

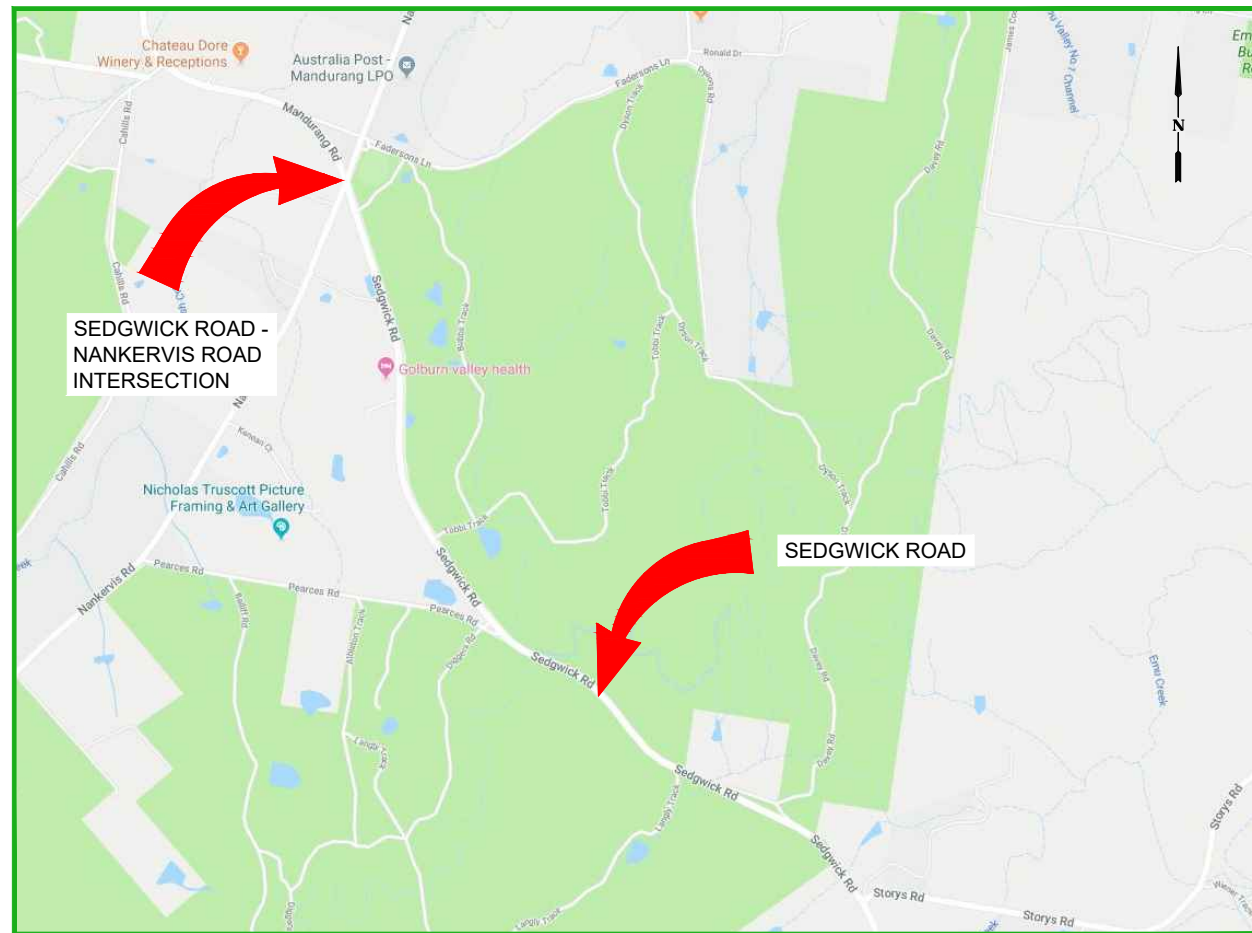
# GB4496 SEDGWICK ROAD, MANDURANG

## BLACKSPOT SAFETY UPGRADES

May 2023



DOCUMENT CONTROL				
SHEET No.	SHEET DESC.	09/05/2023		
		DRAFT	TENDER	CONSTRUCTION
		ISSUE	ISSUE	ISSUE
1	COVER SHEET	A		
2	GENERAL NOTES	A		
3	CONTROL & OVERALL LAYOUT	A		
4	DETAIL LAYOUT PLAN	A		
5	DETAIL LAYOUT PLAN	A		
6	SIGNAGE & LINEMARKING PLAN	A		
7	LONGITUDINAL SECTION	A		
8-9	CROSS SECTIONS	A		
10	LONG & CROSS SECTIONS	A		
11	LONG & CROSS SECTIONS	A		
12	DRAINAGE LONGITUDINAL SECTION	A		



LOCALITY MAP



PROJECT EXTENTS

PROJECT PLANNING REQUIREMENTS				AMENDMENTS			
Item	Required	Comments	Contractor	Revision	Description	Approved by	Date
Vegetation	Yes	Road Safety Exemption applies		-			
RRV	No	-					
CMA	No	-					
Planning Permit	No	-					
Land Acquisition	No	-					
CHMP	No	-					
Other	No	-					

**CITY OF GREATER BENDIGO**



**SEDGWICK ROAD  
MANDURANG  
BLACKSPOT**

COVER SHEET

Survey	SPIRE	01/03/2019
Design	A. SMITH	17/02/2023
Checked	L. OLIVER	09/05/2023
Approved by	N. SARTORI	-/-/22
Scale: -	Revision: A	
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Sheet: 1 OF 12	Reference: <b>GB4496</b>	

**ISSUED FOR  
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NOT FOR CONSTRUCTION

Plot Date: 25/05/2023  
Plotted By: ANDREW SMITH

**CONSTRUCTION SPECIFICATIONS**

All construction undertaken by, or on behalf of, The City of Greater Bendigo (CoGB) shall be undertaken in accordance with all DTP/Vicroads 200-700 series of Standard Specifications.

Compliance with the specifications to the satisfaction of the project Superintendent is required before a project can meet Practical Completion.

Sections of the DTP/Vicroads 200-700 series of standard specifications which are of particular relevance for this project include:

**FORMATION**

- 201 Site Clearing
- 204 Earthworks

**FLEXIBLE PAVEMENTS**

- 304 Unbound Flexible Pavement Construction
- 307 In Situ Stabilisation of Pavements with Cementitious Binders
- 310 Preparation of Granular Pavements for Bituminous Surfacing

**ASPHALT AND SURFACE TREATMENTS**

- 402 Removal of Pavement by Cold Planing (profiling)
- 407 Dense Graded Asphalt
- 408 Sprayed Bituminous Surfacing

**INCIDENTAL CONSTRUCTION**

- 701 Underground Stormwater Drains
- 702 Subsurface Drainage
- 705 Drainage Pits and Covers
- 709 Guide Posts
- 710 Fixing Raised Pavement Markers
- 714 Sign Installation
- 721 Pavement Markings
- 731 Road Lighting Installation

**MATERIAL SPECIFICATIONS**

**FOR WORKS DEPARTMENT**

All materials used in construction projects undertaken by the CoGB Works department shall be compliant with the specifications setout in the relevant CoGB material panel supply contract.

Where panel supply contract information is not available, material specifications shall be sought from and supplied by the CoGB Engineering Department, and all materials used in construction must comply with those specifications.

**FOR EXTERNAL CONTRACTORS (inc.contractors engaged by the Work Dept.)**

All materials used by external contractors engaged to undertake CoGB construction projects, or components thereof, shall be as per the material specification supplied within the instrument of engagement (Quote, Tender or Contract), or as per written instruction from the project Superintendents.

**PROJECT PLANNING REQUIREMENTS**

**Permits and approvals**

1. Project permits and approvals which were required to be obtained prior to construction are listed in the below table
2. Construction activities must be compliant with all conditions within the listed permits and approvals.

PROJECT PLANNING REQUIREMENTS			
Item	Required	Comments	Contractor
Vegetation	Yes	Road Safety Exemption applies	
RRV	No	-	
CMA	No	-	
Planning Permit	No	-	
Land Acquisition	No	-	
CHMP	No	-	
Other	No	-	

**GENERAL NOTES**

**STANDARD DRAWINGS**

Standard Drawings that are referenced within the design drawings are noted as 'SD', and are sourced from 3 locations. They are available for download online or from the project superintendent:

1. 'CoGB SD' are sourced from the City of Greater Bendigo  
<https://www.bendigo.vic.gov.au/Services/Roads-and-Drainage/Roads/Construction-standards>
2. 'IDM SD' are sourced from the Infrastructure Design Manual  
<https://www.designmanual.com.au/>
3. 'Vicroads SD' are sourced from Vicroads  
<https://www.vicroads.vic.gov.au/business-and-industry/technical-publications/technical-drawings-for-roadworks/standard-drawings-for-roadworks>

**SERVICES SHOWN ON PLANS AND DURING CONSTRUCTION**

- The location of underground services shown on design drawings have been derived from available information. Accuracy can not be guaranteed and should therefore be treated as indicative only.
- Gas and water property services are not located or shown on design drawings. It is the contractors responsibility to locate and alter these services as required to achieve the project design.
- Prior to undertaking construction activities, exact service locations must be arranged and marked onsite.
- The contractor will be held responsible for any damage caused to services.
- All service pit lids or valve covers within the works area are to be raised or lowered to match the design surface level to the relevant authority standards, unless noted otherwise on the construction plans, or by approval from the superintendent.
- Any service authority marker post found within the works area is to be relocated adjacent to their current position to a point 150mm offset from the nearest property boundary.
- Any PSM covers affected during works are to be renewed to CoGB SD293 unless noted otherwise, or by approval from the superintendent.

**DRAINAGE**

- Any private storm water pipes discovered during works are to be plumbed to the nearest CoGB drainage pit, or with approval from the superintendent, to the nearest kerb or pipe

**CONSTRUCTION MANAGEMENT GUIDANCE**

**OCCUPATIONAL HEALTH AND SAFETY**

Delivery units shall consider appropriate management of occupational health and safety, and develop management plans compliant with ISO45001, and the City of Greater Bendigo integrated management system prior to any works beginning onsite

**SITE ENVIRONMENTAL MANAGEMENT PLAN**

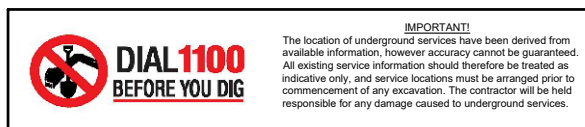
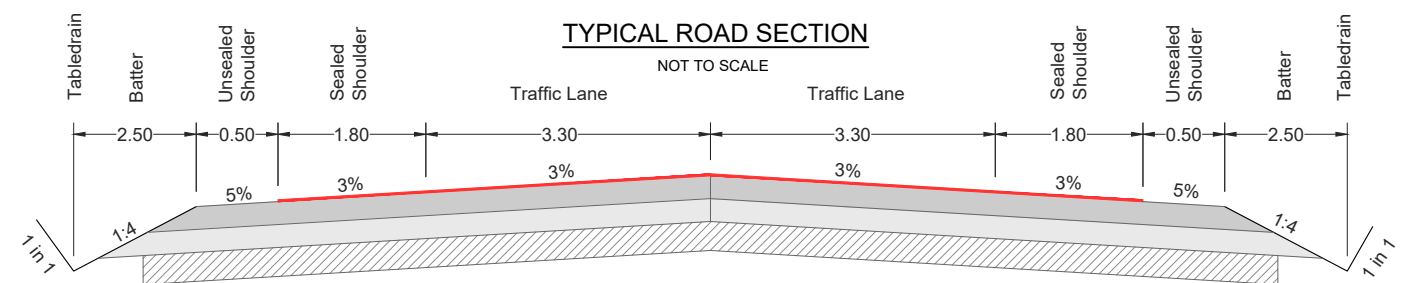
A Site Environmental Management Plan (SEMP) is to be developed by delivery units to manage the project site during the project delivery window. Consideration shall be given to appropriate management of the following, with a SEMP plan filled out and displayed onsite at all times:

- Communication and induction for staff, contractors and sub contractors
- Communication with appropriate adjacent residents/businesses
- Noise and Vibration
- Dust and contamination
- Chemicals
- Erosion and sediment
- Waste
- Vehicle and roadside management
- Vegetation, with particular focus on any relevant permit conditions and AS4970
- Heritage, with particular focus on any relevant permit conditions

**TRAFFIC MANAGEMENT PLAN**

Where appropriate and prior to any works starting on site, delivery units must organise a AS1742.3 compliant traffic management plan, and have it approved by the relevant road authority.

PAVEMENT			
KEY	LAYER	DEPTH	THICKNESS
	Asphalt	40mm	Size 14 Type V (C320)
	Primeseal	-	7mm Emulsion Primerseal (C170)
	Base	150mm	CL1 FCR 20mm compact to 100%MMDD at 85%OMC +-1%
	Sub Base	130mm	CL3 FCR 40mm compact to 98%MMDD at 85%OMC +-1%
	Stabilisation	250mm	Mill/blend existing seal and granular materials Insitu stabilisation using Triple blend Lime / GB cement / Slag Mix blend to be determined after testing of existing subgrade material. Compact to 75% Density index +-3%
	Subgrade		Inferred fill and residual soils (CBR>4%)



AMENDMENTS			
Revision	Description	Approved by	Date
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**CITY OF GREATER BENDIGO**

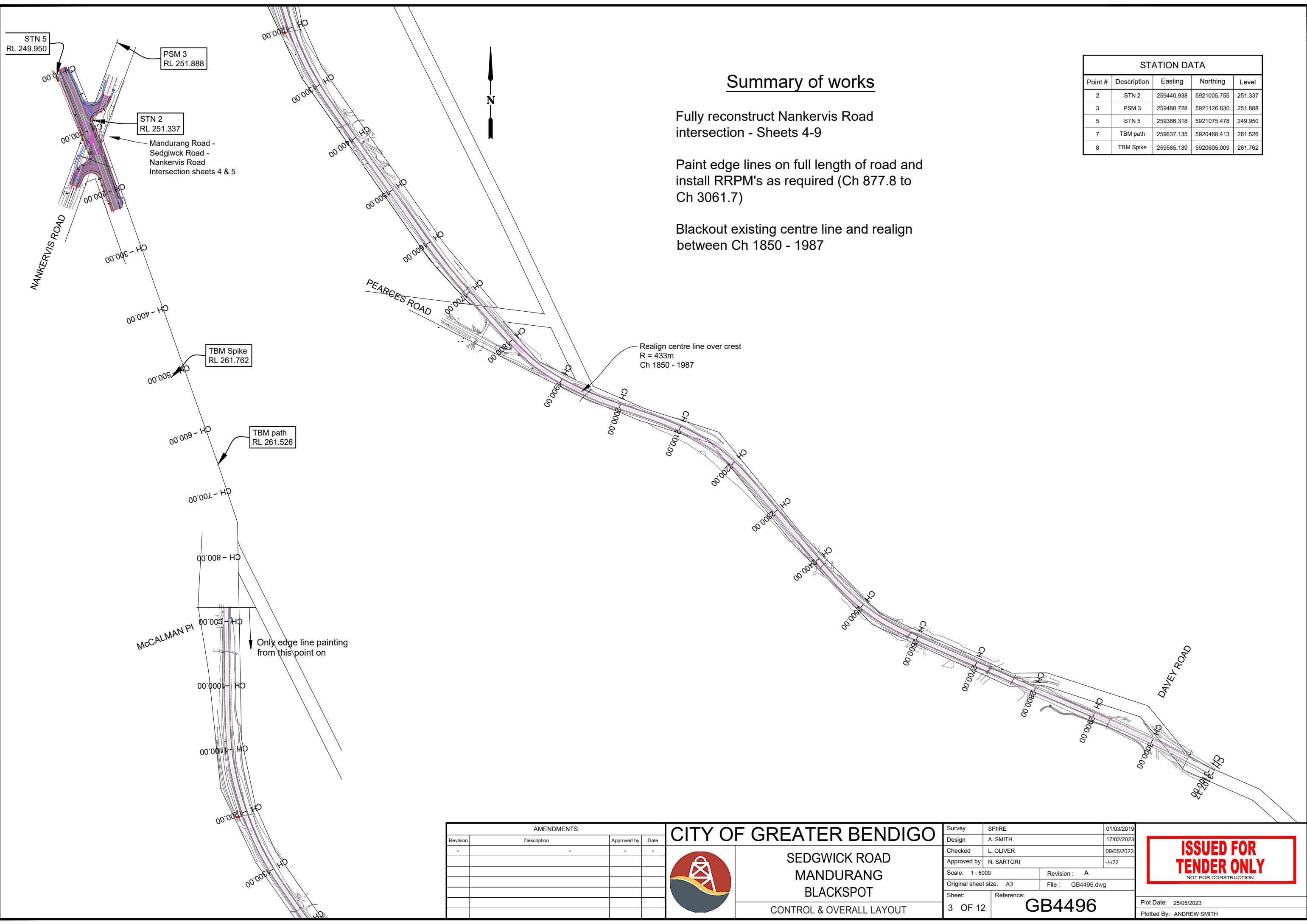
**SEDGWICK ROAD  
MANDURANG  
BLACKSPOT**

GENERAL NOTES

Survey	SPIIRE	01/03/2019
Design	A. SMITH	17/02/2023
Checked	L. OLIVER	09/05/2023
Approved by	N. SARTORI	-/-22
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### Summary of works

Fully reconstruct Nankervis Road intersection - Sheets 4-9

Paint edge lines on full length of road and install RRPM's as required (Ch 877.8 to Ch 3061.7)

Blackout existing centre line and realign between Ch 1850 - 1987

STATION DATA				
Point #	Description	Easting	Northing	Level
2	STN 2	259440.938	5921005.755	251.337
3	PSM 3	259480.728	5921126.830	251.888
5	STN 5	259386.318	5921075.478	249.950
7	TBM path	259637.135	5920468.413	261.526
8	TBM Spike	259565.139	5920605.009	261.762



STN 5  
RL 249.950

PSM 3  
RL 251.888

STN 2  
RL 251.337

Mandurang Road -  
Sedgwick Road -  
Nankervis Road  
Intersection sheets 4 & 5

TBM Spike  
RL 261.762

TBM path  
RL 261.526

Realign centre line over crest  
R = 433m  
Ch 1850 - 1987

McCAlMAN PI

Only edge line painting  
from this point on

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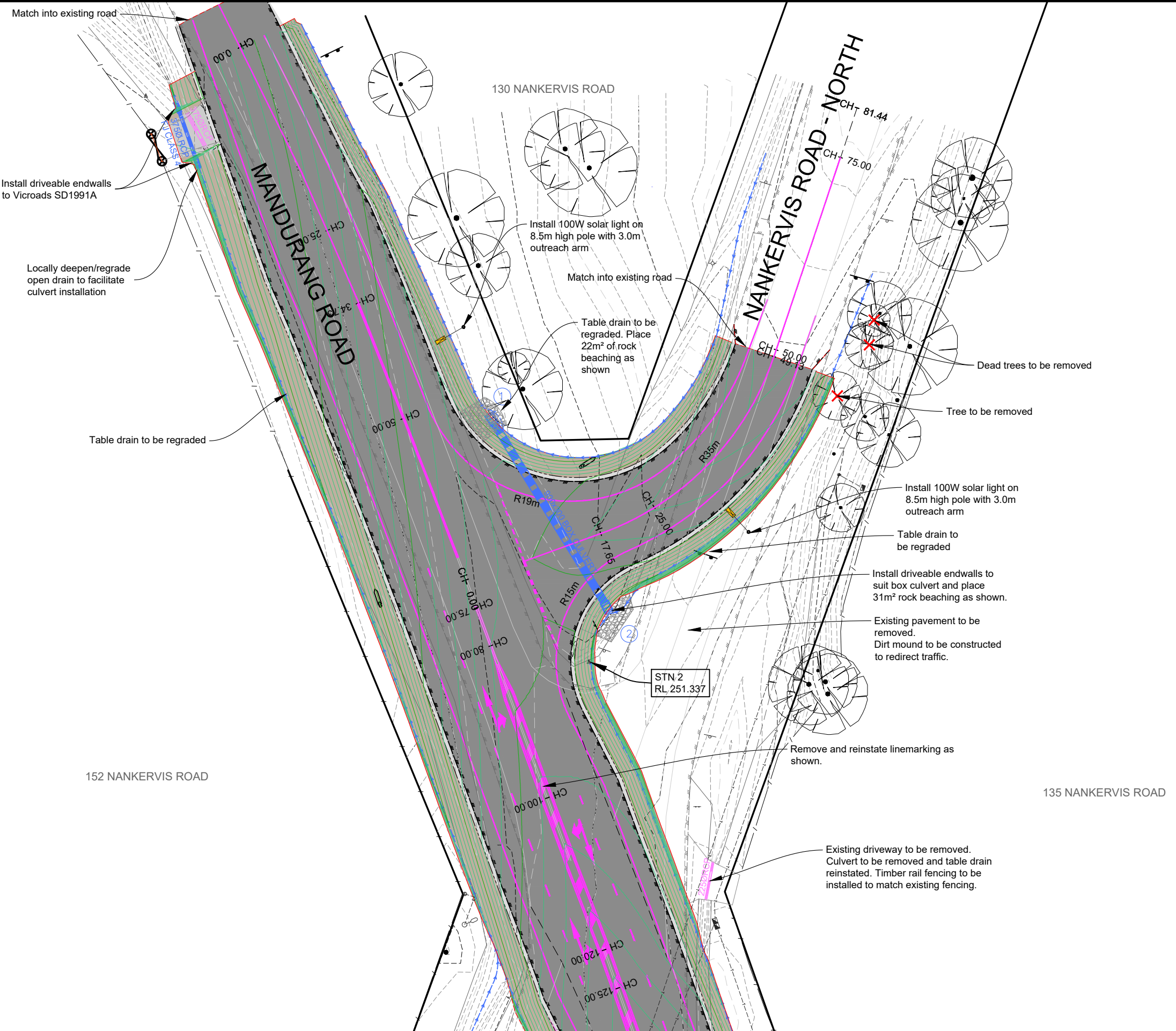
CONTROL & OVERALL LAYOUT

Survey	SPIRE	01/03/2019
Design	A. SMITH	17/02/2023
Checked	L. OLIVER	09/05/2023
Approved by	N. SARTORI	-/-22
Scale: 1 : 5000	Revision : A	
Original sheet size: A3	File : GB4496.dwg	
Sheet:	Reference:	
3 OF 12	<b>GB4496</b>	

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LEGEND	EXISTING
	Edge Seal
	Edge Formation
	Linemarking
	Existing drainage pipe to remain
	Remove existing drainage pipe

DESIGN	
	Edge Seal
	Edge Formation
	Edge of earthworks
	Linemarking
	Install drainage pipe
	Table Drain
	Batters & earthworks
	Seal & Base layer only
	Pavement as per typ. sect.
	Dwy - 50mm depth CL3 FCR
	150mm dpth 150Ø rock beaching

AMENDMENTS			
Revision	Description	Approved by	Date

**CITY OF GREATER BENDIGO**



**SEDGWICK ROAD  
MANDURANG  
BLACKSPOT**

DETAIL PLAN

Survey	SPIRE	01/03/2019
Design	A. SMITH	17/02/2023
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Sheet: 4 OF 12	Reference: <b>GB4496</b>	

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LEGEND	EXISTING
	Edge Seal
	Edge Formation
	Linemarking
	Existing drainage pipe to remain
	Remove existing drainage pipe

DESIGN	
	Edge Seal
	Edge Formation
	Edge of earthworks
	Linemarking
	Install drainage pipe
	Table Drain
	Batters & earthworks
	Seal & Base layer only
	Pavement as per typ. sect.
	Dwy - 50mm depth CL3 FCR
	150mm dpth 150Ø rock beaching

AMENDMENTS			
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**CITY OF GREATER BENDIGO**

**SEDGWICK ROAD MANDURANG BLACKSPOT**

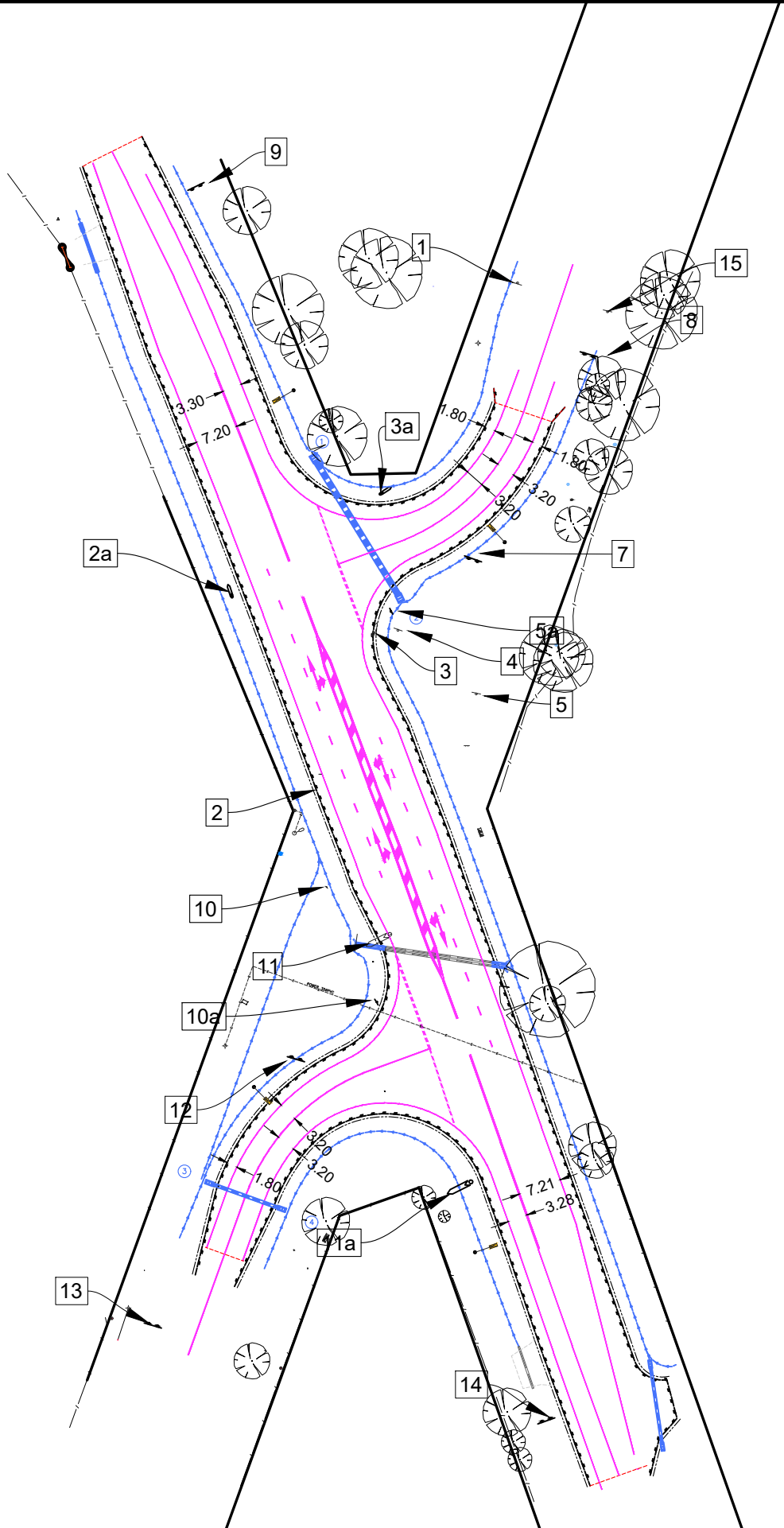
**DETAIL PLAN**

Survey	SPIRE	01/03/2019
Design	A. SMITH	17/02/2023
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SITE SIGNAGE and REQUIRED SIGNAGE ALTERATIONS		
NO.	TYPE	ACTION
1	Speed sign - 80km/hr	Leave as is
2	Street sign - "Mandurang Rd" and "Bendigo 9"	Remove from existing power pole and relocate to location 2a. New post to be provided.
3	Street sign - "Nankervis Rd" and "Strathfieldsaye 6" and "Post Office"	Remove and reinstall 1.0m offset from edge of seal at location 3a.
4	Shared use sign	Remove
5	Regulatory sign - Giveway	Remove and reinstate 1.0m offset from edge of seal at location 5a.
7	Hazard - Directional	Install new sign (D4-1-3) facing traffic travelling from the north. Sign to be min. 1.0m offset from edge of seal
8	<b>"Project funded by Blackspot"</b>	<b>Install new sign 1.0m offset from seal edge 50m prior to limit of works. Sign to be supplied by CoGB</b>
9	<b>"Project funded by Blackspot"</b>	<b>Install new sign 1.0m offset from seal edge 50m prior to limit of works. Sign to be supplied by CoGB</b>
10	Regulatory sign - Giveway	Remove and reinstate 1.0m offset from edge of seal at location 10a.
11	Street sign - "Sedgwick Rd" and "Nankervis Rd"	Remove and reinstate 1.0m offset from edge of seal at location 11a.
12	Hazard - Directional	Install new sign (D4-1-3) facing traffic travelling from the north. Sign to be min. 1.0m offset from edge of seal
13	<b>"Project funded by Blackspot"</b>	<b>Install new sign 1.0m offset from seal edge 50m prior to limit of works. Sign to be supplied by CoGB</b>
14	<b>"Project funded by Blackspot"</b>	<b>Install new sign 1.0m offset from seal edge 50m prior to limit of works. Sign to be supplied by CoGB</b>
15	Speed Sign - 80km/hr	Leave as is



1200x900 Blackspot signs

AMENDMENTS			
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-	-	-	-

**CITY OF GREATER BENDIGO**

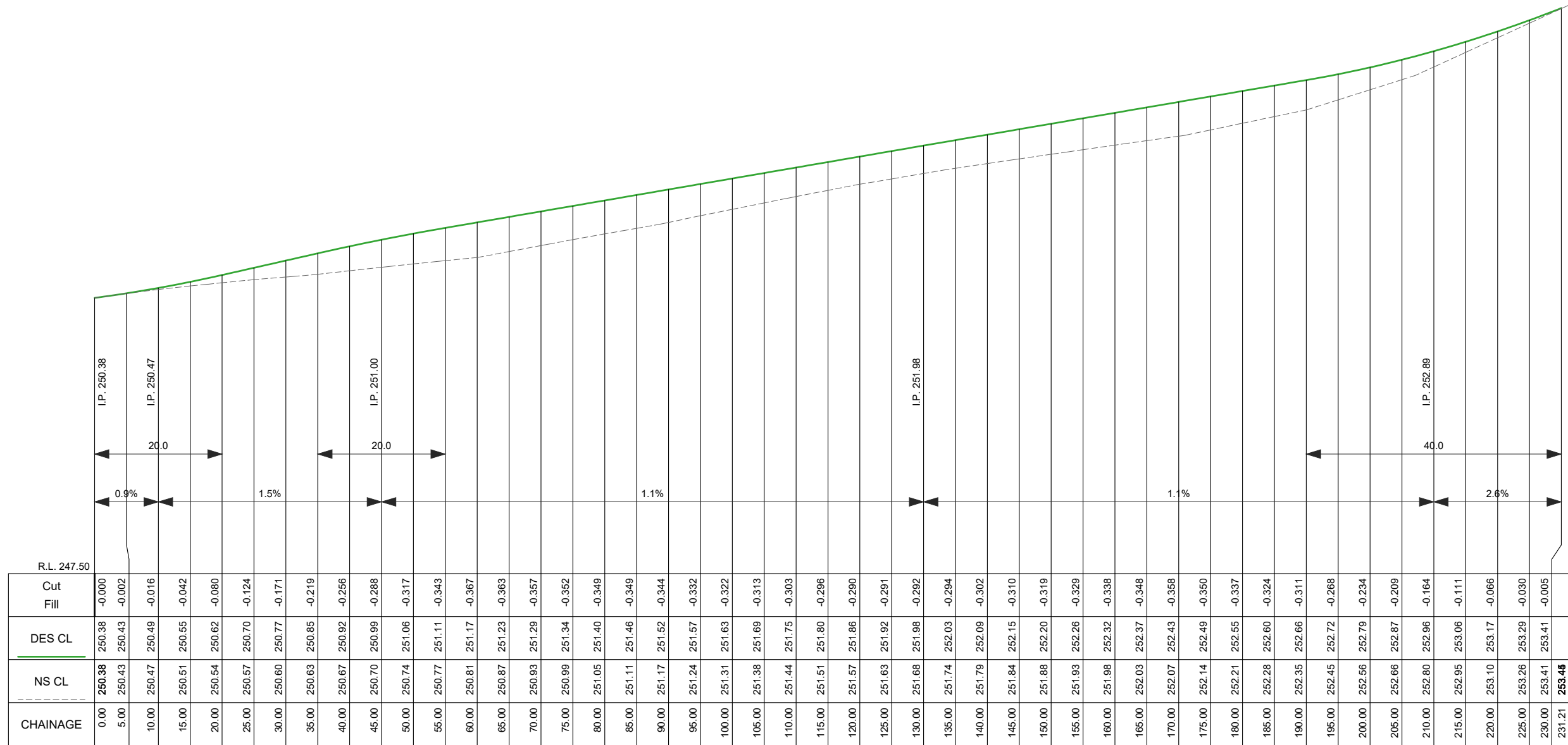
**SEDGWICK ROAD  
MANDURANG  
BLACKSPOT**

SIGNAGE & LINEMARKING PALN

Survey	SPIRE	01/03/2019
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CL-Sedgwick LONGITUDINAL SECTION CH 0.000 To 231.207  
 SCALES: H 1:750 V 1:50 (A3)

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-	-	-	-

**CITY OF GREATER BENDIGO**



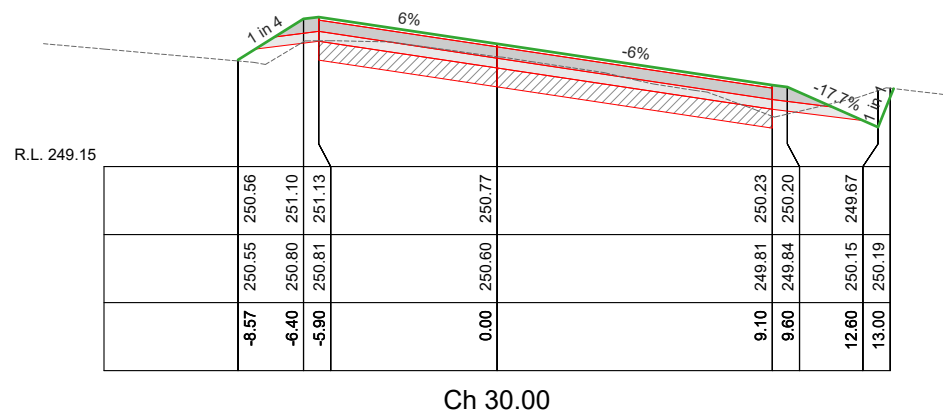
**SEDGWICK ROAD  
 MANDURANG  
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LONG SECTIONS

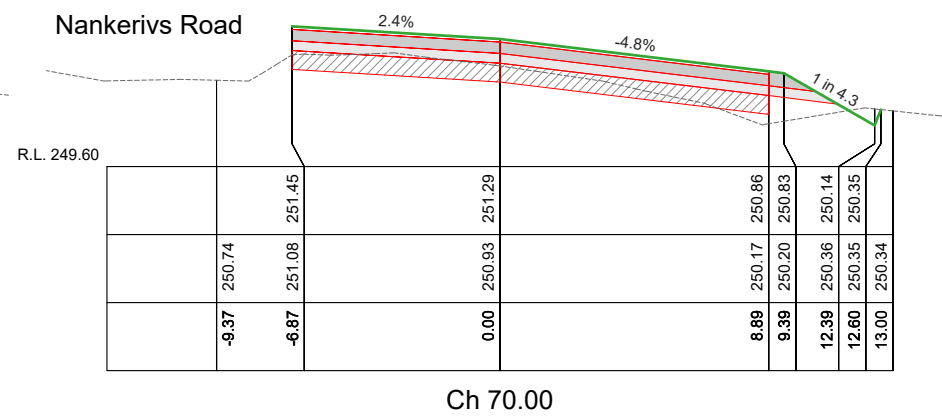
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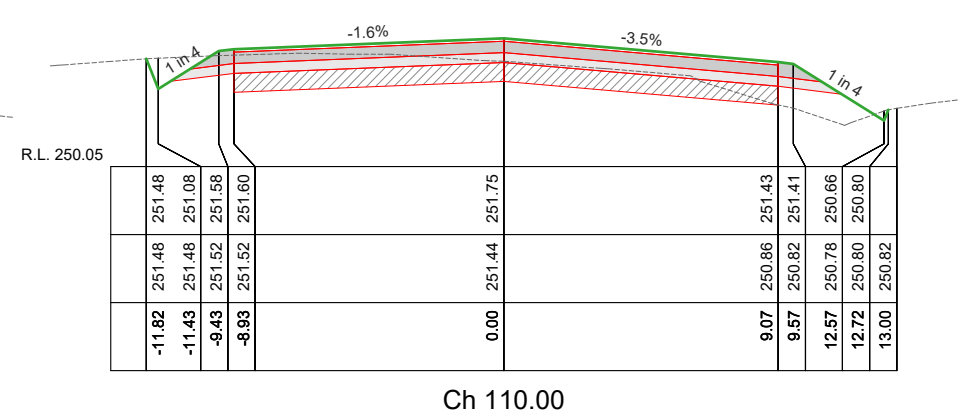
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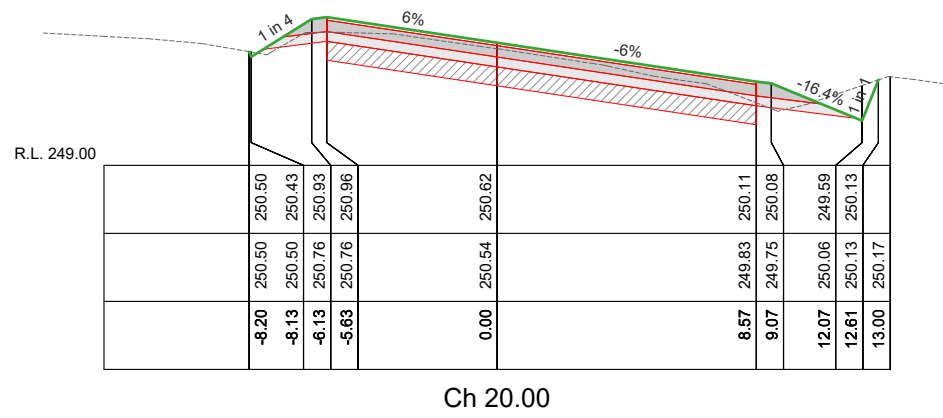
Ch 30.00



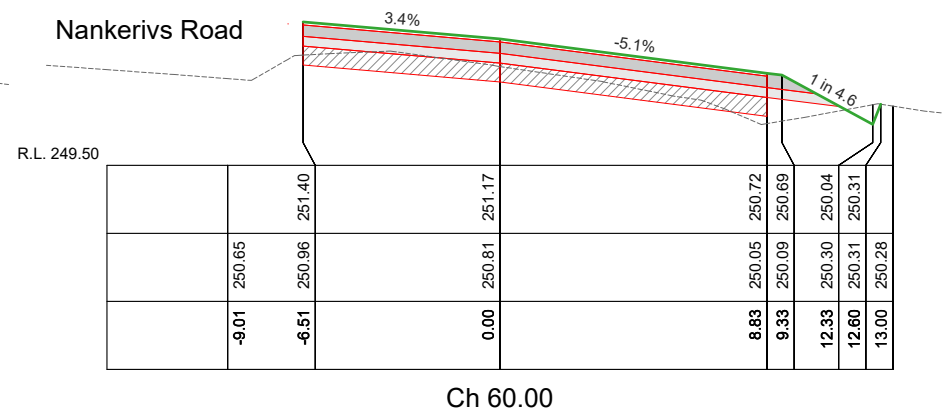
Ch 70.00



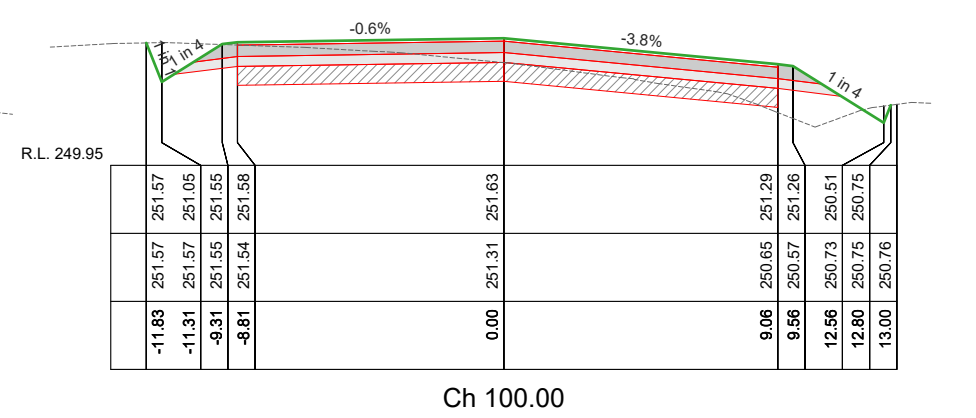
Ch 110.00



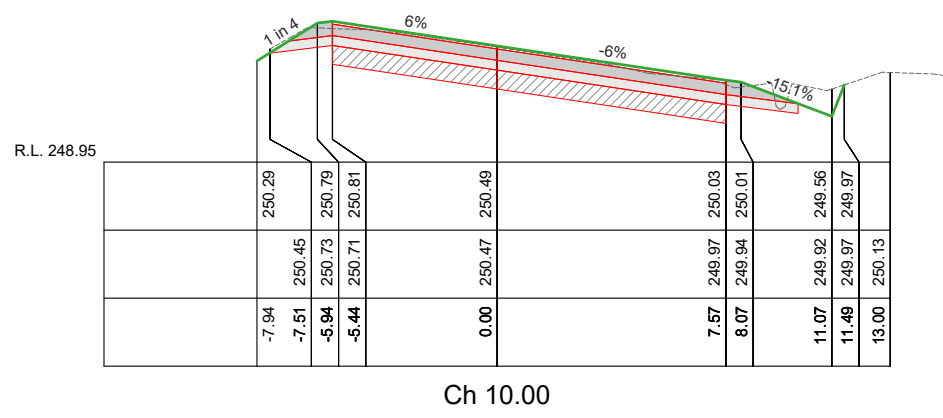
Ch 20.00



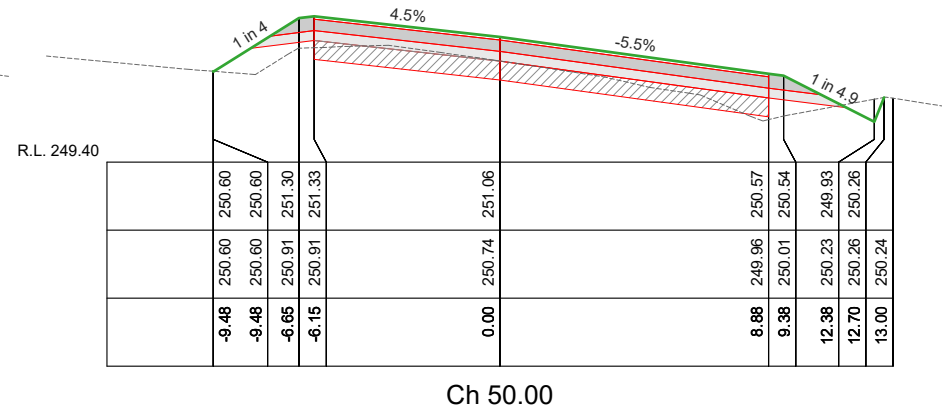
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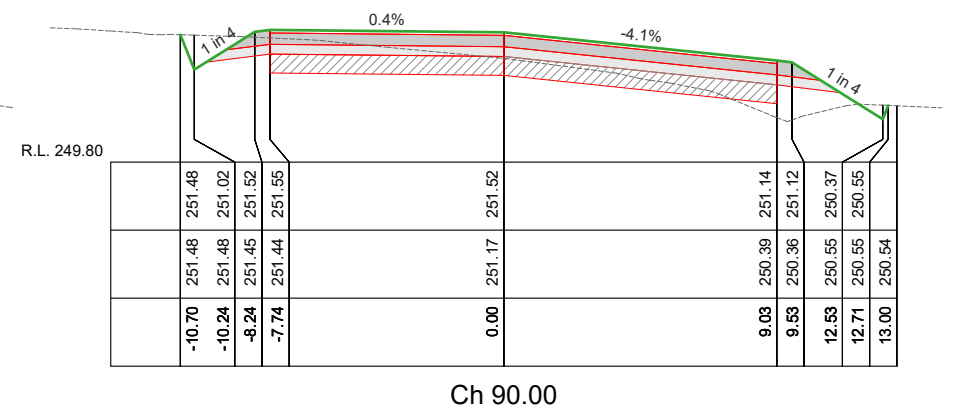
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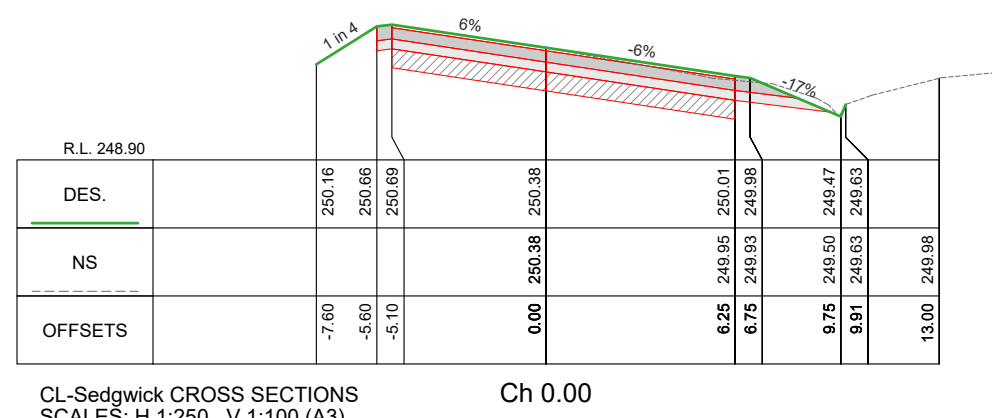
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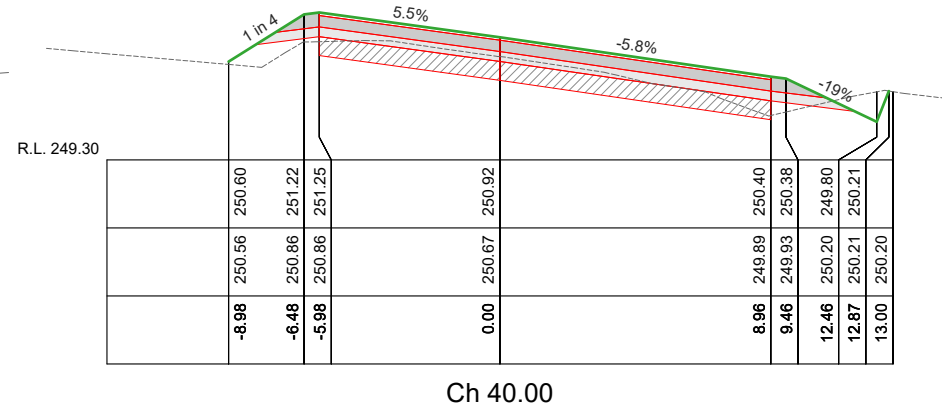
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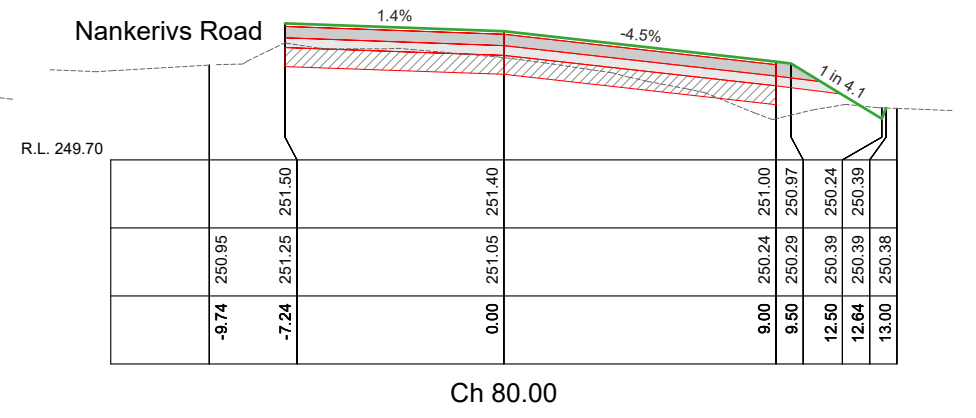
Ch 90.00



Ch 0.00



Ch 40.00

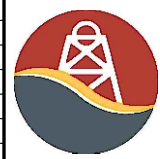


Ch 80.00

CL-Sedgwick CROSS SECTIONS  
 SCALES: H 1:250 V 1:100 (A3)

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-	-	-	-

**CITY OF GREATER BENDIGO**



**SEDGWICK ROAD  
 MANDURANG  
 BLACKSPOT  
 CROSS SECTIONS**

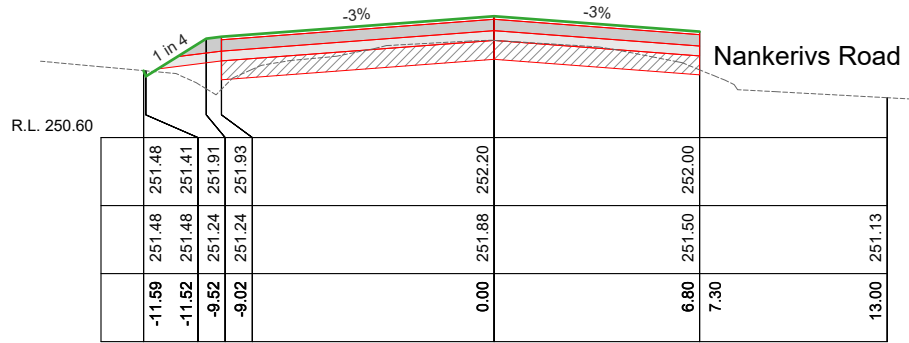
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Approved by	N. SARTORI	-/-22
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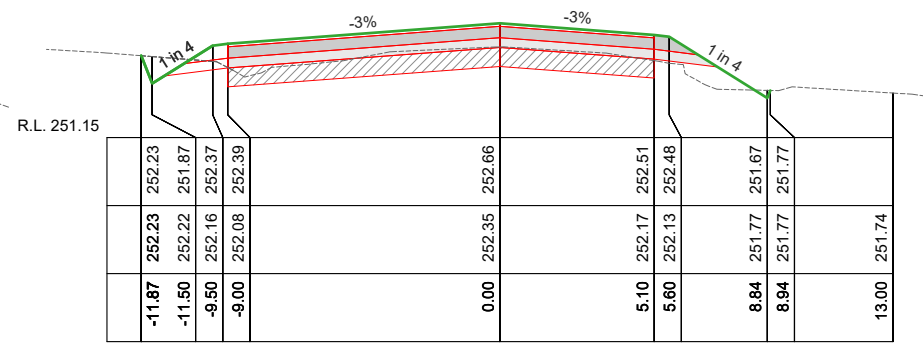
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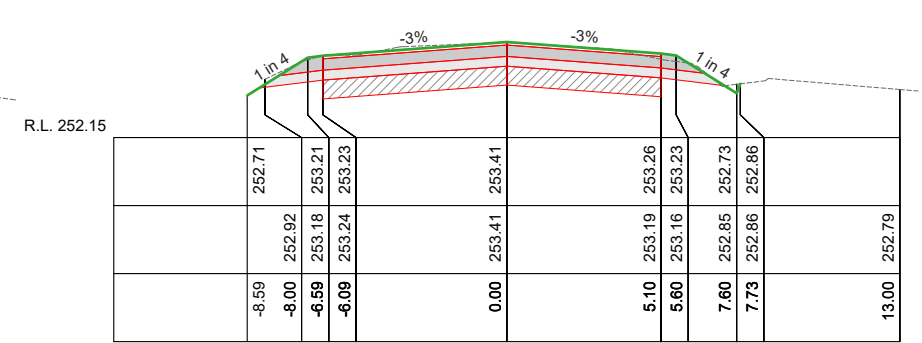




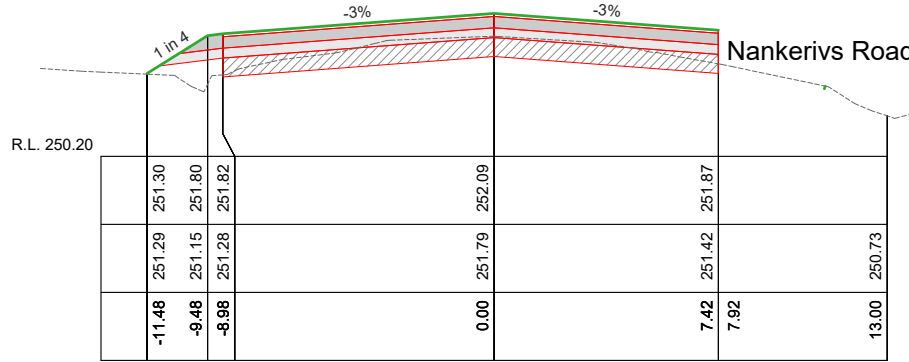
Ch 150.00



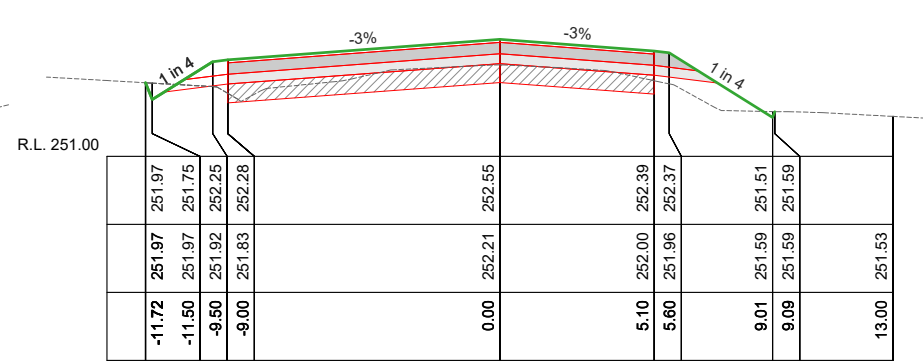
Ch 190.00



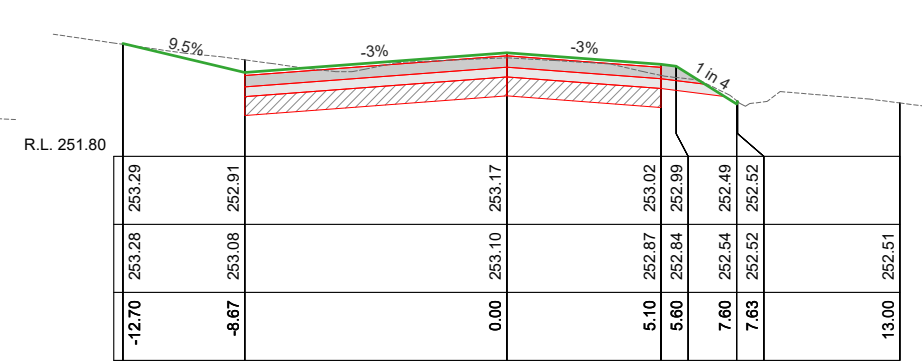
Ch 230.00



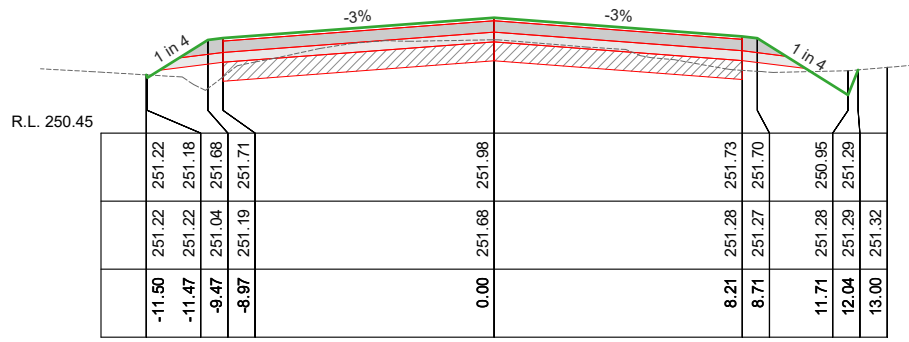
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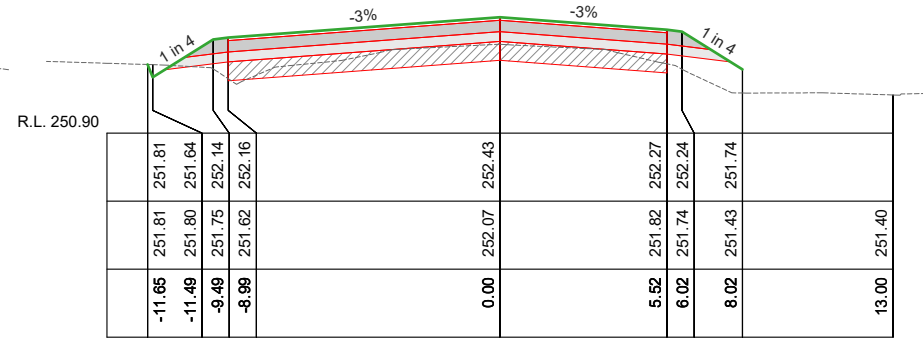
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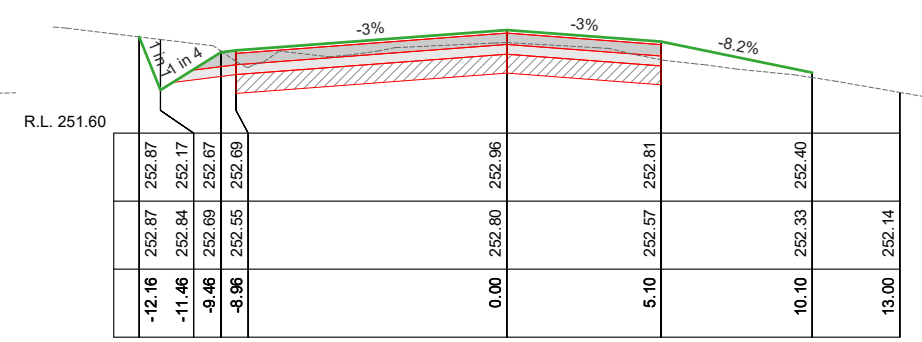
Ch 220.00



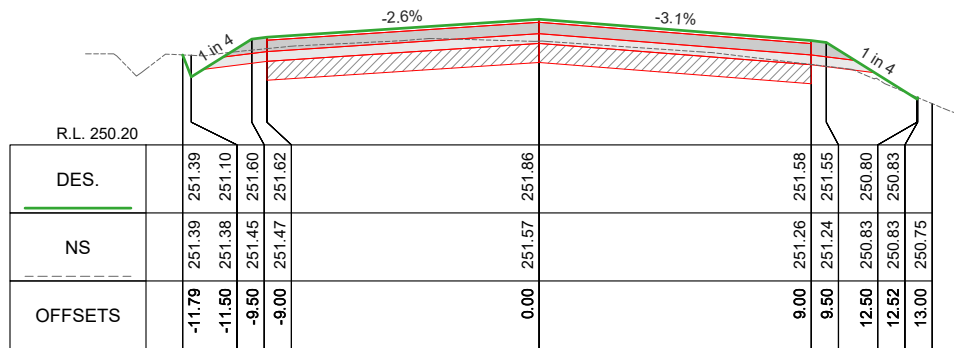
Ch 130.00



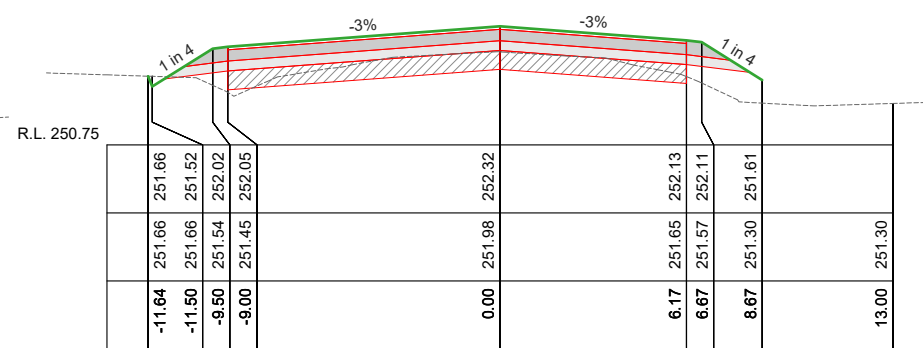
Ch 170.00



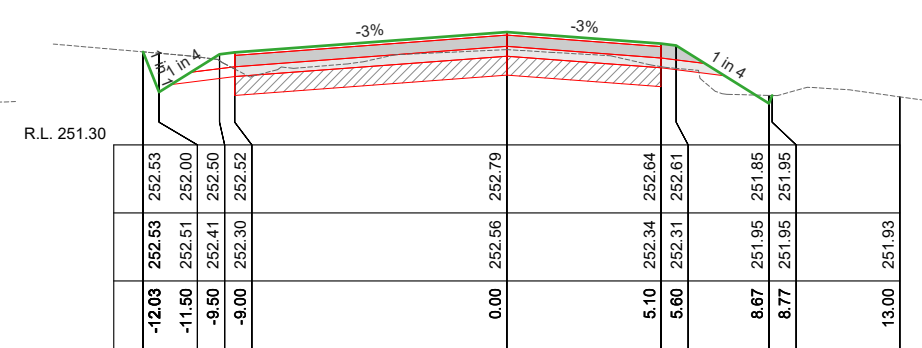
Ch 210.00



Ch 120.00



Ch 160.00




Ch 200.00

CL-Sedgwick CROSS SECTIONS  
 SCALES: H 1:250 V 1:100 (A3)

AMENDMENTS			
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-	-	-	-

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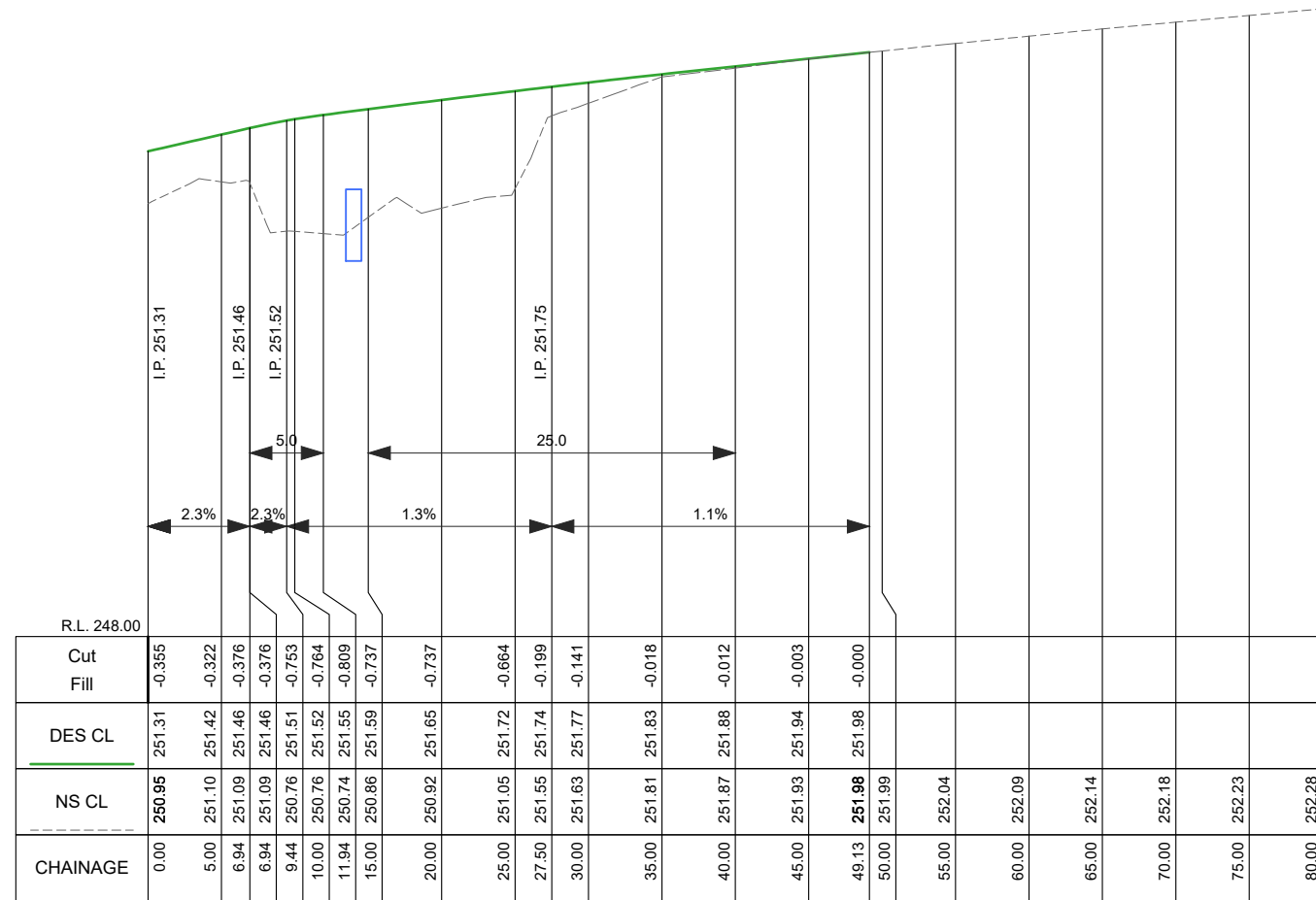


**SEDGWICK ROAD  
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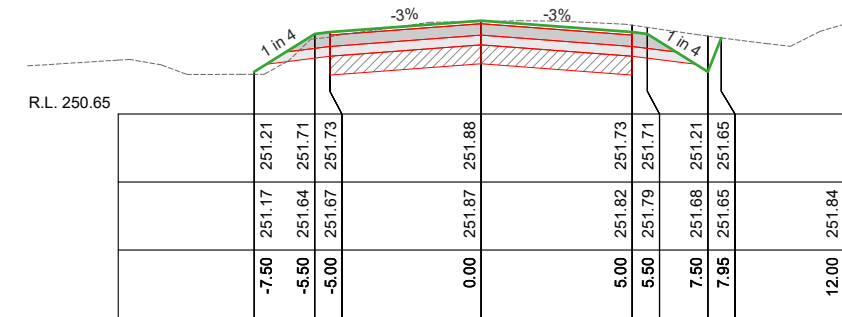
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Sheet:	9 OF 12	Reference: GB4496

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 TENDER ONLY**  
 NOT FOR CONSTRUCTION

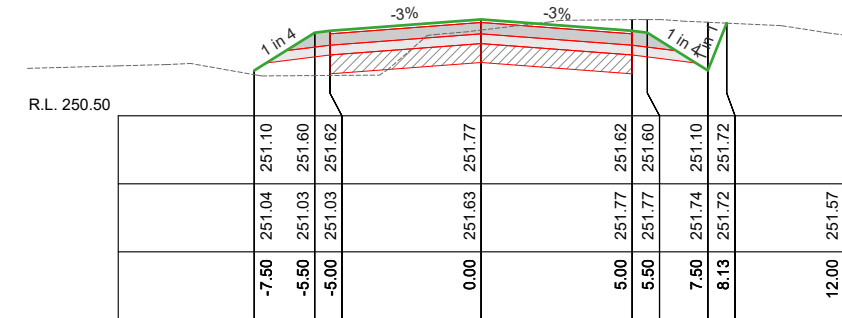
Plot Date: 25/05/2023  
 Plotted By: ANDREW SMITH



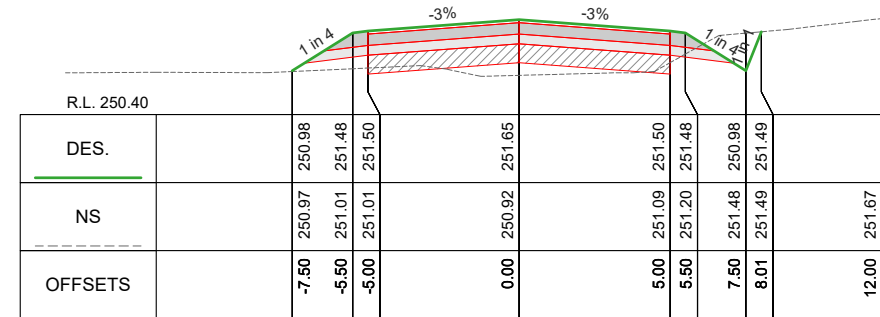
Nankervis-North LONGITUDINAL SECTION CH 0.000 To 80.000  
 SCALES: H 1:500 V 1:50 (A3)



Ch 40.00



Ch 30.00



Nankervis-North CROSS SECTIONS Ch 20.00  
 SCALES: H 1:250 V 1:100 (A3)

AMENDMENTS			
Revision	Description	Approved by	Date
-	-	-	-

**CITY OF GREATER BENDIGO**

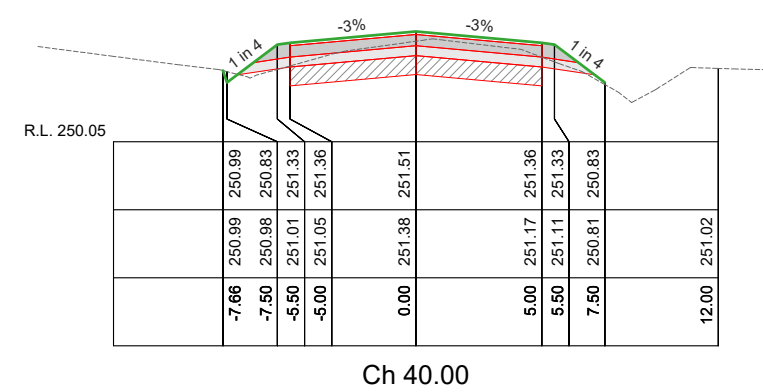
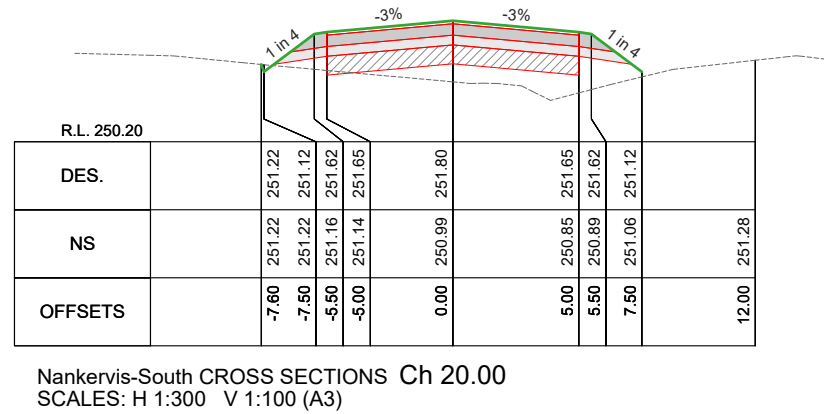
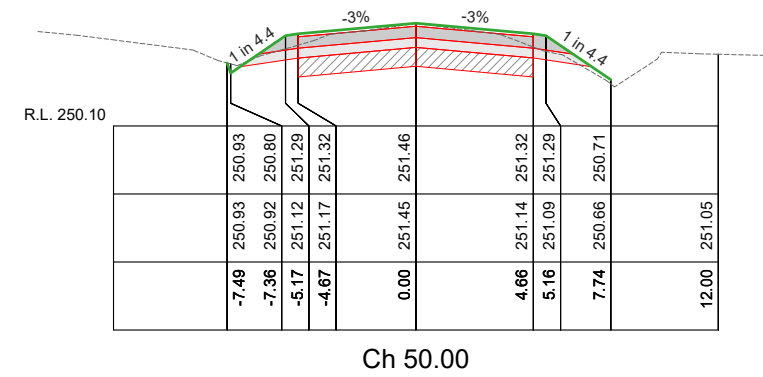
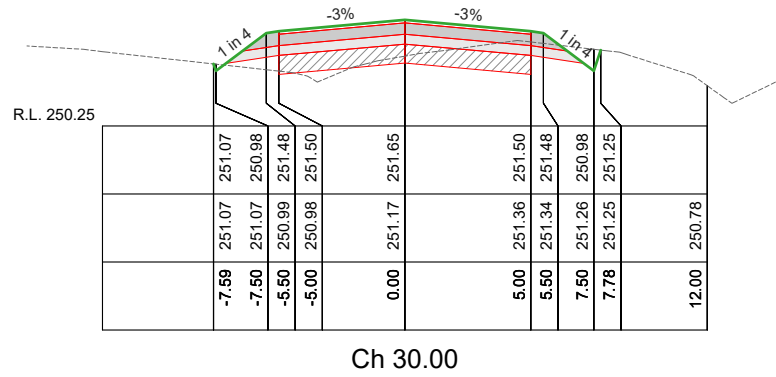
SEDGWICK ROAD  
 MANDURANG  
 BLACKSPOT

LONG & CROSS SECTIONS

Survey	SPIRE	01/03/2019
Design	A. SMITH	17/02/2023
Checked	L. OLIVER	09/05/2023
Approved by	N. SARTORI	-/-22
Scale: As Shown	Revision: A	
Original sheet size: A3	File: GB4496.dwg	
Sheet: 10 OF 12	Reference: GB4496	

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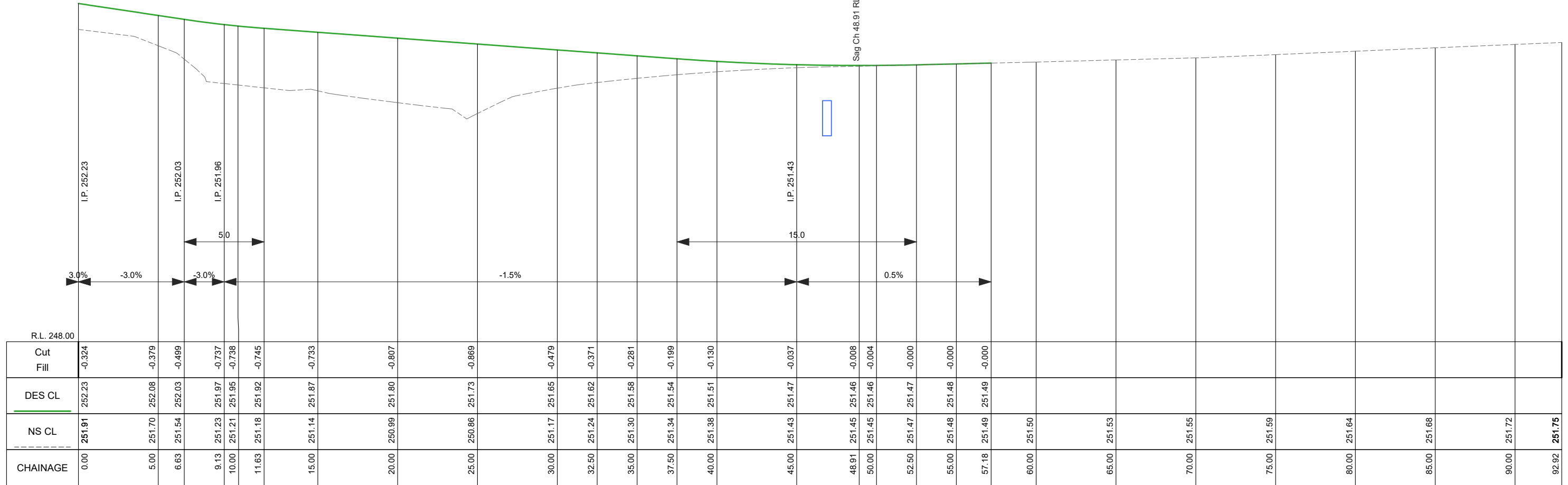
Plot Date: 25/05/2023  
 Plotted By: ANDREW SMITH



Nankervis-South CROSS SECTIONS Ch 20.00  
 SCALES: H 1:300 V 1:100 (A3)

Crest Ch 0.00 RL 252.23


Sag Ch 48.91 RL 251.46



Nankervis-South LONGITUDINAL SECTION CH 0.000 To 92.925  
 SCALES: H 1:250 V 1:50 (A3)

AMENDMENTS			
Revision	Description	Approved by	Date
-	-	-	-

**CITY OF GREATER BENDIGO**



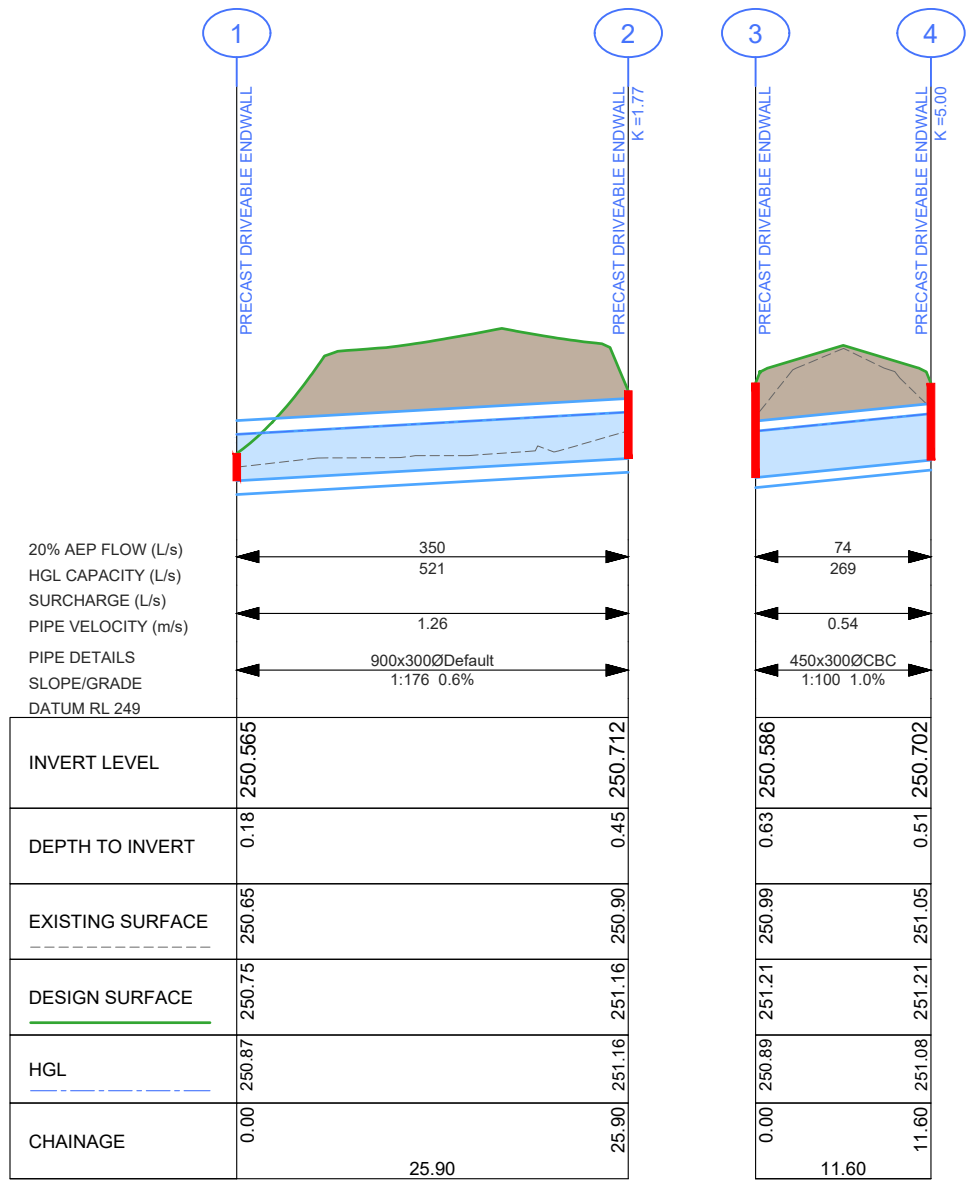
**SEDGWICK ROAD  
 MANDURANG  
 BLACKSPOT**

LONG & CROSS SECTIONS

Survey	SPIRE	01/03/2019
Design	A. SMITH	17/02/2023
Checked	L. OLIVER	09/05/2023
Approved by	N. SARTORI	-/-22
Scale:	As Shown	Revision: A
Original sheet size:	A3	File: GB4496.dwg
Sheet:	11 OF 12	Reference: <b>GB4496</b>

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Plot Date: 25/05/2023  
 Plotted By: ANDREW SMITH



DRAINAGE LONGITUDINAL SECTION  
 SCALES: HORIZONTAL 1:500 VERTICAL 1:50

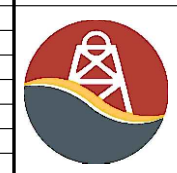
LEGEND

- EXISTING PIPE TO REMAIN
- DESIGN PIPE / PIT or ENDWALL
- CoGB SD390 TRENCH BACKFILL (BEHIND KERB)
- CoGB SD391 TRENCH BACKFILL (UNDER NEW ROAD)
- CoGB SD392 TRENCH BACKFILL (UNDER EXISTING ROAD)

AMENDMENTS

Revision	Description	Approved by	Date
-	-	-	-

CITY OF GREATER BENDIGO



SEDGWICK ROAD  
 MANDURANG  
 BLACKSPOT  
 DRAINAGE LONG SECTIONS

Survey	SPIRE	01/03/2019
Design	A. SMITH	17/02/2023
Checked	L. OLIVER	09/05/2023
Approved by	N. SARTORI	-/-/22
Scale: As shown	Revision: A	
Original sheet size: A3	File: GB4496.dwg	
Sheet: 12 OF 12	Reference: GB4496	

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Plot Date: 25/05/2023  
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