ON THE PLANS, ANY REFERENCE TO "PAVEMENT MATERIAL" SHALL BE A PRODUCT THAT IS SUPPLIED AND PLACED IN ACCORDANCE WITH THESE NOTES AND SPECIFICATIONS.
16. PAVEMENT MATERIAL SHALL BE A ROAD BASE MATERIAL THAT IS A DURABLE, GRANULAR ROCKY MATERIAL IN ACCORDANCE WITH NRLG CONSTRUCTION MANUAL & SPECIFICATION.
17. TESTING OF BASE AND SUBBASE PAVEMENT MATERIAL IS REQUIRED TO ENSURE THE SUITABILITY OF FOR INCLUSION IN THE WORKS. THE CONTRACTOR SHALL UNDERTAKE CBR TESTING OF THE SUBGRADE AND DENSITY TESTING OF ROAD BASE MATERIALS IN ACCORDANCE WITH NRLG CONSTRUCTION MANUAL & SPECIFICATION.
18. DRIVEWAY CROSSING AND INTERNAL DRIVEWAY WEARING COURSE IS TO BE SUPPLIED AND PLACED IN ACCORDANCE WITH INFORMATION SHOWN ON THESE PLANS AND SPECIFICATIONS, AND NRLG COUNCIL CONSTRUCTION MANUAL & SPECIFICATION.

DRIVEWAY ENTRANCES

19. REFER TO ADDITIONAL NOTES AND SPECIFICATIONS ON NRLG STD DWG R-14.
20. COMPACTION OF SUBGRADE TO 95% STD TO AS1289.5.11
21. CONTRACTOR TO NOTIFY COUNCIL ENGINEER FOR INSPECTION PRIOR TO COMMENCEMENT OF WORKS.
22. CONTRACTOR TO ENSURE THAT THEY ARE FAMILIAR WITH THE LOCATION OF ALL SERVICES PRIOR TO COMMENCEMENT OF WORKS.
23. CONTRACTOR TO CARRY OUT ALL WORKS IN ACCORDANCE WITH COUNCIL'S STANDARD SPECIFICATIONS AND CONSENT REQUIREMENTS.
24. VEHICULAR ACCESSES AND ALL SERVICES TO BE MAINTAINED AT ALL TIMES TO ADJOINING PRIORITIES AFFECTED BY THE WORKS. PARTICULAR ATTENTION IS TO BE GIVING TO MINIMISATION OF DISRUPTION TO LOCAL TRAFFIC AND EXISTING SERVICES ALONG THE ROAD WHERE PROPOSED CIVIL WORKS ARE INTENDED.
25. CONTRACTOR TO PROVIDE TRAFFIC CONTROL WHICH COMPLIES WITH A.S. 1742.3 (1995), WHILST WORKING ON COUNCIL ROADS AND/OR WITHIN COUNCIL ROAD RESERVES

DA 10.2021.433.1 NEW DWELLING & POOL - CONSTRUCTION CERTIFICATE

DRIVEWAY NOTES & SPECS SHT 2 OF 2.

LOT 51 DP 1266016
544 COOLAMON SCENIC DRIVE, COORABELL,NSW 2482

Revisions

rev	zone	description	date
a			
b			
c			
d			
e			

Client: YURY
DWG no.: **DR-22**
Scale:
Drawn: **MW**
Checked: **AK**

Signed:
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19.6.2023

A3

Report No. 6.4 No Parking Area - Booyun Street, Car Park (CWA and Brunswick Heads Public School)

File No: I2023/1139

The purpose for this report is to obtain LTC endorsement for No Parking restrictions to mitigate nuisance camping within the carparking area on Booyun Street, adjacent the CWA and Brunswick Heads Public School.

Figure 1: Signage installation Plan

RECOMMENDATION:

That the Local Traffic Committee supports the No Parking restrictions shown in figure 1, contained within this report.

Report No. 6.5 Proposed BAR type intersection on Bangalow Road

File No: I2023/1188

The purpose of this report is to gain Council support for the proposed line markings shown in Attachment 1 (E2023/81016).

Council has received a Roads Act application associated with a development approval for a Subdivision (Community Title) to create Three (3) Neighbourhood Lots and One (1) Neighbourhood Property at 111 Bangalow Road, Byron Bay

As part of the approved D.A (10.2010.547.3) Condition 10, imposed the following requirement:

10)Engineering Construction Plans

b) Intersection Works at Bangalow Road

Full width road and associated drainage construction including any necessary relocation of services in Bangalow Road generally in accordance with Plan C5, Issue E, dated 10-21 by Philip Wallace Consulting Engineers. All associated costs shall be borne by the applicant.

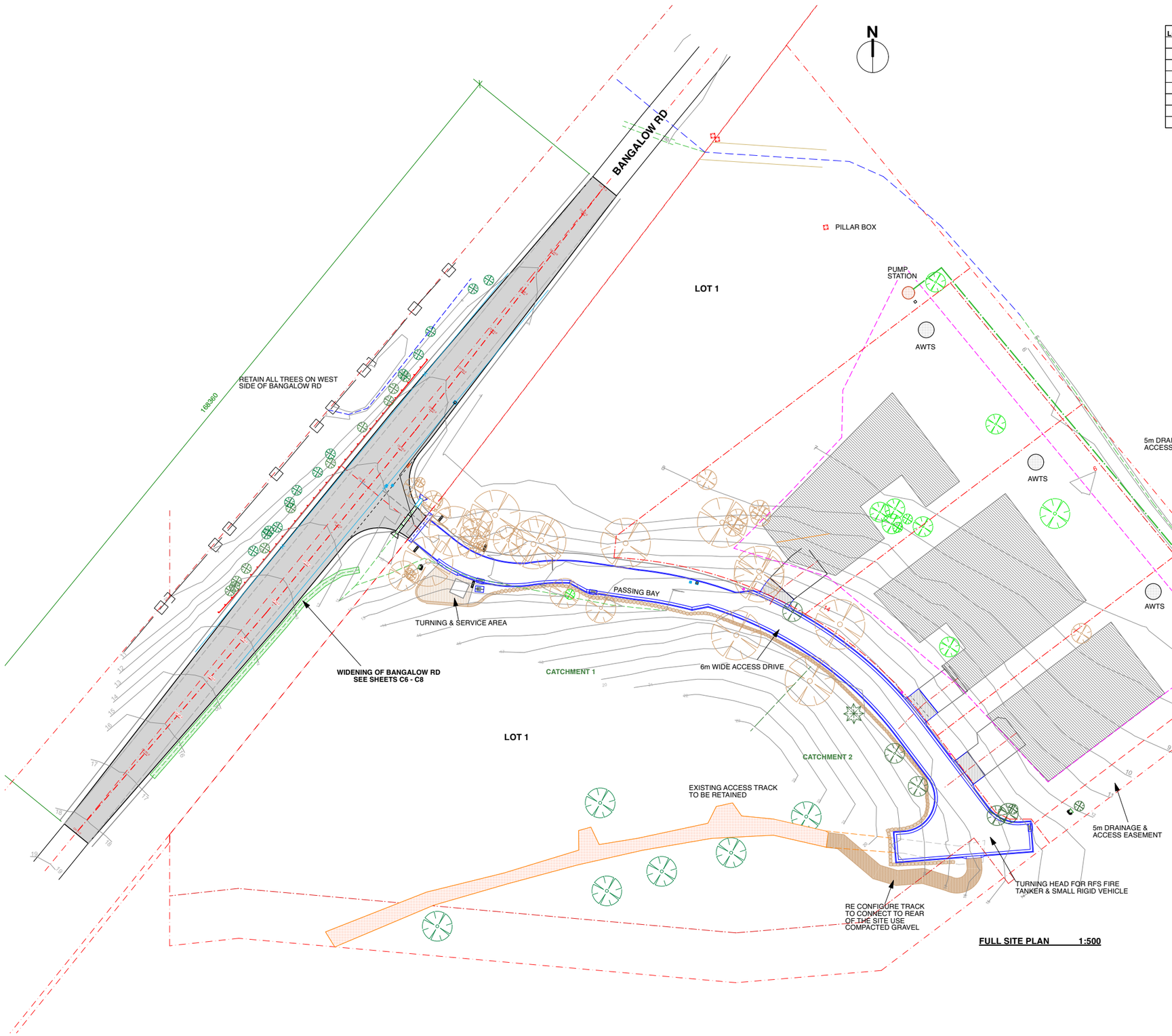
Refer Attachment 1 (E2023/81016) for the D.A approved plan mentioned above.

RECOMMENDATION:

That Council support the line markings associated with the Bangalow Road intersection works, as shown in Attachment 1 (E2023/81016)

Attachments:

1 51.2010.457.1 - 111 Bangaow Rd LTC submission, E2023/81016 , page 62



FULL SITE PLAN 1:500

LOT AREA SCHEDULE				
	LOT AREAS			
LOT	APPROVED	PROPOSED	DIFFERENCE	% DIFFERENCE
	m2	m2	m2	%
1	16,063	16,170	107	1%
2	2,955	2,930	-25	-1%
3	2,579	2,500	-79	-3%
4	2,000	1,997	-3	-0%
TOTAL	23,597	23,597	0	

KEY

- LINE OF INNER APZ
- NEW PRIVATE PUMP STATION CONCRETE TANK WITH DUAL PUMPS
- DN75 PN16 POLY RISING LINE IN GROUND 600 MINIMUM COVER
- LOT BOUNDARIES
- APPROVED BUILDING ENVELOPES

DESIGN CERTIFICATE

I Philip John Wallace certify that I have carried out and checked the design work for this Subdivision Works Certificate Application as represented in these drawings **C1 - C17 - Issue K.**

I further certify that the proposed works shown in these plans, conform to the requirements of the approved DA plans as well as the provisions of the Northern Rivers Local Government Development Design and Construction Manuals

Philip Wallace
M.I.E.Aust. C P Eng.

20.05.23

DRAWING					SHEET No.
SITE PLAN					C1
JOB NUMBER	PAPER SIZE	SCALE	DATE	ISSUE	ISSUED FOR
21-11	A2	as shown	05-23	K	SWC

4 LOT COMMUNITY TITLE SUBDIVISION AT 111 BANGALOW RD - BYRON BAY

PHILIP WALLACE **Consulting Engineers**
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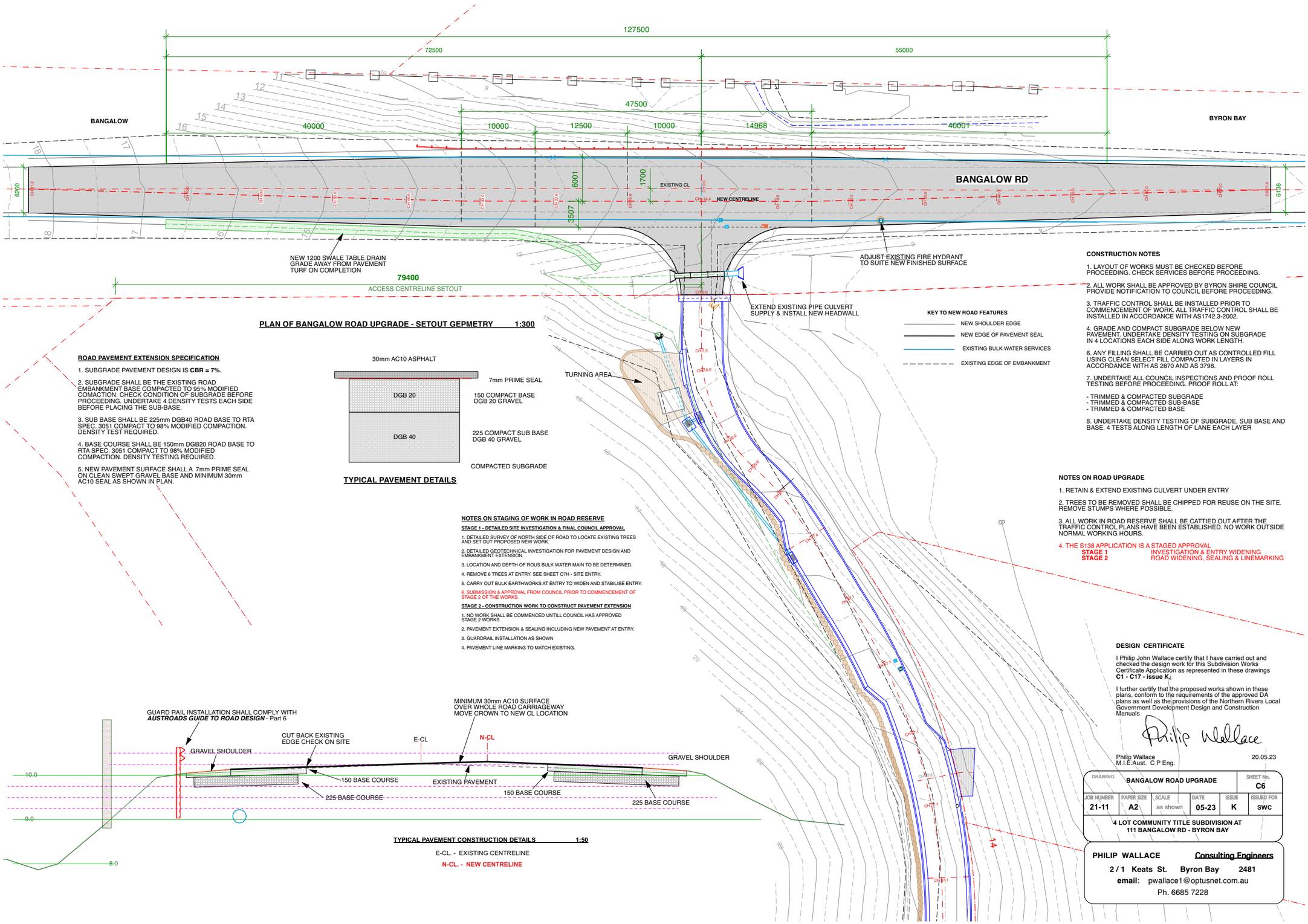
Ph. 6685 7228



PLAN OF BANGALOW ROAD UPGRADE - SETOUT GEPMETRY 1:300

ROAD PAVEMENT EXTENSION SPECIFICATION

1. SUBGRADE PAVEMENT DESIGN IS **CBR = 7%.**

2. SUBGRADE SHALL BE THE EXISTING ROAD EMBANKMENT BASE COMPACTED TO 95% MODIFIED COMACTION. CHECK CONDITION OF SUBGRADE BEFORE PROCEEDING. UNDERTAKE 4 DENSITY TESTS EACH SIDE BEFORE PLACING THE SUB-BASE.

3. SUB BASE SHALL BE 225mm DGB40 ROAD BASE TO RTA SPEC. 3051 COMPACT TO 98% MODIFIED COMPACTION. DENSITY TEST REQUIRED.

4. BASE COURSE SHALL BE 150mm DGB20 ROAD BASE TO RTA SPEC. 3051 COMPACT TO 98% MODIFIED COMPACTION. DENSITY TESTING REQUIRED.

5. NEW PAVEMENT SURFACE SHALL A 7mm PRIME SEAL ON CLEAN SWEPT GRAVEL BASE AND MINIMUM 30mm AC10 SEAL AS SHOWN IN PLAN.

TYPICAL PAVEMENT DETAILS

NOTES ON STAGING OF WORK IN ROAD RESERVE

STAGE 1 - DETAILED SITE INVESTIGATION & FINAL COUNCIL APPROVAL

1. DETAILED SURVEY OF NORTH SIDE OF ROAD TO LOCATE EXISTING TREES AND SET OUT PROPOSED NEW WORK.

2. DETAILED GEOTECHNICAL INVESTIGATION FOR PAVEMENT DESIGN AND EMBANKMENT EXTENSION.

3. LOCATION AND DEPTH OF ROUS BULK WATER MAIN TO BE DETERMINED.

4. REMOVE 6 TREES AT ENTRY. SEE SHEET C7H - SITE ENTRY.

5. CARRY OUT BULK EARTHWORKS AT ENTRY TO WIDEN AND STABILISE ENTRY.

6. SUBMISSION & APPROVAL FROM COUNCIL PRIOR TO COMMENCEMENT OF STAGE 2 OF THE WORKS.

STAGE 2 - CONSTRUCTION WORK TO CONSTRUCT PAVEMENT EXTENSION

1. NO WORK SHALL BE COMMENCED UNTILL COUNCIL HAS APPROVED STAGE 2 WORKS

2. PAVEMENT EXTENSION & SEALING INCLUDING NEW PAVEMENT AT ENTRY.

3. GUARDRAIL INSTALLATION AS SHOWN

4. PAVEMENT LINE MARKING TO MATCH EXISTING.

TYPICAL PAVEMENT CONSTRUCTION DETAILS 1:50

E-CL. - EXISTING CENTRELINE

N-CL. - NEW CENTRELINE

CONSTRUCTION NOTES

1. LAYOUT OF WORKS MUST BE CHECKED BEFORE PROCEEDING. CHECK SERVICES BEFORE PROCEEDING.

2. ALL WORK SHALL BE APPROVED BY BYRON SHIRE COUNCIL PROVIDE NOTIFICATION TO COUNCIL BEFORE PROCEEDING.

3. TRAFFIC CONTROL SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF WORK. ALL TRAFFIC CONTROL SHALL BE INSTALLED IN ACCORDANCE WITH AS1742.3-2002.

4. GRADE AND COMPACT SUBGRADE BELOW NEW PAVEMENT. UNDERTAKE DENSITY TESTING ON SUBGRADE IN 4 LOCATIONS EACH SIDE ALONG WORK LENGTH.

6. ANY FILLING SHALL BE CARRIED OUT AS CONTROLLED FILL USING CLEAN SELECT FILL COMPACTED IN LAYERS IN ACCORDANCE WITH AS 2870 AND AS 3798.

7. UNDERTAKE ALL COUNCIL INSPECTIONS AND PROOF ROLL TESTING BEFORE PROCEEDING. PROOF ROLL AT:

- TRIMMED & COMPACTED SUBGRADE
- TRIMMED & COMPACTED SUB-BASE
- TRIMMED & COMPACTED BASE

8. UNDERTAKE DENSITY TESTING OF SUBGRADE, SUB BASE AND BASE. 4 TESTS ALONG LENGTH OF LANE EACH LAYER

NOTES ON ROAD UPGRADE

1. RETAIN & EXTEND EXISTING CULVERT UNDER ENTRY

2. TREES TO BE REMOVED SHALL BE CHIPPED FOR REUSE ON THE SITE. REMOVE STUMPS WHERE POSSIBLE.

3. ALL WORK IN ROAD RESERVE SHALL BE CATTIED OUT AFTER THE TRAFFIC CONTROL PLANS HAVE BEEN ESTABLISHED. NO WORK OUTSIDE NORMAL WORKING HOURS.

4. THE S138 APPLICATION IS A STAGED APPROVAL
STAGE 1 INVESTIGATION & ENTRY WIDENING
STAGE 2 ROAD WIDENING, SEALING & LINEMARKING

DESIGN CERTIFICATE

I Philip John Wallace certify that I have carried out and checked the design work for this Subdivision Works Certificate Application as represented in these drawings **C1 - C17 - issue K**

I further certify that the proposed works shown in these plans, conform to the requirements of the approved DA plans as well as the provisions of the Northern Rivers Local Government Development Design and Construction Manuals

Philip Wallace

Philip Wallace 20.05.23
M.I.E.Aust. C P Eng.

DRAWING	BANGALOW ROAD UPGRADE				SHEET No.
					C6
JOB NUMBER	PAPER SIZE	SCALE	DATE	ISSUE	ISSUED FOR
21-11	A2	as shown	05-23	K	SWC

4 LOT COMMUNITY TITLE SUBDIVISION AT 111 BANGALOW RD - BYRON BAY

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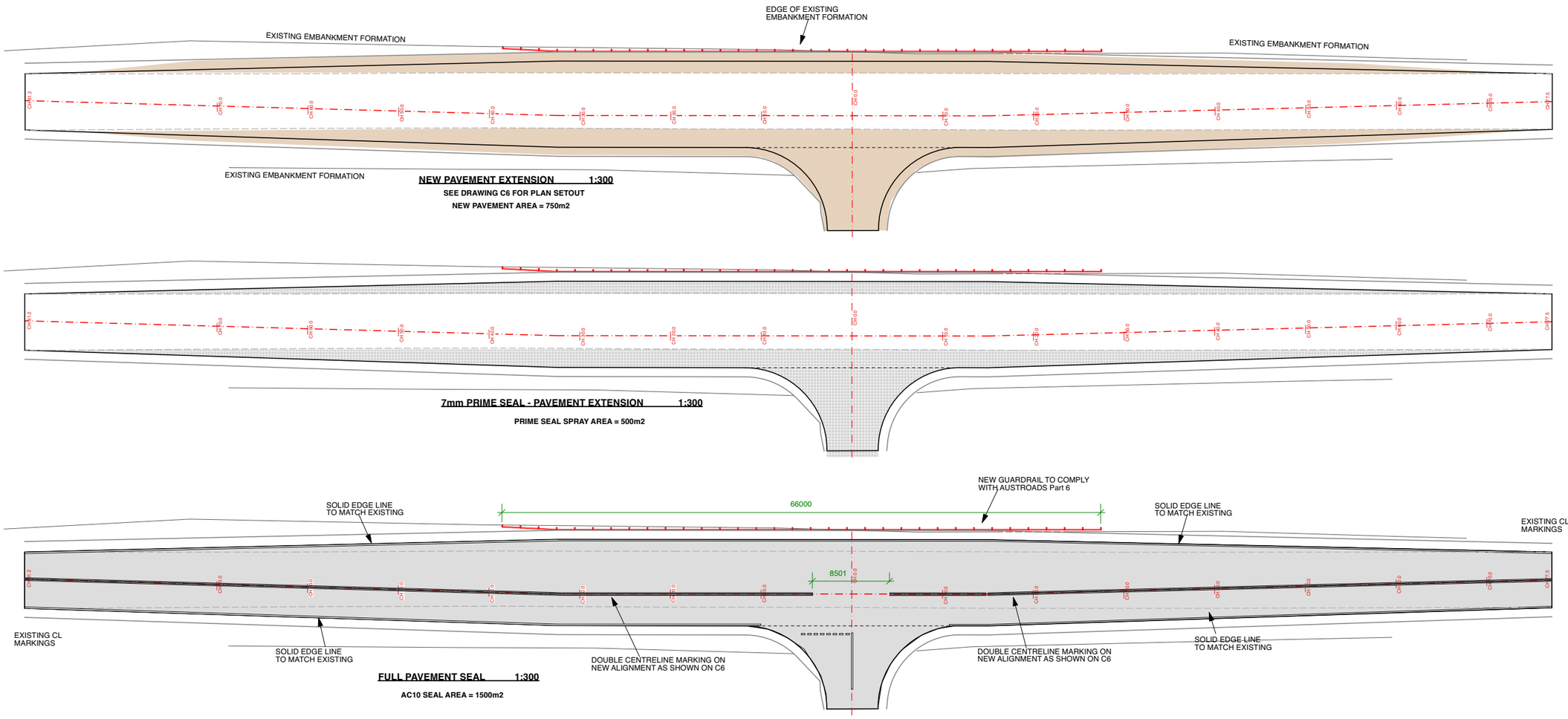

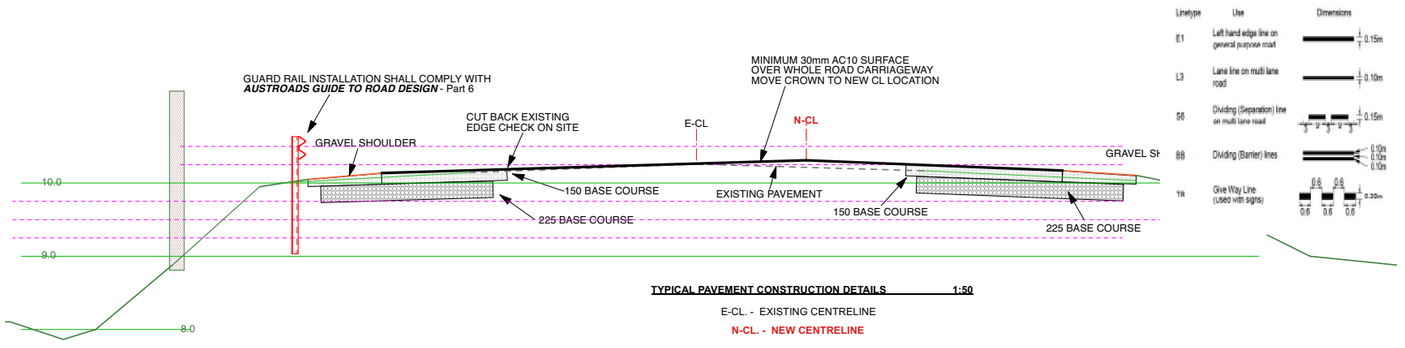

ROAD PAVEMENT EXTENSION SPECIFICATION

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2. SUBGRADE SHALL BE THE EXISTING ROAD EMBANKMENT BASE COMPACTED TO 95% MODIFIED COMACTION. CHECK CONDITION OF SUBGRADE BEFORE PROCEEDING. UNDERTAKE 4 DENSITY TESTS EACH SIDE BEFORE PLACING THE SUB-BASE.

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Philip Wallace
M.I.E.Aust. C P Eng.

20.05.23

DRAWING					SHEET No.
BANGALOW RD WIDENING FINISHES					C6A
JOB NUMBER	PAPER SIZE	SCALE	DATE	ISSUE	ISSUED FOR
21-11	A2	as shown	05-23	K	SWC

4 LOT COMMUNITY TITLE SUBDIVISION AT 111 BANGALOW RD - BYRON BAY

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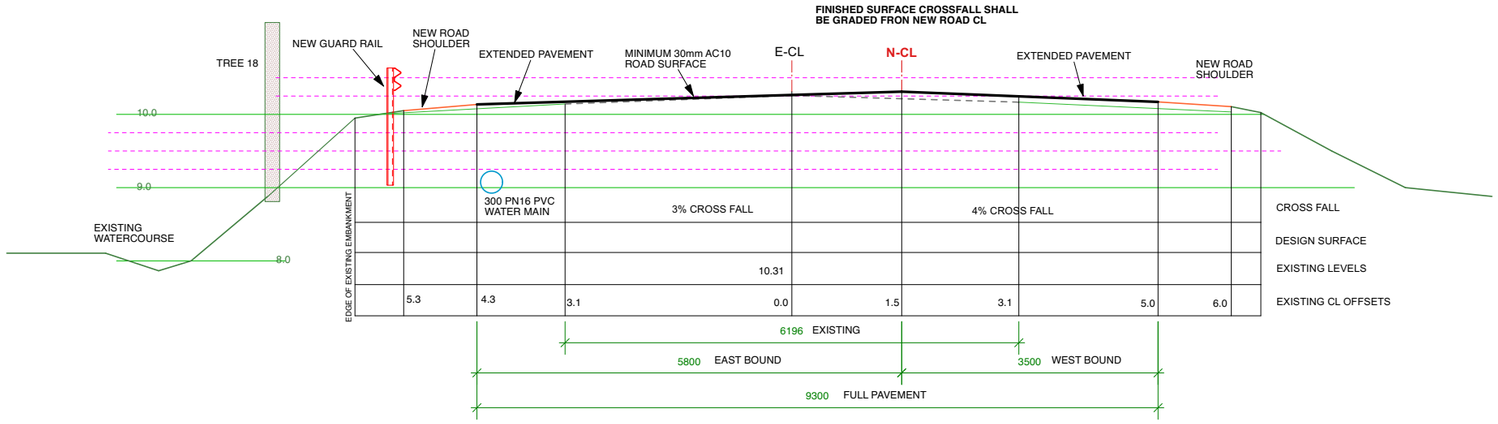
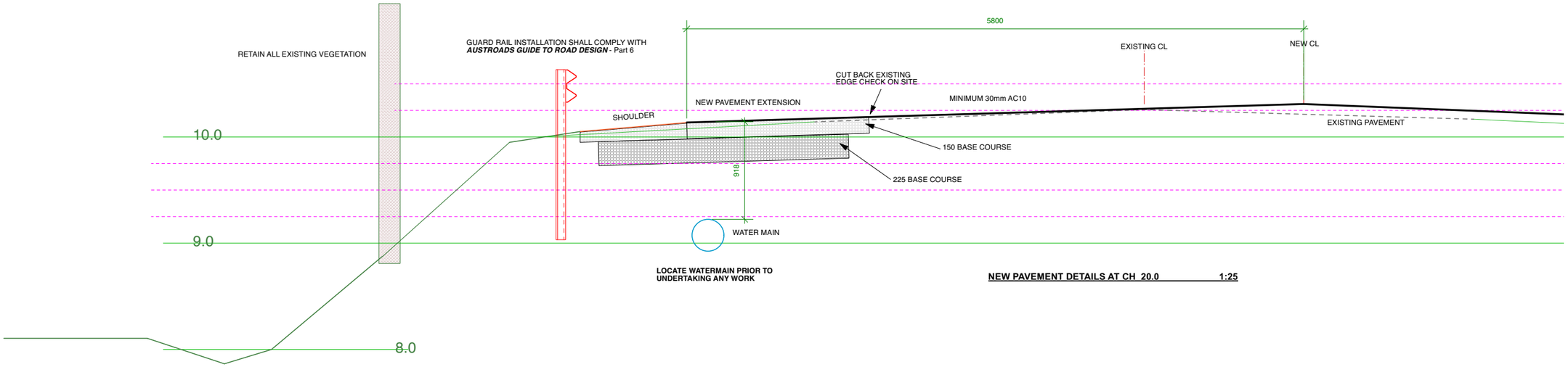


CL CHAINAGE EAST = 20.0 1:50

CROSS SECTION OFFSETS FROM EXISTING CL



LOCATE WATERMAIN PRIOR TO UNDERTAKING ANY WORK

NEW PAVEMENT DETAILS AT CH 20.0 1:25

NOTES ON STAGING OF WORK IN ROAD RESERVE

STAGE 1 - DETAILED SITE INVESTIGATION & FINAL COUNCIL APPROVAL

1. DETAILED SURVEY OF NORTH SIDE OF ROAD TO LOCATE EXISTING TREES AND SET OUT PROPOSED NEW WORK.

2. DETAILED GEOTECHNICAL INVESTIGATION FOR PAVEMENT DESIGN AND EMBANKMENT EXTENSION.

3. LOCATION AND DEPTH OF ROUS BULK WATER MAIN TO BE DETERMINED.

4. REMOVE 6 TREES AT ENTRY. SEE SHEET C7H - SITE ENTRY.

5. CARRY OUT BULK EARTHWORKS AT ENTRY TO WIDEN AND STABILISE ENTRY.

6. SUBMISSION & APPROVAL FROM COUNCIL PRIOR TO COMMENCEMENT OF STAGE 2 OF THE WORKS.

STAGE 2 - CONSTRUCTION WORK TO CONSTRUCT PAVEMENT EXTENSION

1. NO WORK SHALL BE COMMENCED UNTILL COUNCIL HAS APPROVED STAGE 2 WORKS

2. PAVEMENT EXTENSION & SEALING INCLUDING NEW PAVEMENT AT ENTRY.

3. GUARDRAIL INSTALLATION AS SHOWN

4. PAVEMENT LINE MARKING TO MATCH EXISTING.

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Philip Wallace
M.I.E.Aust. C P Eng. 20.05.23

DRAWING					SHEET No.
EMBANKMENT EXTENSION					C8A
JOB NUMBER	PAPER SIZE	SCALE	DATE	ISSUE	ISSUED FOR
21-11	A2	as shown	05-23	K	SWC

4 LOT COMMUNITY TITLE SUBDIVISION AT 111 BANGALOW RD - BYRON BAY

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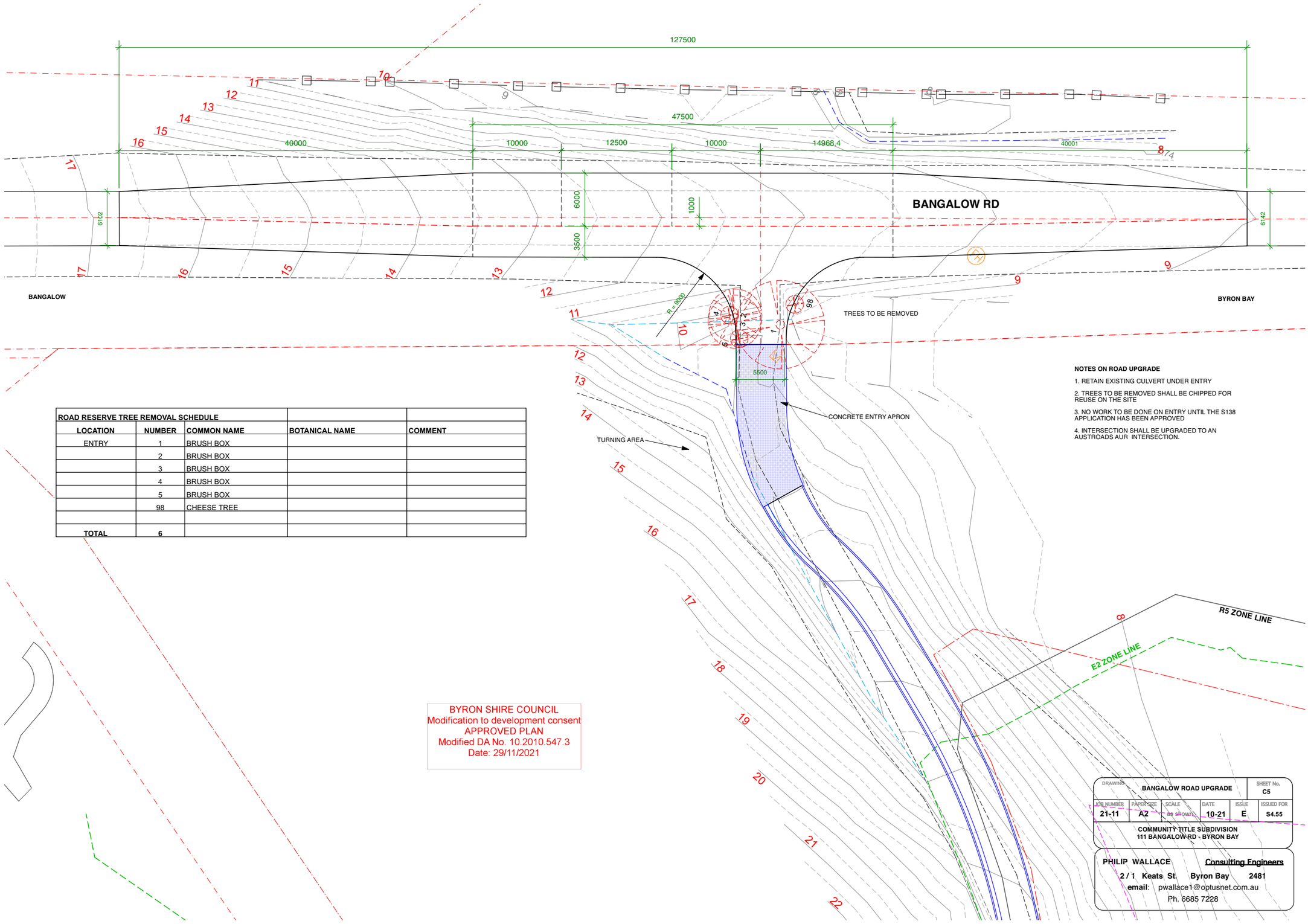

ROAD RESERVE TREE REMOVAL SCHEDULE				
LOCATION	NUMBER	COMMON NAME	BOTANICAL NAME	COMMENT
ENTRY	1	BRUSH BOX		
	2	BRUSH BOX		
	3	BRUSH BOX		
	4	BRUSH BOX		
	5	BRUSH BOX		
	98	CHEESE TREE		
TOTAL	6			

NOTES ON ROAD UPGRADE

1. RETAIN EXISTING CULVERT UNDER ENTRY
2. TREES TO BE REMOVED SHALL BE CHIPPED FOR REUSE ON THE SITE
3. NO WORK TO BE DONE ON ENTRY UNTIL THE S138 APPLICATION HAS BEEN APPROVED
4. INTERSECTION SHALL BE UPGRADED TO AN AUSTROADS AUR INTERSECTION.

BYRON SHIRE COUNCIL
Modification to development consent
APPROVED PLAN
Modified DA No. 10.2010.547.3
Date: 29/11/2021

DRAWING	BANGALOW ROAD UPGRADE					SHEET No.
						C5
JOB NUMBER	PAPER SIZE	SCALE	DATE	ISSUE	ISSUED FOR	
21-11	A2	as shown	10-21	E	S4.55	

COMMUNITY TITLE SUBDIVISION
111 BANGALOW RD - BYRON BAY

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Ph. 6685 7228

Report No. 6.6 South Beach Road, Parking Area

File No: I2023/1198

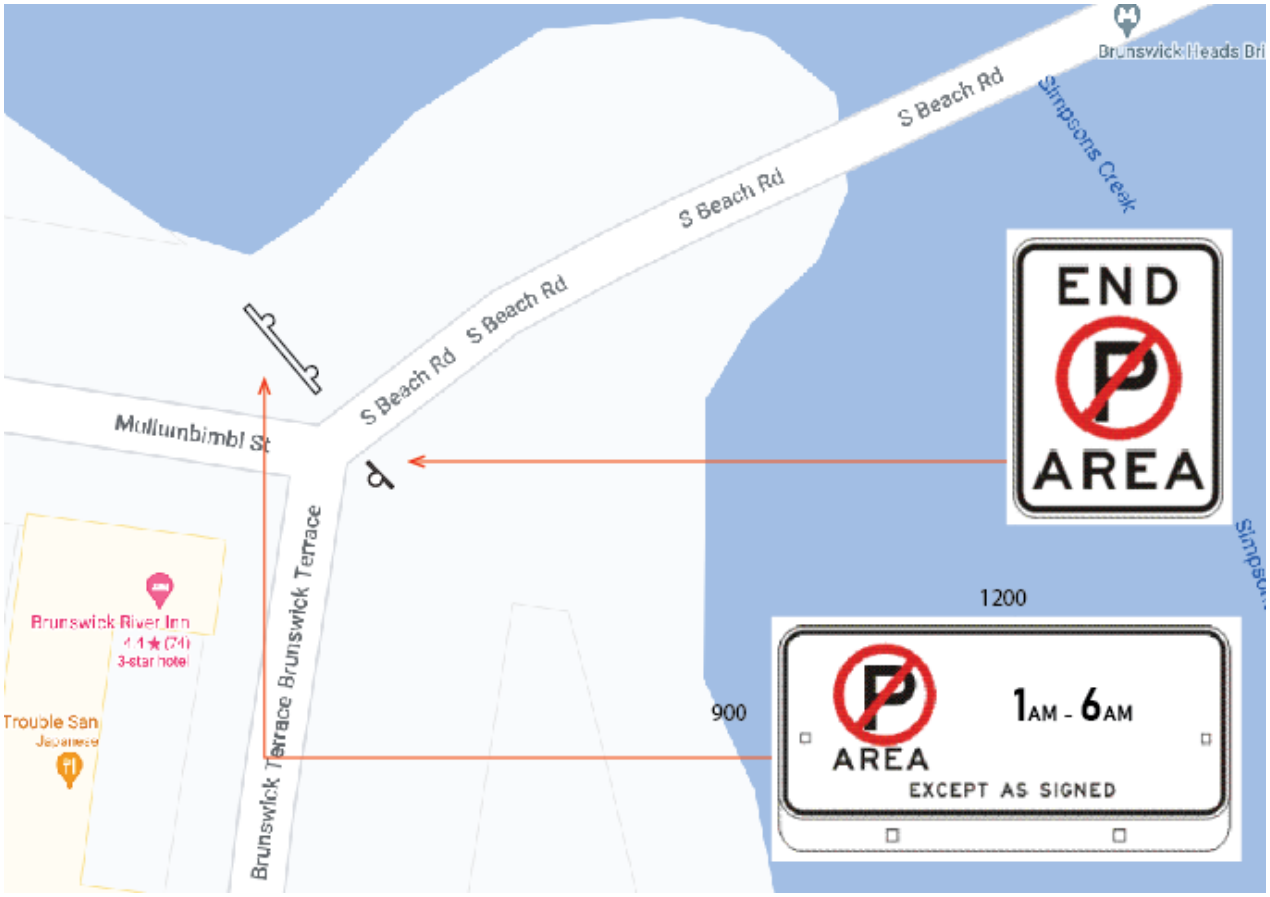
The purpose of this report is to replace the current lineal parking restrictions on South Beach Road, Brunswick Heads with a “No Parking Area” for Brunswick Heads, east of the river (please refer to figure 1). These parking restrictions will include a permit which will exempt residents from the no parking restrictions adjacent their properties.

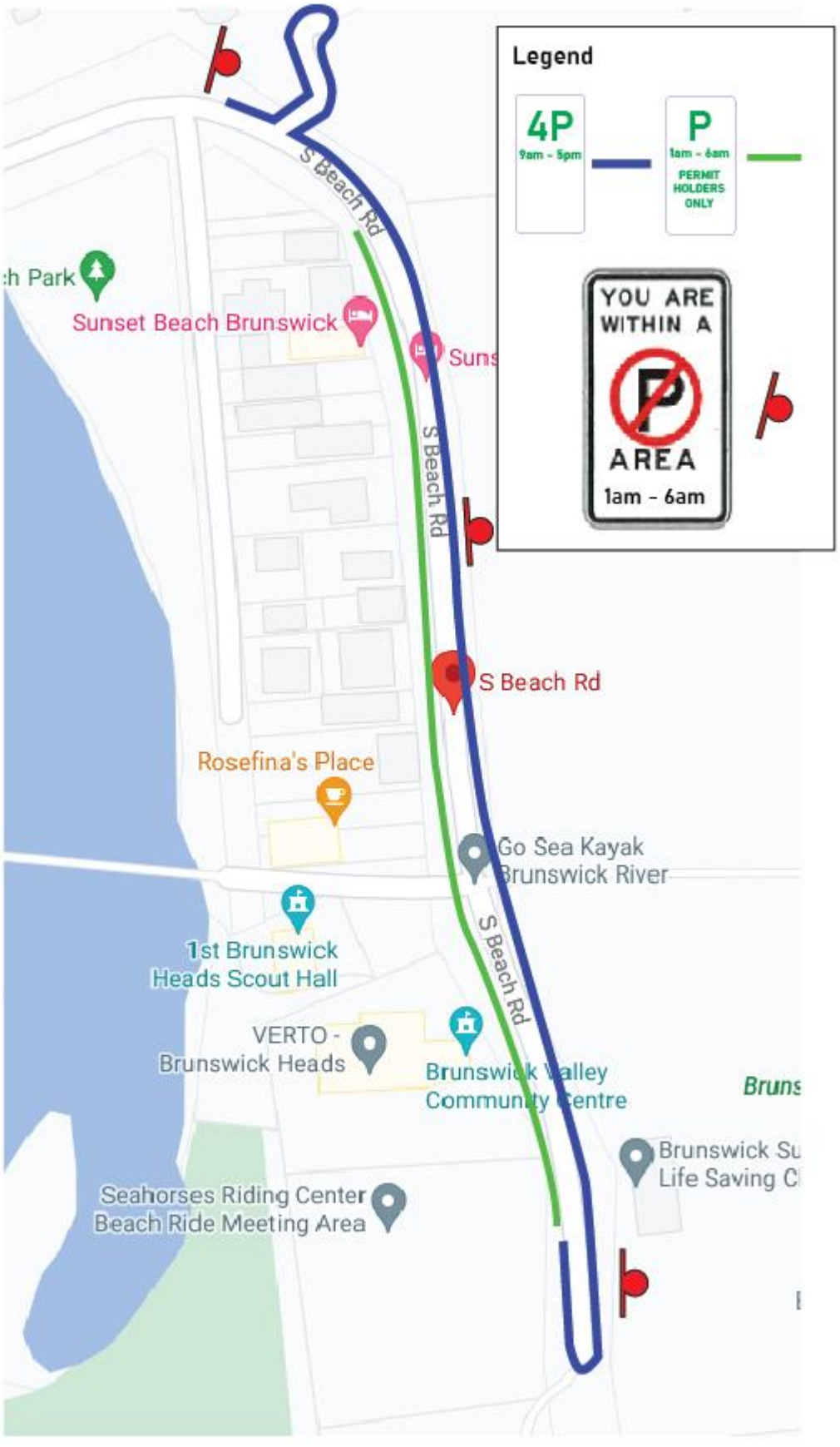
The only parking restrictions within this zone (shown in figure 1) will be the No Parking Area restrictions adjacent the residential properties.

The restrictions are to help mitigate nuisance camping in the area and the vandalism of our current no parking signage.

Figure 1: Parking Area (shown in red)

These restrictions are shown in the concept below –


Brunswick Heads Bri
S Beach Rd
S Beach Rd
S Beach Rd
S Beach Rd
Simpsons Creek
Mullumbimbi St
Brunswick Terrace
Brunswick River Inn
4.1★(74)
3-star hotel
Trouble San
Japanese
END
AREA
1200
900
AREA
1AM - 6AM
EXCEPT AS SIGNED


Legend
4P
9am - 5pm
P
1am - 6am
PERMIT HOLDERS ONLY
YOU ARE WITHIN A
P
AREA
1am - 6am
S Beach Rd
Sunset Beach Brunswick
S Beach Rd
S Beach Rd
Rosefina's Place
Go Sea Kayak
Brunswick River
1st Brunswick
Heads Scout Hall
S Beach Rd
VERTO -
Brunswick Heads
Brunswick Valley
Community Centre
Seahorses Riding Center
Beach Ride Meeting Area

RECOMMENDATION:

That the Local Traffic Committee endorse the proposed No Parking Area scheme for South Beach Road and South Beach Lane, Brunswick Heads.

MATTERS FOR TRAFFIC ENGINEERING ADVICE

Report No. 7.1 Road Safety Improvements to Warrambool Road and Coomburra Crescent Intersection Ocean Shores

File No: I2023/780

Council has been contacted by local residents in relation to safety concerns at the intersection of Warrambool Road, Coomburra Crescent and Goondooloo Drive in Ocean Shores (see circled area on location map below).

Investigation of NSW crash data shows two serious crashes at this intersection. The first, in 2019, resulted in a fatality and, the second in 2022, caused a serious injury.

Fig.1 - Location map showing intersection

Both incidents were multi-vehicle cross-traffic crashes which involved vulnerable road users (a motorcyclist in 2019 and a pedal cyclist in 2022). The fatal crash in 2019 involved a light truck travelling south on Warrambool Road, striking a motorcyclist who was travelling east across the intersection from Coomburra Cres to Goondooloo Drive (see sketch below).

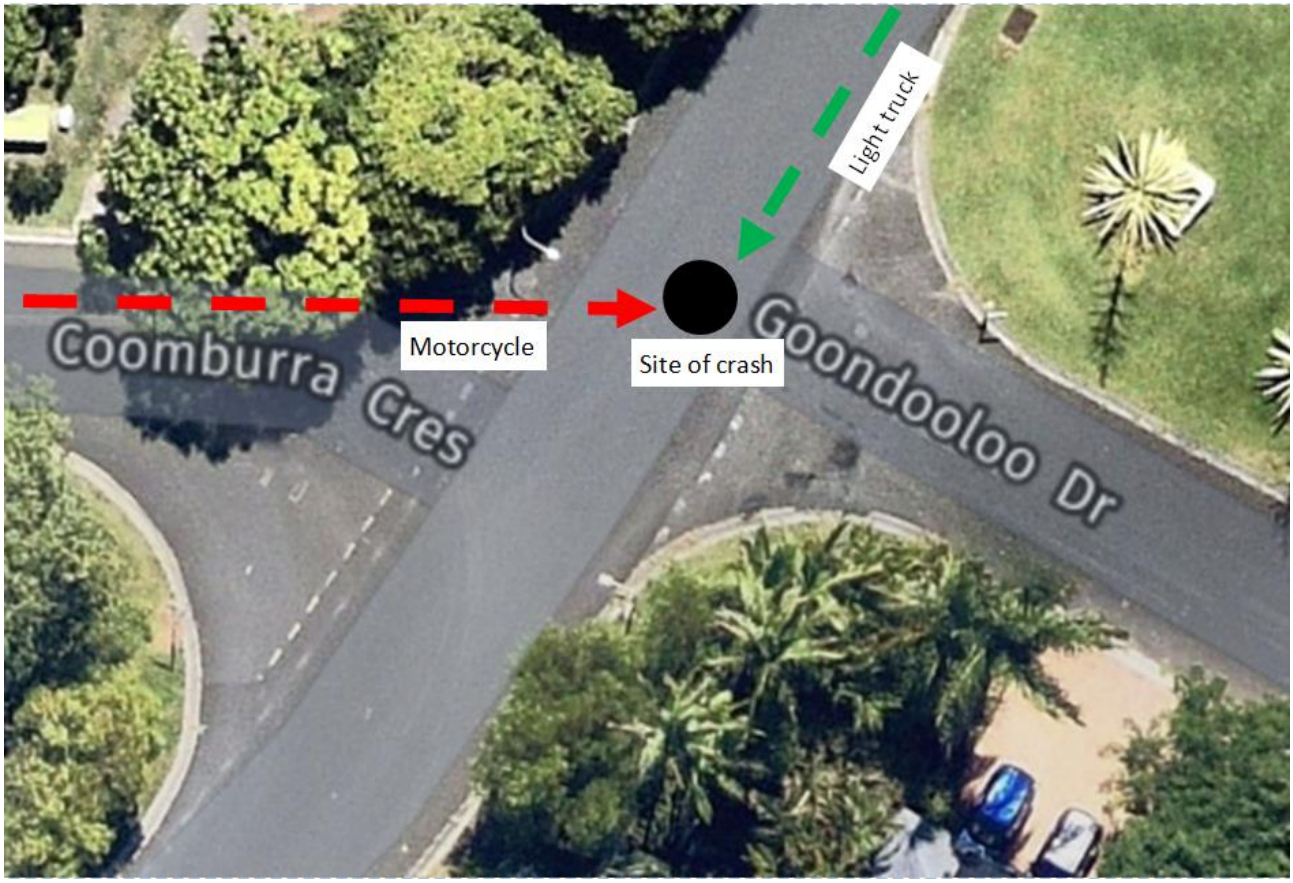


Fig.2 – Sketch of motorcycle / light truck crash in 2019

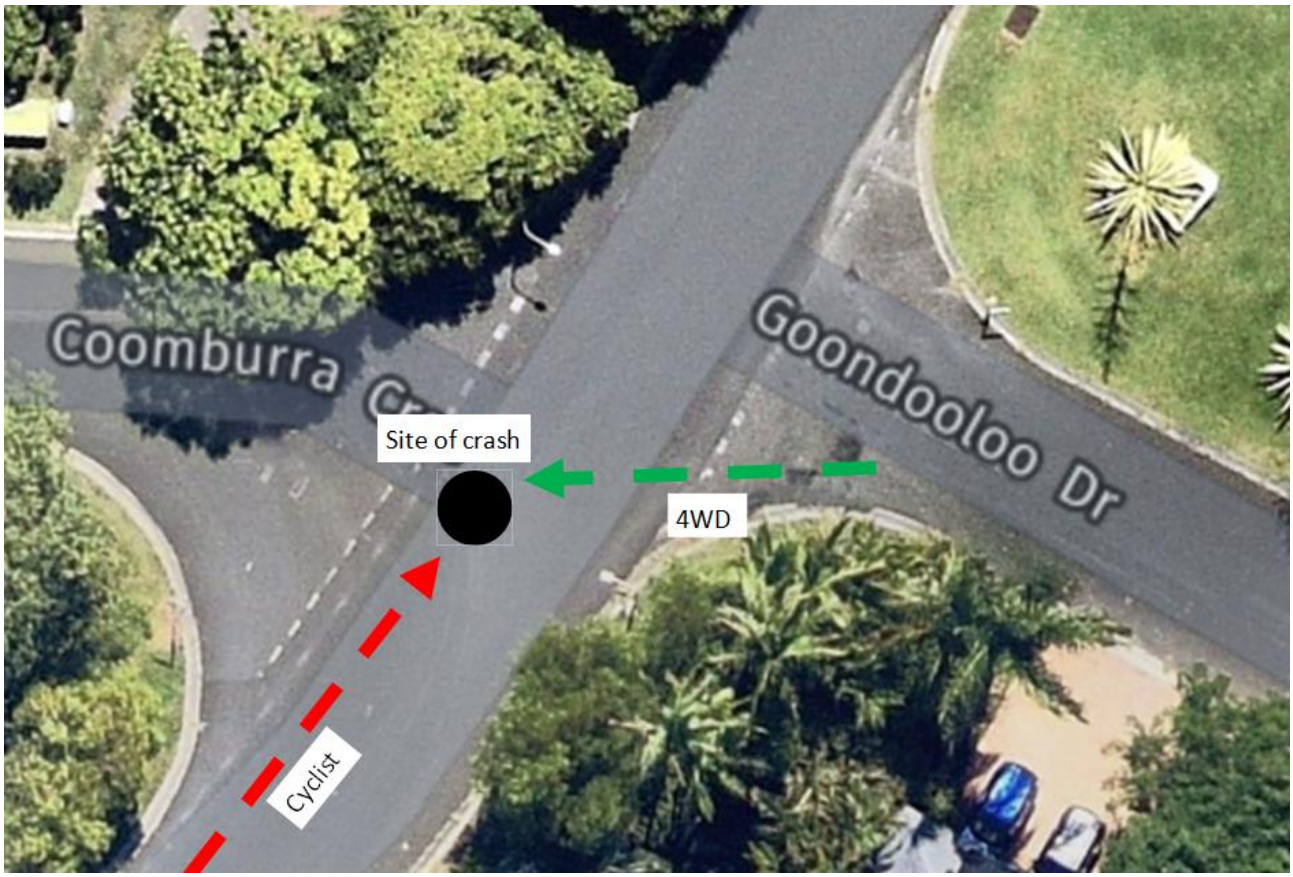


Fig.3 – Sketch of pedal cyclist / 4WD crash in 2022

The following factors may have contributed to these incidents (refer photos below):

- Topography and geometry of intersection

  Goondooloo Dr and Coomburra Cr run steeply uphill to meet Warrambool Road and Warrambool Road runs downhill towards the Orana Road roundabout. This, combined with the slight misalignment of Coomburra Cr and Goondooloo Dr, limits driver sight distances at this intersection.

Fig.4 – Map showing road topography

- Sun glare

  Both incidents occurred approx. 2hrs prior to sunset, impacting vehicles travelling in a westerly direction (e.g. vehicles travelling from Goondooloo Dr to Coomburra Cr or vehicles turning down Coomburra Cr).

- Road infrastructure

  There are existing Give Way signs on both side streets, however they are not prominent and the existing line markings are faded. There is also no channelisation of traffic on the side streets.

Speed has been suggested as a factor by the local community but we do not have any data to support this at this time.

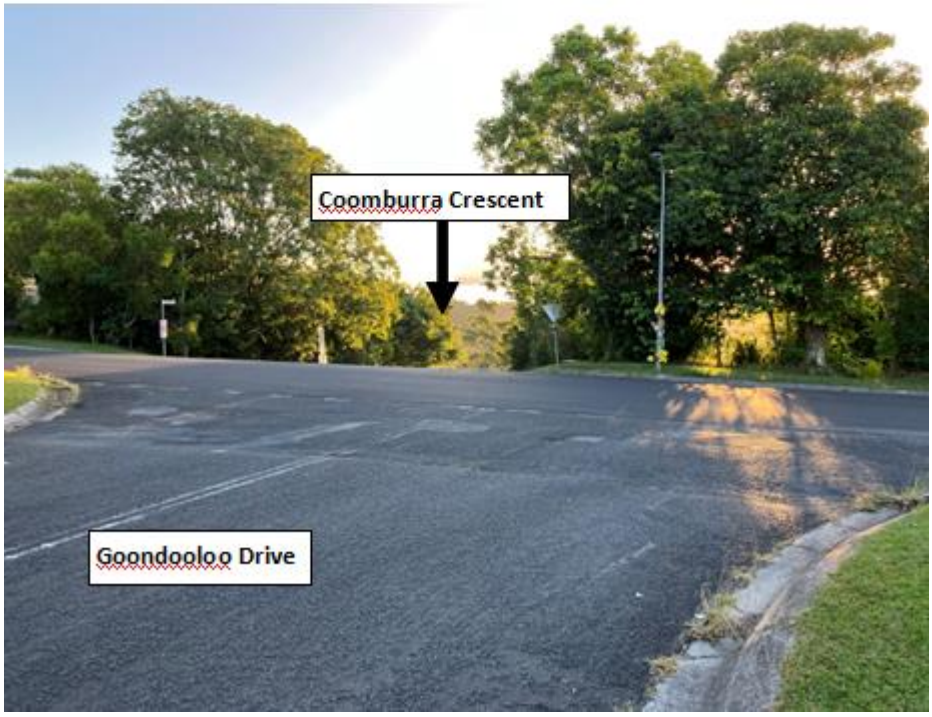


Fig.5 – Photos of intersection

Fig.6 – Photos of intersection

Proposed solution (refer sketch below)

The below solutions are intended to stagger the two minor legs and tighten the entry angle from the Coomburra Cres. approach.

- New double centre line to Warrambool Road to create a turning point for traffic and discourage vehicles driving straight through the intersection.

- New line marking and channelisation on Coomburra Crescent to prevent traffic driving straight through onto Goondooloo Drive.
- Move Give Way signage to more prominent locations.
- Potentially change the give way to a stop (intersection sight distance is limited).
- Refresh all existing line marking through the intersection.

Fig.8 – Existing layout of intersection

Fig.8 – Proposed layout of intersection (concept only)

RECOMMENDATION:

5 **That the Local Traffic Committee support:**

1. The implementation of the proposed intersection layout.

2. Council seeking funding for these changes.