HARSANTS ROAD, LAWGI DAWES

CONCRETE FLOOWAY OVERLAY

IDP ID NO. 23/24 0131-0223-9005



DRAWING INDEX								
SHEET NO.	DRAWING NO.	DRAWING TITLE						
1	0131-0223-9005-001	LOCALITY PLAN & SHEET INDEX						
2	0131-0223-9005-002	GENERAL ARRANGEMENT PLAN						

NOTES

1. FOR INSTALLATION OF FLOODWAY - BED LEVEL CROSSING REFER TO STD. DWG. CMDG - R - 094.

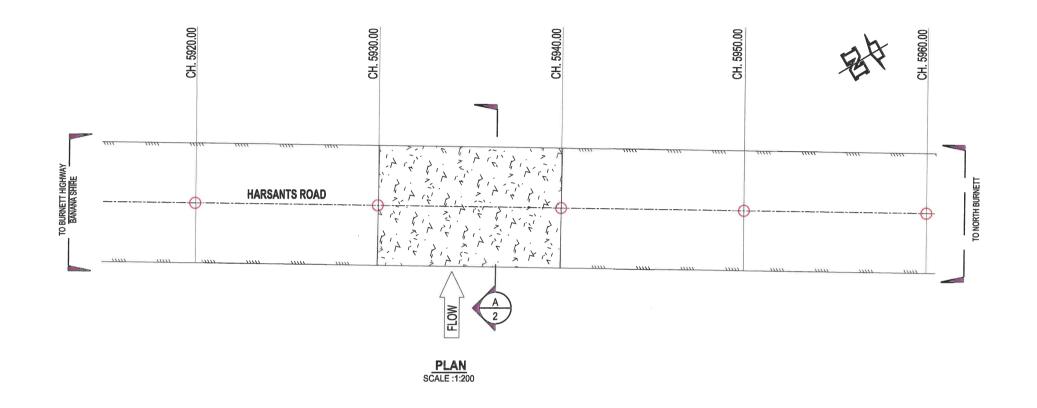
LOCALITY PLAN

""WARNING"

The location of existing public utilities shown on these drawings is approximate only and in some cases may be inaccurate or incomplete. No responsibility is accepted for nor is any guarantee made as to the accuracy of the locations shown that have been plotted from information provided by the relevant public utility authorities. The attention of the user of these drawings is directed to the possible existence of underground public utilities and private service lines not shown or at locations different from those shown on these drawings. It is the responsibility of those persons using these drawings to confirm the existence of all public utilities and private service lines within the vicinity of the works in conjunction with the relevant public utility authority and/or by physical location.

FOR CONSTRUCTION

			N.GARVEY DESIGN N. GARVEY	I. JOHNSON	6	BEFORE	CONCRETE	ITS ROAD, LAWGI FLOODWAY OVERLAY CH.59 PLAN & DRAWING SH	30- CH.5940	
1 FOR REVIEW	17/10/2023		N. GARVET	P. MEREDITH	Banana	www.byda.com.au	Scale	Dwg. No.	Sheet	Issue
No. Revision	Date	General Notes:	MIT	DIS RPEQ 15268	THERE OF DEPOSITIONITY		AS SHOWN	0131-0223-9005-001	1 OF 2	Α

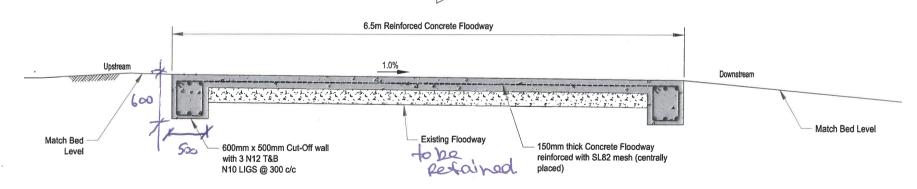




Existing Road Centreline
Proposed Concrete Floodway



<u>SECTION A</u> CH.5930.0 - CH.5940.0 NOT TO SCALE



"WARNING"

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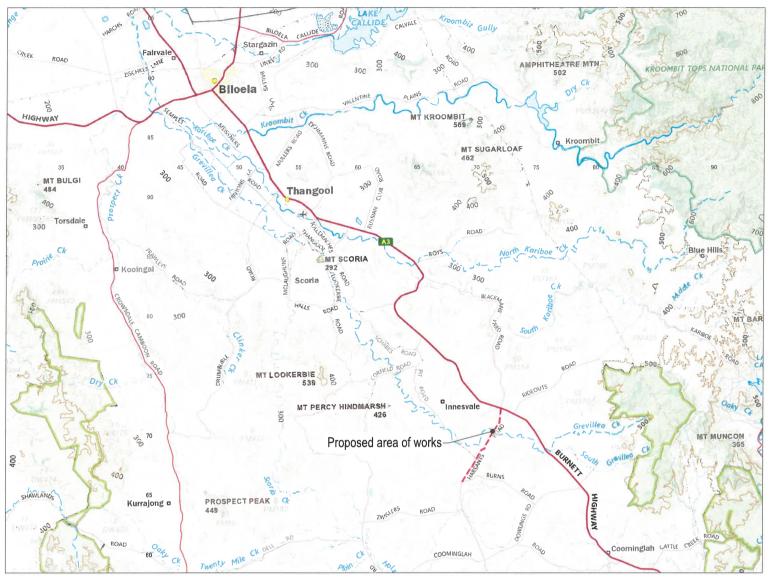
FOR CONSTRUCTION

			N.GARVEY	I. JOHNS	ON		BEFORE			TS ROAD, LAWGI		
			N. GARVEY	P. MERE	DITH	THE PARTY OF THE P	YOU DIG			FLOODWAY OVERLAY CH.593 RAL ARRANGEMENT		
1 FOR REVIEW	17/10/2023					banana	www.byda.com.au	Scale		Dwg. No.	Sheet	Issue
No. Revision	Date	General Notes:	MIT	DIS	RPEQ 15268	SHIRE OF OPPORTUNITY			AS SHOWN	0131-0223-9005-002	2 OF 2	A

HARSANTS ROAD, GREVILLEA CREEK FLOODWAY



ROAD AND FLOODWAY UPGRADE





LOCALITY PLAN (Not to scale)

DRAWING INDEX

		_, .
Drawing Number	Date	Drawing Description
001	Sep-23	Project Cover Sheet
002	Sep-23	General Notes
300	Sep-23	Survey Control and Services Plan
400	Sep-23	Roadworks and Setout Plan Sheet 1
500	Sep-23	Pavement Plan
600	Sep-23	Longitudinal Section Sheet 1
700	Sep-23	Typical Cross Sections sheet 1
800	Sep-23	Annotated Cross Sections Sheet 1
801	Sep-23	Annotated Cross Sections Sheet 2
802	Sep-23	Annotated Cross Sections Sheet 3
803	Sep-23	Annotated Cross Sections Sheet 4

DRAWING INDEX

Drawing Number	Date	Drawing Description
804	Sep-23	Annotated Cross Sections Sheet 5
805	Sep-23	Annotated Cross Sections Sheet 6
806	Sep-23	Annotated Cross Sections Sheet 7
807	Sep-23	Annotated Cross Sections Sheet 8
1000	Sep-23	Supplementary Signs and Linemarking Details
1200	Sep-23	Floodway Details
1600	Sep-23	Limit of Clearing Plan
1700	Sep-23	Temporary Erosion and Sediment Control Sheet 1
1701	Sep-23	Temporary Erosion and Sediment Control Sheet 2
1702	Sep-23	Temporary Erosion and Sediment Control Sheet 3

STANDARD DRAWINGS:

ROADWORKS

E Sign Location and Installation Details CMDG-R-081

CMDG-R-094 B Floodway - Bed Level Crossing

DEPARTMENT OF TRANSPORT AND MAIN ROADS - STANDARD DRAWINGS:

ROAD FURNITURE

D Flood Depth Indicators - Installation

GENERAL EARTHWORKS AND PROPERTY ACCESS

E Diversion of Water from Roadway and Table Drains

					Caalaa
					Scales
_					
Α	Issued for Construction				
20	0,01 Revisions/Descriptions	Drawn	Approved	Date	Dimensions shown in metres except where shown otherwise



Title	HARSAN ROAD	Job No.	CRC00311				
	P	Drawing No.	001				
Drawn		ENGINEER	RING CERTIFICATION (RPEC	1)			
B. Doherty	ENG. AREA	NAME	SIGNATURE	NO.	DATE	Revision	Α
Designed	Civil	T. Penrose	There	24087	Sep 23		
B. Doherty						Series No.	1 of 21

SAFETY IN DESIGN NOTES:

- Potential safety hazards identified by the Designer have been assessed for this project in accordance with Safe Design of Structures - Code of Practices by Safe Work Australia, 2012. Refer to the Safety In Design Report for the potential safety hazards.
- 2. <u>Disclaimer:</u> It must be acknowledged that new and/or different risks may become apparent during each project phase. The designer has ensured, so far as reasonably practicable, that the structure/municipal work is designed to minimise risk to the health and safety of persons involved in construction or use related activities. Further, in Appendix D Safety in Design Risk Register of the Safety In Design Report, assumptions may have been made within the different project phases as to how the project and/or project elements will be constructed and maintained. This may differ from the end methods adopted.
- 3. Any person who undertakes alterations, variations or modifications to these design drawings, without consultation and approval from the original or subsequent designer, will assume the duties of a designer and will be held responsible for the safety in design for this project.
- 4. All works must comply with W.H. & S. Act, 2011.

GENERAL NOTES:

- Works shall be undertaken generally in accordance with the relevant CMDG construction specifications except where specific DTMR specification requirements are detailed within these Project specific Drawings. The most current version shall be adopted, unless noted otherwise.
- Works to be measured in accordance with project specific Supplementary Specification for Measurement and Work Operations for Work Items.
- If any archaeological or cultural material is exposed on the work site all works shall cease. The D.E.H.P., Aboriginal Land Council and I.C.C. are to be notified.
- 4. All works are to comply with the requirements of the Environmental Protection Act, 1994.
- Disposal/movement of material in areas of Red Imported Fire Ants are to comply with the D.A.F.F. regulations. Refer the Department's website: www.daff.gld.gov.au/fireants for the current information.
- 6. Prior to commencement of work a Risk Management Plan to minimise the chance of spreading Fire Ants is to be completed.
- 7. The positions shown on drawings for public utilities services are based on the B.Y.D.A. information supplied at time of design and are indicative only. Prior to construction the current Service Authority information is to be obtained from B.Y.D.A. (website: www.byda.com.au). The position and depth of each service is to be verified by the relevant Service Authority on site before the start of any construction.
- Where these drawings make reference to the Administrator or Contract Administrator it shall mean the Superintendent managing the works.
- 9. Prior to commencement of work contact the Superintendent if any PSM's are in the vicinity of the work site.
- 10. Order of Precedence of Documents, Ambiguities or Discrepancies The following order of precedence shall apply where there is any ambiguity, discrepancy or inconsistency between the design documents comprising the Contract, with the higher in the list having a higher priority:
 - a. These Project Specific Drawings
 - b. Technical Specifications
 - c. Standard Drawings

The several documents forming the Contract are to be taken as mutually explanatory of one another. If either party discovers any ambiguity or discrepancy in any document prepared for the purpose of executing the Work Under the Contract, that party shall notify the Superintendent in writing of the ambiguity or discrepancy as soon as possible,

- 11. The Scheme Drawings listed on the Project Cover Sheet are to be read as a whole and not in isolation. Any isolated drawing separated from the control set will be considered voided and is not to be used.
- 12. All drawings are to be read in conjunction with the project's specification and all relevant Standard Drawings.
- 13. All drawings are to be read in conjunction with the Abbreviation Table shown.
- 14. Materials and workmanship Where materials, material components, workmanship and procedures are not specifically described by the Contract, they shall be in accordance with the relevant Australian Standard. Where no Australian Standard is available, other specifications shall be used in the following order of priority:
 - a. manufacturer's recommendations, and
 - accepted industry standards.

At a minimum materials and workmanship shall be the best of their respective kinds and fit for the purpose for which they are intended.

Any product trade names have been used to establish a quality requirement. Written approval to be obtained prior to using any substitutions.

- 15. Dimensions / Levels All levels and setout points shall be confirmed on site by a registered surveyor prior to construction. The Contractor shall seek clarification from the Superintendent for any discrepancy prior to proceeding with works. Dimensions shall not be scaled from drawings.
- 16. Set Out of Individual Installations The Contractor shall set out an installation as shown on the Drawings in sufficient detail to identify the location, length and levels of the proposed installation. Once the initial set out is complete the Superintendent will determine the design appropriateness of the set out with regard to the actual site conditions. The Superintendent may direct amendments to the set-out details. Payment for such amendments will be made at appropriate rates in the Schedule of Rates or, where such rates are not deemed by the Superintendent to be appropriate, as determined by the Superintendent. Installations to be set out in accordance with the above requirements include:
 - a. drainage pipes, culverts, slabs and structures
 - b. landscaping
 - c. traffic control
- Existing Services Locate service prior to commencing works. Services are shown on these drawings for information only.
 No responsibility is taken for the accuracy or completeness of the information supplied. Take care to protect services from damage, and report any hits or damage to the service authority immediately.

Drawn Approved Date

Dimensions shown in metres

except where shown otherwise

EROSION AND SEDIMENT CONTROL NOTES:

- During construction all necessary precautions shall be taken to control erosion and downstream sedimentation. Monitor the
 prevailing weather conditions and protect any downstream construction and gully inlets.
- All sediment control devices, sediment fences, check dams, straw bales, stone traps and entry/exit sediment traps are to be
 in accordance with the E&SC plans within these project drawings or amended as required by the Contractor's suitably
 qualified professional.

EARTHWORK NOTES:

- 1. All unsuitable material is to be stripped prior to placement of structural fill.
- 2. All unsuitable material is to be removed in accordance with the specification or as directed by the Superintendent.
- 3. All contaminated soil to be removed in accordance with the specification or as directed by the Superintendent.
- 4. Earthwork quantities include existing road pavement excavated where applicable.
- 5. Earthwork quantities include unsuitable and or contaminated material except where noted otherwise.
- 6. Earthwork quantities in cut are bank (nett) volumes and in fill are compacted volumes
- Class A1 or B material to comply with the requirements of TMR MRTS04, and specific requirements within these project drawings.

LINEMARKING NOTES:

- 1. All linemarking, signs and traffic devices shall comply with the M.U.T.C.D. current edition.
- 2. Ensure that signage has clear sight distance, otherwise adjust location accordingly.
- 3. Superseded linemarking and signage to be removed.

SERVICE ADJUSTMENT NOTES:

Service Authority infrastructure adjustments are to be performed by contractors approved by the relevant service authority.



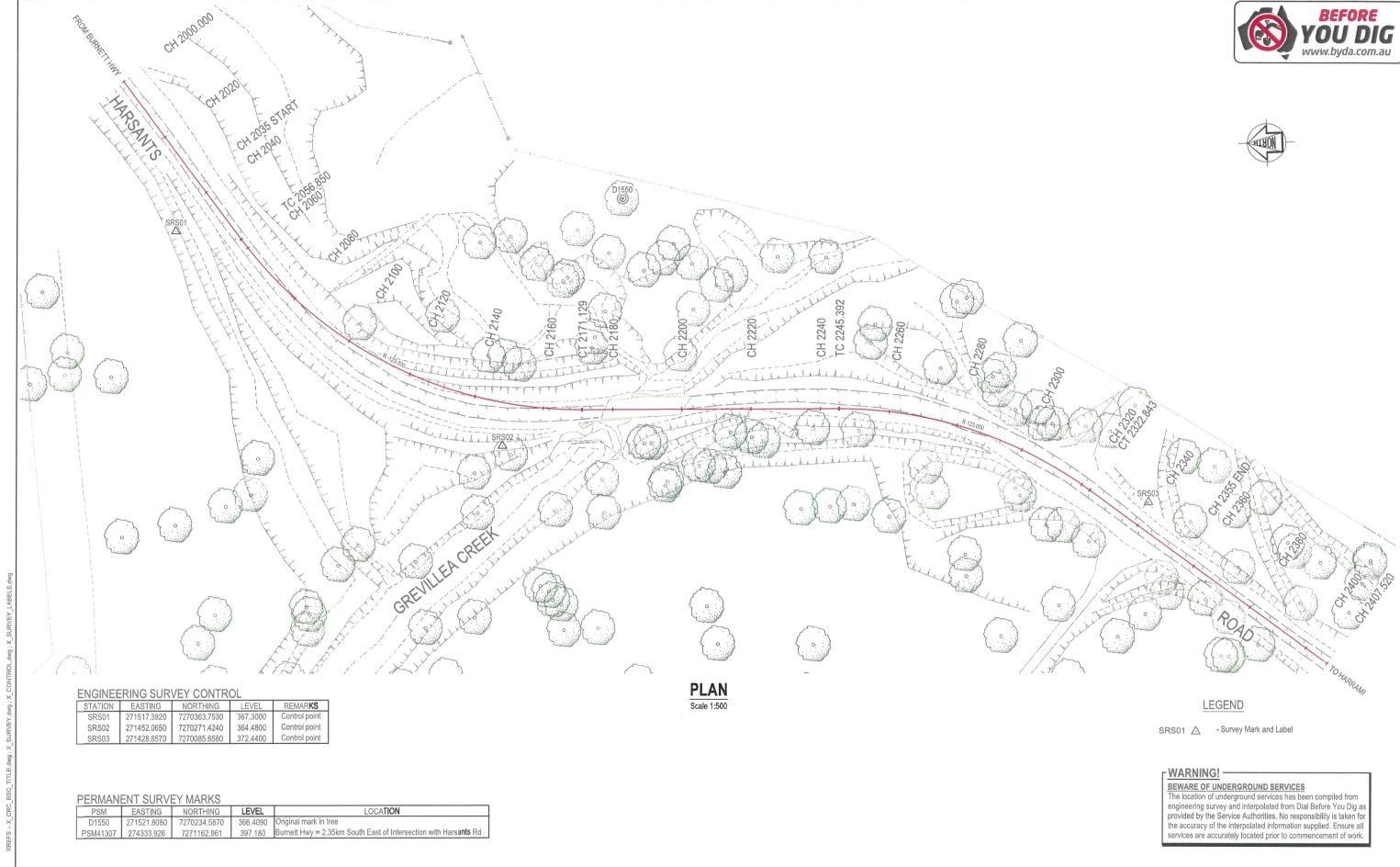
:- Sep 26, 2023 - 8:48am XREFS :- X_CRC_BSC_TITI

A Issued for Construction

quality people client focused solution driven
245 Mary Street, GYMPIE, QLD, 4570
ABN 73 617 924 437 Ph: 0477 322 555



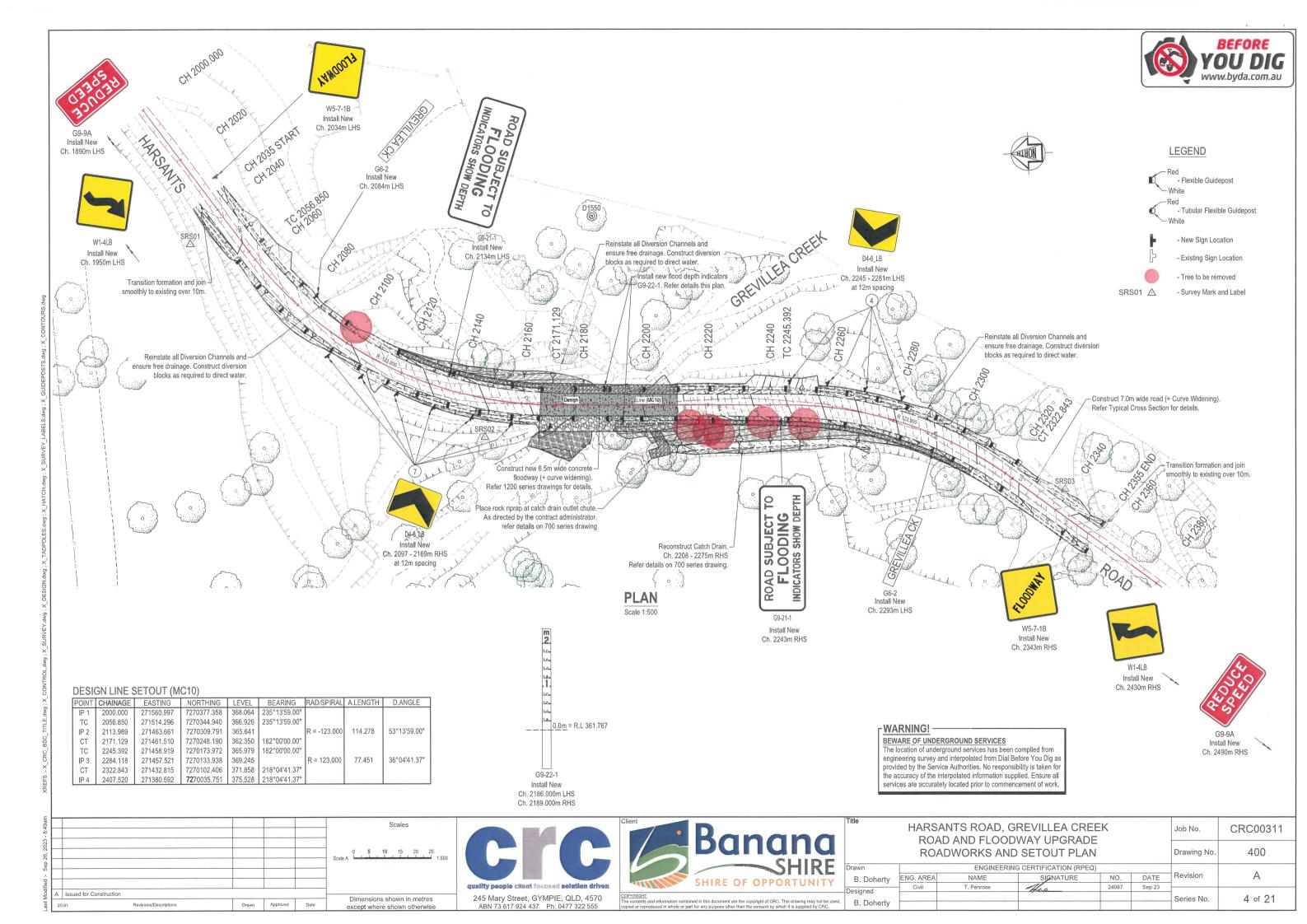
HARSANTS ROAD, GREVILLEA CREEK Job No CRC00311 ROAD AND FLOODWAY UPGRADE **GENERAL NOTES** Drawing No. 002 ENGINEERING CERTIFICATION (RPEQ) Α ENG. AREA NO. DATE Revision NAME B Doherty Sep 23 2 of 21

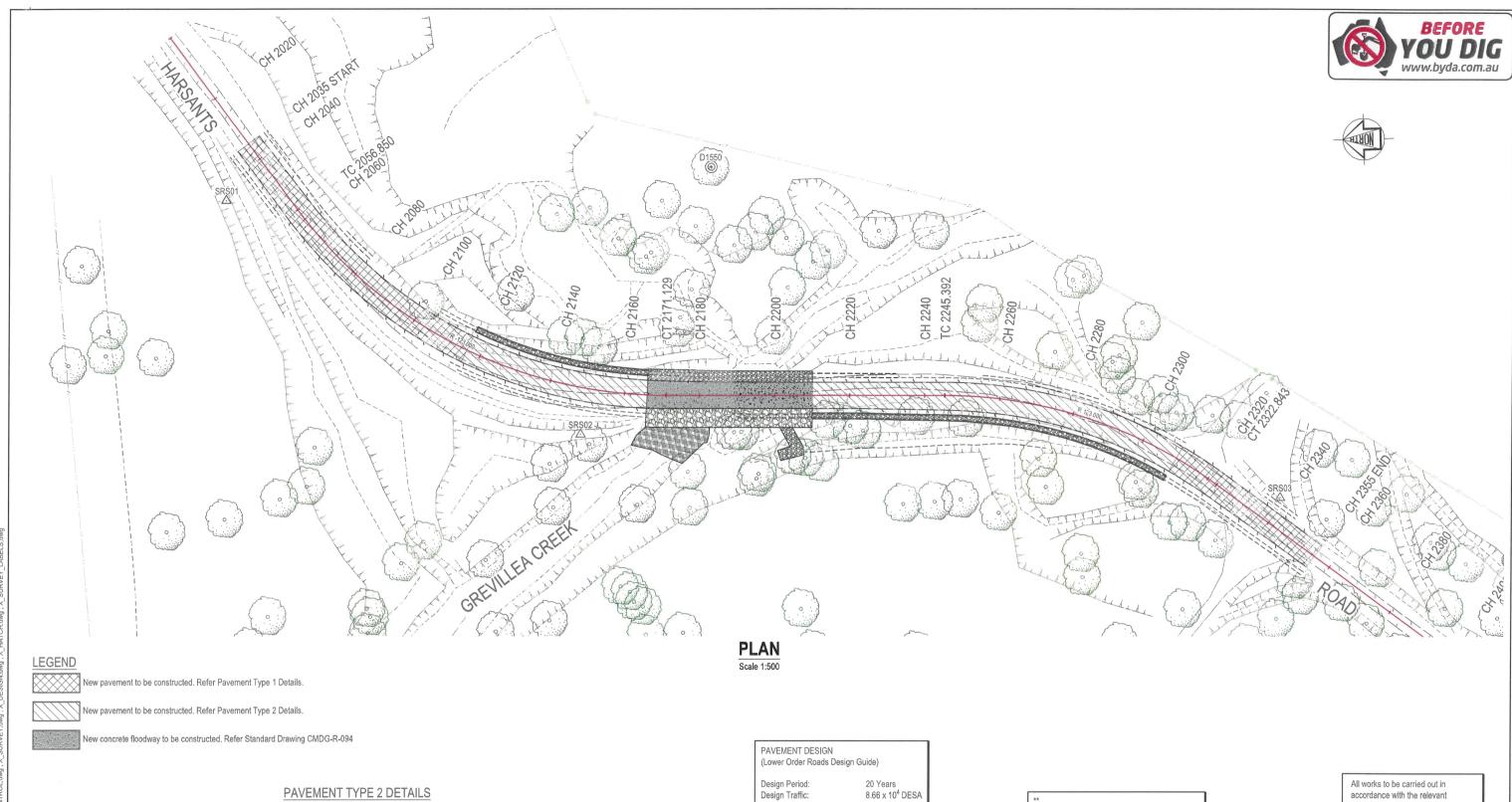


Scales

Dimensions shown in metres except where shown otherwise

Ranana	Title		,	REVILLEA CREE WAY UPGRADE			Job No.	CRC00311
Banana				ID SERVICES PL			Drawing No.	300
SHIRE	Drawn							
SHIRE OF OPPORTUNITY	B. Doherty	ENG. AREA	NAME	SIGNATURE	NO.	DATE	Revision	Α
	Designed	Civil	T. Penrose	There	24087	Sep 23		
	Designed						Sorios No	2 of 24





Insitu stabilised, GB binder (Cement/Fly Ash) Target UCS value 1 - 2 MPa at 7 Days, Contractor to

New pavement to be constructed 200mm Stabilised Base, Full Width,

Imported Unsealed Pavement Material **

undertake additive testing to confirm percentage of stablising agent by mass. A nominal 3% by mass used for estimating purposes only.

> Dimensions shown in metres except where shown otherwis

Subgrade replacement in cut *** Design Subgrade CBR 3 (soaked)

Design Period: Design Traffic: Design Subgrade CBR: 3 (Soaked)

150mm Subgrade Raplacement, Class A1 or B material per MRTS04. Minimum 4-day Soaked CBR 15. Maximum Swell 1.5%. CombiGrid Composite Geogrid (or approved equivalent) to underside of subgrade replacement. As directed by the Administrator.

UNSEALED PAVEMENT SPECIFICATION (Lower Order Roads Design Guide)

Imported Unsealed Pavement Material to satisfy the following specifications

Grading Coefficient (Gc): 16 - 34 Shrinkage Product (Sp): 100 - 240 < 1200 Passing 0.075mm Sieve: > 15%

CMDG Construction Specifications unless noted otherwise.

WARNING!

BEWARE OF UNDERGROUND SERVICES
The location of underground services has been compiled from engineering survey and interpolated from Dial Before You Dig as provided by the Service Authorities. No responsibility is taken for the accuracy of the interpolated information supplied. Ensure all services are accurately located prior to commencement of work.

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A	Issued for Construction		

PAVEMENT TYPE 1 DETAILS

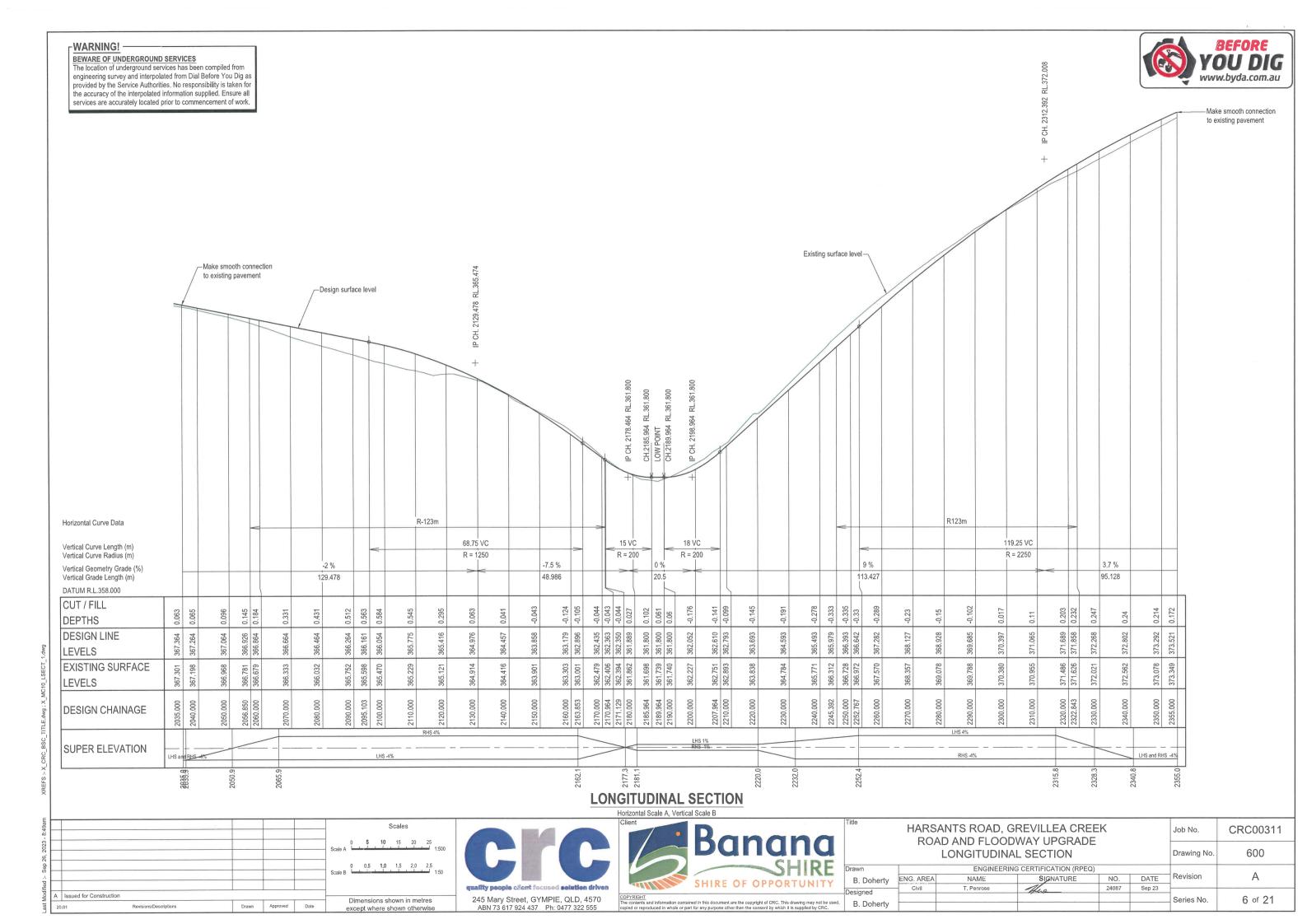
Imported Unsealed Pavement Material **

200mm Overlay, Full width,

Design Subgrade CBR 3 (soaked)



HARSANTS ROAD, GREVILLEA CREEK ROAD AND FLOODWAY UPGRADE							CRC00311
	107	Drawing No.	500				
awn		ENGINEERIN	G CERTIFICATION (RPEC	1)			
B. Doherty	ENG. AREA	NAME	SIGNATURE	NO.	DATE	Revision	A
signed	Civil	T. Penrose	There	24087	Sep 23		
B. Doherty			Series No.	5 of 21			



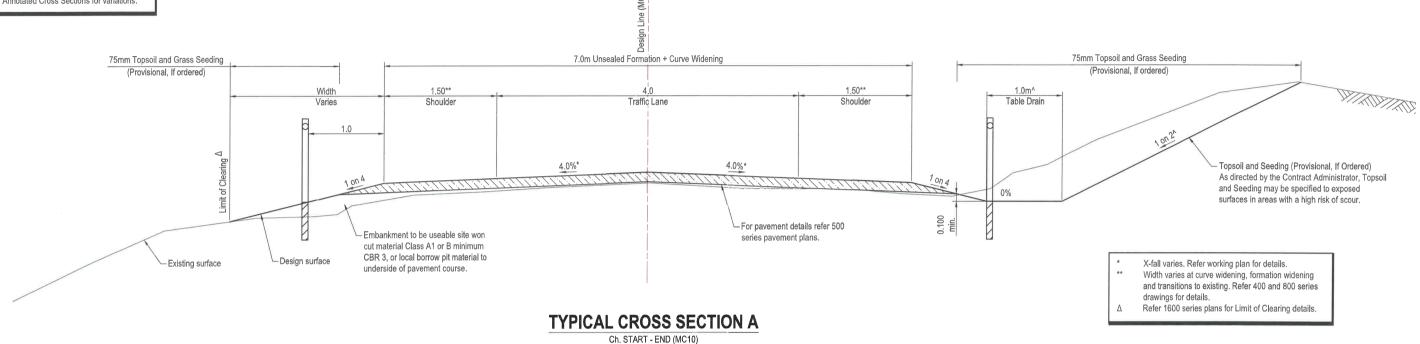
-WARNING!

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Information shown on Type Cross Sections is nominal only. Refer Setting Out Drawings & Annotated Cross Sections for variations.

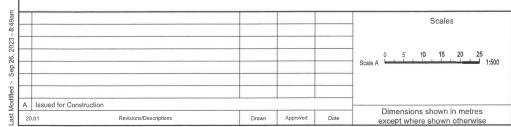


Topsoil and Seeding (Provisional, If Ordered)
As directed by the Contract Administrator, Topsoil
and Seeding may be specified, Topsoil
and Seeding may be specified by the Contract Administrator, Topsoil
and Seeding (Provisional, If Ordered)
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and Seeding (Provisional, If Ordered)
As directed by the Contra

(Excluding Floodway) Not to Scale

ROCK LINED TABLE DRAIN & CATCH DRAIN DETAILS

Not To Scal



Geofrabric

Filter Class II

Strength Class E



Rock Lined Table Drain (Provisional, If Ordered)

specified in areas with a high risk of scour.

Depth = 200mm d₅₀ = 100mm

As shown on plans or As directed by the the contract

administrator, Rock Lined Table Drain treatment may be



Title	HARS RO	Job No. CRC0031					
	107	Drawing No.	700				
Drawn		ENGINEERING					
B. Doherty	ENG. AREA	NAME	SIGNATURE	NO.	DATE	Revision	Α
Designed	Civil	T. Penrose	There	24087	Sep 23		
Ü						Series No.	7 of 21
B. Doherty						001103 140.	7 01 21

507 657 895

366. 366.

710 758 834

366. 366.

-5.304 -4.704 -3.751

7.19/m 518/ 6.4

898 797 869 972 121

366 366 366 367

398 308 308 382 338 128

366. 366. 367.

-6.323 -6.122 -5.122 -4.522 -3.569

1 in 9.499.25%

366.980 366.960 367.065 367.130

980 983 085 142 142

366. 366. 367. 367.

-6.094 -6.054 -5.054 -4.454 -3.501

CH. 2050.900

CH, 2040,000

2.9%

			ace level				
		1 in 4		4% / 4%		in 4	
DATUM RL 364.500							
DESIGN LEVEL	365.526 -	365.763 -	366.001	366.161 -	366.301 - 366.129 -	365.759 -	
EXISTING LEVEL	365.526	365.530	365.533	365.598	365.775 365.813	365.759	
OFFSET	-5.901	-4.953	-4.000	0.000	3.500	5.670	

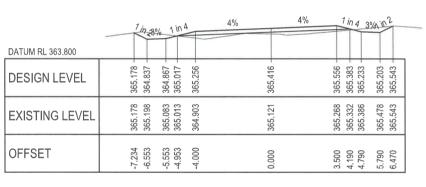
BEFORE

CH. 2095.103

	3% 1 in 4	4%	4%	1 in 4
DATUM RL 364.600				
DESIGN LEVEL	365.918 - 365.885 - 365.915 - 366.915 -	366.304 -	366.604 -	365.668 -
EXISTING LEVEL	365.918 365.918 365.933 365.939	365.952	366.036 365.942	365.668
OFFSET	-6.619 -6.553 -5.553 -4.953	-4.000	3.500	7.243

CH. 2080,000

		3% 1 in 4 49	4%	1 in 4
DATUM RL 364.800				
DESIGN LEVEL	366.049 -	366.197 - 366.347 - 366.586 -	366.746 -	366.886 - 366.713 - 366.311 -
EXISTING LEVEL	366.049	366.298 366.343 366.401	366.479	366.305 366.245 366.311
OFFSET	-10.488	-5.553 -4.953 -4.000	0.000	3.500 4.190 5.800



		3% 1 in 4	4%	2.4% 1 in 4
DATUM RL 365.100				
DESIGN LEVEL	366.225 -	366.319 - 366.469 - 366.707 -	366.864 -	366.949 - 366.767 - 366.526 -
EXISTING LEVEL	366.225	366.476 366.522 366.597	366.679	366.498 366.442 366.526
OFFSET	-8.597	-5.456 -4.856 -3.903	0.000	3.500 4.229 5.193

CH. 2120.000

CH. 2100.000

CRC00311

800

Α

8 of 21

Series No.

	1 in 4	4%	4% 1 in 4
DATUM RL 364.400			
DESIGN LEVEL	365.500 - 365.656 - 365.894 -	366.054 -	366.194 - 366.021 - 365.782 -
EXISTING LEVEL	365.500 365.502 365.506	365.470	365.691 365.729 365.782
OFFSET	-5.576 -4.953	0.000	3.500 4.190 5.147

CH. 2035.900

046 846 696 566 336

760 750 828 951 036

366. 366. 366. 366.

3.500 4.300 4.900 5.900 6.639

1 in 4.75%3.4%in 2

162 973 928 962 250

367. 366. 366. 366.

.007 .074 .074 .250

366. 367. 367. 367.

3.500 4.405 5.005 6.005 6.581

1 in 587%8.7%

367.206 367.039 367.079 367.166 367.231

367.034 367.061 367.120 367.218 367.231

3.500 4.453 5.053 6.053 6.182

-WARNING!

OFFSET

DATUM RL 365.200

DESIGN LEVEL

EXISTING LEVEL

OFFSET

DATUM RL 365,700

DESIGN LEVEL

EXISTING LEVEL

DATUM RL 365.800

DESIGN LEVEL

EXISTING LEVEL

OFFSET

BEWARE OF UNDERGROUND SERVICES

The location of underground services has been compiled from engineering survey and interpolated from Dial Before You Dig as provided by the Service Authorities. No responsibility is taken for the accuracy of the interpolated information supplied. Ensure all services are accurately located prior to commencement of work.

CROSS SECTIONS

					Scales
					0 1.0 2.0 3.0 4.0 5.0 Scale A 1:100
					State A
Α	Issued for Construction				Disconsistant about in market
20	.01 Revisions/Descriptions	Drawn	Approved	Date	Dimensions shown in metres except where shown otherwise

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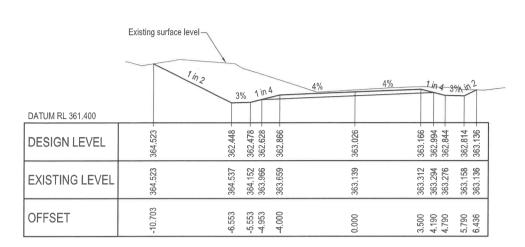


B. Doherty

е	Job No.						
			WAY UPGRADE ECTIONS SHEE	T 1		Drawing No.	
wn		ENGINEERING	CERTIFICATION (RPEQ)				
B. Dohertv	ENG. AREA	NAME	SIGNATURE	NO.	DATE	Revision	
signed	Civil	T, Penrose	Thea	24087	Sep 23		_
sidiled							

CH, 2065,900

CH. 2060.000



		Design surfa	ace level-	7				
		1 in 2	% 1 in 6.8	6 1.9%		1.9%	<u>8.6%</u>	
DATUM RL 359,500							1 ji	7 4.97
DATOWINE 339,300			-	<u> </u>	+			
DESIGN LEVEL	364.148	362.116	362.146 362.234	362.360	362.435	362.502	362.072	360.592
EXISTING LEVEL	364.148	363.572	363.252 363.060	362.791	362.479	362.579	361.165	360.592
OFFSET	-10.398	-6.336	-5.336 -4.736	-3.869	0.000	3.500	8.500	15.859

CH. 2170.000

	1 in 2	3% 1 in 4 4%	4%	6 1in 4 3%\in 2
DATUM RL 361.600				
DESIGN LEVEL	364.576 -	362.601 - 362.631 - 362.781 - 363.019 -	363.179 -	363.319 - 363.146 - 362.996 - 362.966 - 362.966 - 363.373 -
EXISTING LEVEL	364.576	364.356 364.356 364.184 363.892	363.303	363.499 363.490 363.471 363.368 363.373
OFFSET	-10.504	-6.553 -5.553 -4.963	0.000	3.500 4.190 4.790 5.790 6.603

CH. 2162.100

CH. 2160.000

CH. 2140.000

		3% 1 in 4	3%	3%	1 in 3.45	
DATUM RL 359,900						
DESIGN LEVEL	364.369 -	362.211 - 362.241 - 362.391 - 362.617 -	362.735 -	362.839 -	362.688 -	361.059 -
EXISTING LEVEL	364,369	364.049 363.698 363.508 363.220	362.829	362.944	362.334	361.059
OFFSET	-10.760	-6.444 -5.444 -4.844 -3.936	0.000	3.500	8.500	14.117

CH. 2166.000

		1 in 2 3	% 1 in	4	4% 4%		1 in 4 3	% 110	2
DATUM RL 362.800									
DESIGN LEVEL	365.054	363.879 -	363.909 - 364.059 -	364.297 -	364.457 -	364.597 -	364.425 - 364.275 -	364.245 -	364.861
EXISTING LEVEL	365 054	365.003	365.189 365.221	365.176	364.416	364.643	364.712 364.772	364.873	364.861
OFFSET	م ص م	-6.553	-5.553 -4.953	-4.000	0.000	3.500	4.190 4.790	5.790	7.023

		3% 1 in 4	3.5%	3.5% 1 in 4 3% ic	12
DATUM RL 361.300					
DESIGN LEVEL	364.465 -	362.342 - 362.372 - 362.522 - 362.755 -	362.896 -	363.020 - 362.845 - 362.695 - 362.665 -	362.916
EXISTING LEVEL	364.465	364.399 363.953 363.759 363.457	363.001	363.142 363.133 363.114 363.082	362.916
OFFSET	-10.751	-6.504 -5.504 -4.904	0.000	3.500 4.201 4.801 5.801	6.303

CH. 2163.853

WARNING! -

BEWARE OF UNDERGROUND SERVICES
The location of underground services has been compiled from engineering survey and interpolated from Dial Before You Dig as provided by the Service Authorities. No responsibility is taken for the accuracy of the interpolated information supplied. Ensure all services are accurately located prior to commencement of work.

CROSS SECTIONS

_						
8:49am						Scales
1						
2023						
26, 2						0 1.0 2.0 3.0 4.0 5.0 Scale A 1:100
Sep						Scale A 1.100
А.						
fled						
ast Modified	Α	Issued for Construction				5
Last	20	.01 Revisions/Descriptions	Drawn	Approved	Date	Dimensions shown in metres except where shown otherwise

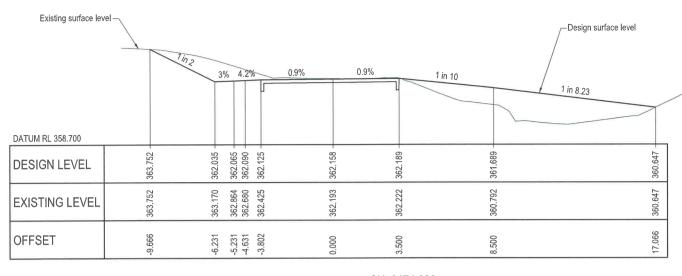




HARSANTS ROAD, GREVILLEA CREEK ROAD AND FLOODWAY UPGRADE Job No. CRC00311											
	ANNOTATED CROSS SECTIONS SHEET 2 Drawing No. 801										
Drawn		ENGINEERING	CERTIFICATION (RPEQ)							
B. Doherty	ENG. AREA	NAME	SIGNATURE	NO.	DATE	Revision	Α				
Designed	Civil	Sep 23									
Ü			There			Series No.	9 of 21				
B. Doherty						001103 140.	3 01 21				







		1 in 2 3%	1%	0.7%	0.7%	1 in 10	9.2%
DATUM RL 359.700							
DESIGN LEVEL	362.935 -	361.899 -	361.929 - 361.923 - 361.915 -	361.889 -	361.864 -	361.364 -	361.841 -
EXISTING LEVEL	362.935	362.444	362.188 362.038 361.901	361.862	361.736	360.968	361.841
OFFSET	-8.154	-6.080	-5.080 -4.480 -3.702	0.000	3.500	8.500	13.662

CH. 2180.000

CH	l. 2	174	.000

DATUM RL 359,300		1/h2 3% 1 in	8.59	1.6%	1.6%	1 in 10	1 in 5.66	
DESIGN LEVEL	364.038	362.088	362.287	362.350	362 407	700 196	360 475	5 11.000
EXISTING LEVEL	364.038	363.454	362.689	362.394	362 466	264 048	360.475	27.7.
OFFSET	-10.207	-6.306	-3.850	0.000	3 500	S Cu	6609	10.003

	14	3% 4%	0.2%	0.2%	1 in 10	1.3%
DATUM RL 358.700						
DESIGN LEVEL	363.293 -	361.949 - 361.979 - 361.973 -	361.965	361.959	361.952 -	361.552 -
EXISTING LEVEL	363.293	362.686 362.430 362.276	362.057	361.963	361.880	360.709
OFFSET	-8.817	-6.130 -5.130 -4.530	-3.736	0000	3.500	15.553

CH. 2171.129

CH. 2170.964

Scales

1,0 2.0 3.0 4.0 5.0

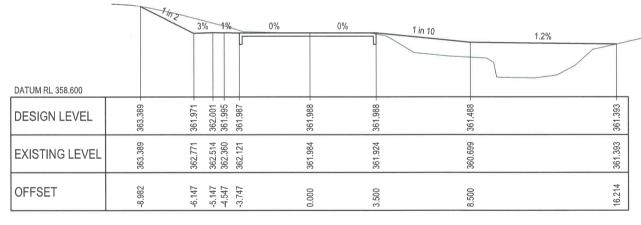
Dimensions shown in metres

except where shown otherwise

Drawn Approved Date

		1 in 2 3%	% 1 in 8.	29	1.7% 1.7%	1	10%	5.58
DATUM RL 359.300						_		
DESIGN LEVEL	364.054 -	362.092 -	362.122 362.194	362.298	362.362	362.421	361.923	360.490
EXISTING LEVEL	364.054	363.471	363.152 362.967	362.703	362.406	362.480	361.058	360.490
OFFSET	-10.234	-6.310	-5.310	-3.853	0.000	3.500	8.500	16.498

CH. 2178.000



CH. 2177.300

-WARNING!

A Issued for Construction

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Revisions/Descriptions

CROSS SECTIONS Scale A

quality people client focused solution driven 245 Mary Street, GYMPIE, QLD, 4570 ABN 73 617 924 437 Ph: 0477 322 555

Banana SHIRE SHIRE OF OPPORTUNITY
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Title		,	REVILLEA CRE WAY UPGRADE			Job No.	CRC00311
			SECTIONS SHE	_		Drawing No.	802
Drawn		ENGINEERING	G CERTIFICATION (RPEQ)			
B. Doherty	ENG. AREA	NAME	SIGNATURE	NO.	DATE	Revision	Α
Designed	Civil	T. Penrose	Thea	24087	Sep 23		
						Series No.	10 of 21
B Doherty							10 0. 21

\cap	24	OF	064	
\Box	. / [ററ	.964	

	1/1/2 3%	1%	1%	1 in 10	1 in 4.96
DATUM RL 360.200					
DESIGN LEVEL	362.567 - 361.860 - 361.890 - 361.884 -	361.876 -	361.804 -	361.304 -	362.106 -
EXISTING LEVEL	362.567 362.213 361.964 361.816	361.799	361.700	361.674	362.106
OFFSET	-7.453 -6.038 -5.038	-3.669	3.500	8.500	12.474

CH. 2182.000

	1	2 3%	7	1%	1%	1 in 10	1 in 6.89
DATUM RL 360.200							
DESIGN LEVEL	362.733 -	361.879 -	361.903 - 361.896 -	361.859 -	361.824	361.324 -	361.923 -
EXISTING LEVEL	362.733	362.312	361.915	361.807	361.673	361.467	361.923
OFFSET	-7.761	-6.053	-4.453	0.000	3.500	8.500	12.623

CH. 2181.100

			Des	sign surface level	
	1 in	6	1%	1%	3%
DATUM RL 360.100				L	
DESIGN LEVEL	361.534 -	361.843 -	361.800 -	361.765 -	361.615 -
EXISTING LEVEL	361.534	361.713 361.727	361.740	361.736	362.640
OFFSET	-6.161	-4.305	0.000	3.500	8.500

CH. 2190.000

	1 in 6		1%	1%	3.1%
DATUM RL 360.100					
DESIGN LEVEL	361.535 -	361.843 - 361.835 -	361.800 -	361.765 -	361.612 -
EXISTING LEVEL	361.535	361.712 361.725	361.739	361.735	362.633
OFFSET	-6.153	-4.305	0.000	3.500	8.500

CH. 2189.964

	_	1 in 6		1%	1%	7	8.6%	7
DATUM RL 360.100								
DESIGN LEVEL		361.636 -	361.836 -	000	30.000	361.765 -		361.335 -
EXISTING LEVEL		361.636	361.705	264 607	1000	361.656		361.967
OFFSET		-5.618	-3.602		000	3.500		8.500

CH. 2186.000

WARNING! -

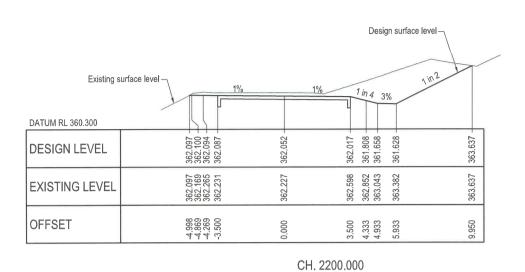
BEWARE OF UNDERGROUND SERVICES
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CROSS SECTIONS

.							
						Scales	
						0 1.0 2.0 3.0 4.0 5.0 Scale A 1:100	
-						Scale A 1:100	
	Α	Issued for Construction					
	20	.01 Revisions/Descriptions	Drawn	Approved	Date	Dimensions shown in metres	



Title	HARS ROA	Job No.	CRC00311					
	ANNOT	Drawing No.	803					
Drawn		ENGINEER	ING CERTIFICATION (RPEC	Q)				
B. Doherty	ENG. AREA	NAME	SIGNATURE	NO.	DATE	Revision	Α	
Designed								
B. Doherty						Series No.	11 of 21	



	1 in a	61 in 5.08	1%	1% 1 in 4 3%	1/in2
DATUM RL 360.900					
DESIGN LEVEL	362.659 - 362.346 -	362.376 - 362.494 - 362.645 -	362.610 -	362.575 - 362.367 - 362.217 - 362.187 -	365.676 -
EXISTING LEVEL	362.659 362.714	362.800 362.843 362.831	362.751	363.762 363.916 364.034 363.914	365.676
OFFSET	-6.496 -5.869	-4.869 -4.269 -3.500	0.000	3.500 4.333 4.933 5.933	12.912

CH. 2207.964

	1 in 6 1%		% 1 in 4 3%	2
DATUM RL 360.100				
DESIGN LEVEL	361.890 - 362.004 - 361.996 -	361.961 -	361.926 - 361.718 - 361.568 - 361.538 -	363.698 -
EXISTING LEVEL	361.890 362.113 362.123	362.120	362.329 362.594 362.789 363.123	363.698
OFFSET	-4.956 -4.269 -3.500	0.000	3.500 4.333 4.933 5.933	10.253

CH. 2198.000

CH. 2194.000

				11119	
DATUM RL 360.800	3%	1 in 6.86 1%		1 in 4 3%	
DESIGN LEVEL	362.138 –	362.278 - 362.366 - 362.478 -	362.443	362.408 362.200 362.020 362.020	364.931
EXISTING LEVEL	362.138	362.626 362.666 362.663	362.634	363.468 363.677 363.832 363.967	364.931
OFFSET	-9.543	-4.869 -4.269 -3.500	0.000	3.500 4.333 4.933 5.933	11.755

CH. 2206.000

	1 ir	16 1%	1	% 14n4 3%	1,2
DATUM RL 360.200					
DESIGN LEVEL	361.463 -	361.883 -	361.841 -	361.806 - 361.597 - 361.447 -	363.849 -
EXISTING LEVEL	361.463	361.836	361.908	361.867 362.103 362.284 362.605	363.849
OFFSET	-6.792	-4.269	0.000	3.500 4.333 4.933 5.933	10.797

		3%_	4.2%	<u>6</u>	1%	1% 1 in 4 3%	71112
DATUM RL 360.500						L T	
DESIGN LEVEL	380 404	262.101	362.165 -	362.197 -	362.162 -	362.127 - 361.919 - 361.769 -	364.959 -
EXISTING LEVEL	369 104	26. 10.	362.345	362.339	362.335	362.871 363.132 363.302	364.959
OFFSET	л п	5 6	4.269	-3.500	0.000	3.500 4.333 4.933	12.373

CH. 2202.000

-WARNING!

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CROSS SECTIONS

Scales

Scales

Scale A

1.100

A Issued for Construction

Drawn Approved Date

Date

Date

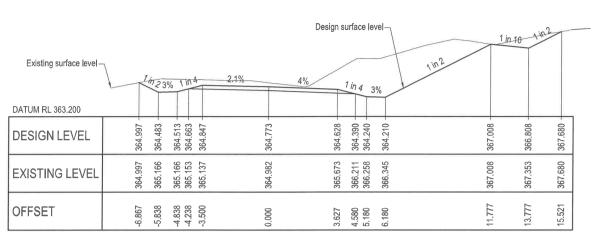
Date

Dimensions shown in metres except where shown otherwise

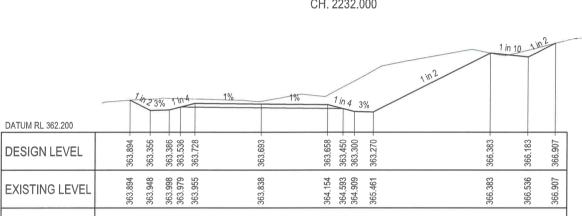
quality people client focused solution driven
245 Mary Street, GYMPIE, QLD, 4570 ABN 73 617 924 437 Ph: 0477 322 555



Title	HARSA ROA	Job No.	CRC00311					
	ANNOTA	Drawing No.	804					
Drawn		ENGINEER	ING CERTIFICATION (RPEC	2)				
B. Doherty	ENG. AREA	NAME	SIGNATURE	NO.	DATE	Revision	A	
Designed	Civil	Sep 23						
B. Doherty						Series No.	12 of 21	

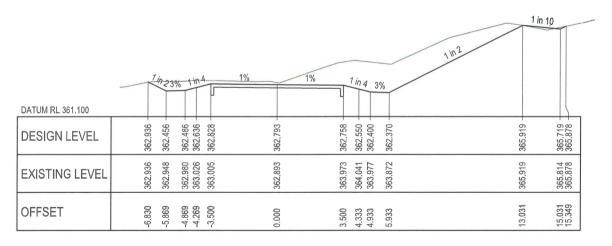


CH. 2232.000



CH. 2220,000

3.500 4.333 4.933 5.933



Drawn Approved

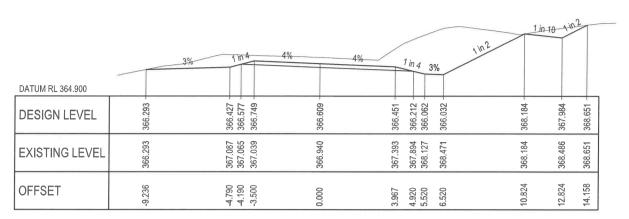
CH. 2210.000

Scales

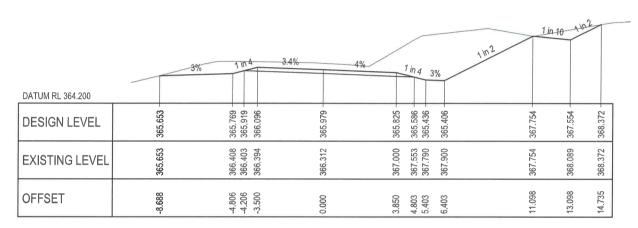
1.0 2.0 3.0 4.0 5.0

Dimensions shown in metres

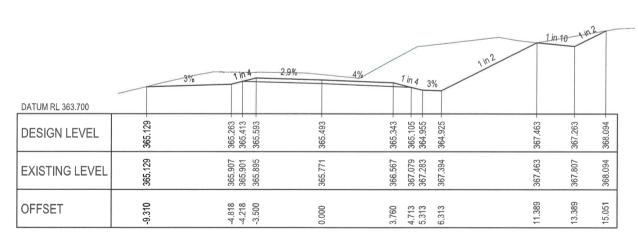
except where shown otherwise



CH. 2252,400



CH. 2245.392



CH. 2240.000

-WARNING!

A Issued for Construction

20.01

OFFSET

BEWARE OF UNDERGROUND SERVICES

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-6.946 -5.869 -4.869 -4.269

CROSS SECTIONS

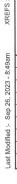
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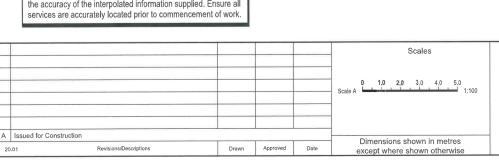
ABN 73 617 924 437 Ph: 0477 322 555



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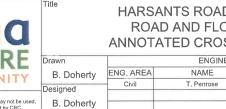
Title	HARS		Job No.	CRC00311							
	ROAD AND FLOODWAY UPGRADE ANNOTATED CROSS SECTIONS SHEET 6 Drawing No. 805										
Drawn											
B. Doherty	ENG. AREA	NAME	SIGNATURE	NO.	DATE	Revision	A				
Designed	Civil	T. Penrose	The	24087	Sep 23						
B. Doherty						Series No.	13 of 21				

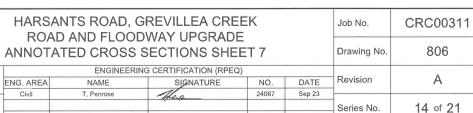


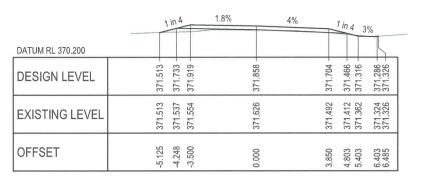












CH, 2322,843

	1 in 4	2.7% 4%	1 in 4 3%
DATUM RL 370.100			
DESIGN LEVEL	371.340 - 371.601 - 371.782 -	371.689 -	371.533 - 371.295 - 371.145 - 371.176 -
EXISTING LEVEL	371.340 371.388 371.422	371.486	371.355 371.273 371.221 371.162 371.170
OFFSET	-5.270 -4.223 -3.500	0.000	3.897 4.851 5.451 6.451 6.562

CH. 2320.000

	1 in 4	4%	4%	1 in 4 3%
DATUM RL 369.800				
DESIGN LEVEL	371.188 - 371.400 - 371.572 -	371.432 -	371.274 -	371.035 - 370.885 - 370.855 - 370.920 -
EXISTING LEVEL	371.188 371.213 371.244	371.286	371.143	371.054 370.998 370.911 370.920
OFFSET	-5.039 -4.190 -3.500	0.000	3.967	4.921 5.521 6.521 6.651

CH. 2315.800

DATUM RL 368.800	3% 1 in 4	4% 4%	1 in 4 3% in 2
DESIGN LEVEL	370.178 - 370.215 - 370.365 - 370.537 -	370.397 -	370.237 369.999 369.849 369.819 370.062
EXISTING LEVEL	370.178 370.307 370.415 370.469	370.380	370.235 370.176 370.090 369.973 370.062
OFFSET	-6.015 -4.790 -4.190	0.000	4.000 4.953 5.553 6.553 7.039

CH. 2300.000

CH. 2280.000

DATUM RL 365.700		1 in 23°	% 1 in 4	4%	4%	1 in 4 3	<u>%</u>	1in2	10% 4	,2
DATIONIAL COOLIGO		_			-	m m	m		-	#
DESIGN LEVEL	367.573	367.069	367.099 367.249 367.422	367.282	367.122	366.883 366.733	366.703	368 400	368.200	368.694
EXISTING LEVEL	367.573	367.676	367.776 367.755 367.730	367.570	367.589	367.795 368.006	368.556	368 400	368.579	368.694
OFFSET	-6 798	-5.790	-4.790 -4.190 -3.500	0.000	4.000	4.953 5.553	6.553	0 0 0 0 7	11.947	12.935

716 746 896 068

368. 368. 368. 369.

.118 .197 .286 .316 .277

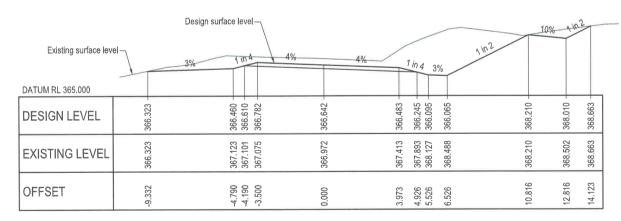
369. 369. 369. 369.

CH. 2260,000

530 380 350

368.930 369.102 369.230 369.308

4.000 4.953 5.553 6.553



CH. 2252.767

-WARNING!

DATUM RL 367,300

DESIGN LEVEL

EXISTING LEVEL

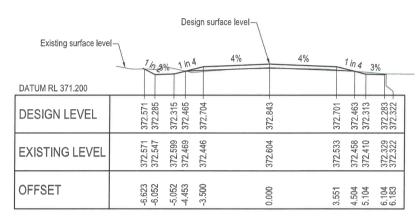
OFFSET

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CROSS SECTIONS





CH. 2340.800

	7 in 3% 1 in 4	3.7% 4%	1 in 4 3%
DATUM RL 371.200			
DESIGN LEVEL	372.531 - 372.256 - 372.286 - 372.436 - 372.672 -	372.802 -	372.660 - 372.421 - 372.271 - 372.241 - 372.278 -
EXISTING LEVEL	372.531 372.489 372.540 372.410	372.562	372.488 372.412 372.364 372.284 372.278
OFFSET	-6.590 -6.041 -5.041 -4.441	0.000	3.564 4.517 5.117 6.190

CH. 2340.000

	1 in 4	0%	4%	1 in 4 3	%
DATUM RL 370.600					
DESIGN LEVEL	371.800 - 371.973 - 372.173 -	372.172 -	372.022 -	371.784 - 371.634 -	371.604 - 371.679 -
EXISTING LEVEL	371.800 371.816 371.835	371.929	371.811	371.733 371.684	371.674 371.679
OFFSET	-4.992 -4.300 -3.500	0.000	3.759	4.712 5.312	6.312 6.463

CH. 2328.300

WARNING!

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CROSS SECTIONS

8:49am						Scales
- 1						
2023						
26, 2						0 1.0 2.0 3.0 4.0 5.0
ep 2						Scale A 1:100
Š						
Modified	Α	Issued for Construction				
Last	20	.01 Revisions/Descriptions	Drawn	Approved	Date	Dimensions shown in metres except where shown otherwise





Title	HARSANTS ROAD, GREVILLEA CREEK ROAD AND FLOODWAY UPGRADE ANNOTATED CROSS SECTIONS SHEET 8										
Drawn		ENGINEERING	CERTIFICATION (RPEC	2)	_						
B Doherty	B Doherty ENG. AREA NAME SIGNATURE										
	01.0		11		_						

T Penrose

Civit

B Doherty

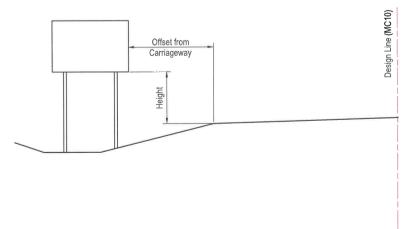
	Job No.	CRC00311
	Drawing No.	807
DATE Sep 23	Revision	А
3ep 23	Series No.	15 of 21

24087



SIGN SCHEDULE

						SIGN DETAILS				STIFFENE	ER DETAILS				NEV	SUPPORT DE	TAILS			NEW FOOTING DETAILS				
CHAINAGE (M)	POSITION	SIGN DESCRIPTION	SIGN TYPE	WORK DESCRIPTION	WIDTH (mm)	HEIGHT (mm)	AREA (m²)	OFFSET FROM CARRIAGEWAY (mm)	HEIGHT ABOVE CARRIAGEWAY (mm)	TYPE	No.	SPACING (mm)	No. OF BRACKETS	TYPE	No.	SPACING (mm)	DIMENSION (mm) NB	MATERIAL	POST LENGTH 1 (mm)	POST LENGTH 2 (mm)	SLEEVE LENGTH (mm)	SLEEVE SIZE (mm)	DIA. (mm)	DEPTH (mm)
1890	LHS	Guide, Traffic Instruction	G9-9A	Install New	1500	750	1.125	2000	1500	1	3	350	6	Aluminum extrusion	2	1200	50	Signfix Sign Support (or equivalent)	6500 (C.T.S.)	6500 (C.T.S.)		nufactures cations	300	750
1950	LHS	Warning, Reverse Curve	W1-4LB	Install New	750	750	0.56	2000	1500	1	0	0	0	CHS Steel	1	-	50	C350	3500 C.T.S		-	-	300	750
2034	LHS	Warning, floodway	W5-7-1B	Install New	750	750	0.56	2000	1500	1	0	0	0	CHS Steel	1		50	C350	3500 C.T.S				300	750
2084	LHS	Guide, 'GREVILLEA CK'	G6-2	Install New	750	750	0.56	2000	1500	1	0	0	0	CHS Steel	1	-	50	C350	3500 C.T.S	-	-	-	300	750
2097 - 2169 at 12m spacings	RHS	CAM	D4-6B (L)	Install New (x7)	750	900	0.63	2000	1200	1	0	0	0	CHS Steel	1	-	50	C350	3500 C.T.S	-	-	-	300	750
2134	LHS	Guide, "Road Subject to Flooding"	G9-21-1	Install New	2150	800	1.7200	2000	1500	1	3	350	6	CHS Steel	2	1500	50	C350	3500 C.T.S	3500 C.T.S	-	-	300	300
2186	LHS	Guide, Flood depth marker	G9-22-1	Install New							•	•				•								
2189	RHS	Guide, Flood depth marker	G9-22-1	Install New																		,		
2243	RHS	Guide, "Road Subject to Flooding"	G9-21-1	Install New	2150	800	1.7200	2000	1500	1	3	350	6	CHS Steel	2	1500	50	C350	3500 C.T.S	3500 C.T.S	-	-	300	300
2245 - 2281 at 12m spacings	LHS	CAM	D4-6B (L)	Install New (x4)	750	900	0.63	2000	1200	1	0	0	0	CHS Steel	_1	-	50	C350	3500 C.T.S	-	-	-	300	750
2293	RHS	Guide, 'GREVILLEA CK'	G6-2	Install New	750	750	0.56	2000	1500	1	0	0	0	CHS Steel	1	-	50	C350	3500 C.T.S	-	-	-	300	750
2343	RHS	Warning, floodway	W5-7-1B	Install New	750	750	0.56	2000	1500	1	0	0	0	CHS Steel	1		50	C350	3500 C.T.S	-	-	-	300	750
2430	RHS	Warning, Reverse Curve	W1-4LB	Install New	750	750	0.56	2000	1500	1	0	0	0	CHS Steel	1	-	50	C350	3500 C.T.S	-		-	300	750
2490	RHS	Guide, Traffic Instruction	G9-9A	Install New	1500	750	1.125	2000	1500	1	3	350	6	Aluminum extrusion	2	1200	50	Signfix Sign Support (or equivalent)	6500 (C.T.S.)	6500 (C.T.S.)		anufactures cations	300	750



PAVEMENT MARKING TYPES

1 / ()	FIAIFIATI MAN (CALALLA)	0 111 20						
No.	TYPE	EXAMPLE	WIDTH	DESCRIPTION				
LONG	LONGITUDINAL LINES							
С	Barrier Line (Single)		100mm	Continuous (on floodway)				

B. Doherty ENG. AREA

SIGN SETOUT

8:49am						
1.1						
2023						
Sep 26,						
Š.						
Last Modified						
ê l	Α	Issued for Construction				
Last	20	01 Revisions/Descriptions	Drawn	Approved	Date	

Scales





itle	HARSANTS ROAD, GREVILLEA CREEK ROAD AND FLOODWAY UPGRADE	Job No.
	SUPPLEMENTARY SIGNS AND LINEMARKING DETAILS	Drawing N
raw	n ENGINEERING CERTIFICATION (RPEQ)	

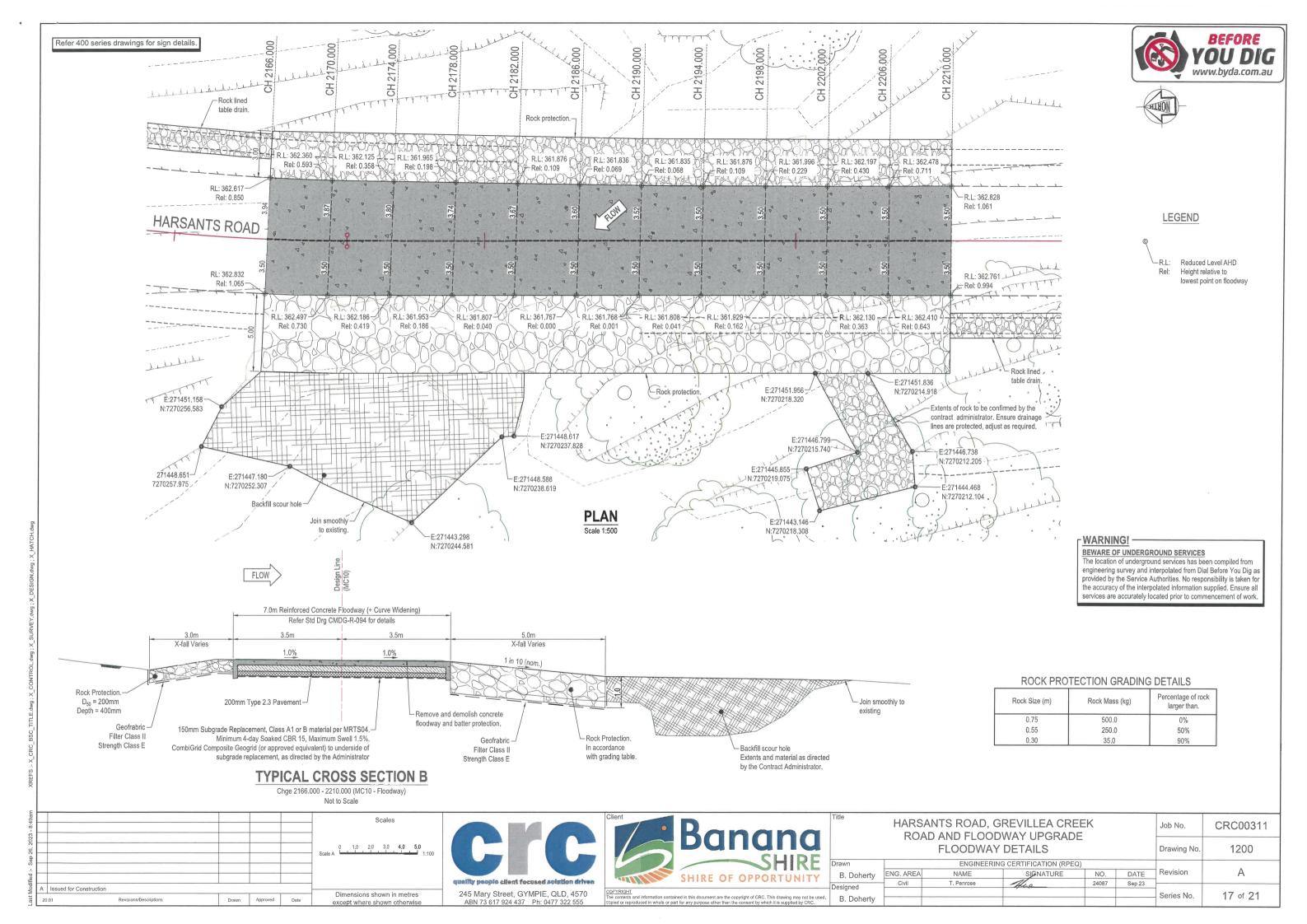
NAME

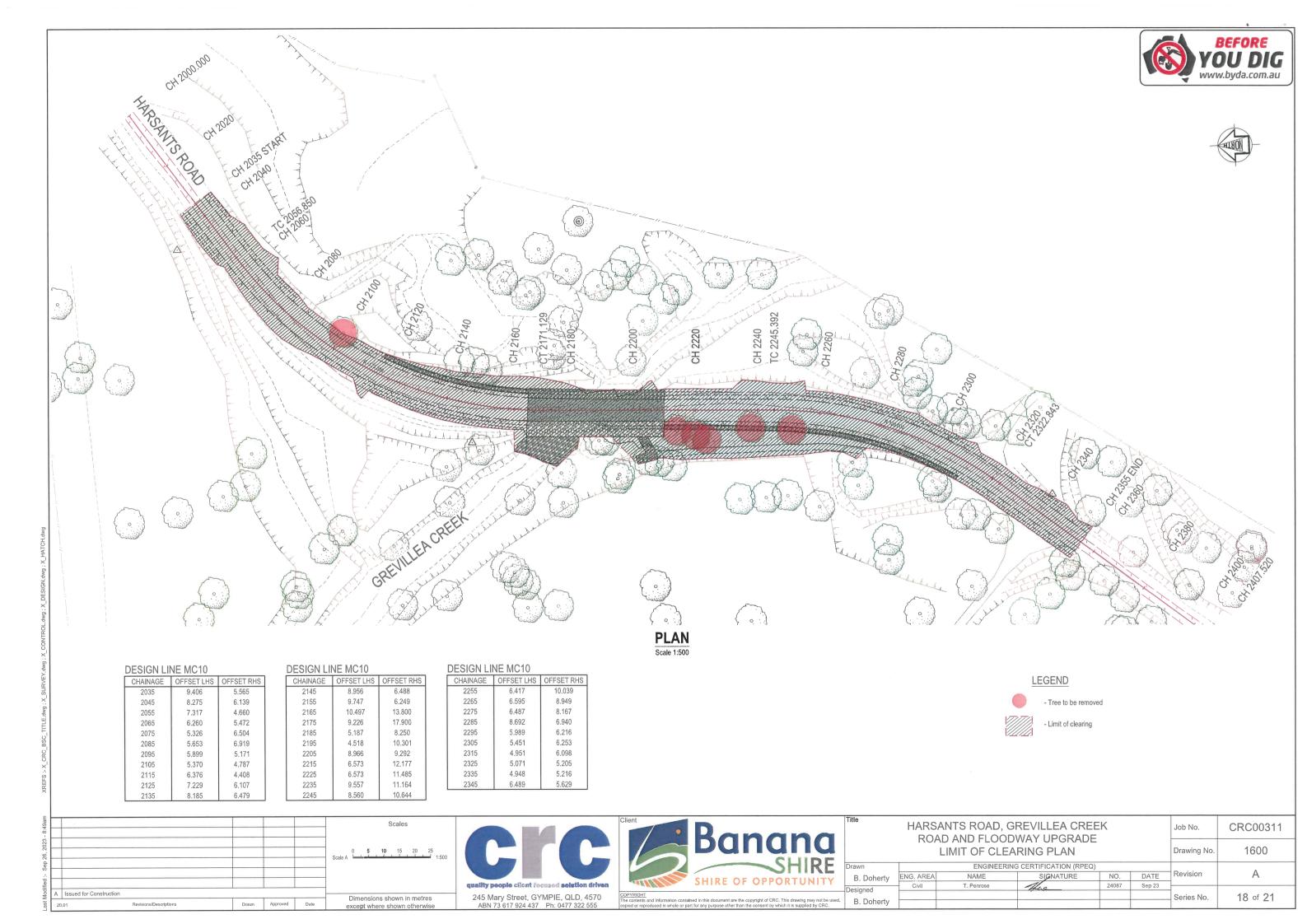
E IG	DET/	AILS	Drawing No.	1000		
2)						
	NO.	DATE	Revision	A		
	24087	Sep 23				
			Series No.	16 of 21		

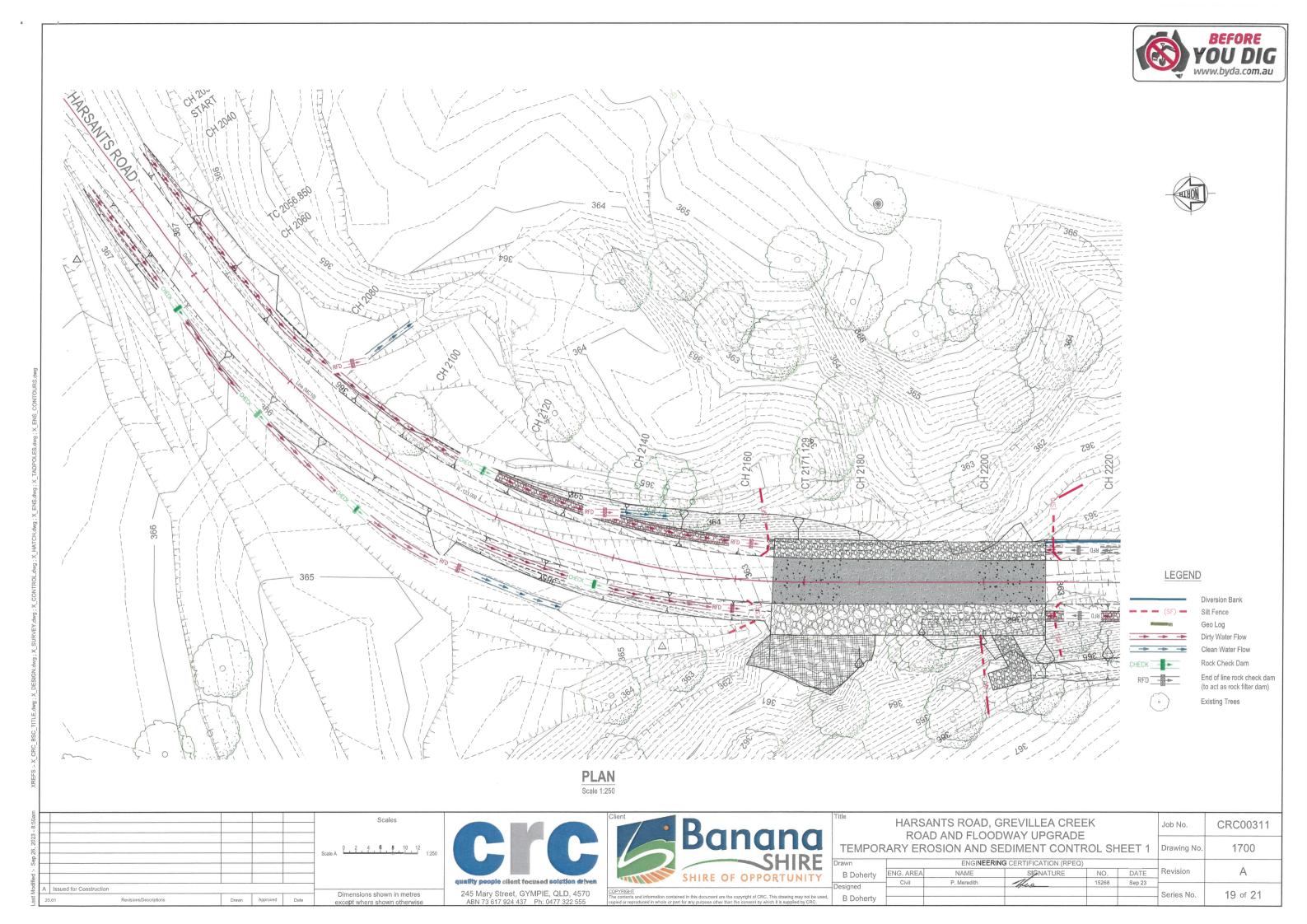
CRC00311

B. Doherty

Dimensions shown in metres except where shown otherwise











LEGEND

Silt Fence Dirty Water Flow Clean Water Flow

Rock Check Dam End of line rock check dam (to act as rock filter dam)

Existing Trees

HARSANTS ROAD

PLAN
Scale 1:250

					Scales
L					
-					Scale A 0 2 4 6 8 10 12 1:250
\vdash					Scale A 1:250
Α	Issued for Construction				Dimensions shown in metres
2	.01 Revisions/Descriptions	Drawn	Approved	Date	except where shown otherwise

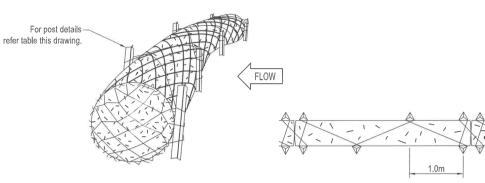
TC 2245.392

CH 2240





HARSANTS ROAD, GREVILLEA CREEK ROAD AND FLOODWAY UPGRADE Job No. CRC00311								
MPORARY EROSION AND SEDIMENT CONTROL SHEET 2 Drawing No. 1701								
1	ENGINEERING CERTIFICATION (RPEQ)							
Dohertv	ENG. AREA	NAME	SIGNATURE	NO.	DATE	Revision	A	
ned	Civil	P. Meredith	There	15268	Sep 23			
Doherty						Series No.	20 of 21	



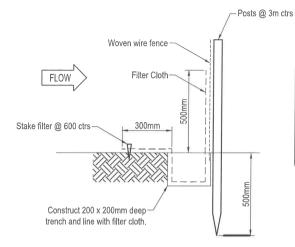
TYPICAL ANCHORAGE OF GEO LOG

Geo Log to be installed in accordance with IECA Sediment and Erosion Control Design Fact Sheets - Instream Practices

PLAN GEO-LOG STAKING METHOD

MATERIALS

1111 (1 = 1 (1) 1= 0	
MATERIAL	TYPE
Posts (either)	1.5kg/m (min) Steel Star Picket or 1500mm ² (min) Hardwood
	or 2500mm ² (min) Softwood
Fence	Woven wire 14 guarge
1 51155	150mm max aperture Filter as specified
Filter Cloth	(terram 100, polyfelt ts500, Bidim u24 or equivalent)
Prefabricated Unit	Geofab, envirofence or approved equivalent



Erection Notes

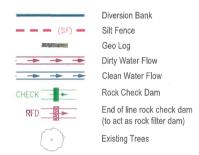
Woven fence to be fastened securely to fence posts with wire ties or staples. Filter cloth to be fastened securely to woven wire fence with teis speaced every 600mm at top of mid section. When two sections of filter cloth adjoin each other they shall be overlapped by 150mm and folded and material removeed when bulging of fence occurs.

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SILT FENCE

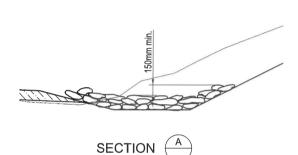
N.T.S.

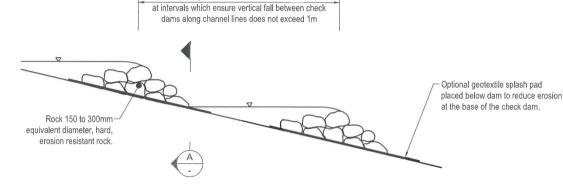
LEGEND



Notes

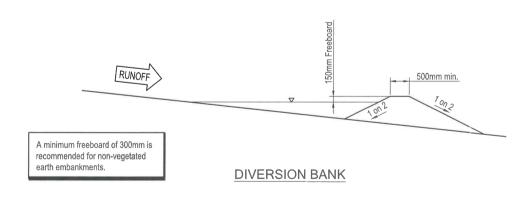
- Design and construction of all sediment management devices is the contractors responsibility and shall be completed and effective prior to:
 - (i) Stripping of topsoil and grass.
 - (ii) Bulk earthworks to the site.
- (iii) Service installations.
- 2. All sediment management devices are to remain in place until notice from the Contract Administrator
- Both temporary and permanent sediment management devices shall be maintained at a suitable level/condition throughout construction. Sediment fences are to be cleaned out when capacity is reduced by 30%.
- 4. If erosion and sediment control devices have been found to be deficient or failed in service, due to unforeseen circumstances, corrective action is to be undertaken immediately which may include amendments/additions to the original approved erosion control plans, such additions or amendments are to be approved by the Contract Administrator.
- All erosion and sediment control devices are to be inspected at least weekly, before and after rainfall events.
 Any damage or excess erosion/sediment is to be repaired/managed as required to maintain control devices.
- Devices shown on the drawings shall not necessarily be limited to the locations shown.
- Additional devices may be required as directed by Contract Administrator.
- Rock check dams to be installed per detail this drawing in drainage channels with slopes greater than 2%.
 Spacing of check dams to be at every 1.0m vertical drop in drainage channel.
- 8. Contract Administrator to order installation of topsoil and grass seeding to disturbed areas
- The contractor shall ensure all turfed and/or seeded areas are regularly watered to ensure vegetation is maintained until there is 80% coverage.
- 10. Stockpiles shall be protected from erosion and sediment loss by:
 - The installation of diversion works on the upstream side.
 The use of silt fences or other approved controls on the downstream side.
 - Compaction.
 - Re-vegetation if left exposed for longer than 30 days

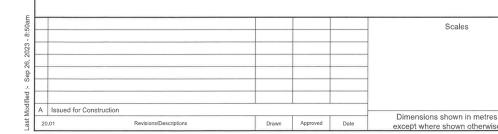




Spacing of check dams as detailed OR

ROCK CHECK DAM





quality people client focused solution driven
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ABN 73 617 924 437 Ph: 0477 322 555



HARSANTS ROAD, GREVILLEA CREEK Job No. CRC00311								
TEMPOR	ROAD AND FLOODWAY UPGRADE TEMPORARY EROSION AND SEDIMENT CONTROL SHEET 3 Drawing No. 1702							
Drawn		ENGINEERI	NG CERTIFICATION (RPEC	()		Revision		
B Doherty	B Doherty ENG. AREA NAME SIGNATURE NO. DATE						Α	
Designed Civil P. Meredith Thus 15268 Sep 23								
B Doherty Series No. 21 of 21							21 of 21	