

## ROAD UPGRADE WORKS

## KIRKHAM ROAD, BELGRAVE SOUTH



WARNING BEWARE OF UNDERGROUND SERVICES
HE LOCATION OF EXISTING UNDERGROUND SERVICES ARE APPROXIMATI

#### DRAWING INDEX

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## **NOTES**

#### THE CONTRACTOR IS TO VERIFY THE LOCATION AND DEPTH OF ALL UTILITY SERVICES PRIOR TO CARRYING OUT WORKS BY MAKING A BEFORE YOU DIG

DISCREPANCIES BETWEEN PLANS AND EXISTING CONDITIONS ARE TO BE REPORTED IMMEDIATELY TO THE COUNCIL'S SUPERVISING ENGINEER.

AUSTRALIA' REQUEST ONLINE.

- ALL SURPLUS EXCAVATED MATERIAL REMAINS THE PROPERTY OF THE CONTRACTOR UNLESS SPECIFIED OTHERWISE OR ADVISED BY THE COUNCIL'S SUPERVISING ENGINEER.
- "REMOVE" SHALL MEAN REMOVE OFF-SITE AND DISPOSE OF AT AN APPROVED DISPOSAL SITE AT THE CONTRACTOR'S EXPENSE, UNLESS SPECIFIED OTHERWISE.
- 5. ON COMPLETION OF CONSTRUCTION ALL WORK AREA ARE TO BE CLEANED UP & REINSTATED TO THE SATISFACTION OF THE COUNCIL'S SUPERVISING ENGINEER.

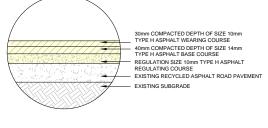
- ROAD CROSSFALL TO BE 1 in 36 FALLING TOWARDS THE TABLE DRAIN OR KERB AND CHANNEL UNLESS SPECIFIED OTHERWISE.
- AT NEW FILL AREAS THE TOPSOIL SHALL BE STRIPPED AND FILLING MATERIAL PLACED IN 150mm THICK LAYER AND COMPACTED TO 95% A.A.S.H.O. COMPACTION TEST, THE TOPSOIL IS THEN RE-SPREAD ON THE BATTER AREAS.
- NEW CONCRETE FOOTPATH PAVING TO BE 32 MPa STRENGTH.
- TACTILE GROUND SURFACE INDICATOR (TGSI) PAVERS ARE TO BE 300mm x 300mm x 40mm PRE-CAST CONCRETE PAVERS AND SHALL HAVE A MINIMUM LUMINANCE CONTRAST OF 30% COMPARED TO THE AMOUNT OF LIGHT REFLECTED FROM THE ADJACENT SURFACE.

- 10. EXISTING DRIVEWAY ENTRANCES TO BE REINSTATED AND SEALED FOR 1.0m FROM EDGE OF SEAL WITH 50mm COMPACTED DEPTH 10mm TYPE N ASPHALT ON A BASE OF 100mm COMPACTED DEPTH CLASS 2 FINE CRUSHED ROCK.
- 11. EXISTING DRIVEWAYS ARE TO BE REINSTATED FROM BACK OF KERB OR EDGE OF SEAL AT A MAXIMUM GRADE OF 1 in 8 FOR 2.0m THEN 1 in 4 THEREAFTER WITH A TRANSITION OF 1 in 6 FOR 2.0m IS PREFERRED WHERE POSSIBLE AS PER:
- GRAVEL DRIVEWAY WITH 50mm COMPACTED DEPTH OF 3% CEMENT TREATED CRUSHED ROCK UNLESS SPECIFIED OTHERWI
- ASPHALT DRIVEWAYS WITH 50mm COMPACTED DEPTH 10mm NOMINAL SIZE ASPHALT ON A BASE OF 100mm COMPACTED DEPTH CLASS 2 FINE CRUSHED
- 11.c. CONCRETE DRIVEWAYS WITH 150mm DEPTH CONCRETE PAVING ON A BASE OF 50mm COMPACTED DEPTH CLASS 2 FINE CRUSHED ROCK
- BRICK PAVER DRIVEWAYS WITH SUITABLE HEAVY DUTY BRICK PAVERS ON 30mm OF BEDDING SAND ON A BASE OF 100mm COMPACTED DEPTH CLASS 2 FINE CRUSHED ROCK.
- 12. TABLE DRAIN TO BE CLEANED, REDEFINED OR DEFINED AS NECESSARY ALONG THE HIGH SIDE OF THE ROADWAY, REFER TO TYPE OF SECTION FOR TABLE DRAIN PROFILE. MINIMUM DEPTH 300mm

- 13. ALL DRAINAGE PIPES TO BE CLASS 2 RUBBER RING JOINTED SPIGOT AND
- 14. ALL PROPERTY STORM WATER OUTLETS WITHIN 3.0m OF THE NEW DRAIN OR KERB ARE TO BE CONNECTED TO UNDERGROUND DRAINAGE PIPES WHERE AVAILABLE, OR BACK OF KERB WHERE UNDERGROUND DRAINAGE PIPES ARE NOT AVAILABLE.
- 15. DRAINAGE PITS GREATER THAN 1.0m IN DEPTH TO BE PROVIDED WITH STEP
- 16. A.G. DRAIN PLACED BEHIND KERB AND CHANNEL AS SHOWN ON PLAN IF WITHIN 3.0m OF ANY TREE EXCAVATION TO BE HAND DUG OR BORED TO MINIMISE ROOT DAMAGE OF TREE.

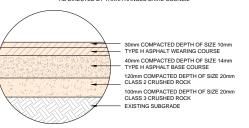
- 17. TREE PROTECTION ZONES (TPZ) HAVE BEEN SHOWN FOR ALL TREES LOCATED TREE PROTECTION ZONES (TP2) HAVE BEEN SHOWN FOR ALL TREES LOCATED CLOSE TO THE WORKS AREA. WORKS AND ANY STOCKPILES OF CONSTRUCTION EQUIPMENT AND MATERIAL ARE TO BE CONTAINED OUTSIDE THE TPZ UNLESS SPECIFICALLY APPROVED BY THIS PLAN. PRIOR APPROVAL MUST BE SOUGHT FOR ANY WORKS NOT SPECIFIED AND APPROVED BY THIS PLAN THAT ARE TO BE CONDUCTED WITHIN THE TPZ OF ANY TREE.
- 18. ONLY TREES SHOWN TO BE REMOVED ON THIS PLAN CAN BE REMOVED. ANY ONLT TREES STOWN TO BE REMIVED UT HIS PEAN CAN BE REMIVED. ANY DAMAGE TO THE BARK, BRANCHES, TRUNKS OR ROOTS OF OTHER TREES SHOULD BE IMMEDIATELY REPORTED TO COUNCIL'S CONSTRUCTION SURVEILLANCE OFFICER BEFORE ANY WORKS CONTINUE AROUND THE SUBJECT VEGETATION.

19. ALL EXISTING SIGNS AND POSTS REMAIN THE PROPERTY OF THE COUNCIL

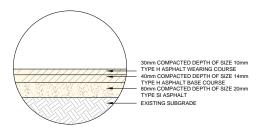


#### **OVERLAY EXISTING** PAVEMENT DETAIL

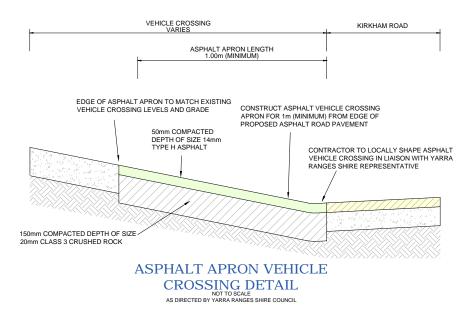
NOT TO SCALE AS DIRECTED BY YARRA RANGES SHIRE COUNCIL



#### FULL DEPTH PAVEMENT DETAIL



#### DEEP LIFT ASPHALT **DETAIL**



	PROCIV	IL CONSULTING PTY LTD		
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	PO BOX 164, RINGWOOD VIC 313			
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E: info@procivil.com.a				
www.procivil.com				
	CIVIL ENGINEERING DESIGN	TECHNICAL PEER REVIEW		
	KURT CHAMBERLAIN	CHRIS PROCTOR		

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NGES SHIRE COUNCIL	
SINAL SCALE & SHEET SIZE	LOCAL GOVERNMENT AREA
AS SHOWN @ A1	SHIRE OF YARRA RANGES
SHT DATUM	CLIENT
AHD	Yarra
RDINATE DATUM	Ranges
MGA 20 ZONE 55	Council
VEY DATE	Council
18-08-2022	
IAL IMAGE DATE	CLIENT PROJECT MANAGER / CONTACT
05-02-2022	MATT WRIGHT   YARRA RANGES SHIRE COUNCIL

## FOR CONSTRUCTION **ROAD UPGRADE WORKS** KIRKHAM ROAD, BELGRAVE SOUTH

TITLE SHEET - LOCALITY PLAN, GENERAL NOTES, DETAILS & DRAWING INDEX

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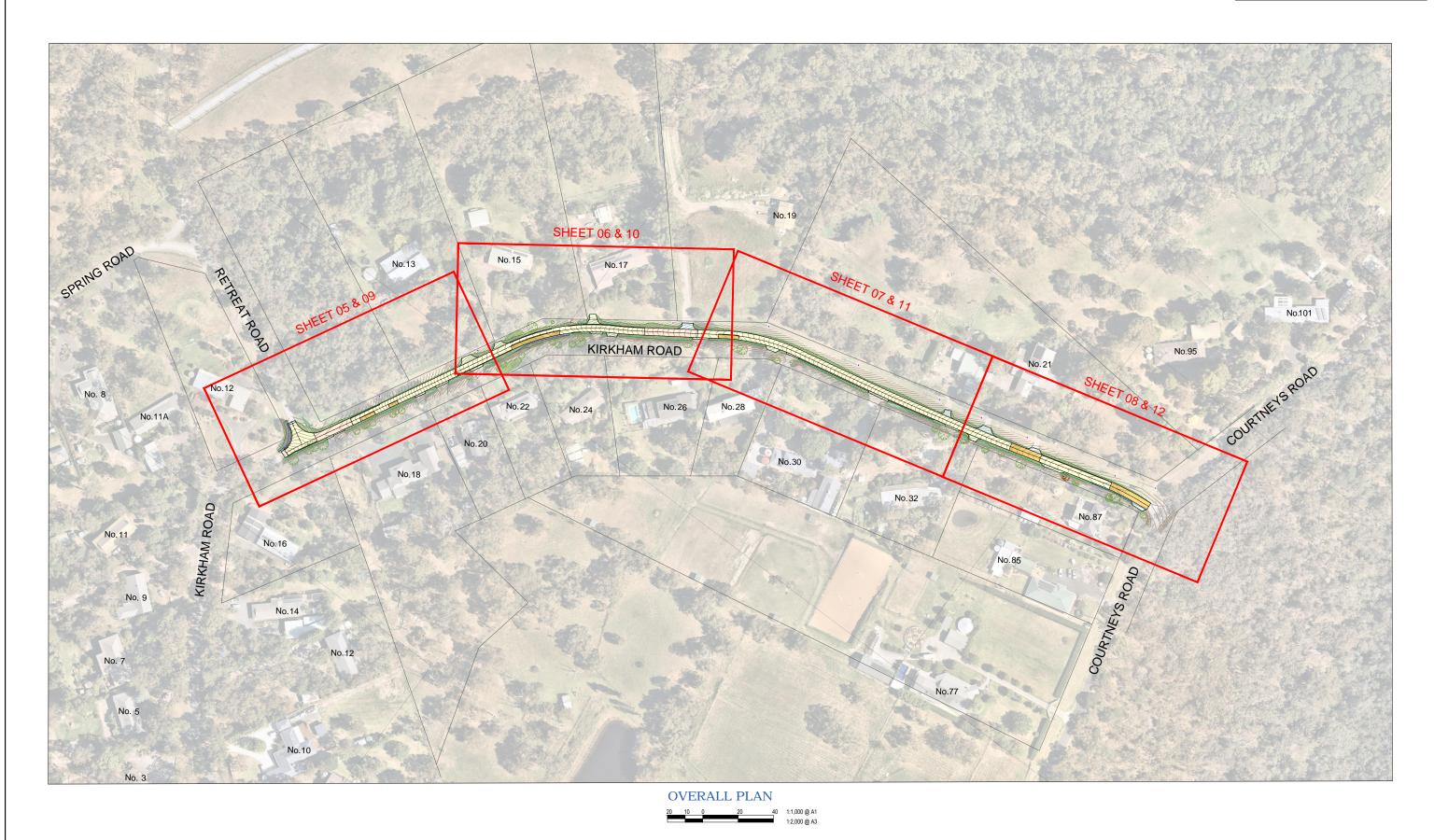
			CONSULTANT ENGINEER
03	FOR CONSTRUCTION	04-05-2023	CONSULTING ENGINEERING
02	DETAILED DESIGN - ISSUED FOR REVIEW	28-04-2023	CONSULTING ENGINEERING
01	FUNCTIONAL DESIGN - ISSUED FOR REVIEW	25-01-2023	Specialist Civil Engineering Design Consultants
00	FUNCTIONAL DESIGN - ISSUED FOR REVIEW	30-11-2022	
			Commitment   Communication   Collaboration

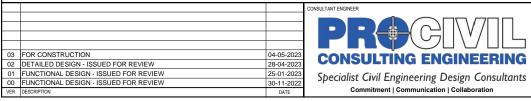


WARNING

BEWARE OF UNDERGROUND SERVICES

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ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO
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E: info@procivil.com.au				
	www.procivil.com.au			
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ORIGINAL SCALE & SHEET SIZE	LOCAL GOVERNMENT AREA		
AS SHOWN @ A1	SHIRE OF YARRA RANGES		
HEIGHT DATUM	CLIENT		
AHD	Yarra		
COORDINATE DATUM			
MGA 20 ZONE 55	Ranges		
SURVEY DATE	Council		
18-08-2022			
AERIAL IMAGE DATE	CLIENT PROJECT MANAGER / CONTACT		
05-02-2022	MATT WRIGHT   YARRA RANGES SHIRE COUNCIL		

FOR CONSTRUCTION
<b>ROAD UPGRADE WORKS</b>
KIRKHAM ROAD, BELGRAVE SOUTH

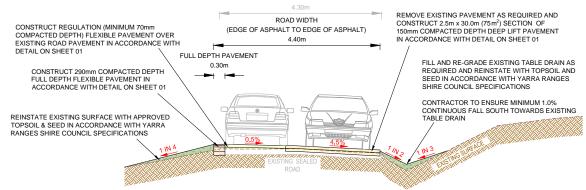
PROJECT No.
PC22019
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VERSION
03
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OVERALL PLAN



WARNING BEWARE OF UNDERGROUND SERVICES
HE LOCATION OF EXISTING UNDERGROUND SERVICES ARE APPROXIMATE

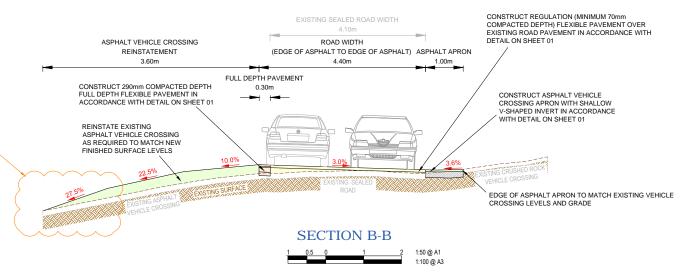
EXISTING SEALED ROAD WIDTH

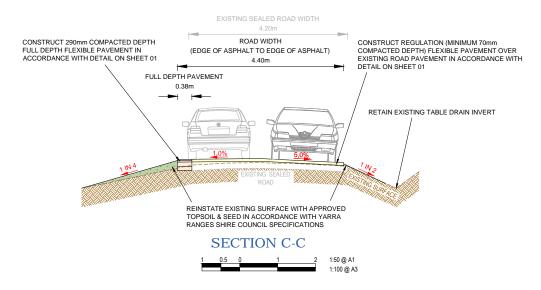


## **SECTION A-A** 1:50 @ A1

PROPOSED ASPHALT VEHICLE CROSSING REINSTATEMENT WITHIN THE CLOUDED AREA IS BEYOND THE EXTENTS OF THE EXISTING FEATURE

THIS PROPOSED INTERFACE HAS BEEN ESTIMATED THROUGH SITE PHOTOS AND IS TO BE CONFIRMED BY THE CONTRACTOR IN LIAISON WITH A YARRA RANGES SHIRE COUNCIL REPRESENTATIVE PRIOR TO CONSTRUCTION COMMENCING





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ı	01	FUNCTIONAL DESIGN - ISSUED FOR REVIEW	25-01-2023	Specialist Civil Engineering Design Consultants	KURT CHAMBERLAIN	CHRIS P
	00	FUNCTIONAL DESIGN - ISSUED FOR REVIEW	30-11-2022		REGISTERED & CHARTERED PROFESSIONA	AL ENGINEER
ı	VER	DESCRIPTION	DATE	Commitment   Communication   Collaboration	CHRIS PROCTOR	

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ORIGINAL SCALE & SHEET SIZE	LOCAL GOVERNMENT AREA SHIRE OF YARRA RANGES		
AS SHOWN @ A1			
HEIGHT DATUM	CLIENT		
AHD	Yarra		
COORDINATE DATUM			
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FOR CONSTRUCTION **ROAD UPGRADE WORKS** KIRKHAM ROAD, BELGRAVE SOUTH

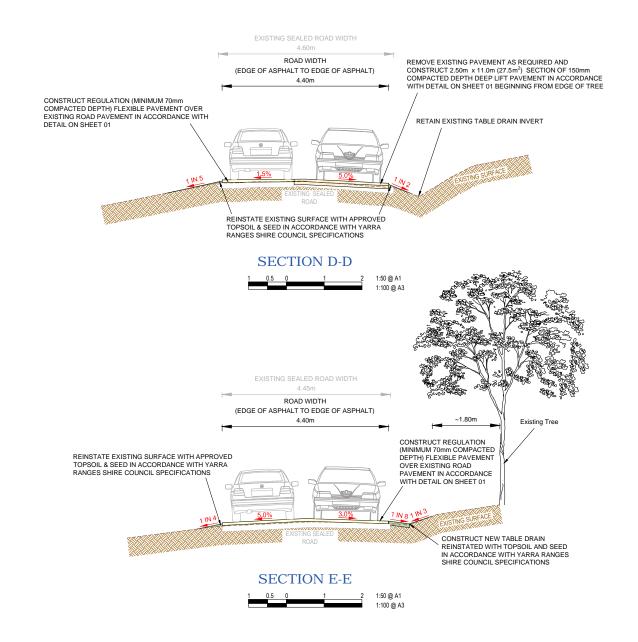
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SECTIONS A-A, B-B AND C-C



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	ORIGINAL SCALE & SHEET SIZE	LOCAL GOVERNMENT AREA
	AS SHOWN @ A1	SHIRE OF YARRA RANGES
	HEIGHT DATUM	CLIENT
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	05-02-2022	MATT WRIGHT I YARRA RANGES SHIRE COUNCIL

	FOR CONSTRUCTION
	ROAD UPGRADE WORKS
K	IRKHAM ROAD, BELGRAVE SOUTH

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03

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**LEGEND** WARNING BEWARE OF UNDERGROUND SERVICES
E LOCATION OF EXISTING UNDERGROUND SERVICES ARE APPRO YOU DIG OVERLAY EXISTING PAVEMENT - REGULATION (MINIMUM 70mm COMPACTED DEPTH) FLEXIBLE PAVEMENT IN ACCORDANCE WITH DETAIL ON SHEET 01 EXISTING TELECOMMUNICATIONS LAWN AREA TO BE REINSTATED WITH YARRA RANGES SHIRE EXISTING UNDERGROUND ELECTRICITY COUNCIL APPROVED TOPSOIL AND SEED EXISTING CONTOUR MAJOR (1.0m) CEMENT TREATED CRUSHED ROCK SHOULDER - MINIMUM 75mm EXISTING CONTOUR MINOR (0.2m) FULL DEPTH PAVEMENT - 290mm COMPACTED DEPTH FLEXIBLE PAVEMENT IN COMPACTED DEPTH 3% CEMENT TREATED SIZE 20mm CLASS 2 CRUSHED ROCK CONSTRUCTED IN GENERAL ACCORDANCE WITH SITE INVESTIGATIONS COMPLETED WITH YARRA RANGES SHIRE COUNCIL ON 07-10-2021 SULTED IN A DISCOVERY OF EXISTING ROAD PAVEMENT EXTENDING BEYOND THAT SHOW ON FEATURE AND LEVEL SURVEY (UNDER EXISTING TOPSOIL AND SEED) ACCORDANCE WITH DETAIL ON SHEET 01 FINISHED SURFACE CONTOUR MAJOR (1.0m) YARRA RANGES SHIRE COUNCIL STANDARD DRAWING SD / A3 FINISHED SURFACE CONTOUR MINOR (0.2m) REGULATION (150mm MINIMUM COMPACTED DEPTH) CLASS 2 CRUSHED ROCK VEHICLE CROSSING - CONSTRUCTED IN GENERAL ACCORDANCE WITH YARRA PROPOSED PAVEMENT GRADE ---- FILL BATTER EXTENT EXISTING DRAINAGE PIPE CONTRACTOR TO CONFIRM REQUIREMENT OF FULL DEPTH 'ROAD WIDENING' AREAS SHOWN ON GENERAL LAYOUT PLANS AND CROSS-SECTIONS WITH YARRA RANGES SHIRE COUNCIL RANGES SHIRE COUNCIL STANDARD DRAWING SD / C2 ---- CUT BATTER EXTENT DIRECTION OF CHANNEL FLOW REPRESENTATIVE PRIOR TO CONSTRUCTION COMMENCING DEEP LIFT PAVEMENT - 150mm COMPACTED DEPTH FLEXIBLE PAVEMENT IN -- TABLE DRAIN INVERT ACCORDANCE WITH DETAIL ON SHEET 01 EXISTING TABLE DRAIN INVERT ASPHALT VEHICLE CROSSING - 50mm COMPACTED DEPTH SIZE 14mm TYPE H ASPHALT OVERLAYING 150mm COMPACTED DEPTH SIZE 20mm CLASS 3 CRUSHED ROCK IN GENERAL ACCORDANCE WITH YARRA RANGES SHIRE COUNCIL STANDARD DRAWING SD / C2 AND DETAIL ON SHEET 01 RETREAT ROAD REINSTATE EXISTING CRUSHED ROCK AT INTERSECTION WITH REGULATION 20mm CLASS 2 CRUSHED ROCK AS REQUIRED TO MATCH NEW FINISHED SURFACE LEVELS FILL AND RE-GRADE EXISTING TABLE DRAIN AS REQUIRED AND REINSTATE WITH TOPSOIL AND SEED IN ACCORDANCE WITH YARRA RANGES SHIRE COUNCIL SPECIFICATIONS CONTRACTOR TO ENSURE MINIMUM 1.0% CONTINUOUS FALL WEST TOWARDS EXISTING TABLE DRAIN REMOVE EXISTING PAVEMENT AS REQUIRED AND CONSTRUCT 18.0m x 4.40m (79.2m²) SECTION OF 290mm COMPACTED DEPTH FULL DEPTH FLEXBILE PAVEMENT IN ACCORDANCE WITH DETAIL ON SHEET 01 CONSTRUCT 0.50m WIDE 5.0% CROSSFALL CRUSHED ROCK SHOULDER WITH 75mm COMPACTED DEPTH CLASS 2 CRUSHED ROCK IN GENERAL ACCORDANCE WITH YARRA RANGES SHIRE COUNCIL STANDARD DRAWING SD / A3 REINSTATE EXISTING ASPHALT VEHICLE CROSSING TO MATCH NEW FINISHED SURFACE LEVELS No. 13 REINSTATE EXISTING SURFACE WITH APPROVED TOPSOIL AND SEED IN ACCORDANCE WITH YARRA PROFILE EXISTING ASPHALT AND CRUSHED ROCK RANGES SHIRE COUNCIL SPECIFICATIONS PAVEMENT AS REQUIRED (APPROXIMATELY 42m<sup>2</sup>) FOR PROPOSED ASPHALT PAVEMENT TO MATCH No. 12 EXISTING ASPHALT LEVELS AND GRADE 1 in 4 FILL KIRKHAM ROAD Ex.375Ø → 4.10m CONSTRUCT 290mm COMPACTED DEPTH FULL DEPTH FLEXIBLE PAVEMENT IN ACCORDANCE WITH DETAIL ON SHEET 01 RETAIN EXISTING TABLE DRAIN INVERT RETAIN EXISTING VEHICLE CROSSING PIPE CULVERT CONSTRUCT ASPHALT VEHICLE CROSSING APRON WITH SHALLOW V-SHAPED INVERT IN ACCORDANCE WITH DETAIL ON SHEET 01 REMOVE EXISTING PAVEMENT AS REQUIRED AND CONSTRUCT 2.0m x 9.0m (18m²) SECTION OF 150mm COMPACTED DEPTH DEEP LIFT PAVEMENT IN ACCORDANCE WITH DETAIL ON SHEET 01 CONSTRUCT ASPHALT VEHICLE CROSSING APRON WITH SHALLOW V-SHAPED INVERT IN GENERAL ACCORDANCE WITH DETAIL ON CONSTRUCT ASPHALT VEHICLE CROSSING APRON WITH SHALLOW V-SHAPED INVERT IN ACCORDANCE WITH DETAIL ON SHEET 01 RETAIN EXISTING VEHICLE CROSSING PIPE CULVERT SHEET 01 RETAIN EXISTING VEHICLE CROSSING PIPE CULVERT REINSTATE EXISTING SURFACE WITH APPROVED No. 20 OPSOIL AND SEED IN ACCORDANCE WITH YARRA No. 18 CONSTRUCT 290mm COMPACTED DEPTH FULL DEPTH FLEXIBLE PAVEMENT IN RANGES SHIRE COUNCIL SPECIFICATIONS REMOVE EXISTING PAVEMENT AS REQUIRED AND CONSTRUCT 2.0m x 5.5m (11m²) SECTION OF 150mm COMPACTED DEPTH DEEP LIFT PAVEMENT ACCORDANCE WITH DETAIL ON SHEET 0 CONSTRUCT ASPHALT VEHICLE CROSSING APRON WITH SHALLOW V-SHAPED INVERT IN GENERAL ACCORDANCE WITH DETAIL ON SHEET 01 IN ACCORDANCE WITH DETAIL ON SHEET 01 No 22

#### GENERAL LAYOUT PLAN

4 2 0 4 8 1:200 @ 1:400 @



T PROJECT MANAGER / CONTACT
MATT WRIGHT | YARRA RANGES SHIRE COUNCIL

05-02-2022

GENERAL LAYOUT PLAN

FUNCTIONAL DESIGN - ISSUED FOR REVIEW

00 FUNCTIONAL DESIGN - ISSUED FOR REVIEW

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KURT CHAMBERLAIN

Specialist Civil Engineering Design Consultants

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FUNCTIONAL DESIGN - ISSUED FOR REVIEW

00 FUNCTIONAL DESIGN - ISSUED FOR REVIEW

CHRIS PROCTOR

18-08-2022

05-02-2022

T PROJECT MANAGER / CONTACT
MATT WRIGHT | YARRA RANGES SHIRE COUNCIL

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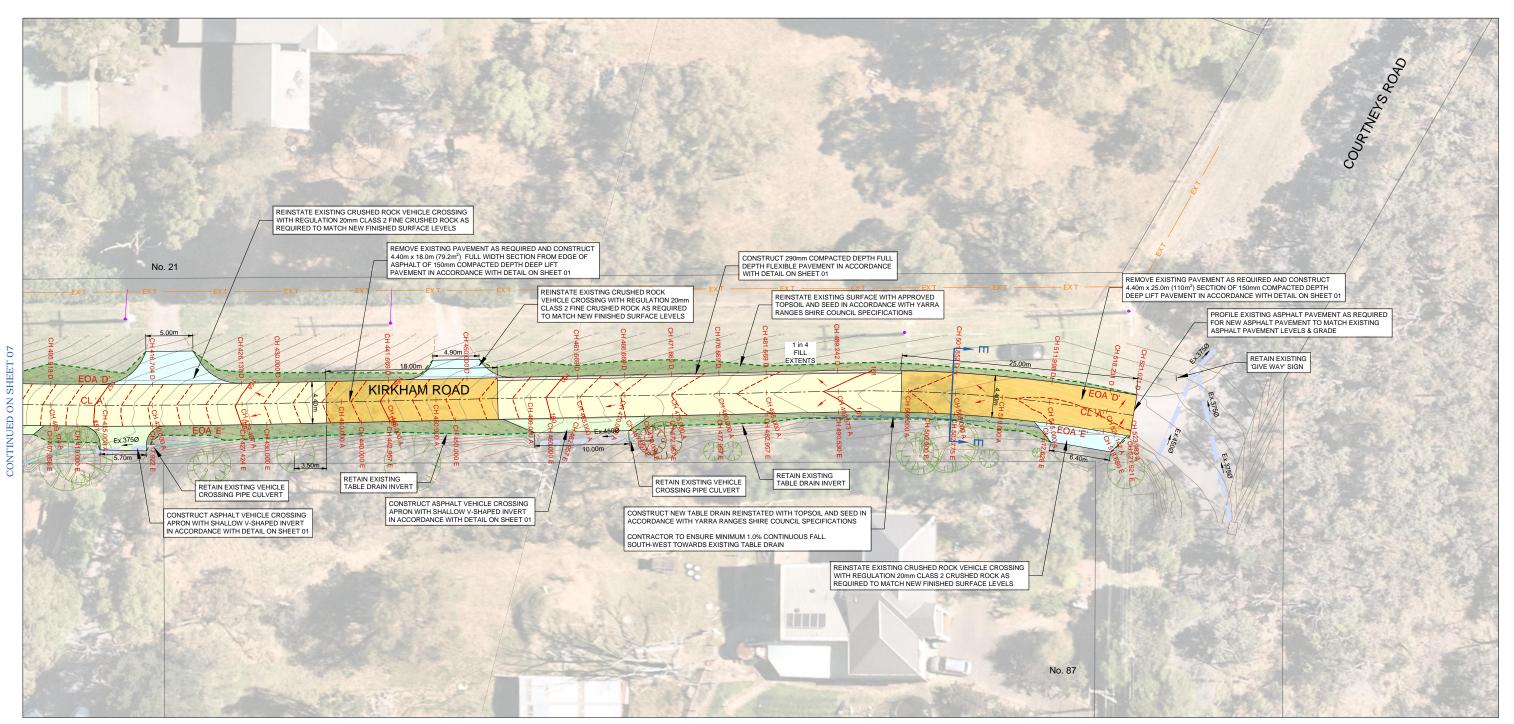
GENERAL LAYOUT PLAN

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SITE INVESTIGATIONS COMPLETED WITH YARRA RANGES SHIRE COUNCIL ON 07-10-2021 RESULTED IN A DISCOVERY OF EXISTING ROAD PAVEMENT EXTENDING BEYOND THAT SHOW! ON FEATURE AND LEVEL SURVEY (UNDER EXISTING TOPSOIL AND SEED)

CONTRACTOR TO CONFIRM REQUIREMENT OF FULL DEPTH 'ROAD WIDENING' AREAS SHOWN ON GENERAL LAYOUT PLANS AND CROSS-SECTIONS WITH YARRA RANGES SHIRE COUNCIL REPRESENTATIVE PRIOR TO CONSTRUCTION COMMENCING



#### GENERAL LAYOUT PLAN



03	FOR CONSTRUCTION	04-05-2023
02	DETAILED DESIGN - ISSUED FOR REVIEW	28-04-2023
01	FUNCTIONAL DESIGN - ISSUED FOR REVIEW	25-01-2023
00	FUNCTIONAL DESIGN - ISSUED FOR REVIEW	30-11-2022
VER	DESCRIPTION	DATE

CONSULTING ENGINEERING
Specialist Civil Engineering Design Consultants

Commitment | Communication | Collaboration

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KURT CHAMBERLAIN
CHRIS PROCTOR



	ORIGINAL SCALE & SHEET SIZE AS SHOWN @ A1	LOCAL GOVERNMENT AREA SHIRE OF YARRA RANGES
	HEIGHT DATUM	CLIENT
	AHD	Yarra
1	COORDINATE DATUM MGA 20 ZONE 55	Ranges
/	SURVEY DATE	Council
	18-08-2022	
	AERIAL IMAGE DATE	CLIENT PROJECT MANAGER / CONTACT
٧	05-02-2022	MATT WRIGHT I YARRA RANGES SHIRE COUNCIL

FOR CONSTRUCTION

ROAD UPGRADE WORKS

KIRKHAM ROAD, BELGRAVE SOUTH

08 OF 26
VERSION 03
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PC22019

| 1.02.

GENERAL LAYOUT PLAN

#### SURVEY CURVE / ARC SETOUT DETAIL TABLES

EDGE OF CRUSHED ROCK EDGE OF CRUSHED ROCK

CURVE **●**(19)

COORDINATE POINT

TBM STAR PICKET E: 354085.43

N: 5798783.10

R.L. 130.17

No. 16

No. 12

- CH 56.000 A LOK 'D'

CHAINAGE LABEL WITH DESIGN STRING IDENTIFIER DESIGN STRING LABEL WITH IDENTIFIER

CENTRELINE CURVF 'A1' SET OUT DETAILS INT 7°8'32"

TAN 1.248

CHD 2.491 ARC 2.493 M1 0.039

CURVE 'D1'

SET OUT DETAILS

TAN 11.271 CHD 15.745

ARC 17.547

M2 0.863

RETREAT ROAD

CURVE 'E1' R17.8m

91°23'44"

3.317

M2 0.01

CENTRELINE CURVF 'A2' SET OUT DETAILS 
 RAD.
 2500

 INT
 0°2753"

 TAN
 10.141

 CHD
 20.282

 ARC
 20.282

 M1
 0.021

 M2
 0.005

CURVE 'D2'

SET OUT DETAILS

TAN 10.132 CHD 20.264 ARC 20.264 M1 0.021

2497.8 0°27'53"

CENTRELINE CURVE 'A3' SET OUT DETAILS 0°5'13" TAN 1.895 CHD 3.789 ARC 3.789 M1 0.001

CURVE 'D3'

SET OUT DETAILS

TAN 1.893 CHD 3.786

ARC 3.786 M1 0.001

2497.8 0°5'13"

CENTRELINE CURVE 'B1' SET OUT DETAILS INT 1°45'32" TAN 3.07 CHD 6.139 ARC 6.14 M1 0.024

CURVF 'F1'

SET OUT DETAILS

TAN 1.111 CHD 2.217

ARC 2.219

CURVE 'D2' R2497.8m

7°8'32"

0.035

EDGE OF CRUSHED ROCK CURVE 'C1' SET OUT DETAILS INT 81°27'44" CHD 11.745 ARC M1 12.796 2.18 0.563

CURVF 'F2'

SET OUT DETAILS

TAN 10.15 CHD 20.3

ARC 20.3

0.021



CURVE 'F3'

SET OUT DETAILS

TAN 1.896 CHD 3.792

ARC 3.792 M1 0.001

2502.2 0°5'13"

#### SURVEY COORDINATE SETOUT POINT TABLES

**●**(19) COORDINATE POINT SHOWN AS:

#### CENTRELINE (A)

		` '	
Point	Easting	Northing	FS
Number	(m)	(m)	(m RL)
A1	354091.063	5798784.590	129.46
A2	354092.113	5798787.291	129.20
A3	354093.159	5798789.552	129.00
A4	354104.731	5798810.964	128.32
A5	354114.302	5798828.847	129.53
A6	354142.316	5798881.703	135.74
A7	354144.088	5798885.052	136.07

#### SURVEY COORDINATE SETOUT POINT TABLES

YOU DIG

**●**(19) COORDINATE POINT SHOWN AS:

WARNING

BEWARE OF UNDERGROUND SERVICES TE LOCATION OF EXISTING UNDERGROUND SERVICES ARE APP

#### CENTRELINE (B)

CLIVITALLINE (D)				
Point	Easting	Northing	FS	
Number	(m)	(m)	(m RL)	
B1	354095.350		128.68	
B2	354092.235	5798795.267	128.44	
В3	354086.860	5798798.235	127.86	
B4	354083.016	5798800.435	127.44	

#### **SURVEY COORDINATE** SETOUT POINT TABLES

COORDINATE POINT SHOWN AS:

**●**(19)

#### EDGE OF CRUSHED ROCK (C)

			` '
Point	Easting	Northing	FS
Number	(m)	(m)	(m RL)
C1	354089.013	5798785.387	129.35
C2	354089.129	5798785.686	129.32
C3	354085.211	5798796.759	127.68
C4	354081.973	5798798.612	127.26

#### SURVEY COORDINATE SETOUT POINT TABLES

COORDINATE POINT SHOWN AS:

### EDGE OF CRUSHED ROCK (D)

**●**(19)

			` '
Point	Easting	Northing	FS
Number	(m)	(m)	(m RL)
D1	354084.059	5798802.257	127.32
D2	354084.561	5798801.970	127.38
D3	354099.702	5798806.287	128.14
D4	354102.796	5798812.011	128.21
D5	354112.358	5798829.877	129.47
D6	354140.372	5798882.733	135.70
D7	354142.143	5798886,079	136.03

#### **SURVEY COORDINATE** SETOUT POINT TABLES

COORDINATE POINT SHOWN AS:

**●**(19)

#### EDGE OF CRUSHED ROCK (E)

Point Easting		Northing	FS
Number (m) (n		(m)	(m RL)
E1	354093.113	5798783.793	129.50
E2	354094.164	5798786.494	129.22
E3	354095.094	5798788.507	129.02
E4	354106.666	5798809.919	128.26
E5	354116.246	5798827.816	129.47
E6	354144.260	5798880.672	135.70
E7	354146.034	5798884.025	136.05

No. 13

CURVE 'D3' R2497.8m

No. 18

No. 20

No. 22

#### SURVEY SETOUT PLAN

KIRKHAM ROAD



			CONSULTANT
03	FOR CONSTRUCTION	04-05-2023	00
02	DETAILED DESIGN - ISSUED FOR REVIEW	28-04-2023	
01	FUNCTIONAL DESIGN - ISSUED FOR REVIEW	25-01-2023	Spec
00	FUNCTIONAL DESIGN - ISSUED FOR REVIEW	30-11-2022	Spec
VED	DESCRIPTION	DATE	

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CHRIS PROCTOR

OR AS SHOWN

	ORIGINAL SCALE & SHEET SIZE AS SHOWN @ A1	LOCAL GOVERNMENT AREA SHIRE OF YARRA RANGES
<b>-</b>	HEIGHT DATUM  AHD	CLIENT
	COORDINATE DATUM MGA 20 ZONE 55	Yarra Ranges Council
	SURVEY DATE 18-08-2022	Council
١	AERIAL IMAGE DATE 05-02-2022	CLIENT PROJECT MANAGER / CONTACT MATT WRIGHT   YARRA RANGES SHIRE COUNCI

### FOR CONSTRUCTION **ROAD UPGRADE WORKS** KIRKHAM ROAD, BELGRAVE SOUTH

SURVEY SETOUT PLAN

PC22019 09 of 26 03

PC22019 -09 - 0

#### **LEGEND** SURVEY CURVE / ARC SETOUT DETAIL TABLES

CURVE **●**19

COORDINATE POINT

- CH 56.000 A

CHAINAGE LABEL WITH DESIGN STRING IDENTIFIER INT DESIGN STRING LABEL WITH IDENTIFIER TAN 30.998
CHD 59.672
ARC 60.429
M1 4.124

CENTRELINE CURVE 'A4' SET OUT DETAILS

RAD. 110

INT 31°28'33"

CURVE 'A5' SET OUT DETAILS INT TAN 8.036

CENTRELINE CHD 16.063 ARC 16.066 M1 0.129

EDGE OF CRUSHED ROCK EDGE OF CRUSHED ROCK EDGE OF CRUSHED ROCK CURVE 'D4' CURVE 'D5' SET (
RAD
INT
TAN
CHE
ARC
M1
M2

<b>OUT DETAILS</b>		SET OUT	
D.	112.2	RAD.	l
Т	31°28'33"	INT	
N	31.618	TAN	ĺ
D	60.866	CHD	ĺ
С	61.638	ARC	ĺ
1	4.206	M1	
2	1.057	M2	l

CONVEL		
SET OUT DETAILS		
RAD.	107.8	
INT	31°28'33"	
TAN	30.378	
CHD	58.479	
ARC	59.221	
M1	4.041	
M2	1.015	

**●**(19)

CURVE 'E5' CURVE 'E5'
SET OUT DETAILS
RAD. 252.2
INT 3°40'55"
TAN 8.106 8.106 CHD 16.205
ARC 16.207
M1 0.13



#### SURVEY COORDINATE SETOUT POINT TABLES

COORDINATE POINT SHOWN AS: **●**(19)

#### CENTRELINE (A)

Point	Easting	Northing	FS
Number	(m)	(m)	(m RL)
A8	354156.518	5798908.591	137.65
A9	354197.650	5798951.822	141.27
A10	354211.194		
A11	354249.433	5798986.611	145.31

#### SURVEY COORDINATE SETOUT POINT TABLES

7.965

0.128

COORDINATE POINT SHOWN AS:

#### EDGE OF CRUSHED ROCK (D)

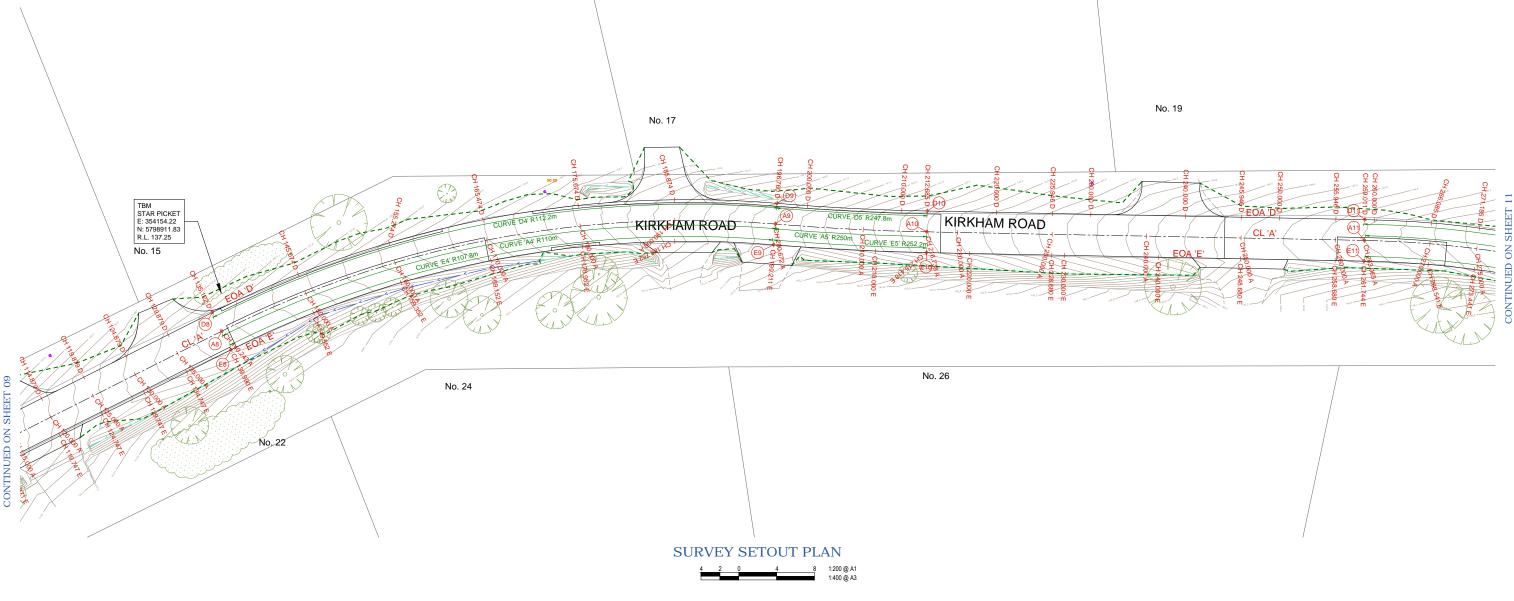
Point	Easting	Northing	FS
umber	(m)	(m)	(m RL)
D8	354154.573	5798909.618	137.58
D9	354196.528	5798953.714	141.29
D10	354209.952	5798962.275	142.49
D11	354248 191	5798988 427	145 23

#### SURVEY COORDINATE SETOUT POINT TABLES

COORDINATE POINT SHOWN AS: **●**(19)

ED	GE OF CRUS	SHED ROCK	(E)
oint	Easting	Northina	FS

Point	Easting	Northing	FS	
Number	(m)	(m)	(m RL)	
E8	354158.464	5798907.564	137.58	
E9	354198.774	5798949.930	141.20	
E10	354212.436	5798958.643	142.40	
E11	354250.674	5798984.795	145.22	



03 FOR CONSTRUCTION 02 DETAILED DESIGN - ISSUED FOR REVIEW 01 FUNCTIONAL DESIGN - ISSUED FOR REVIEW 00 FUNCTIONAL DESIGN - ISSUED FOR REVIEW

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ABN 51 759 386 092

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PO BOX 164, RINGWOOD VIC 3134

P: (03) 8644 6834

E: info@procivil.com.au KURT CHAMBERLAIN CHRIS PROCTOR



ORIGINAL SCALE & SHEET SIZE  AS SHOWN @ A1	SHIRE OF YARRA RANGES
HEIGHT DATUM	CLIENT
AHD	Yarra
COORDINATE DATUM MGA 20 ZONE 55	Ranges
SURVEY DATE	Council
18-08-2022	
AERIAL IMAGE DATE 05-02-2022	CLIENT PROJECT MANAGER / CONTACT MATT WRIGHT   YARRA RANGES SHIRE COUNCI

FOR CONSTRUCTION **ROAD UPGRADE WORKS** KIRKHAM ROAD, BELGRAVE SOUTH

03 PC22019 -10 - 0

PC22019

10 of 26

WARNING
BEWARE OF UNDERGROUND SERVICES
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YOU DIG

SURVEY SETOUT PLAN

#### SURVEY CURVE / ARC SETOUT DETAIL TABLES

CURVE

**LEGEND** 

**●**19 COORDINATE POINT

CHAINAGE LABEL WITH DESIGN STRING IDENTIFIER

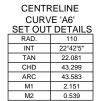
- CH 56.000 A

03 FOR CONSTRUCTION

02 DETAILED DESIGN - ISSUED FOR REVIEW 01 FUNCTIONAL DESIGN - ISSUED FOR REVIEW

00 FUNCTIONAL DESIGN - ISSUED FOR REVIEW

DESIGN STRING LABEL WITH IDENTIFIER



CENTRELINE CURVE 'A7' INT TAN

SET OUT DETAILS

RAD. 1000 16.906 CHD 33.808 ARC 33.809 M1 0.143

EDGE OF CRUSHED ROCK EDGE OF CRUSHED ROCK EDGE OF CRUSHED ROCK CURVE 'D6'
SET OUT DETAILS
RAD. 112.2 RAD. 112.2
INT 22°42'5"
TAN 22.523
CHD 44.165
ARC 44.455
M1 2.195
M2 0.55

CURVE 'D7' SET OUT DETAILS			
	RAD.	997.8	
	INT	1°56'14"	
	TAN	16.869	
	CHD	33.733	
	ARC	33.735	
	M1	0.143	

CURVE 'E6' CURVE 'E6'
SET OUT DETAILS
RAD. 107.8
INT 22°42'5"
TAN 21.64
CHD 42.433
ARC 42.712
M1 2.108
M2 0.658 M2 0.528

**●**(19)







#### SURVEY COORDINATE SETOUT POINT TABLES

0.036

COORDINATE POINT SHOWN AS:

#### **●**(19) CENTRELINE (A)

Point	Easting	Northing	FS
Number	(m)	(m)	(m RL)
A11	354249.433	5798986.611	145.31
A12	354289.284	5799003.542	148.17
A13	354330.324	5799012.017	151.46
A14	354363.313	5799019.413	154.47
A15	354389.371	5799025.719	156.67

#### SURVEY COORDINATE SETOUT POINT TABLES

COORDINATE POINT SHOWN AS:

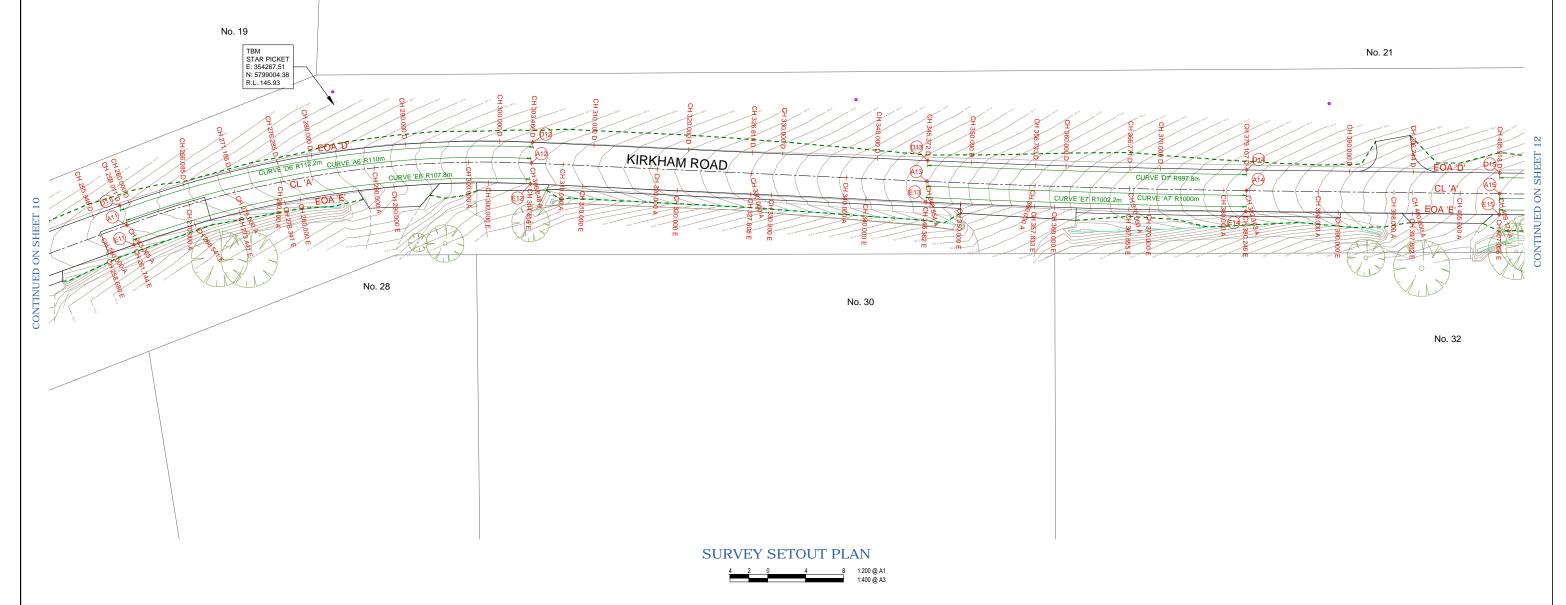
#### EDGE OF CRUSHED ROCK (D)

			` '
Point	Easting	Northing	FS
lumber	(m)	(m)	(m RL)
D11	354248.191	5798988.427	145.23
D12	354288.839	5799005.697	148.11
D13	354329.879	5799014.171	151.35
D14	354362.795	5799021.551	154.36
D15	354388.854	5799027.858	156.56

#### SURVEY COORDINATE SETOUT POINT TABLES

COORDINATE POINT SHOWN AS: **●**(19) EDGE OF CRUSHED ROCK (E)

	<b>-</b>		\ <b>-</b> /
oint	Easting Northing		FS
ımber	(m)	(m)	(m RL)
E11	354250.674	5798984.795	145.22
E12	354289.729	5799001.388	148.13
E13	354330.769	5799009.862	151.42
E14	354363.831	5799017.275	154.40
E15	354389.888	5799023.581	156.69



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CHNICAL PEER REVIEW KURT CHAMBERLAIN CHRIS PROCTOR

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	OR AS SHOWN	

ORIGINAL SCALE & SHEET SIZE	LOCAL GOVERNMENT AREA SHIRE OF YARRA RANGES
AS SHOWN @ A1	SHIRE OF TARRA RANGES
HEIGHT DATUM	CLIENT
AHD	Yarra
COORDINATE DATUM	
MGA 20 ZONE 55	Ranges
SURVEY DATE	Council
18-08-2022	
AERIAL IMAGE DATE	CLIENT PROJECT MANAGER / CONTACT
05-02-2022	MATT WRIGHT   YARRA RANGES SHIRE COUNCIL

FOR CONSTRUCTION **ROAD UPGRADE WORKS** KIRKHAM ROAD, BELGRAVE SOUTH

03 PC22019 -11 - 0

PC22019

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WARNING
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SURVEY SETOUT PLAN

#### **LEGEND**

CURVE

**●**19 COORDINATE POINT

- CH 56.000 A LOK 'D'

CHAINAGE LABEL WITH DESIGN STRING IDENTIFIER DESIGN STRING LABEL WITH IDENTIFIER

CENTRELINE

CURVE 'A8'

CURVE 'A8'
SET OUT DETAILS

RAD. 600
INT 1°56'16"
TAN 10.148

TAN 10.148
CHD 20.293
ARC 20.293
M1 0.086

0.021

CURVE 'A9' CURVE 'A9'
SET OUT DETAILS
RAD. 150
INT 10°54'46"
TAN 14.328 TAN 14.328 CHD 28.526 ARC 28.569 M1 0.68 M2 0.17

## CENTRELINE

# E OF CRUSHED RO CURVE 'D8' SET OUT DETAILS RAD. 597.8 INT 1"56'16" TAN 10.111 CHD 20.218 ARC 20.219 M1 0.085 M2 0.021

# E OF CRUSHED RO CURVE 'D9' SET OUT DETAILS RAD. 152.2 INT 10°54'46" TAN 14.538 CHD 28.945 ARC 28.988 M1 0.69 M2 0.173

SURVEY CURVE / ARC SETOUT DETAIL TABLES

EDGE OF CRUSHED ROCK EDGE OF CRUSHED ROCK EDGE OF CRUSHED ROCK EDGE OF CRUSHED ROCK

**●**(19)

CURVE 'E8' SET OUT DETAILS					
RAD.	602.2				
INT	1°56'16"				
TAN	10.185				
CHD	20.367				
ARC	20.368				
M1	0.086				
M2	0.022				

CURVE 'E9'						
SET OUT DETAILS						
RAD.	147.8					
INT	10°54'46"					
TAN	14.118					
CHD	28.108					
ARC	28.15					
M1	0.67					
M2	0.168					



#### SURVEY COORDINATE SETOUT POINT TABLES

COORDINATE POINT SHOWN AS:

**●**(19)

#### CENTRELINE (A)

Point Easting		Northing	FS
Number	(m)	(m)	(m RL)
A15	354389.371	5799025.719	156.67
A16	354409.010	5799030.825	158.05
A17	354469.809	5799047.735	161.03
A18	354497.894	5799052.731	161.37
A19	354500.724	5799052.960	161.32

#### SURVEY COORDINATE SETOUT POINT TABLES

COORDINATE POINT SHOWN AS:

#### EDGE OF CRUSHED ROCK (D)

		` '
Easting	Northing	FS
(m)	(m)	(m RL)
		156.56
354408.422	5799032.945	157.94
354469.219	5799049.854	160.92
354497.717	5799054.923	161.26
354500.547	5799055.153	161.21
	(m) 354388.854 354408.422 354469.219 354497.717	(m) (m) 354388.854 5799027.858 354408.422 5799032.945 354469.219 5799049.854 354497.717 5799054.923

#### SURVEY COORDINATE SETOUT POINT TABLES

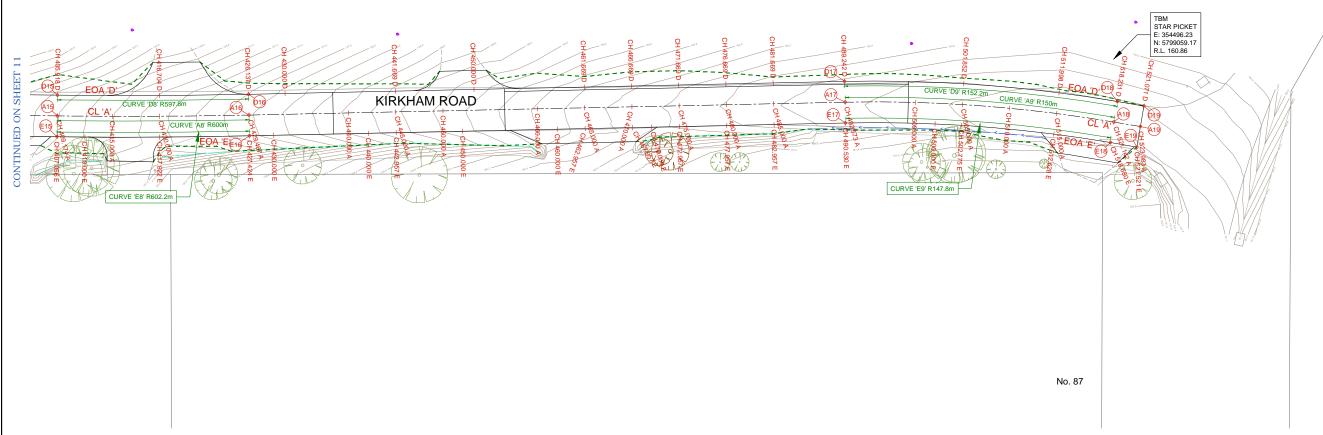
COORDINATE POINT SHOWN AS: **●**(19) EDGE OF CRUSHED ROCK (E)

			` '
Point	Easting	Northing	FS
Number	(m)	(m)	(m RL)
E15	354389.888	5799023.581	156.69
E16	354409.600	5799028.706	158.01
E17	354470.398	5799045.615	160.95
E18	354498.071	5799050.538	161.46
E19	354500.902	5799050.767	161.43

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#### SURVEY SETOUT PLAN

03	FOR CONSTRUCTION	04-05-2023
02	DETAILED DESIGN - ISSUED FOR REVIEW	28-04-2023
01	FUNCTIONAL DESIGN - ISSUED FOR REVIEW	25-01-2023
00	FUNCTIONAL DESIGN - ISSUED FOR REVIEW	30-11-2022
VER	DESCRIPTION	DATE

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CHRIS PROCTOR

KURT CHAMBERLAIN



ORIGINAL SCALE & SHEET SIZE AS SHOWN @ A1	LOCAL GOVERNMENT AREA SHIRE OF YARRA RANGES
HEIGHT DATUM	CLIENT
AHD	Yarra
COORDINATE DATUM	
MGA 20 ZONE 55	Ranges
SURVEY DATE	Council
18-08-2022	
AERIAL IMAGE DATE	CLIENT PROJECT MANAGER / CONTACT
05-02-2022	MATT WRIGHT   YARRA RANGES SHIRE COUNCIL

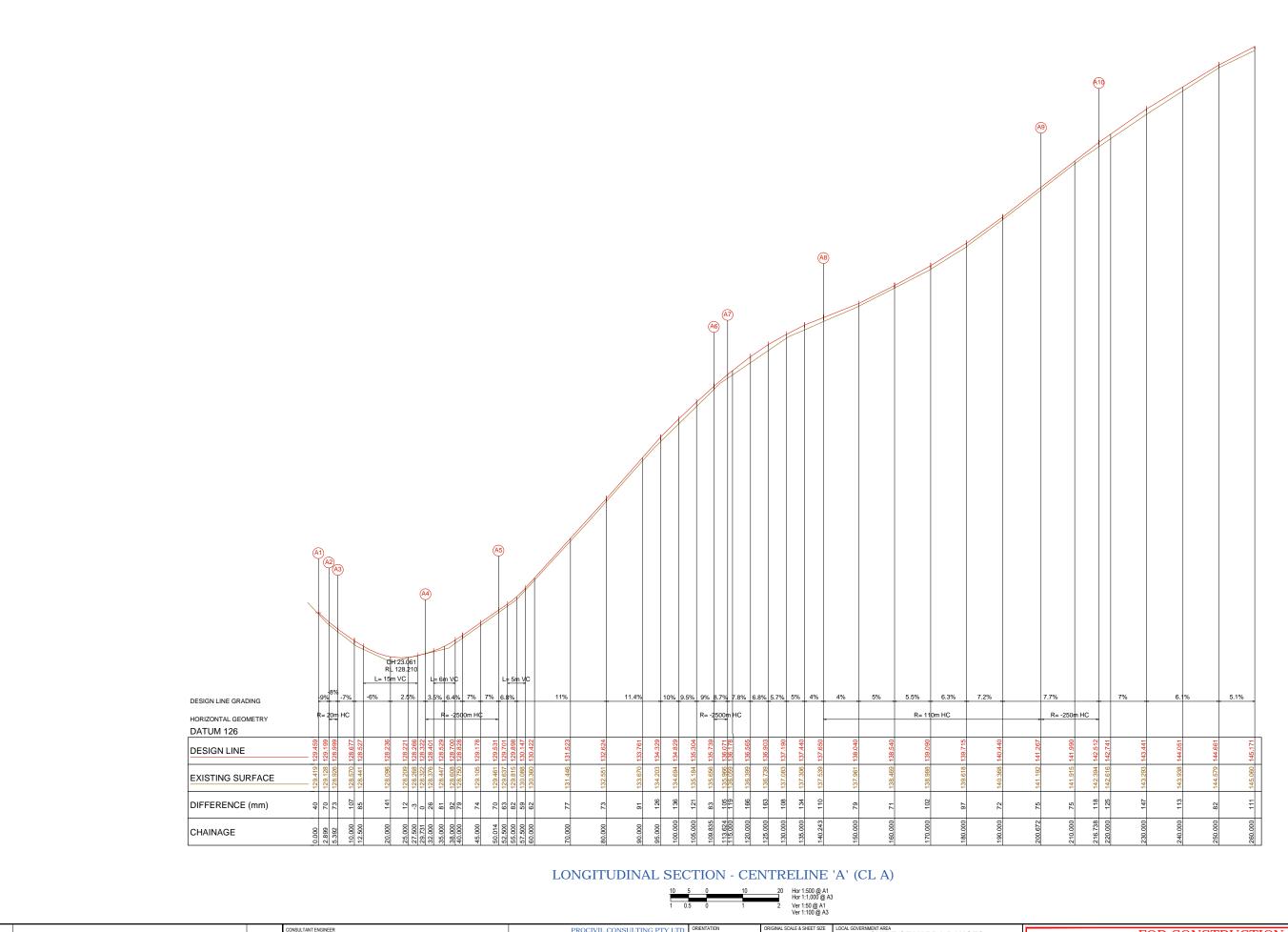
FOR CONSTRUCTION **ROAD UPGRADE WORKS** KIRKHAM ROAD, BELGRAVE SOUTH

SURVEY SETOUT PLAN

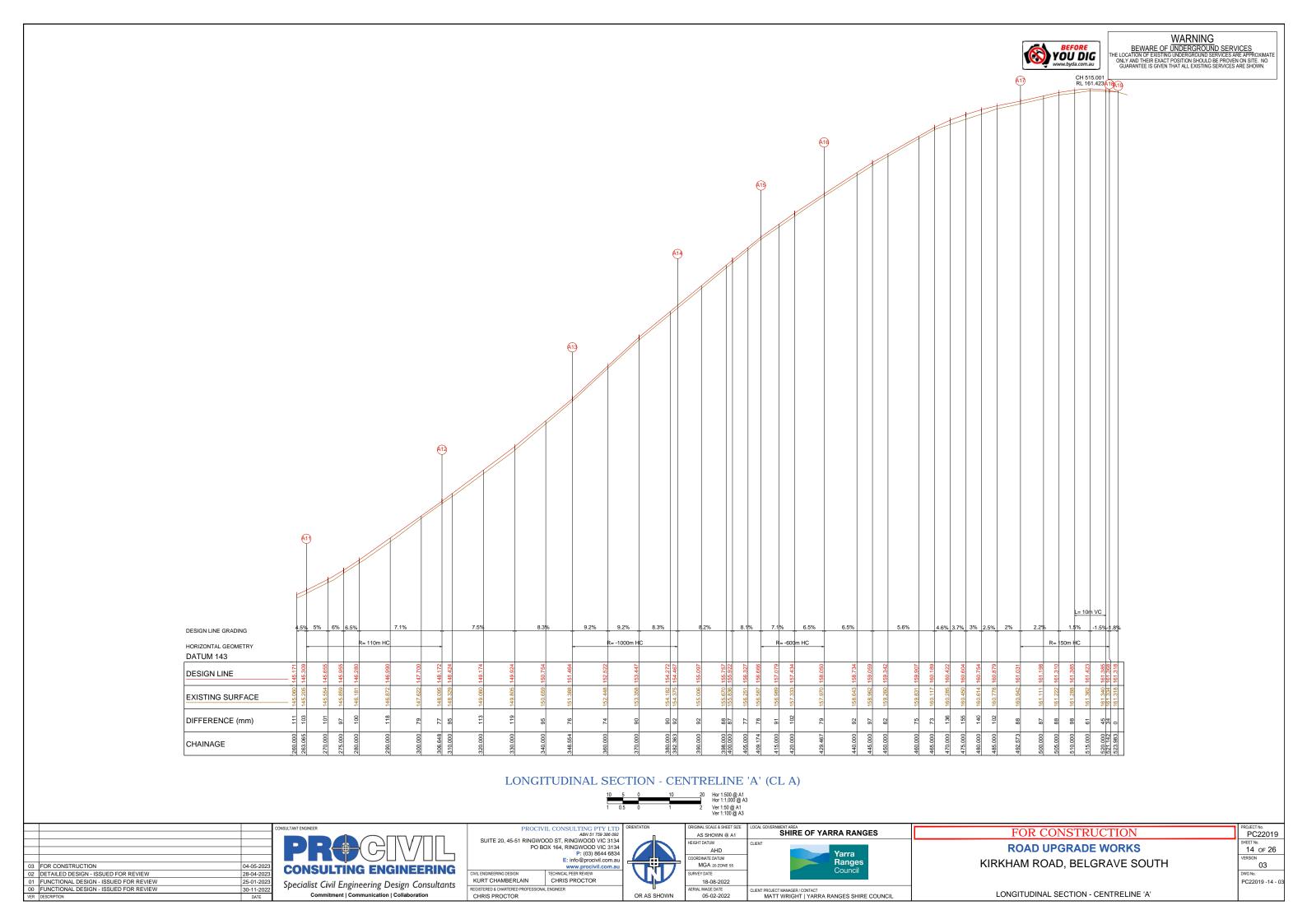
03 PC22019 -12 - 0

PC22019

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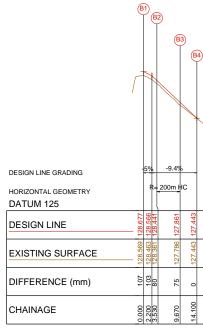


		CONSULTANT ENGINEER		ABN 51 759 386 092	ORIENTATION	ORIGINAL SCALE & SHEET SIZE AS SHOWN @ A1	LOCAL GOVERNMENT AREA SHIRE OF YARRA RANGES	FOR CONSTRUCTION	PROJECT No. PC22019
				OOD ST, RINGWOOD VIC 3134 BOX 164, RINGWOOD VIC 3134 P: (03) 8644 6834		HEIGHT DATUM AHD	CLIENT	ROAD UPGRADE WORKS	SHEET No. 13 OF 26
03 FOR CONSTRUCTION	04-05-2023	CONSULTING ENGINEERING		E: info@procivil.com.au www.procivil.com.au		COORDINATE DATUM MGA 20 ZONE 55	Ranges	KIRKHAM ROAD, BELGRAVE SOUTH	VERSION 03
02 DETAILED DESIGN - ISSUED FOR REVIEW 01 FUNCTIONAL DESIGN - ISSUED FOR REVIEW	28-04-2023 25-01-2023	0	CIVIL ENGINEERING DESIGN KURT CHAMBERLAIN	TECHNICAL PEER REVIEW CHRIS PROCTOR		SURVEY DATE 18-08-2022	Council		DWG No. PC22019 -13 - 0
00 FUNCTIONAL DESIGN - ISSUED FOR REVIEW	30-11-2022	Specialist Civil Engineering Design Consultants  Commitment   Communication   Collaboration	REGISTERED & CHARTERED PROFESSION	IAL ENGINEER	OR AS SHOWN	AERIAL IMAGE DATE 05-02-2022	CLIENT PROJECT MANAGER / CONTACT MATT WRIGHT I YARRA RANGES SHIRE COLINCII	LONGITUDINAL SECTION - CENTRELINE 'A'	PC22019-13-0





WARNING
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THE LOCATION OF EXISTING UNDERGROUND SERVICES ARE APPROXIMATE
ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO
GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.



US PUR CONSTRUCTION
D2 DETAILED DESIGN - ISSUED FOR REVIEW
O1 FUNCTIONAL DESIGN - ISSUED FOR REVIEW
O0 FUNCTIONAL DESIGN - ISSUED FOR REVIEW
VER DESCRIPTION

#### LONGITUDINAL SECTION - CENTRELINE 'B' (CL B)



	CONSULTANT ENGINEER	
	PROGIVIL	
023	<b>CONSULTING ENGINEERING</b>	CIVIL
023	Specialist Civil Engineering Design Consultants	Κl
022		REGI
	Commitment   Communication   Collaboration	CH

ABN 57 59 386 092

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PO BOX 164, RINGWOOD VIC 3134

P: (03) 8644 6834

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IL ENGINEERING DESIGN

TECHNICAL PEER REVIEW CURT CHAMBERLAIN CHRIS PROCTOR

ORIENTATION	ORIGINA
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	HEIGHT I
	COORDIN
	М
	SURVEY
П	AERIAL I
OR AS SHOWN	

ORIGINAL SCALE & SHEET SIZE	LOCAL GOVERNMENT AREA
AS SHOWN @ A1	SHIRE OF YARRA RANGES
HEIGHT DATUM	CLIENT
AHD	Yarra
COORDINATE DATUM	Ranges
MGA 20 ZONE 55	Council
SURVEY DATE	Council
18-08-2022	
AERIAL IMAGE DATE	CLIENT PROJECT MANAGER / CONTACT
05-02-2022	MATT WRIGHT   YARRA RANGES SHIRE COUNCIL

DESIGN LINE GRADING

HORIZONTAL GEOMETRY

EXISTING SURFACE

DIFFERENCE (mm)

LONGITUDINAL SECTION - EDGE OF ASPHALT 'C' (EOA C)

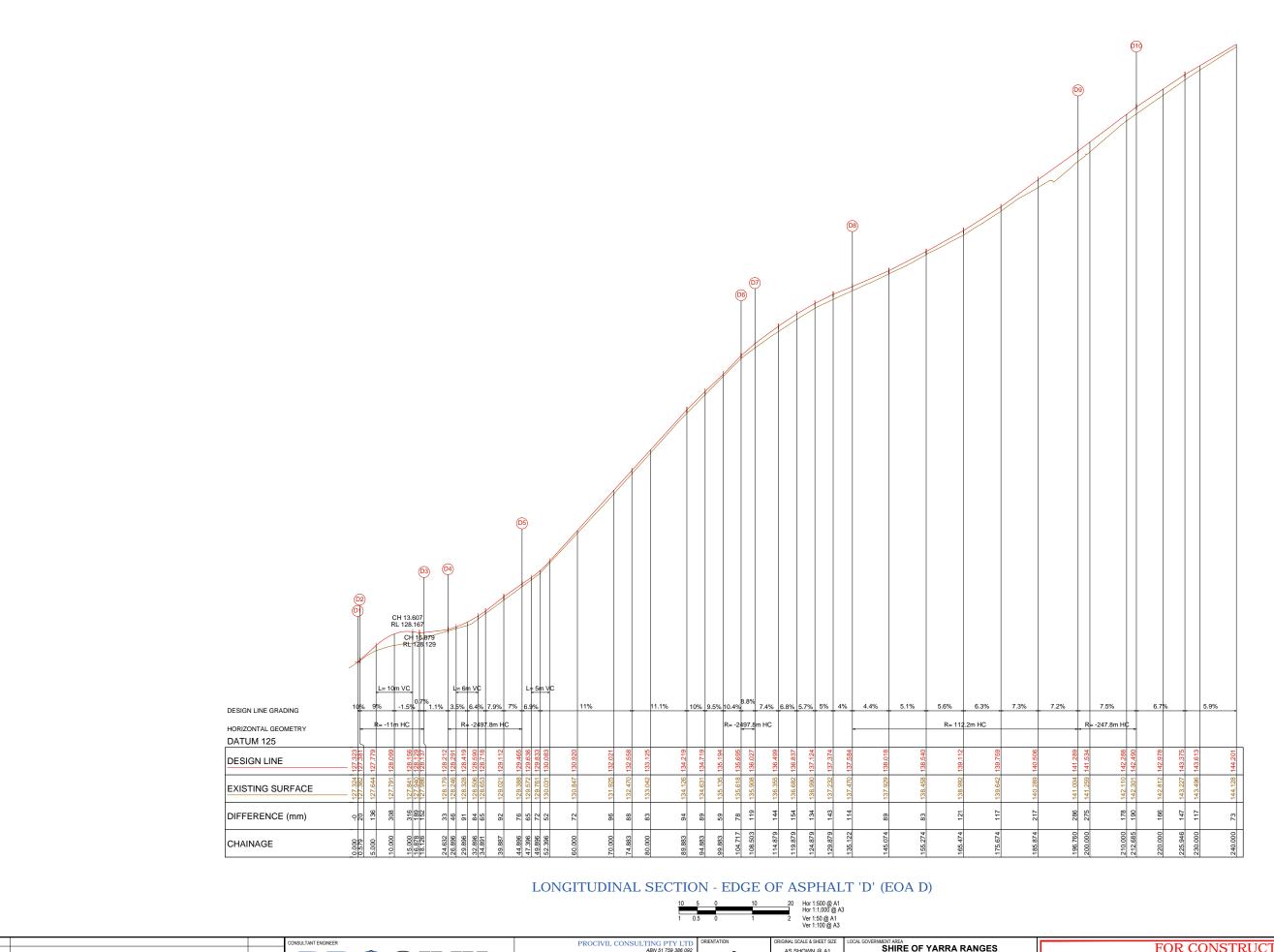
DATUM 125

DESIGN LINE

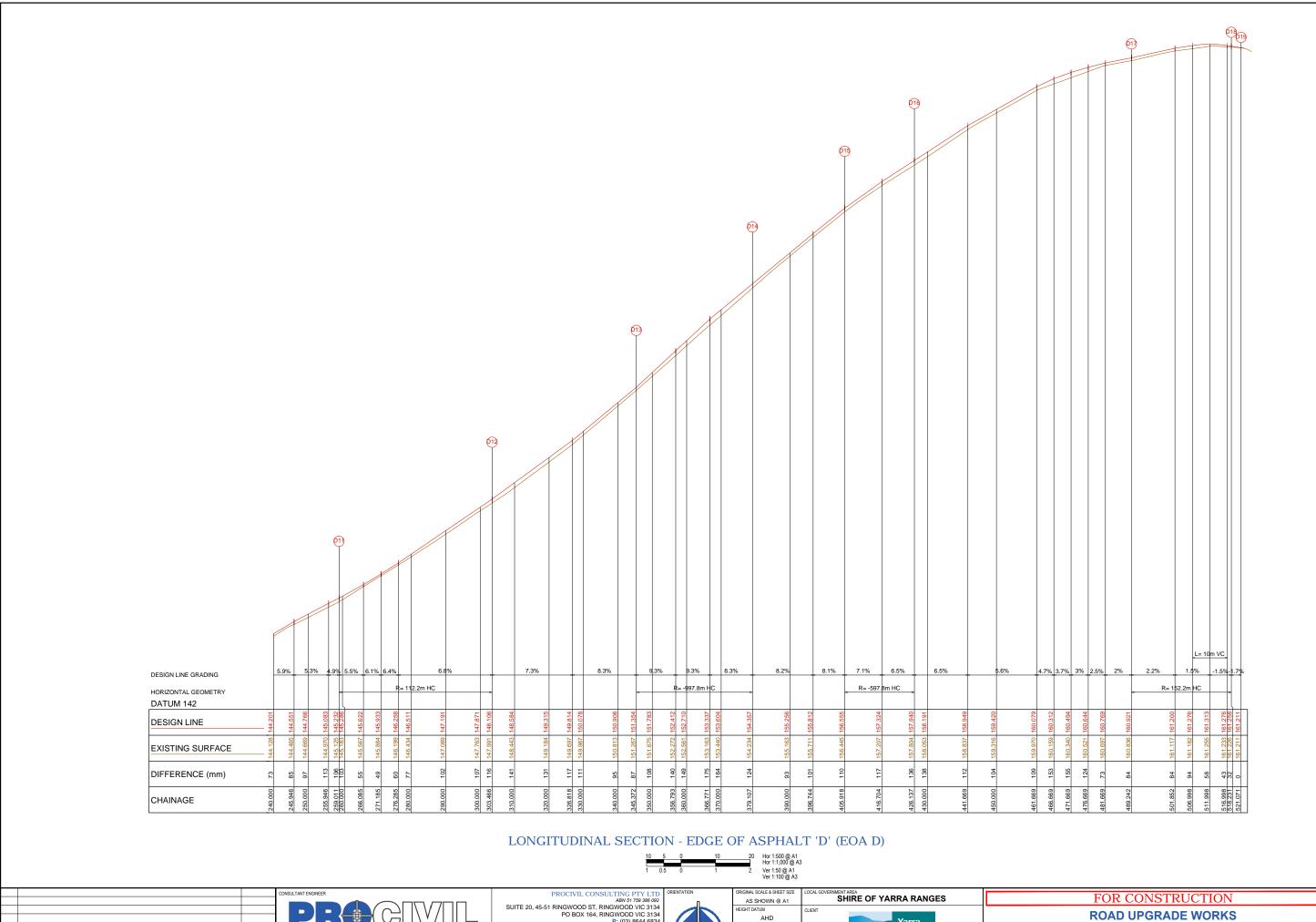
CHAINAGE

FOR CONSTRUCTION **ROAD UPGRADE WORKS** KIRKHAM ROAD, BELGRAVE SOUTH LONGITUDINAL SECTION - CENTRELINE 'B' AND EDGE OF ASPHALT 'C'

PROJECT No.
PC22019 15 of 26 03 PC22019 -15 - 03



	CONSULTANT ENGINEER	ABN 51 759 386 092	ORIENTATION	ORIGINAL SCALE & SHEET SIZE AS SHOWN @ A1	LOCAL GOVERNMENT AREA SHIRE OF YARRA RANGES	FOR CONSTRUCTION	PROJECT No. PC22019
		SUITE 20, 45-51 RINGWOOD ST, RINGWOOD VIC 3134 PO BOX 164, RINGWOOD VIC 3134 P: (03) 8644 6834		HEIGHT DATUM  AHD	CLIENT	ROAD UPGRADE WORKS	SHEET No. 16 OF 26 VERSION
03 FOR CONSTRUCTION 04-05	CONSULTING ENGINEERING	E: into@procivil.com.au www.procivil.com.au		MGA 20 ZONE 55	Ranges	KIRKHAM ROAD, BELGRAVE SOUTH	03
02 DETAILED DESIGN - ISSUED FOR REVIEW 28-04	2023 CONSOLLING ENGINEERING	CIVIL ENGINEERING DESIGN TECHNICAL PEER REVIEW		SURVEY DATE	Couricii		DWG No.
01 FUNCTIONAL DESIGN - ISSUED FOR REVIEW 25-01	Specialist Civil Engineering Design Consultants	KURT CHAMBERLAIN CHRIS PROCTOR		18-08-2022			PC22019 -16 - 03
00 FUNCTIONAL DESIGN - ISSUED FOR REVIEW 30-11	2022	REGISTERED & CHARTERED PROFESSIONAL ENGINEER	] "	AERIAL IMAGE DATE	CLIENT PROJECT MANAGER / CONTACT	LONGITUDINAL OFFICE OF ADDING TIP	
VER DESCRIPTION DA	Commitment   Communication   Collaboration	CHRIS PROCTOR	OR AS SHOWN	05-02-2022	MATT WRIGHT   YARRA RANGES SHIRE COUNCIL	LONGITUDINAL SECTION - EDGE OF ASPHALT 'D'	

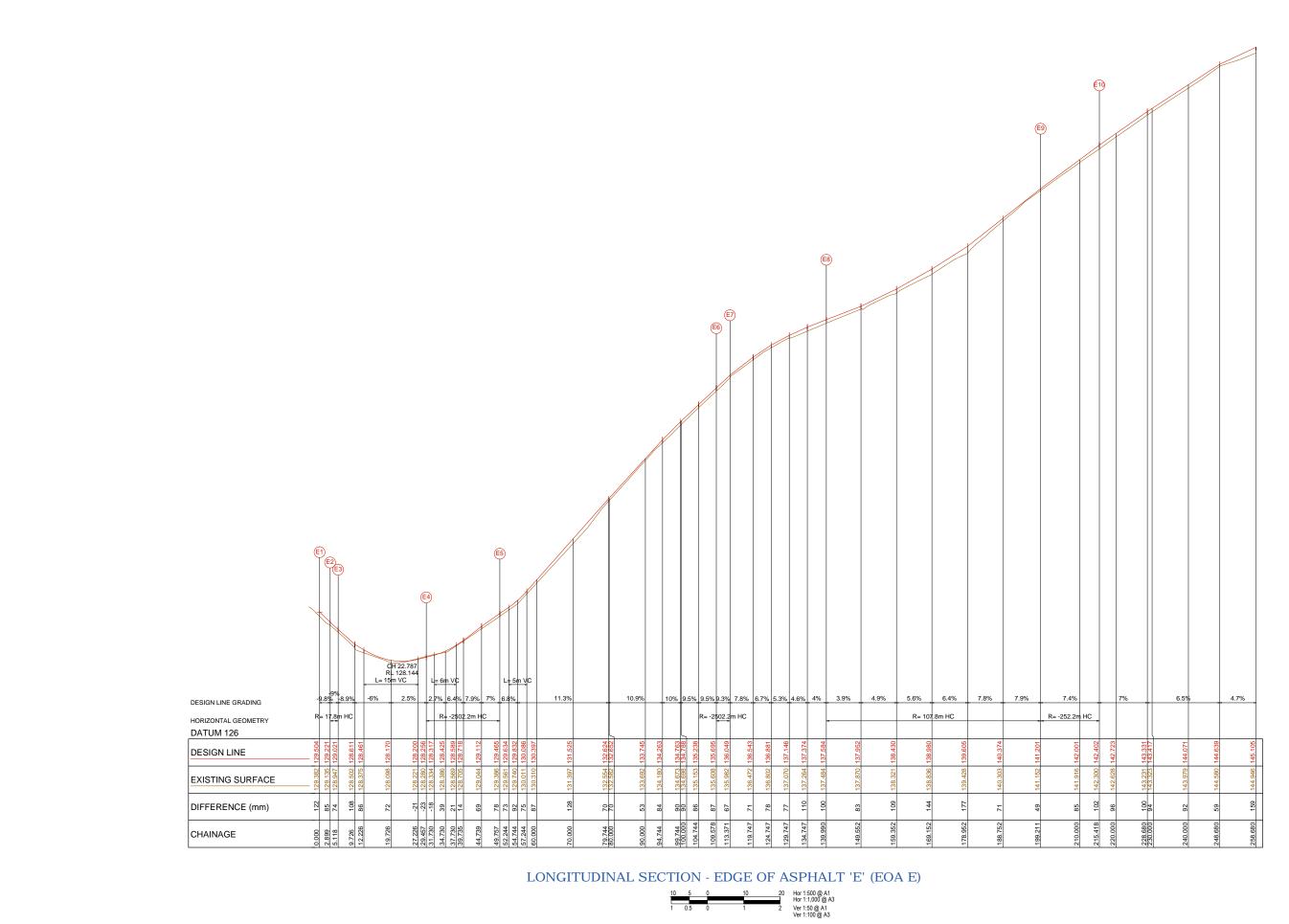


PROJECT No. PC22019

SHEET №. 17 OF 26

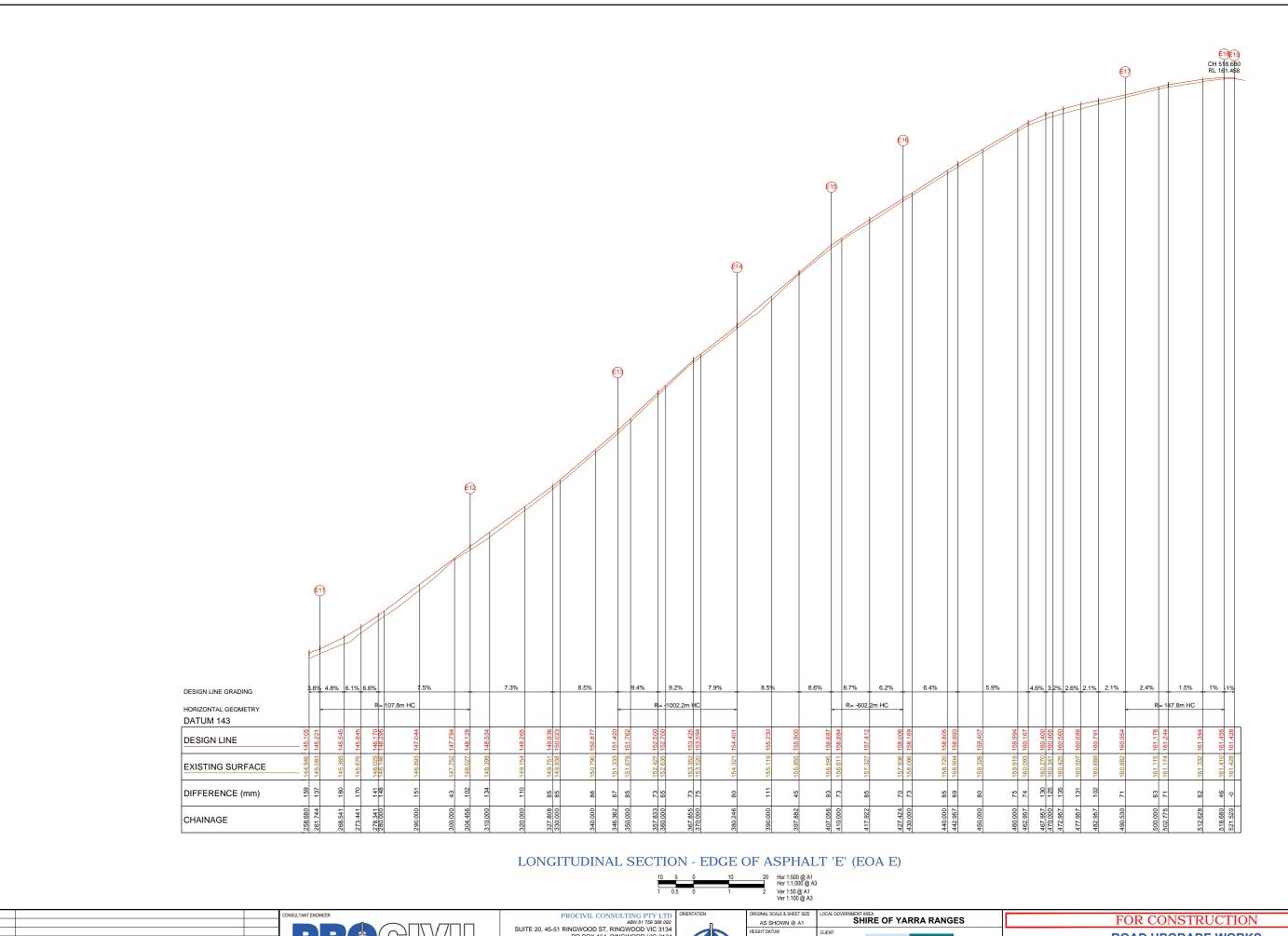
03 DWG No. PC22019 -17 - 03

		CONSULTANT ENGINEER						
		CONSULTANT ENGINEER	PROCIVI	IL CONSULTING PTY LTD ABN 51 759 386 092	П	AS SHOWN @ A1	SHIRE OF YARRA RANGES	FOR CONSTRUCTION
				OD ST, RINGWOOD VIC 3134 DX 164, RINGWOOD VIC 3134 P: (03) 8644 6834		HEIGHT DATUM AHD	CLIENT	ROAD UPGRADE WORKS
				E: info@procivil.com.au		COORDINATE DATUM	Ranges	KIRKHAM ROAD, BELGRAVE SOUTH
03 FOR CONSTRUCTION	04-05-2023	CONSULTING ENGINEERING		www.procivil.com.au	47	MGA 20 ZONE 55		KIRKHAW KOAD, BELGRAVE 3001H
02 DETAILED DESIGN - ISSUED FOR REVIEW	28-04-2023	CONSULTING ENGINEERING	CIVIL ENGINEERING DESIGN	TECHNICAL PEER REVIEW		SURVEY DATE	Council	
01 FUNCTIONAL DESIGN - ISSUED FOR REVIEW	25-01-2023	Specialist Civil Engineering Design Consultants	KURT CHAMBERLAIN	CHRIS PROCTOR		18-08-2022		
00 FUNCTIONAL DESIGN - ISSUED FOR REVIEW	30-11-2022	1 0 0 0	REGISTERED & CHARTERED PROFESSIONAL	ENGINEER	] "	AERIAL IMAGE DATE	CLIENT PROJECT MANAGER / CONTACT	LONGITUDINAL OFOTION - FDOE OF ACRUM TIPL
VER DESCRIPTION	DATE	Commitment   Communication   Collaboration	CHRIS PROCTOR		OR AS SHOWN	05-02-2022	MATT WRIGHT   YARRA RANGES SHIRE COUNCIL	LONGITUDINAL SECTION - EDGE OF ASPHALT 'D'



	C	ONSULTANT ENGINEER	ABN 51 759 386 092	ORIENTATION	ORIGINAL SCALE & SHEET SIZE LOCAL GOVE AS SHOWN @ A1	ERNMENT AREA SHIRE OF YARRA RANGES	FOR CONSTRUCTION
			SUITE 20, 45-51 RINGWOOD ST, RINGWOOD VIC 3134 PO BOX 164, RINGWOOD VIC 3134 P: (03) 8644 6834		HEIGHT DATUM CLIENT AHD	Yarra	ROAD UPGRADE WORKS
İ	03 FOR CONSTRUCTION 04-05-2023	CONSULTING ENGINEERING	E: info@procivil.com.au www.procivil.com.au		MGA 20 ZONE 55	Ranges	KIRKHAM ROAD, BELGRAVE SOUTH
	02 DETAILED DESIGN - ISSUED FOR REVIEW 28-04-2023	CONSOLITING ENGINEERING	CIVIL ENGINEERING DESIGN TECHNICAL PEER REVIEW		SURVEY DATE	Council	
	01 FUNCTIONAL DESIGN - ISSUED FOR REVIEW 25-01-2023	Specialist Civil Engineering Design Consultants	KURT CHAMBERLAIN CHRIS PROCTOR  REGISTERED & CHARTERED PROFESSIONAL ENGINEER	The second	18-08-2022 AERIAL IMAGE DATE CHENT DROLL		
	00 FUNCTIONAL DESIGN - ISSUED FOR REVIEW 30-11-2022	Commitment   Communication   Collaboration	CHRIS PROCTOR	OR AS SHOWN	OLILIAI I I I I I I	DIECT MANAGER / CONTACT ATT WRIGHT I YARRA RANGES SHIRE COLINCII	LONGITUDINAL SECTION - EDGE OF ASPHALT 'E'

PROJECT No.
PC22019
SHEET No.
18 OF 26
VERSION
03
DWG No.
PC22019 -18 - 03



	CONCULTANT ENGINEED	DDOGRAM CONCLUMING DISTANTED	ORIENTATION	ORIGINAL SCALE & SHEET SIZE	LOCAL GOVERNMENT AREA		PROJECT No.
	CONSULTANT ENGINEER	ABN 51 759 386 092	П	AS SHOWN @ A1	SHIRE OF YARRA RANGES	FOR CONSTRUCTION	PC22019
		SUITE 20, 45-51 RINGWOOD ST, RINGWOOD VIC 3134 PO BOX 164, RINGWOOD VIC 3134 P: (03) 8644 6834		HEIGHT DATUM AHD	CLIENT	ROAD UPGRADE WORKS	SHEET No. 19 OF 26
03 FOR CONSTRUCTION 04-05-202		E: info@procivil.com.au		COORDINATE DATUM  MGA 20 ZONE 55	Ranges	KIRKHAM ROAD, BELGRAVE SOUTH	VERSION 03
02 DETAILED DESIGN - ISSUED FOR REVIEW 28-04-203	CONSULTING ENGINEERING	CIVIL ENGINEERING DESIGN TECHNICAL PEER REVIEW		SURVEY DATE	Council	, and the second	DWG No.
01 FUNCTIONAL DESIGN - ISSUED FOR REVIEW 25-01-203	Specialist Civil Engineering Design Consultants	KURT CHAMBERLAIN CHRIS PROCTOR		18-08-2022			PC22019 -19 - 03
00 FUNCTIONAL DESIGN - ISSUED FOR REVIEW 30-11-203	22 1	REGISTERED & CHARTERED PROFESSIONAL ENGINEER	l u	AERIAL IMAGE DATE	CLIENT PROJECT MANAGER / CONTACT	LONGITUDINAL OF OTION FROM A CRIMITIES	1
VER DESCRIPTION DATE	Commitment   Communication   Collaboration	CHRIS PROCTOR	OR AS SHOWN	05-02-2022	MATT WRIGHT   YARRA RANGES SHIRE COUNCIL	LONGITUDINAL SECTION - EDGE OF ASPHALT 'E'	1

CROSS-SECTIONS PROVIDED DO NOT DEPICT / REFLECT PROPOSED AREAS OF DEEP LIFT ASPHALT RESTATEMENT

CONTRACTOR TO REFER TO GENERAL LAYOUT PLANS AND CONFIRM EXTENTS OF DEEP LIFT ASPHALT REINSTATEMENT WITH YARRA RANGES SHIRE COUNCIL REPRESENTATIVE PRIOR TO CONSTRUCTION COMMENCING

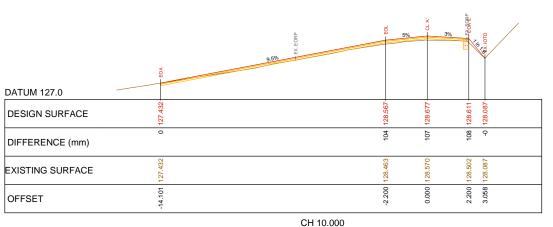
SITE INVESTIGATIONS COMPLETED WITH YARRA RANGES SHIRE COUNCIL ON 07-10-2021
RESULTED IN A DISCOVERY OF EXISTING ROAD PAVEMENT EXTENDING BEYOND THAT SHOWN
ON FEATURE AND LEVEL SURVEY (UNDER EXISTING TOPSOIL AND SEED)

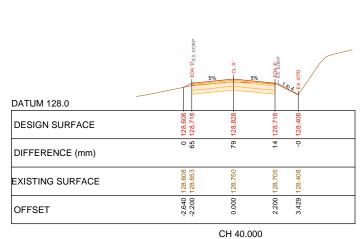
CONTRACTOR TO CONFIRM REQUIREMENT OF FULL DEPTH 'ROAD WIDENING' AREAS SHOWN ON GENERAL LAYOUT PLANS AND CROSS-SECTIONS WITH YARRA RANGES SHIRE COUNCIL REPRESENTATIVE PRIOR TO CONSTRUCTION COMMENCING ROPOSED BATTER INTERFACE SHOWN ON CROSS-SECTIONS
ARE SHOWN FOR INFORMATION PURPOSES ONLY

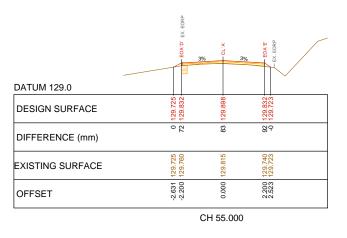
PROPOSED TOPSOIL AND SEED BATTER REINSTATEMENT IS TO INTERFACE 30mm BELOW THE PROPOSED FINISHED SURFACE LEVELS AS DIRECTED BY YARRA RANGES SHIRE COUNCIL REPRESENTATIVE

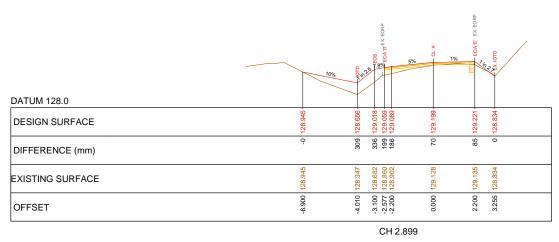


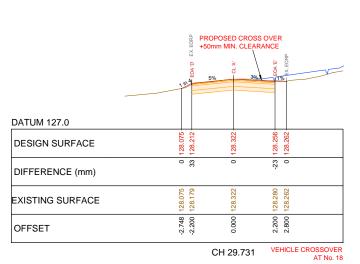
WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATION OF EXISTING UNDERGROUND SERVICES ARE APPROXIMATE
ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO
GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.



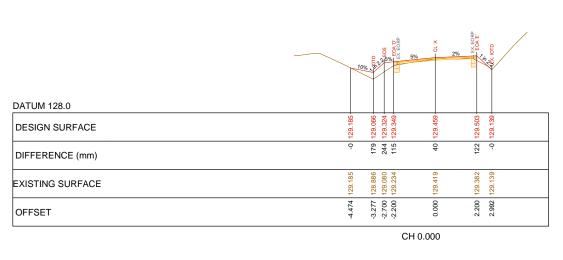


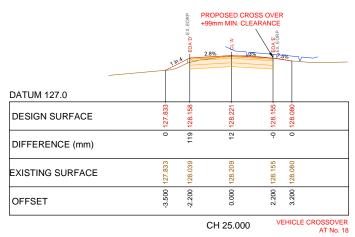


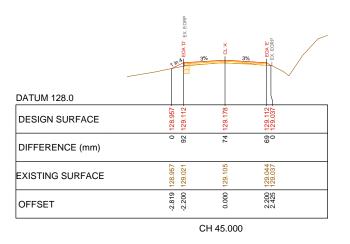




		EOA DEX. EORP	.« 10 3%	E GA E - EX EOR P
DATUM 128.0				
DESIGN SURFACE	129.335	129.465	129.531	129.376
DIFFERENCE (mm)	0-	9/2	02	78
EXISTING SURFACE	129.335	129.388	129.461	129.376
OFFSET	-2.717	-2.200	0.000	2.200
		CH 5	0.014	







#### CROSS-SECTIONS - REFERENCE LINE (OFFSET 0.00) - CENTRELINE 'A' (CL A)

CL - CENTRELINE EOA - EDGE OF ASPHALT
EOS - EDGE OF SHOULDER IOTD - INVERT OF PROPOSED TABLE DRAIN
EX. EORP - EXISTING EDGE OF ROAD PAVEMENT

			CONSI
03	FOR CONSTRUCTION	04-05-2023	
02	DETAILED DESIGN - ISSUED FOR REVIEW	28-04-2023	•
01	FUNCTIONAL DESIGN - ISSUED FOR REVIEW	25-01-2023	(
00	FUNCTIONAL DESIGN - ISSUED FOR REVIEW	30-11-2022	-
VER	DESCRIPTION	DATE	



Commitment | Communication | Collaboration

PROCIV	IL CONSULTING PTY LTD			
	ABN 51 759 386 092			
SUITE 20, 45-51 RINGWOOD ST, RINGWOOD VIC 3134				
PO BOX 164, RINGWOOD VIC 313				
P: (03) 8644 683				
E: info@procivil.com.a				
www.procivil.com.a				
CIVIL ENGINEERING DESIGN TECHNICAL PEER REVIEW				
KURT CHAMBERLAIN CHRIS PROCTOR				
REGISTERED & CHARTERED PROFESSIONAL ENGINEER				

ORIENTATION	ORIGINAL
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	M
	SURVEY
W <sub>P</sub>	1
Ш	AERIAL IN
OR AS SHOWN	(

ORIGINAL SCALE & SHEET SIZE	LOCAL GOVERNMENT AREA
AS SHOWN @ A1	SHIRE OF YARRA RANGES
HEIGHT DATUM	CLIENT
AHD	Yarra
COORDINATE DATUM	Ranges
MGA 20 ZONE 55	Council
SURVEY DATE	Council
18-08-2022	
AERIAL IMAGE DATE	CLIENT PROJECT MANAGER / CONTACT
05-02-2022	MATT WRIGHT   YARRA RANGES SHIRE COUNCIL

FOR CONSTRUCTION	
ROAD UPGRADE WORKS	
KIRKHAM ROAD, BELGRAVE SOUTH	
CROSS-SECTIONS - CH 0.000 A - 55.000 A	

03
DWG No.
PC22019 -20 - 0

WARNING CROSS-SECTIONS PROVIDED DO NOT DEPICT / REFLECT PROPOSED AREAS OF DEEP LIFT ASPHALT RESTATEMENT SITE INVESTIGATIONS COMPLETED WITH YARRA RANGES SHIRE COUNCIL ON 07-10-2021 RESULTED IN A DISCOVERY OF EXISTING ROAD PAVEMENT EXTENDING BEYOND THAT SHOWN ON FEATURE AND LEVEL SURVEY (UNDER EXISTING TOPSOIL AND SEED) ROPOSED BATTER INTERFACE SHOWN ON CROSS-SECTIONS ARE SHOWN FOR INFORMATION PURPOSES ONLY YOU DIG www.byda.com.au BEWARE OF UNDERGROUND SERVICES
HE LOCATION OF EXISTING UNDERGROUND SERVICES ARE APPROXIMATE CONTRACTOR TO REFER TO GENERAL LAYOUT PLANS AND PROPOSED TOPSOIL AND SEED BATTER REINSTATEMENT IS CONFIRM EXTENTS OF DEEP LIFT ASPHALT REINSTATEMENT
WITH YARRA RANGES SHIRE COUNCIL REPRESENTATIVE
PRIOR TO CONSTRUCTION COMMENCING TO INTERFACE 30mm BELOW THE PROPOSED FINISHED SURFACE LEVELS AS DIRECTED BY YARRA RANGES SHIRE COUNCIL REPRESENTATIVE CONTRACTOR TO CONFIRM REQUIREMENT OF FULL DEPTH 'ROAD WIDENING' AREAS SHOWN ON GENERAL LAYOUT PLANS AND CROSS-SECTIONS WITH YARRA RANGES SHIRE COUNCIL REPRESENTATIVE PRIOR TO CONSTRUCTION COMMENCING +5mm MIN. CLEARANCE DATUM 132.0 **DATUM 135.0 DESIGN SURFACE** 98 DESIGN SURFACE **DATUM 134.0** DIFFERENCE (mm) DESIGN SURFACE DIFFERENCE (mm) EXISTING SURFACE 29 DIFFERENCE (mm) EXISTING SURFACE -2.718 OFFSET EXISTING SURFACE OFFSET CH 80.000 VEHICLE CROSSOVER AT No. 18 2.550 2.200 OFFSET CH 125.000 CH 105.000 +34mm MIN, CLEARANCE PROPOSED CROSS OVER -18mm MIN. CLEARANCE DATUM 135.0 DATUM 130.0 359 DESIGN SURFACE **DESIGN SURFACE** DATUM 133.0 95 DIFFERENCE (mm) DIFFERENCE (mm) DESIGN SURFACE o 8 131.359 131.372 EXISTING SURFACE DIFFERENCE (mm) EXISTING SURFACE -2.592 OFFSET OFFSET EXISTING SURFACE VEHICLE CROSSOVER AT No. 13 2.833 CH 115.000 VEHICLE CROSSOVER AT No. 22 CH 70.000 OFFSET VEHICLE CROSSOVER AT No. 20 CH 95.000 DATUM 129.0 **DATUM 133.0** DATUM 134.0 **DATUM 136.0** DESIGN SURFACE DESIGN SURFACE DESIGN SURFACE DESIGN SURFACE 59 DIFFERENCE (mm) DIFFERENCE (mm) DIFFERENCE (mm) DIFFERENCE (mm) **EXISTING SURFACE EXISTING SURFACE** EXISTING SURFACE **EXISTING SURFACE** -2.464 -2.687 -2.200 -2.728 -2.200 2.200 3.426 OFFSET OFFSET OFFSET OFFSET CH 60.000 CH 90.000 CH 109.835 CH 130.000 CROSS-SECTIONS - REFERENCE LINE (OFFSET 0.00) - CENTRELINE 'A' (CL A) CENTRELINE EDGE OF ASPHALT EOS - EDGE OF SHOULDER
EX. IOTD - INVERT OF EXISTING TABLE DRAIN
EX. EORP - EXISTING EDGE OF ROAD PAVEMENT INVERT OF PROPOSED TABLE DRAIN

## 02 DETAILED DESIGN - ISSUED FOR REVIEW 01 FUNCTIONAL DESIGN - ISSUED FOR REVIEW

00 FUNCTIONAL DESIGN - ISSUED FOR REVIEW



Commitment | Communication | Collaboration



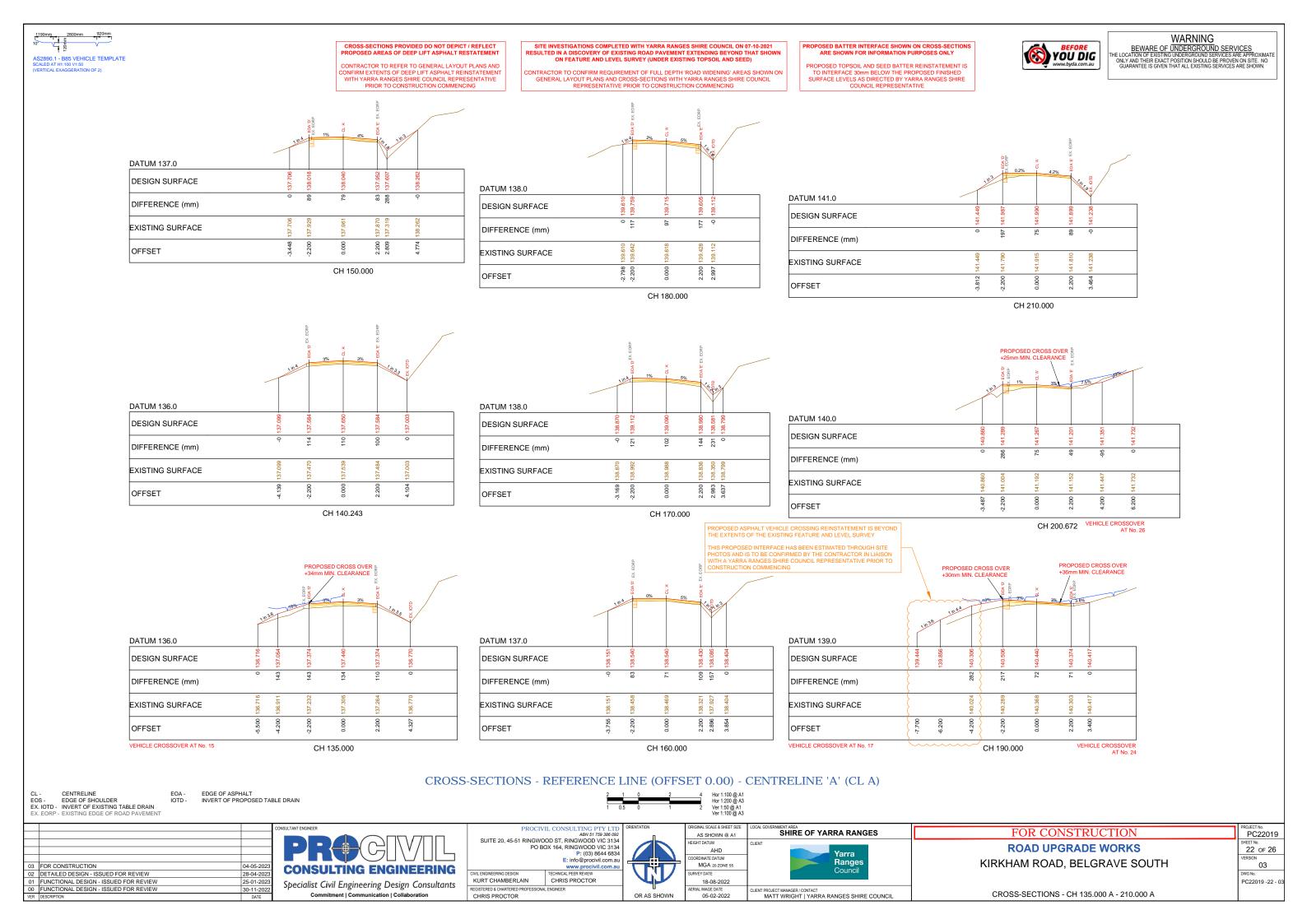


ORIGINAL SCALE & SHEET SIZE	LOCAL GOVERNMENT AREA
AS SHOWN @ A1	SHIRE OF YARRA RANGES
HEIGHT DATUM	CLIENT
AHD	Yarra
COORDINATE DATUM	
MGA 20 ZONE 55	Ranges Council
SURVEY DATE	Council
18-08-2022	
AERIAL IMAGE DATE	CLIENT PROJECT MANAGER / CONTACT
05-02-2022	MATT WRIGHT   YARRA RANGES SHIRE COUNCIL

## FOR CONSTRUCTION **ROAD UPGRADE WORKS** KIRKHAM ROAD, BELGRAVE SOUTH

CROSS-SECTIONS - CH 60.000 A - 130.000 A

PC22019 21 or 26 03 PC22019 -21 - 0



WARNING CROSS-SECTIONS PROVIDED DO NOT DEPICT / REFLECT PROPOSED AREAS OF DEEP LIFT ASPHALT RESTATEMENT SITE INVESTIGATIONS COMPLETED WITH YARRA RANGES SHIRE COUNCIL ON 07-10-2021 RESULTED IN A DISCOVERY OF EXISTING ROAD PAVEMENT EXTENDING BEYOND THAT SHOWN ON FEATURE AND LEVEL SURVEY (UNDER EXISTING TOPSOIL AND SEED) ROPOSED BATTER INTERFACE SHOWN ON CROSS-SECTIONS ARE SHOWN FOR INFORMATION PURPOSES ONLY YOU DIG BEWARE OF UNDERGROUND SERVICES
HE LOCATION OF EXISTING UNDERGROUND SERVICES ARE APPROXIMATION. CONTRACTOR TO REFER TO GENERAL LAYOUT PLANS AND PROPOSED TOPSOIL AND SEED BATTER REINSTATEMENT IS ONFIRM EXTENTS OF DEEP LIFT ASPHALT REINSTATEMENT
WITH YARRA RANGES SHIRE COUNCIL REPRESENTATIVE
PRIOR TO CONSTRUCTION COMMENCING CONTRACTOR TO CONFIRM REQUIREMENT OF FULL DEPTH 'ROAD WIDENING' AREAS SHOWN ON GENERAL LAYOUT PLANS AND CROSS-SECTIONS WITH YARRA RANGES SHIRE COUNCIL REPRESENTATIVE PRIOR TO CONSTRUCTION COMMENCING TO INTERFACE 30mm BELOW THE PROPOSED FINISHED SURFACE LEVELS AS DIRECTED BY YARRA RANGES SHIRE COUNCIL REPRESENTATIVE DATUM 142.0 DATUM 145.0 DESIGN SURFACE DATUM 144.0 **DESIGN SURFACE** DESIGN SURFACE DIFFERENCE (mm) o 4 DIFFERENCE (mm) DIFFERENCE (mm) EXISTING SURFACE EXISTING SURFACE EXISTING SURFACE OFFSET OFFSET OFFSET CH 230.000 CH 275.000 CH 260.000 +48mm MIN CLEARANCE DATUM 141.0 **DATUM 144.0** DATUM 143.0 DESIGN SURFACE DESIGN SURFACE DESIGN SURFACE DIFFERENCE (mm) 55 DIFFERENCE (mm) DIFFERENCE (mm) EXISTING SURFACE 145.543 EXISTING SURFACE **EXISTING SURFACE** OFFSET OFFSET OFFSET CH 220.000 VEHICLE CROSSOVER AT No. 26 CH 270.000 CH 250.000 **DATUM 141.0** DATUM 143.0 **DATUM 144.0** DATUM 145.0 **DESIGN SURFACE** DESIGN SURFACE DESIGN SURFACE DESIGN SURFACE DIFFERENCE (mm) DIFFERENCE (mm) DIFFERENCE (mm) DIFFERENCE (mm) EXISTING SURFACE **EXISTING SURFACE** EXISTING SURFACE EXISTING SURFACE -2.578 2.200 OFFSET OFFSET OFFSET OFFSET VEHICLE CROSSOVER AT No. 19 CH 216.738 CH 240.000 CH 263.065 CH 280.000 CROSS-SECTIONS - REFERENCE LINE (OFFSET 0.00) - CENTRELINE 'A' (CL A) CENTRELINE EDGE OF ASPHALT EDGE OF SHOULDER

INVERT OF EXISTING TABLE DRAIN

EXISTING EDGE OF ROAD PAVEMENT INVERT OF PROPOSED TABLE DRAIN SINAL SCALE & SHEET SIZE PROCIVIL CONSULTING FOR CONSTRUCTION SHIRE OF YARRA RANGES AS SHOWN @ A1 PC22019 SUITE 20, 45-51 RINGWOOD ST, RINGWOOD VIC 3134 PO BOX 164, RINGWOOD VIC 3134 PC BOX 164, RINGWOOD VIC 3134 E: info@procivil.com.at. **ROAD UPGRADE WORKS** 23 of 26 KIRKHAM ROAD, BELGRAVE SOUTH 03 MGA 20 ZONE 55 **CONSULTING ENGINEERING** 02 DETAILED DESIGN - ISSUED FOR REVIEW 01 FUNCTIONAL DESIGN - ISSUED FOR REVIEW

KURT CHAMBERLAIN

Specialist Civil Engineering Design Consultants

Commitment | Communication | Collaboration

00 FUNCTIONAL DESIGN - ISSUED FOR REVIEW

CHRIS PROCTOR

18-08-2022

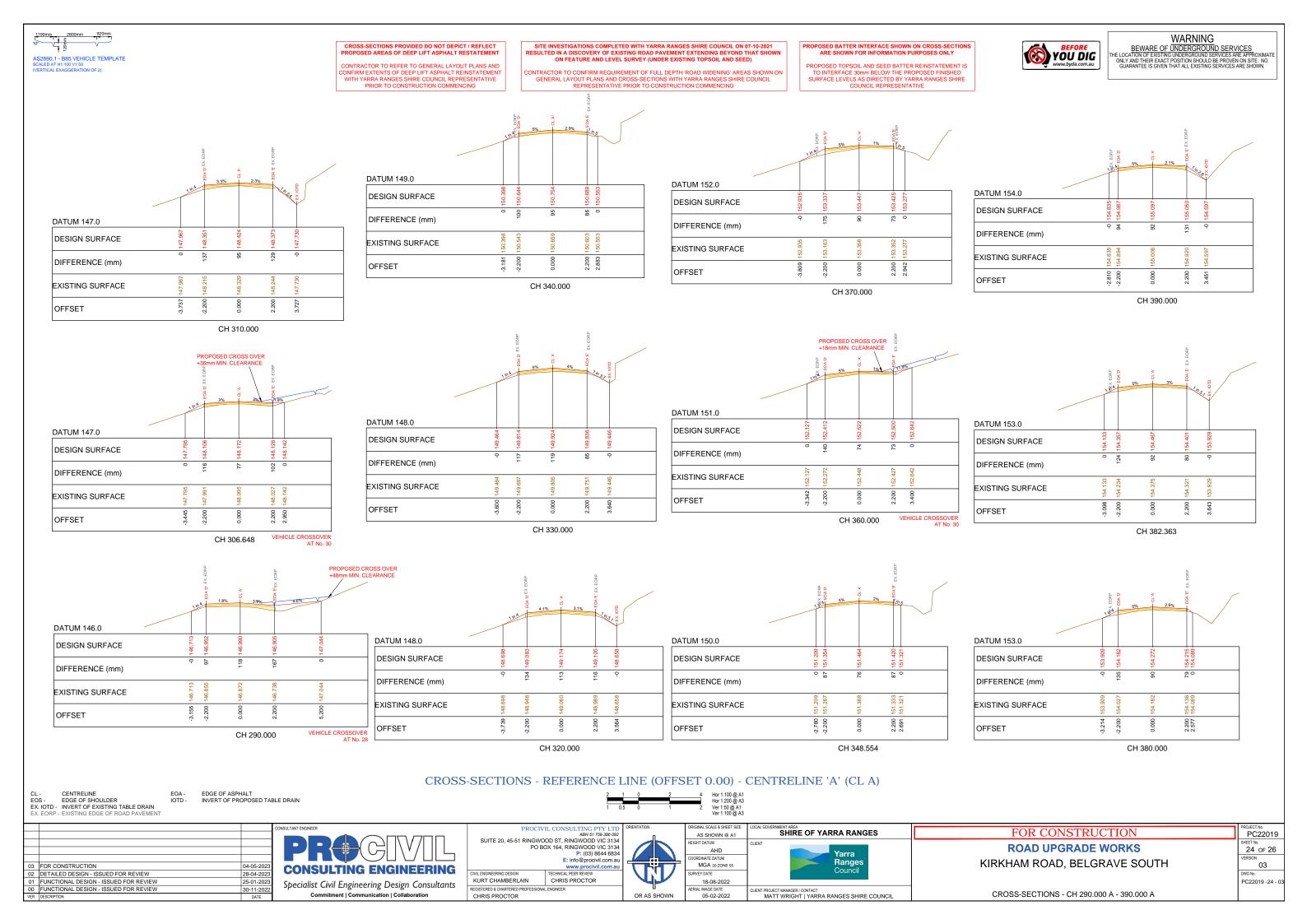
05-02-2022

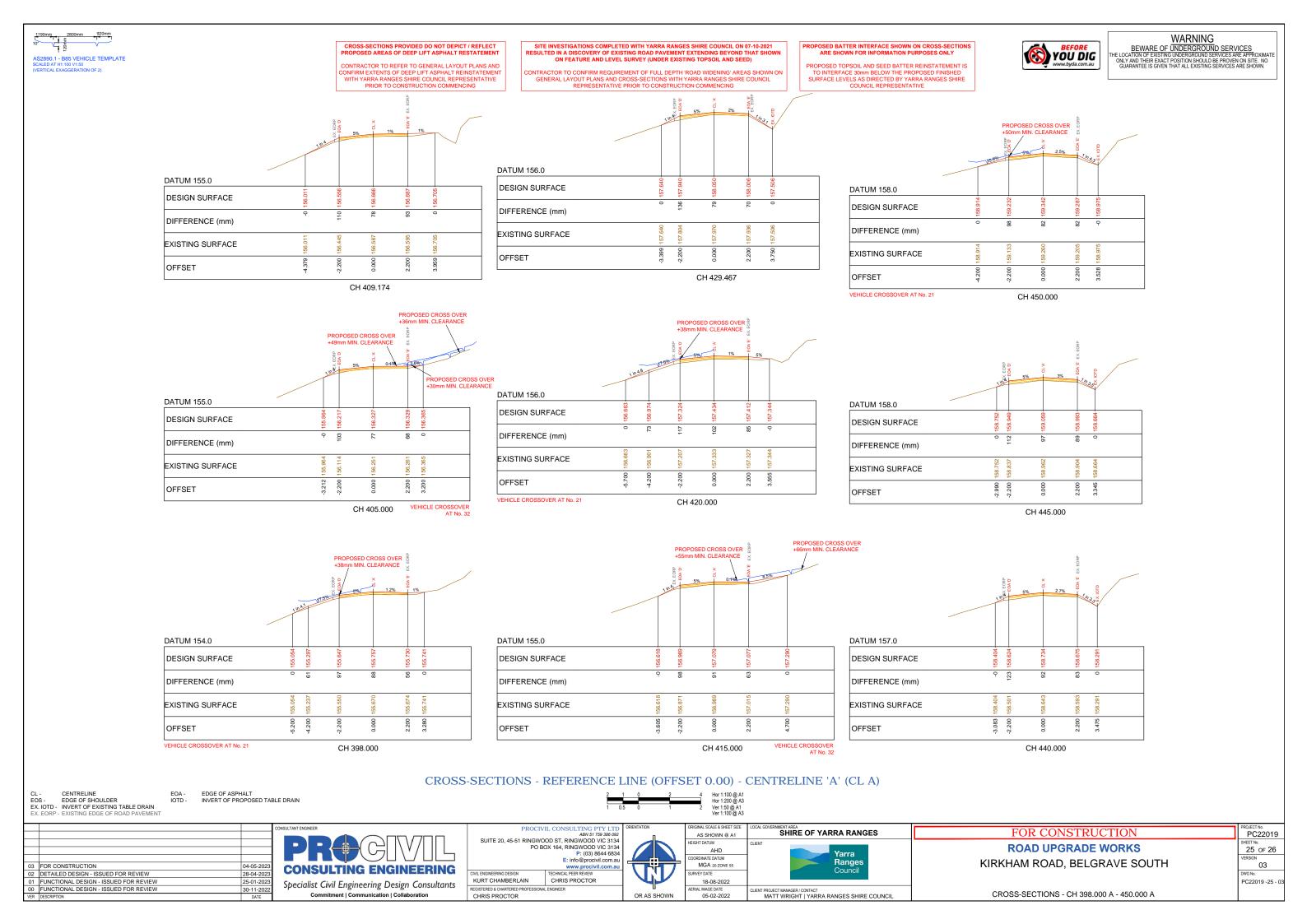
OR AS SHOWN

ENT PROJECT MANAGER / CONTACT
MATT WRIGHT | YARRA RANGES SHIRE COUNCIL

PC22019 -23 - 0

CROSS-SECTIONS - CH 216.738 A - 280.000 A





CROSS-SECTIONS PROVIDED DO NOT DEPICT / REFLECT PROPOSED AREAS OF DEEP LIFT ASPHALT RESTATEMENT

CONTRACTOR TO REFER TO GENERAL LAYOUT PLANS AND CONFIRM EXTENTS OF DEEP LIFT ASPHALT REINSTATEMENT WITH YARRA RANGES SHIRE COUNCIL REPRESENTATIVE PRIOR TO CONSTRUCTION COMMENCING

SITE INVESTIGATIONS COMPLETED WITH YARRA RANGES SHIRE COUNCIL ON 07-10-2021 RESULTED IN A DISCOVERY OF EXISTING ROAD PAVEMENT EXTENDING BEYOND THAT SHOWN ON FEATURE AND LEVEL SURVEY (UNDER EXISTING TOPSOIL AND SEED)

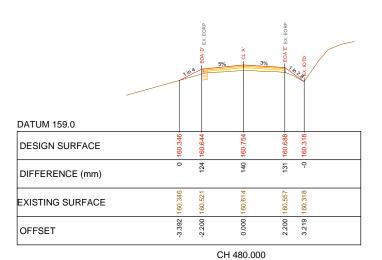
CONTRACTOR TO CONFIRM REQUIREMENT OF FULL DEPTH 'ROAD WIDENING' AREAS SHOWN ON GENERAL LAYOUT PLANS AND CROSS-SECTIONS WITH YARRA RANGES SHIRE COUNCIL REPRESENTATIVE PRIOR TO CONSTRUCTION COMMENCING

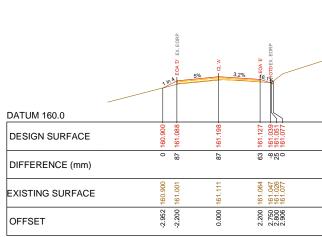
ROPOSED BATTER INTERFACE SHOWN ON CROSS-SECTIONS ARE SHOWN FOR INFORMATION PURPOSES ONLY

PROPOSED TOPSOIL AND SEED BATTER REINSTATEMENT IS TO INTERFACE 30mm BELOW THE PROPOSED FINISHED SURFACE LEVELS AS DIRECTED BY YARRA RANGES SHIRE COUNCIL REPRESENTATIVE

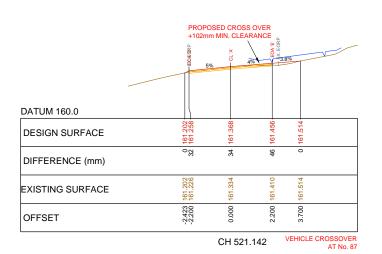


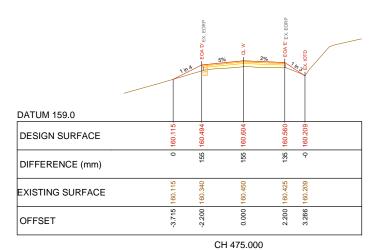
WARNING BEWARE OF UNDERGROUND SERVICES
HE LOCATION OF EXISTING UNDERGROUND SERVICES ARE APPROXIMATE

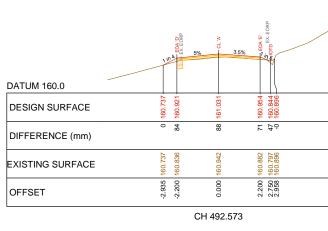


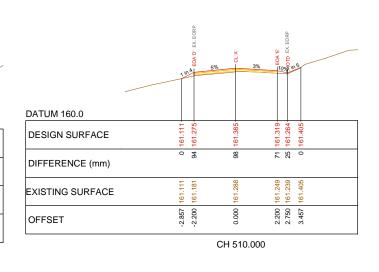


CH 500.000



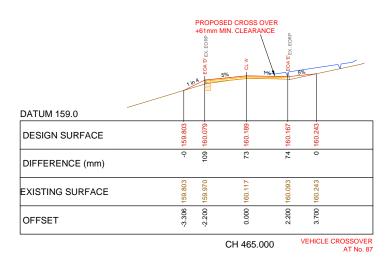


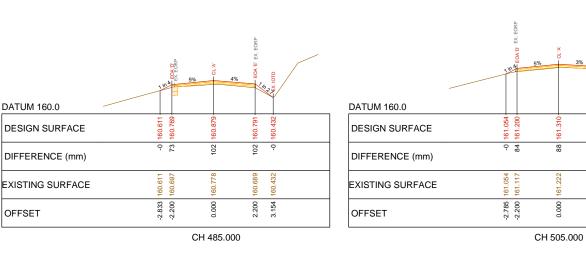


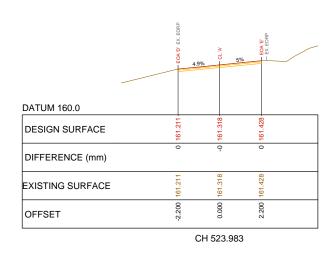


174 166 194

2.200 2.750 2.849







#### CROSS-SECTIONS - REFERENCE LINE (OFFSET 0.00) - CENTRELINE 'A' (CL A)

CENTRELINE CC - CENTRELINE
EOS - EDGE OF SHOULDER
EX. IOTD - INVERT OF EXISTING TABLE DRAIN
EX. EORP - EXISTING EDGE OF ROAD PAVEMENT

03 FOR CONSTRUCTION

02 DETAILED DESIGN - ISSUED FOR REVIEW
01 FUNCTIONAL DESIGN - ISSUED FOR REVIEW

00 FUNCTIONAL DESIGN - ISSUED FOR REVIEW

EDGE OF ASPHALT INVERT OF PROPOSED TABLE DRAIN

	CONSULTANT ENGINEER
	PR#GIVIL
04-05-2023	CONSULTING ENGINEERING
28-04-2023	CONSULTING ENGINEERING
25-01-2023	Specialist Civil Engineering Design Consultants

Specialist Civil Engineering Design Consultants

Commitment | Communication | Collaboration

PROCIV	IL CONSULTING PTY LTD	Ī
	ABN 51 759 386 092	l
SUITE 20, 45-51 RINGWO	OD ST, RINGWOOD VIC 3134	l
PO BO	OX 164, RINGWOOD VIC 3134	l
	P: (03) 8644 6834	l
	E: info@procivil.com.au	l
	www.procivil.com.au	l
IVIL ENGINEERING DESIGN	TECHNICAL PEER REVIEW	1
KURT CHAMBERLAIN	CHRIS PROCTOR	l

	ORIGINAL SCALE & SHEET SIZE	LOCAL GOVERNMENT AREA
	AS SHOWN @ A1	SHIRE OF YARRA RANGES
	HEIGHT DATUM	CLIENT
	AHD	Yarra
77	COORDINATE DATUM	Ranges
7	MGA 20 ZONE 55	Council
/	SURVEY DATE	Couricii
	18-08-2022	
	AERIAL IMAGE DATE	CLIENT PROJECT MANAGER / CONTACT
/N	05-02-2022	MATT WRIGHT   YARRA RANGES SHIRE COUNCIL

FOR CONSTRUCTION	
ROAD UPGRADE WORKS	
KIRKHAM ROAD, BELGRAVE SOUTH	
CROSS-SECTIONS - CH 465.000 A - 523.983 A	

٦	PROJECT No.
ı	PC22019
-	SHEET No.
	26 of 26
	VERSION
	03
	DWG No.
	PC22019 -26 - 03