

DRAWING SCHEDULE

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# PROPOSED RESIDENTIAL SUBDIVISION

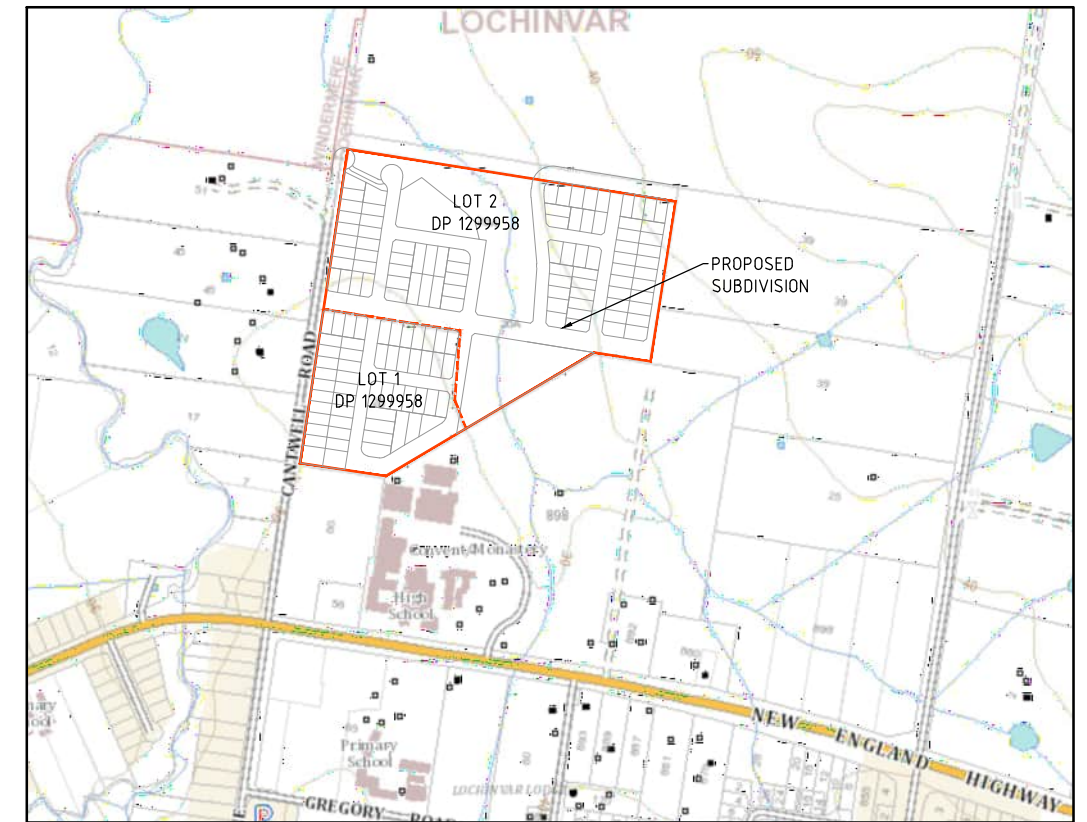
20 & 20A CANTWELL ROAD, LOCHINVAR

DEVELOPMENT APPLICATION

CLIENT: TRUSTEE OF  
THE ROMAN CATHOLIC CHURCH FOR THE  
DIOCESE OF MAITLAND NEWCASTLE



CONSENT AUTHORITY: MAITLAND CITY COUNCIL

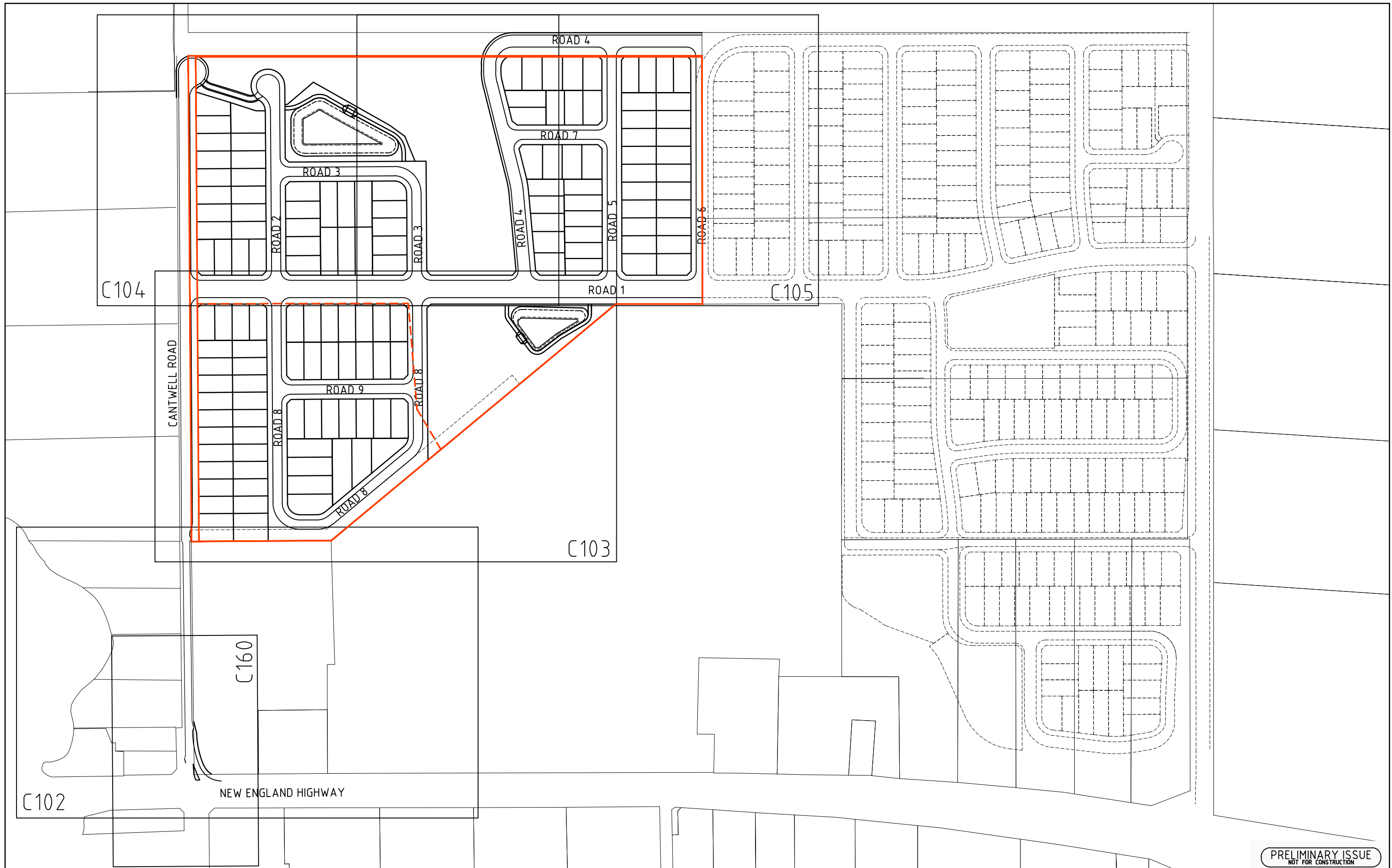
DATE: JANUARY 2025



LOCALITY PLAN

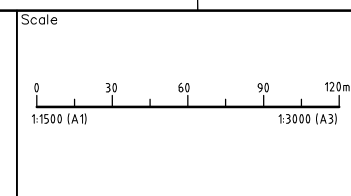
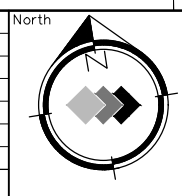
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5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25															
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25															
3	CLIENT COMMENTS	DB	AS	17.12.24															
2	MINOR AMENDMENTS	DB	IH	09.12.24															
1	ORIGINAL ISSUE	DB	IH	30.09.24															
REVISION	Description	Drawn	App'd	Date															



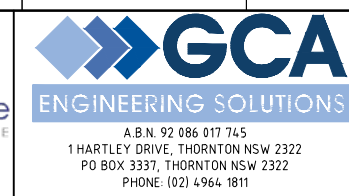
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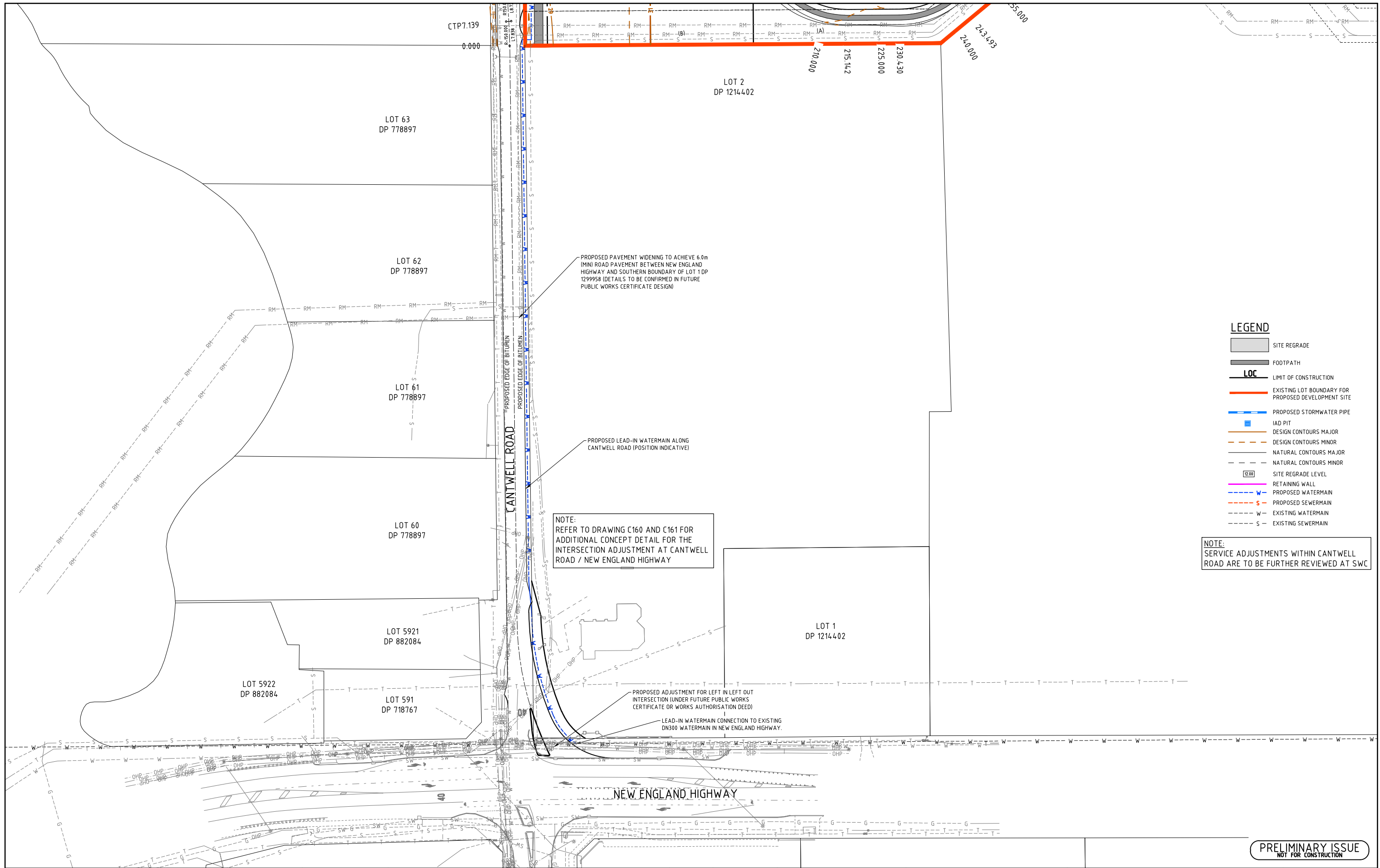
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Designed  
AM  
Scale  
1:1500  
Cad Reference  
23290C dC101 r5  
Project Approval  
IAN HILL (B.E)  
Consulting Civil Engineer



**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
GENERAL ARRANGEMENT PLAN

Project No <b>23290C</b>	
Drawing No <b>C101</b>	Revision <b>5</b>
A1 SHEET	



**LEGEND**

- SITE REGRADE
- FOOTPATH
- LOC** LIMIT OF CONSTRUCTION
- EXISTING LOT BOUNDARY FOR PROPOSED DEVELOPMENT SITE
- PROPOSED STORMWATER PIPE
- IAD PIT
- DESIGN CONTOURS MAJOR
- DESIGN CONTOURS MINOR
- NATURAL CONTOURS MAJOR
- NATURAL CONTOURS MINOR
- SITE REGRADE LEVEL
- RETAINING WALL
- PROPOSED WATERMAIN
- PROPOSED SEWERMAIN
- EXISTING WATERMAIN
- EXISTING SEWERMAIN

**NOTE:**  
SERVICE ADJUSTMENTS WITHIN CANTWELL ROAD ARE TO BE FURTHER REVIEWED AT SWC

**NOTE:**  
REFER TO DRAWING C160 AND C161 FOR ADDITIONAL CONCEPT DETAIL FOR THE INTERSECTION ADJUSTMENT AT CANTWELL ROAD / NEW ENGLAND HIGHWAY

PROPOSED PAVEMENT WIDENING TO ACHIEVE 6.0m (MIN) ROAD PAVEMENT BETWEEN NEW ENGLAND HIGHWAY AND SOUTHERN BOUNDARY OF LOT 1 DP 1299958 (DETAILS TO BE CONFIRMED IN FUTURE PUBLIC WORKS CERTIFICATE DESIGN)

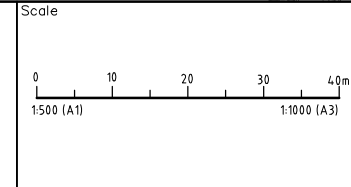
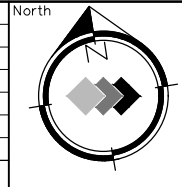
PROPOSED LEAD-IN WATERMAIN ALONG CANTWELL ROAD (POSITION INDICATIVE)

PROPOSED ADJUSTMENT FOR LEFT IN LEFT OUT INTERSECTION (UNDER FUTURE PUBLIC WORKS CERTIFICATE OR WORKS AUTHORISATION DEED)

LEAD-IN WATERMAIN CONNECTION TO EXISTING DN300 WATERMAIN IN NEW ENGLAND HIGHWAY.

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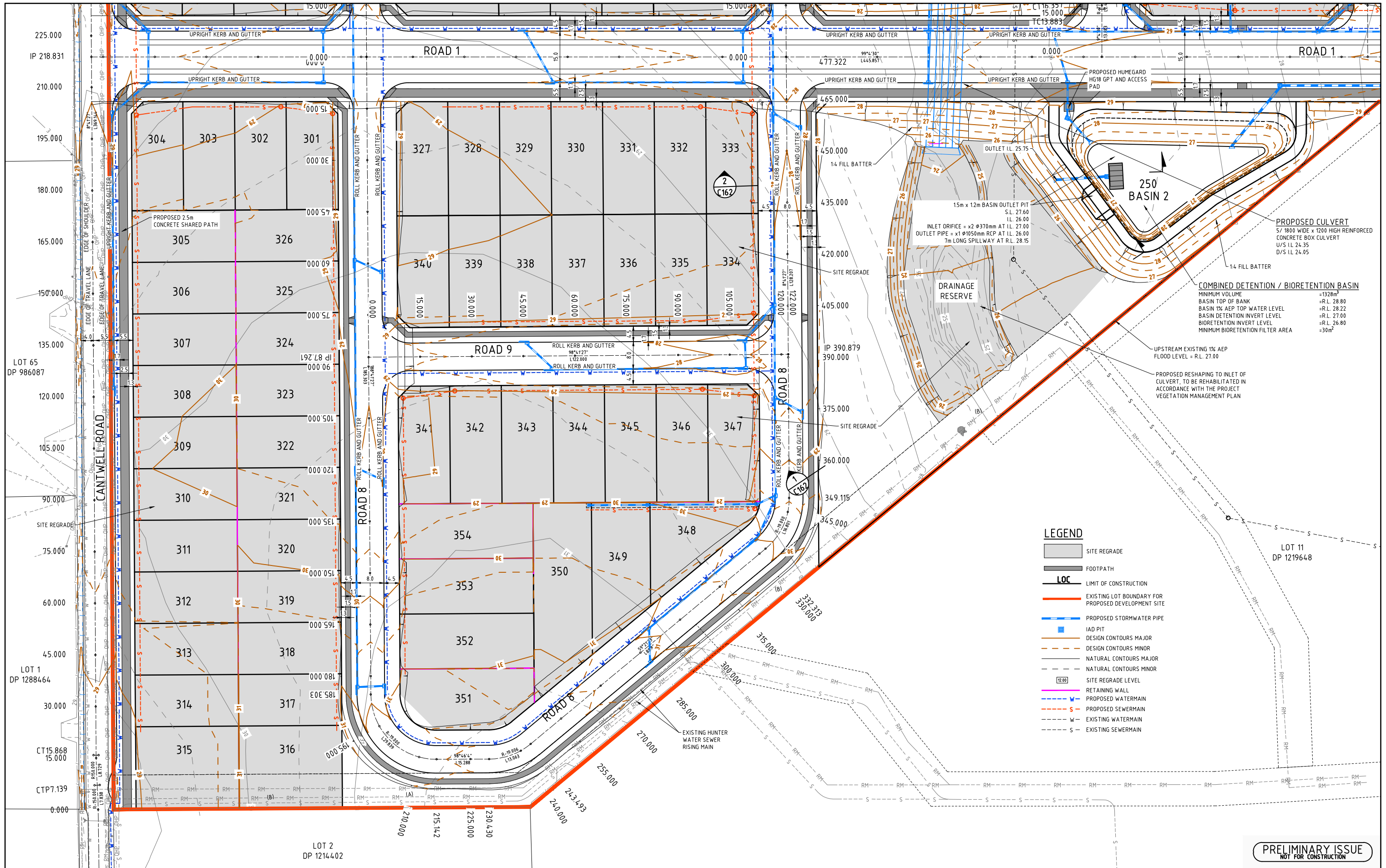
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Designed AM  
Scale 1:500  
Cad Reference 23290C dC102 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer



**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
PLAN SHEET (1 OF 4)

Project No		23290C	
Drawing No	C102	Revision	5
A1 SHEET			

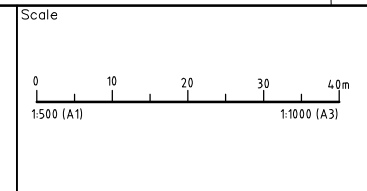
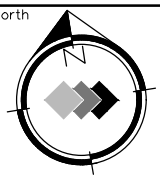


**LEGEND**

[Grey Area]	SITE REGRADE
[Black Line]	FOOTPATH
[Red Line]	LOC
[Red Line]	EXISTING LOT BOUNDARY FOR PROPOSED DEVELOPMENT SITE
[Blue Line]	PROPOSED STORMWATER PIPE
[Blue Square]	IAD PIT
[Orange Line]	DESIGN CONTOURS MAJOR
[Dashed Orange Line]	DESIGN CONTOURS MINOR
[Black Line]	NATURAL CONTOURS MAJOR
[Dashed Black Line]	NATURAL CONTOURS MINOR
[Grey Box]	SITE REGRADE LEVEL
[Purple Line]	RETAINING WALL
[Blue Line]	PROPOSED WATERMAIN
[Red Line]	PROPOSED SEWERMAIN
[Black Line]	EXISTING WATERMAIN
[Dashed Black Line]	EXISTING SEWERMAIN

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2	MINOR AMENDMENTS	DB	IH	09.12.24
1	ORIGINAL ISSUE	DB	IH	30.09.24



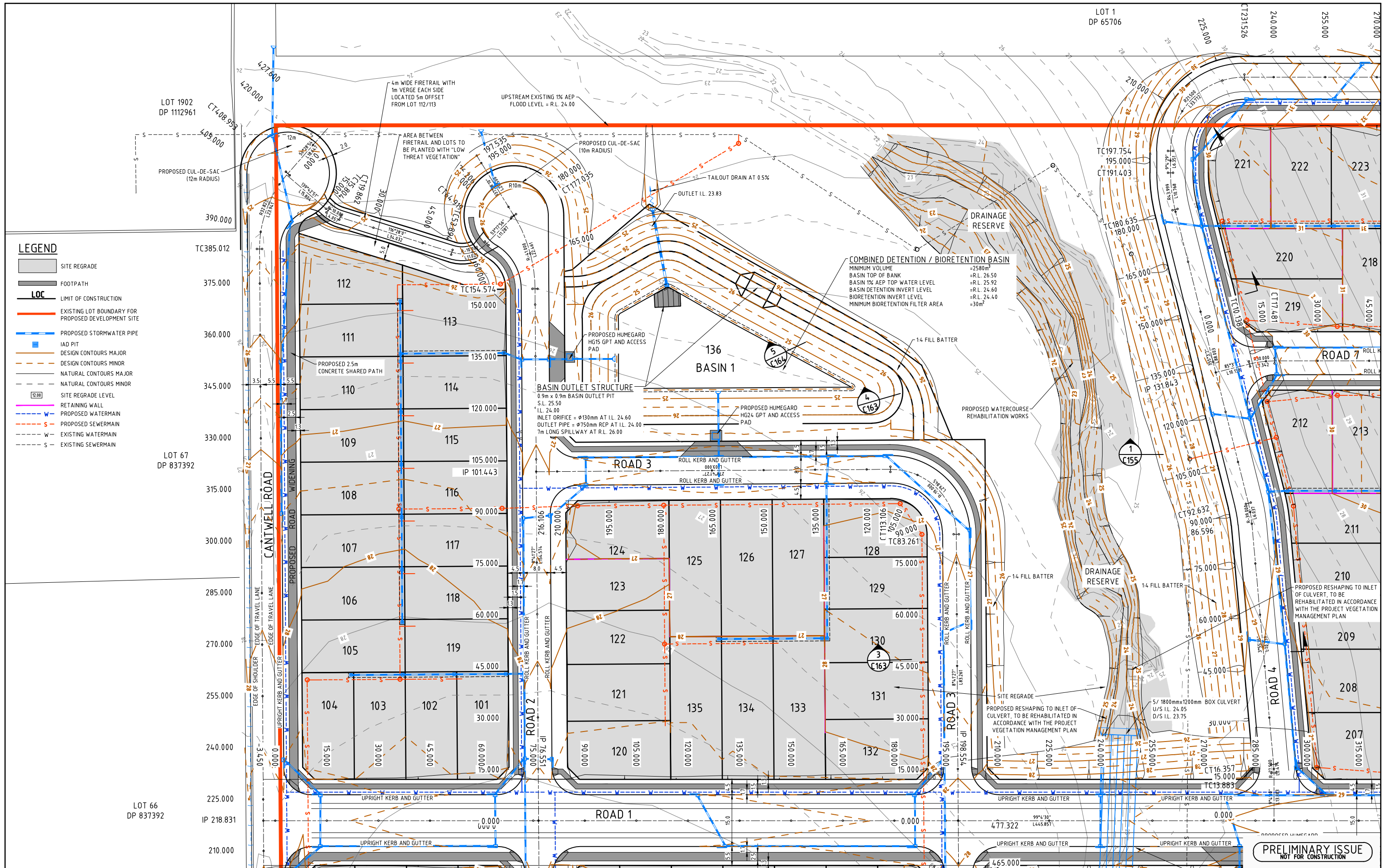
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Scale 1:500  
Cad Reference 23290C dC103 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer

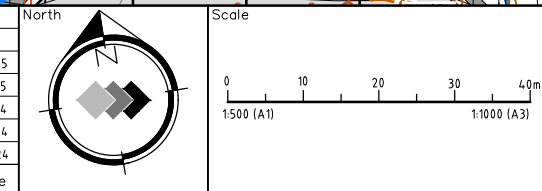


**PROPOSED RESIDENTIAL SUBDIVISION**  
20 & 20A CANTWELL ROAD  
LOCHINVAR  
PLAN SHEET (2 OF 4)

Project No <b>23290C</b>	
Drawing No <b>C103</b>	Revision <b>5</b>
A1 SHEET	



REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	MINOR AMENDMENTS	DB	IH	09.12.24
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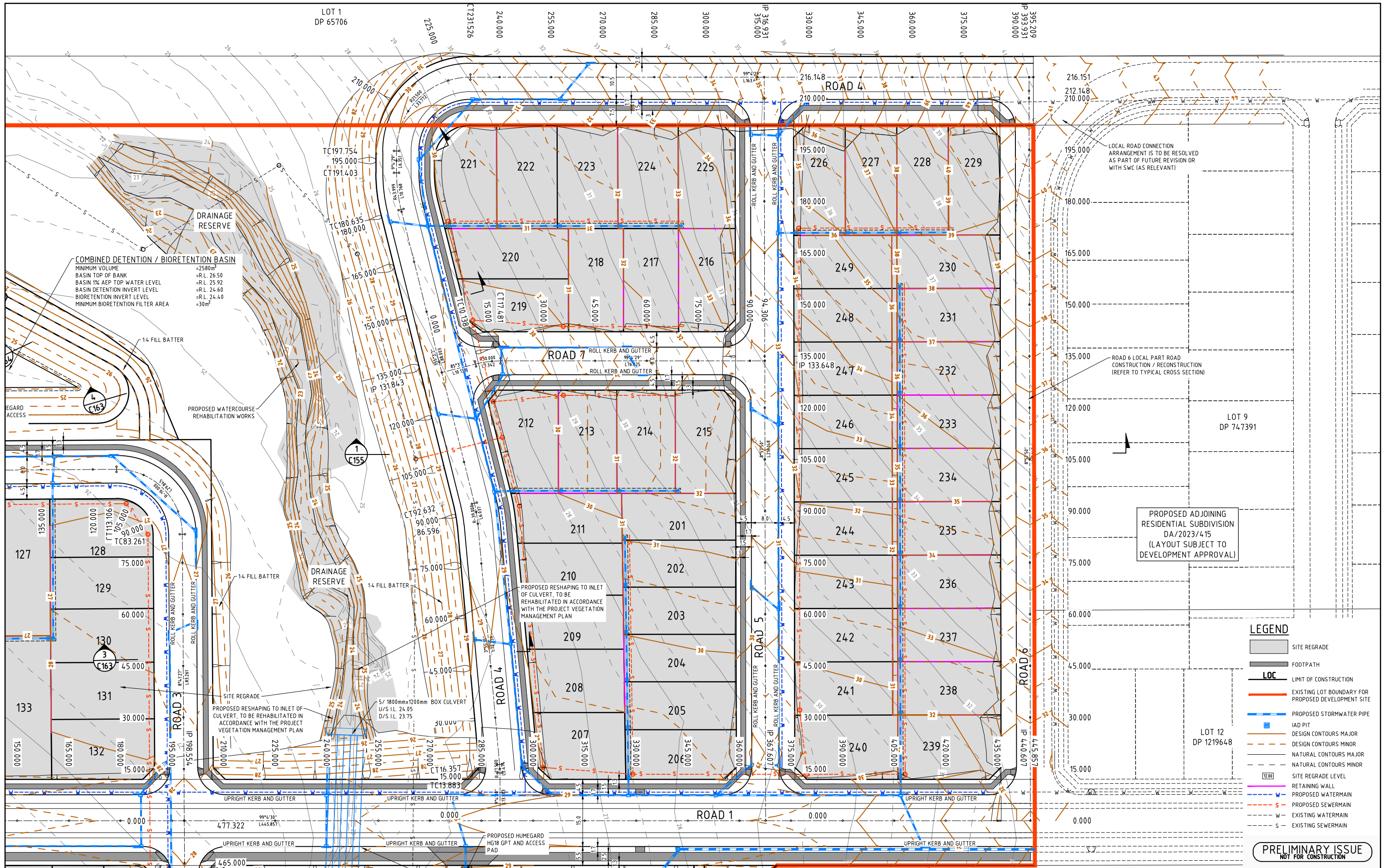
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 Cad Reference 23290C dC104 r5  
 Project Approval IAN HILL (B.E.)  
 Consulting Civil Engineer

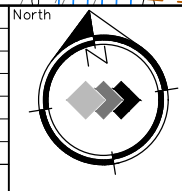


**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
 PLAN SHEET (3 OF 4)

Project No <b>23290C</b>	
Drawing No <b>C104</b>	Revision <b>5</b>
A1 SHEET	



REVISION	Description	Drawn	App'd	Date
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3	CLIENT COMMENTS	DB	AS	17.12.24
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1	ORIGINAL ISSUE	DB	IH	30.09.24



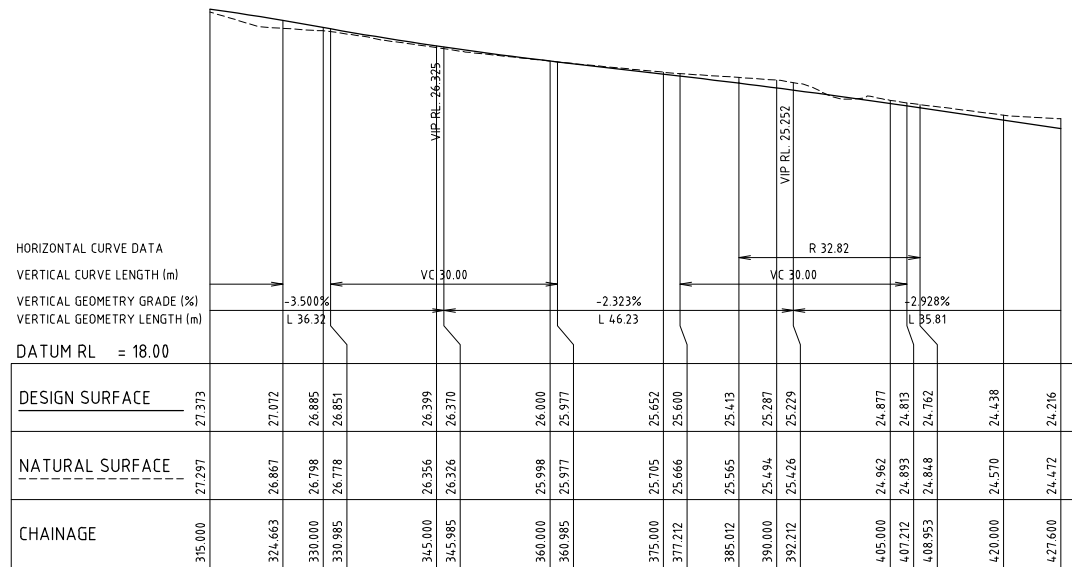
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 Cad Reference 23290C dC105 r5  
 Project Approval IAN HILL (B.E)  
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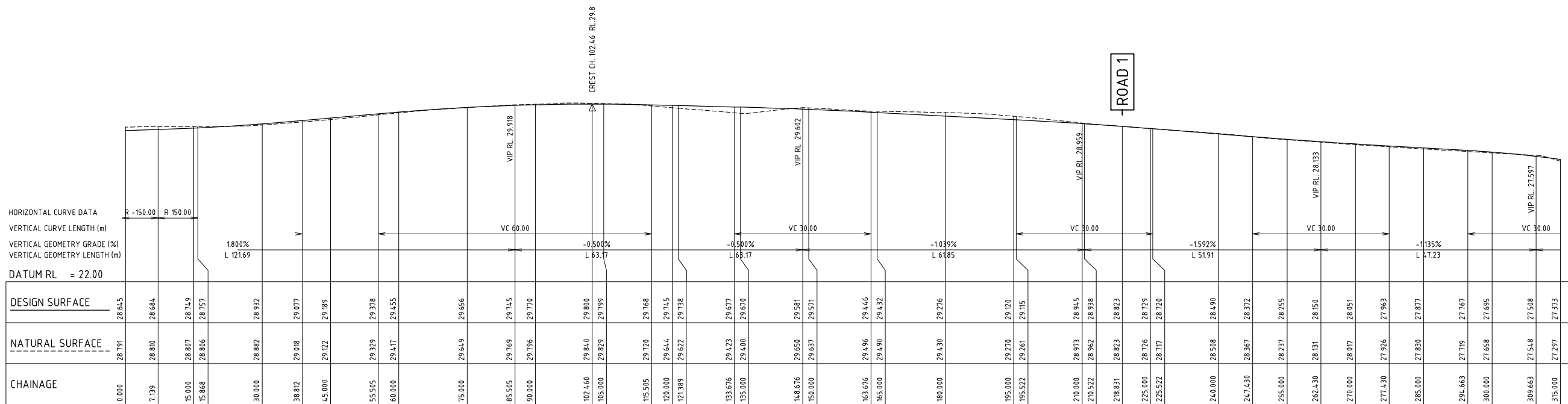


**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
 PLAN SHEET (4 OF 4)

Project No	23290C	
Drawing No	C105	Revision 5
A1 SHEET		



A1 SCALE: HORIZONTAL 1:500, VERTICAL 1:100  
 LONGITUDINAL SECTION CANTWELL ROAD

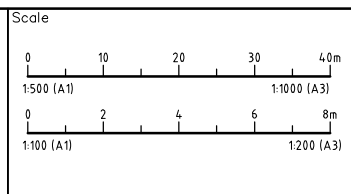


A1 SCALE: HORIZONTAL 1:500, VERTICAL 1:100  
 LONGITUDINAL SECTION CANTWELL ROAD

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North
Scale



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 Scale 1:500/1:100  
 Cad Reference 23290C dC106 r5  
 Project Approval IAN HILL (B.E)  
 Consulting Civil Engineer

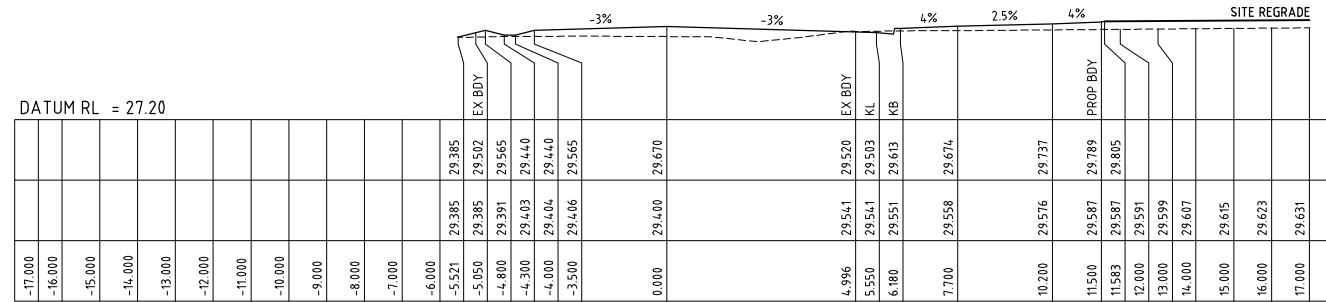


PROPOSED RESIDENTIAL SUBDIVISION  
 20 & 20A CANTWELL ROAD  
 LOCHINVAR  
 CANTWELL ROAD LONGITUDINAL SECTION

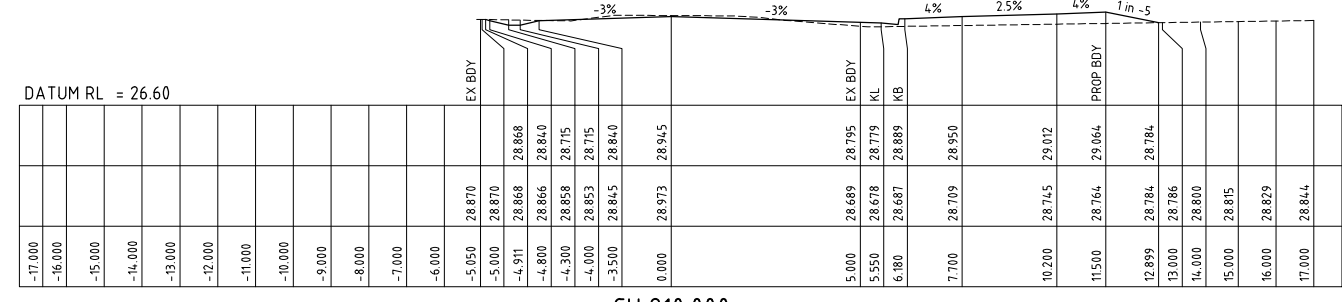
Project No	Revision
23290C	5
Drawing No	C106
A1 SHEET	



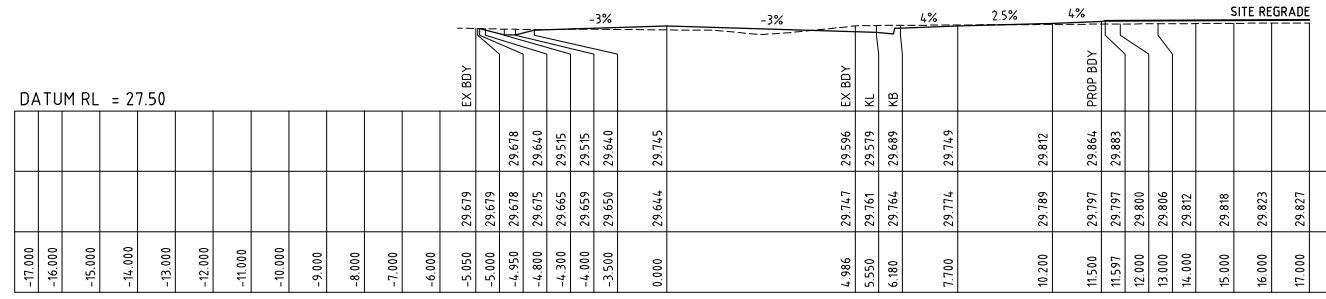




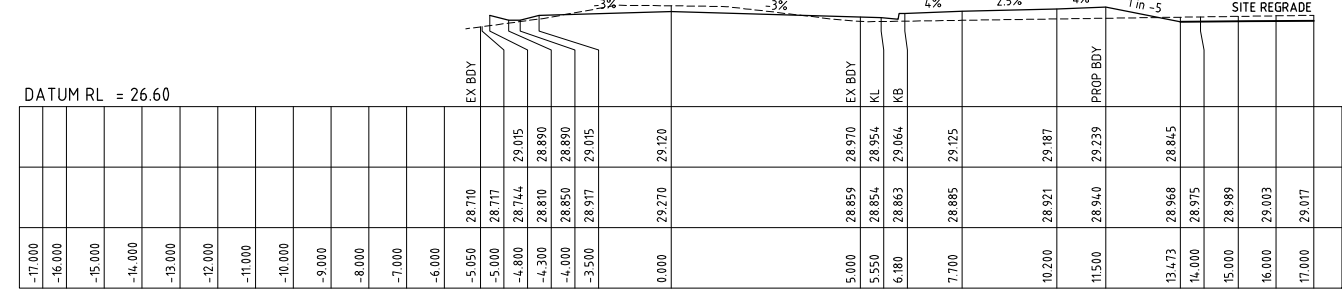
CH 135.000



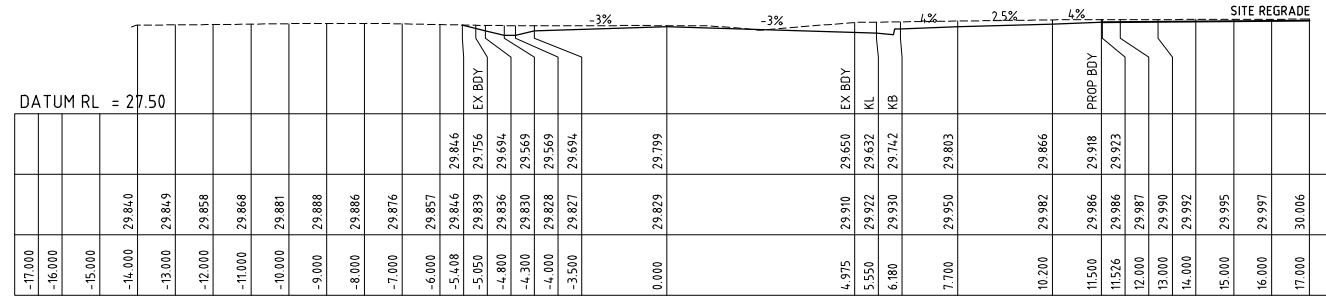
CH 210.000



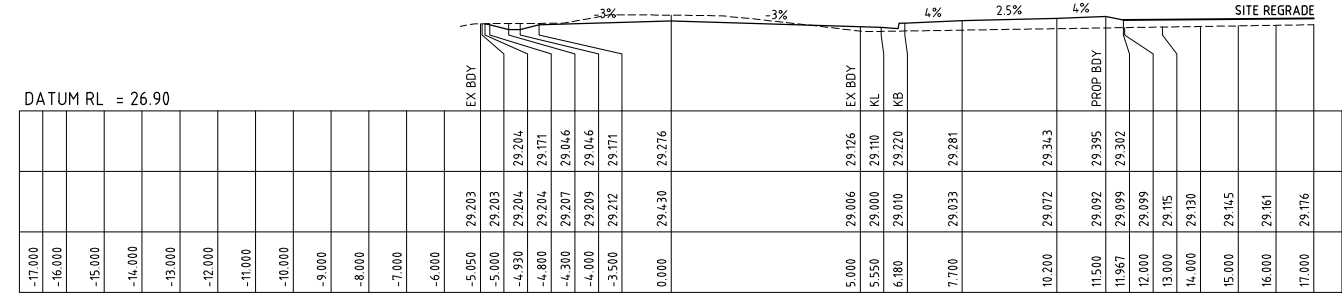
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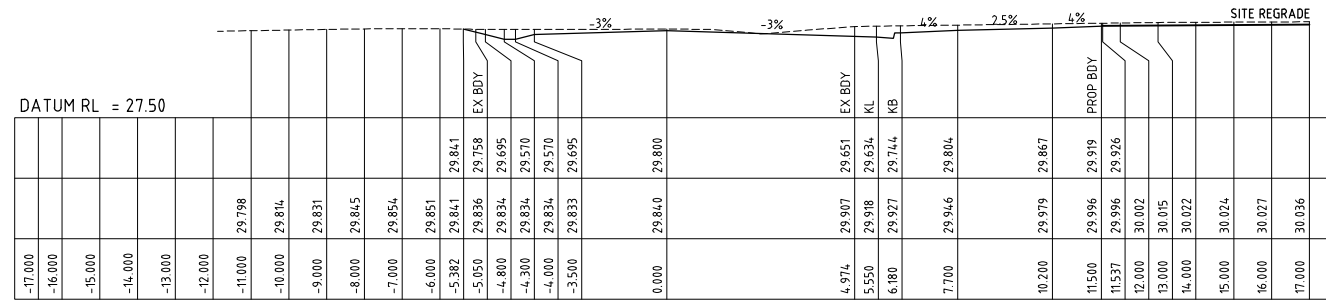
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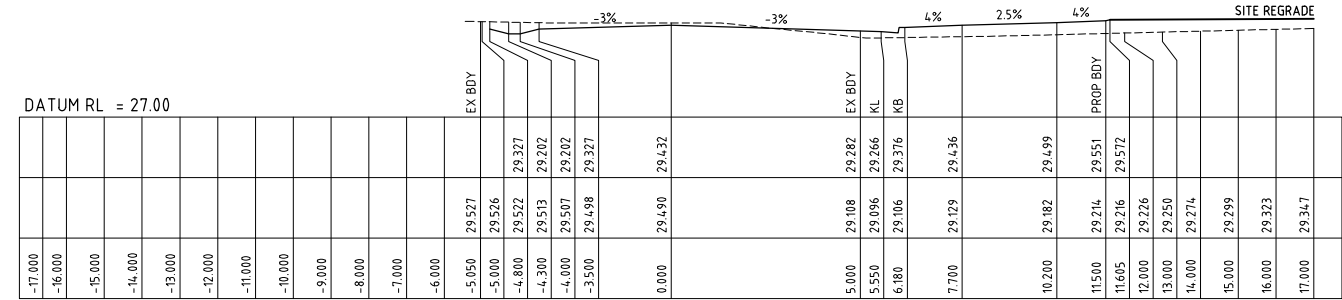
CH 105.000



CH 180.000



CH 102.460



CH 165.000

Station	29.621	29.604	29.714	29.775	29.837	29.889	29.894	29.990	30.004	30.019	30.033	30.048	30.061
Elevation	11.500	11.583	12.000	13.000	14.000	15.000	16.000	17.000	18.000	19.000	20.000	21.000	22.000

CH 90.000

Station	29.571	29.421	29.405	29.515	29.638	29.690	29.704	29.645	29.469	29.493	29.511	29.515	29.520
Elevation	11.500	11.583	12.000	13.000	14.000	15.000	16.000	17.000	18.000	19.000	20.000	21.000	22.000

CH 150.000

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North	Scale

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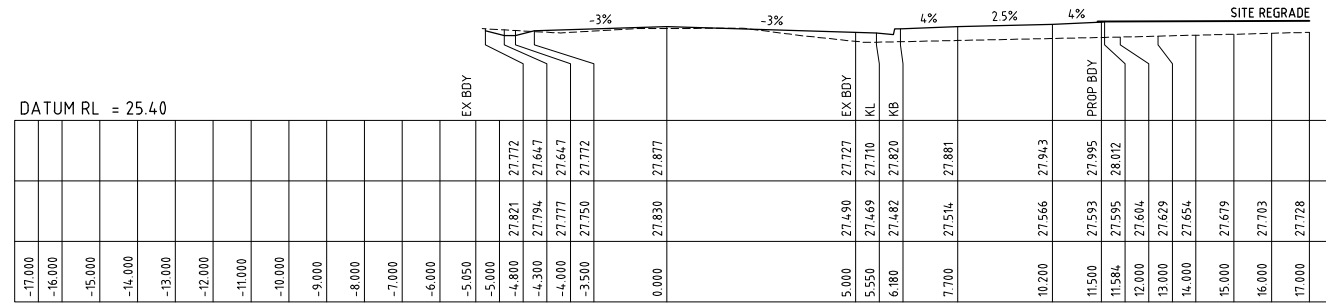
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Scale 1:100  
Cad Reference  
23290C dC108 r5  
Project Approval  
IAN HILL (B.E)  
Consulting Civil Engineer



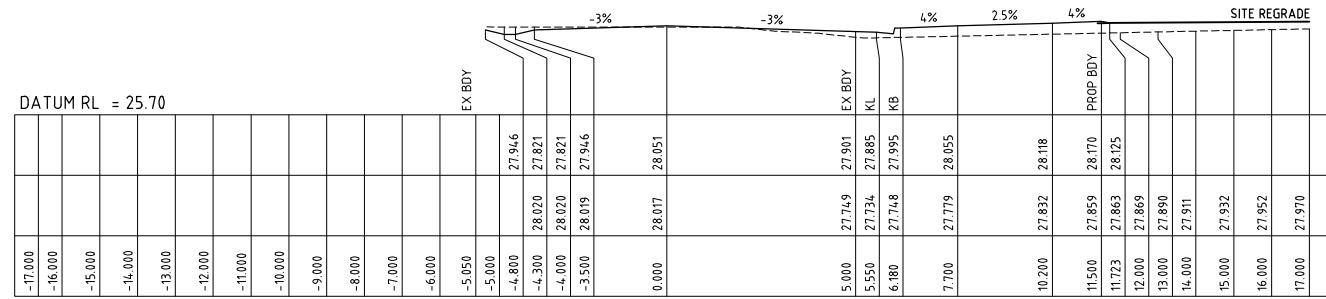
**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
CANTWELL ROAD CROSS SECTIONS (2 OF 4)

Project No	<b>23290C</b>
Drawing No	<b>C108</b>
Revision	<b>5</b>
A1 SHEET	

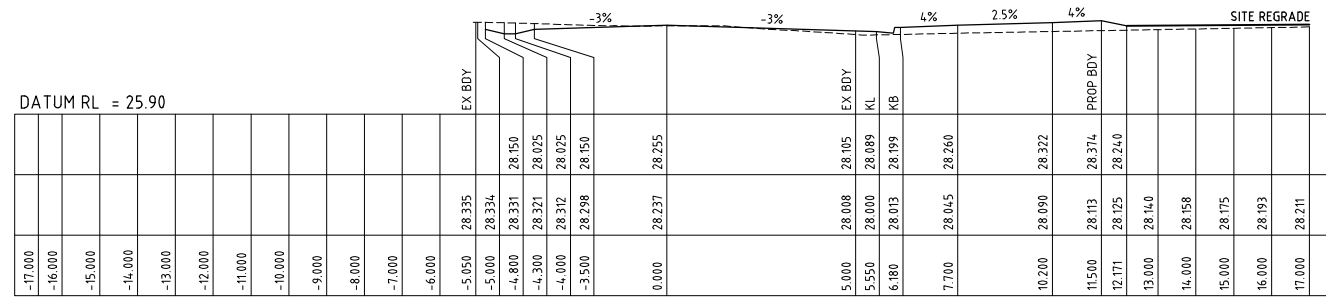
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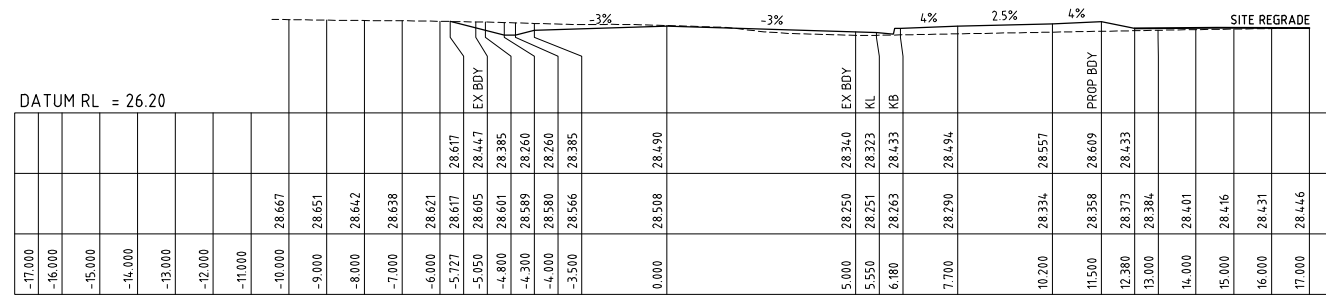
CH 285.000



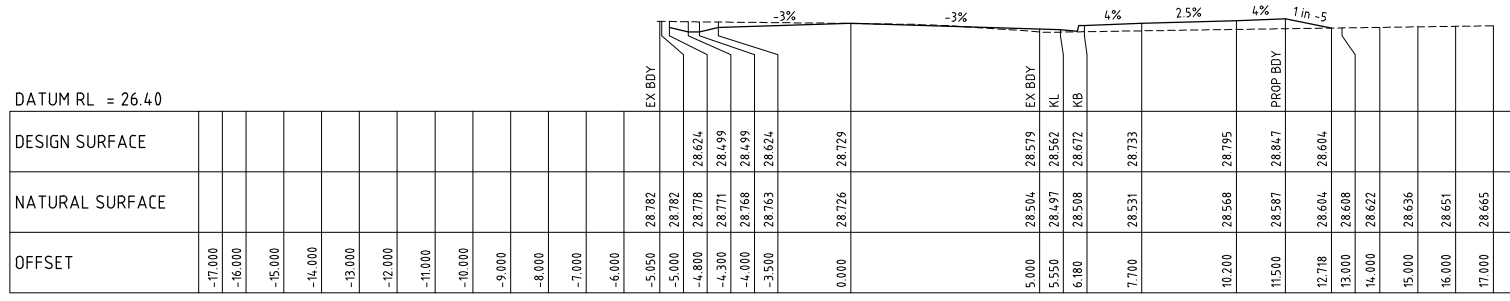
CH 270.000



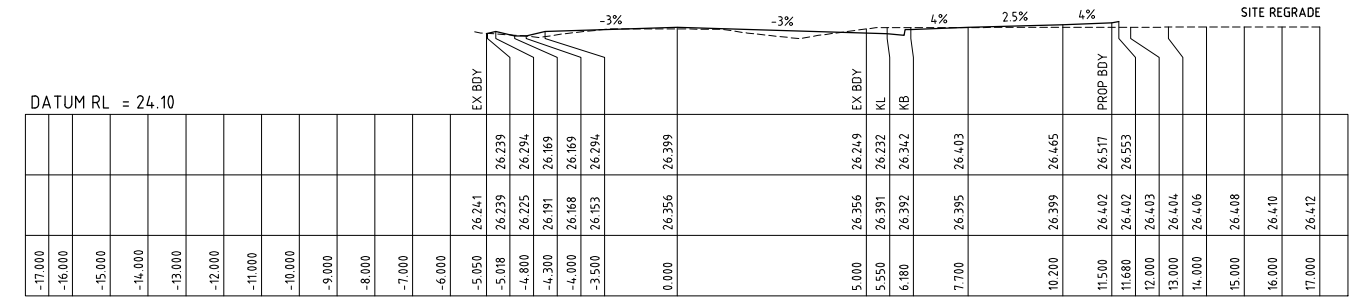
CH 255.000



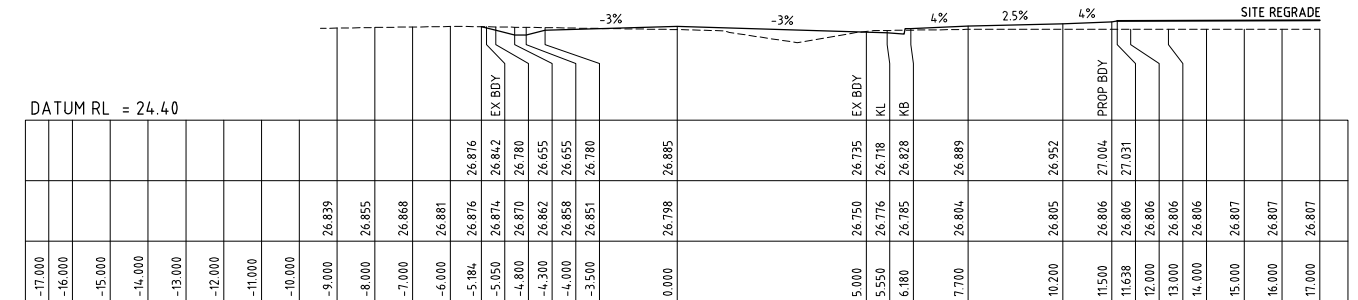
CH 240.000



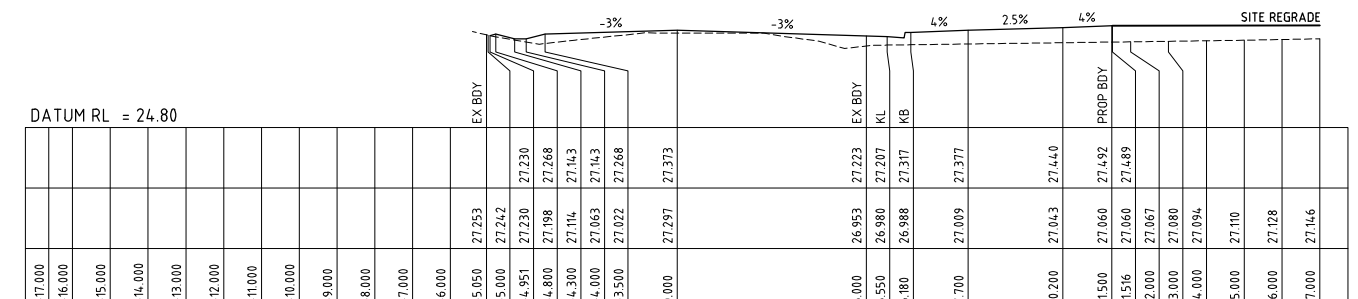
CH 225.000



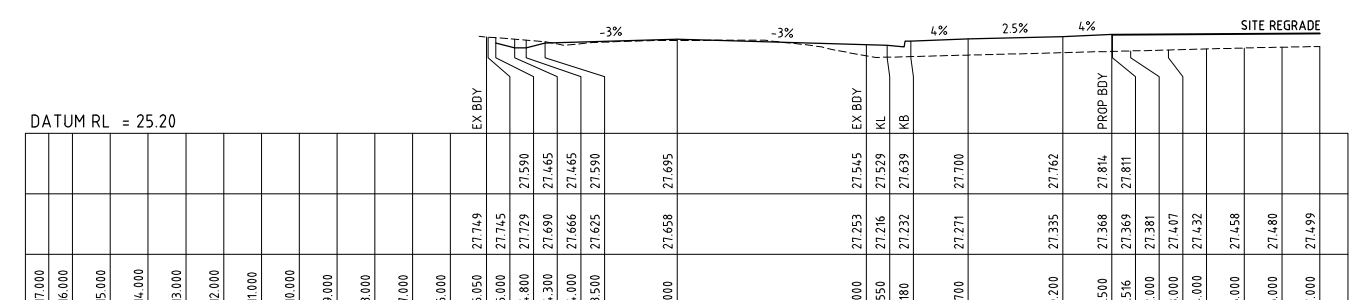
CH 345.000



CH 330.000



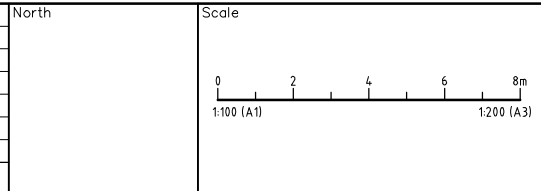
CH 315.000



CH 300.000

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5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24



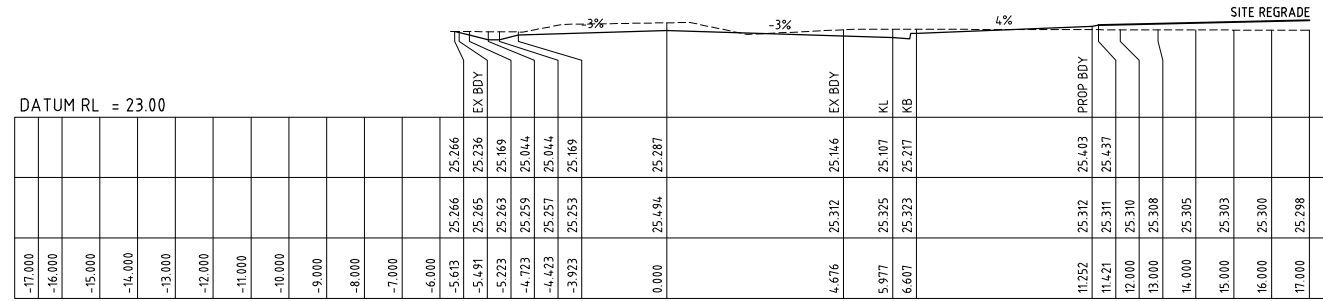
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Designed AM  
Scale 1:100  
Cad Reference 23290C dC109 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer

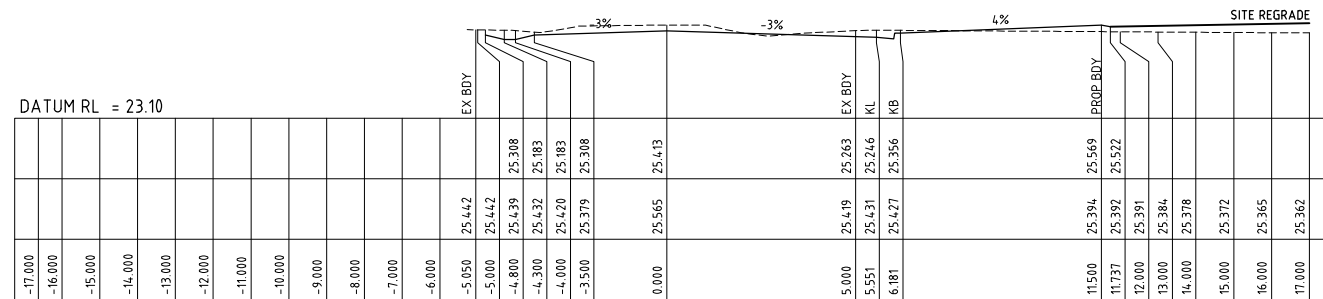


**PROPOSED RESIDENTIAL SUBDIVISION**  
20 & 20A CANTWELL ROAD  
LOCHINVAR  
CANTWELL ROAD CROSS SECTIONS (3 OF 4)

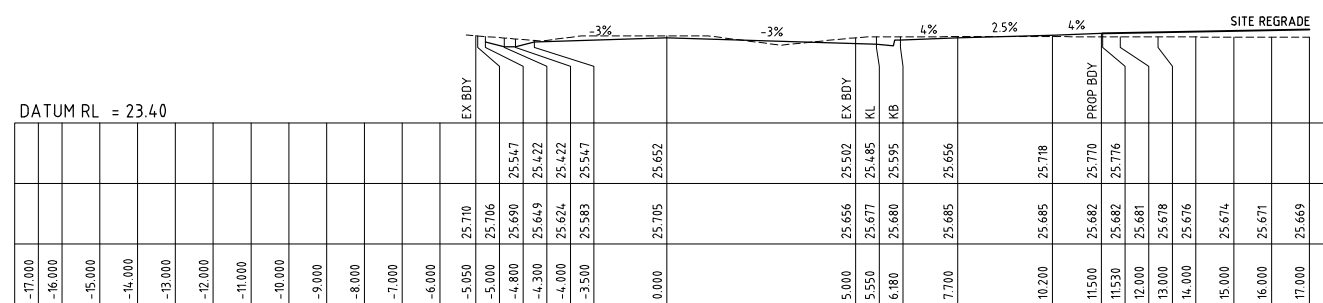
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Drawing No	C109
Revision	5
A1 SHEET	



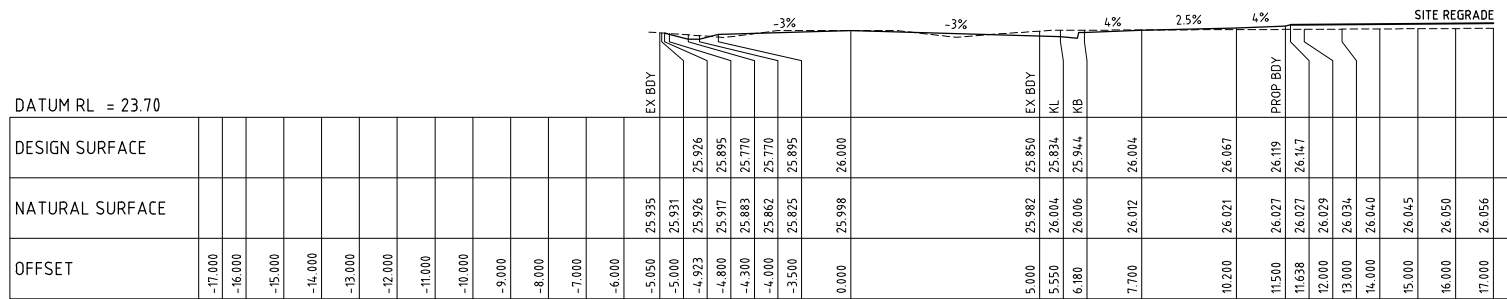
CH 390.000



CH 385.012



CH 375.000



CH 360.000

**PRELIMINARY ISSUE**  
NOT FOR CONSTRUCTION

5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24
REVISION	Description	Drawn	App'd	Date

North

Scale

0 2 4 6 8m  
1:100 (A1) 1:200 (A3)

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Designed  
AM

Scale  
1:100

Cad Reference  
23290C dC110 r5

Project Approval  
IAN HILL (B.E)  
Consulting Civil Engineer



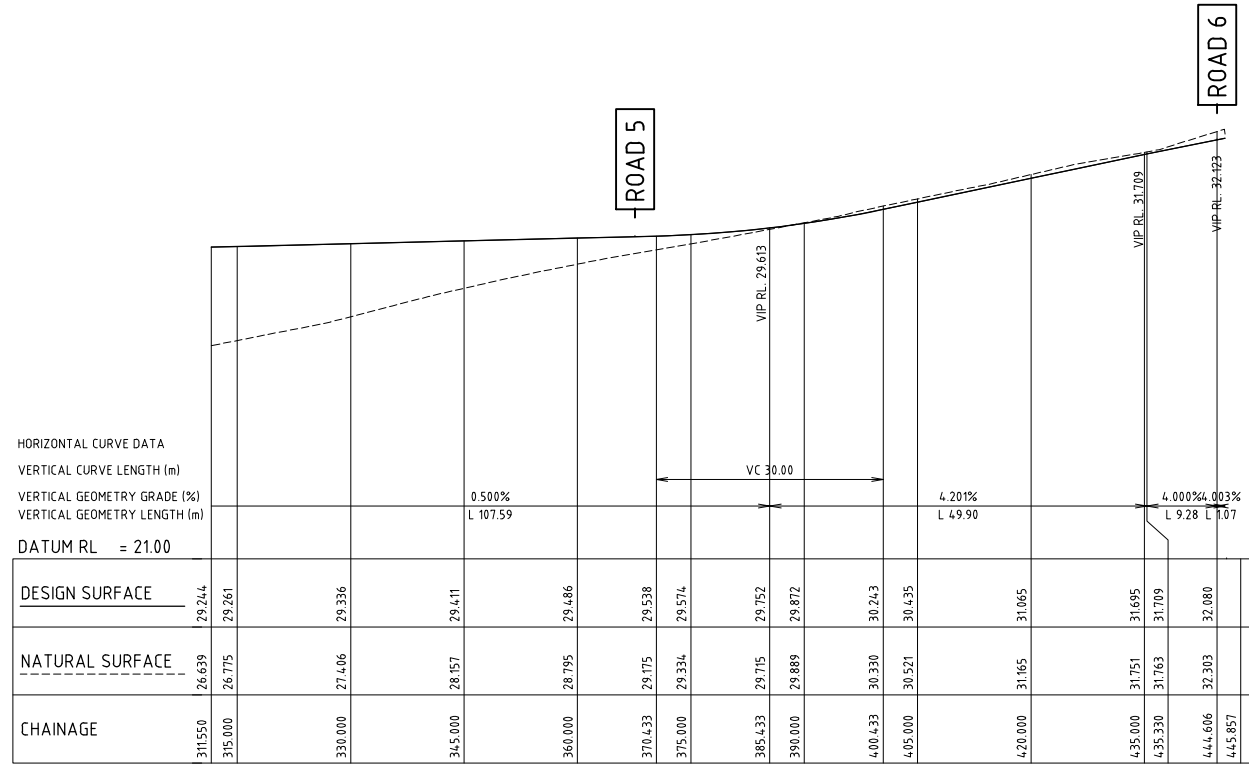
**PROPOSED RESIDENTIAL SUBDIVISION**  
20 & 20A CANTWELL ROAD  
LOCHINVAR  
CANTWELL ROAD CROSS SECTIONS (4 OF 4)

Project No  
23290C

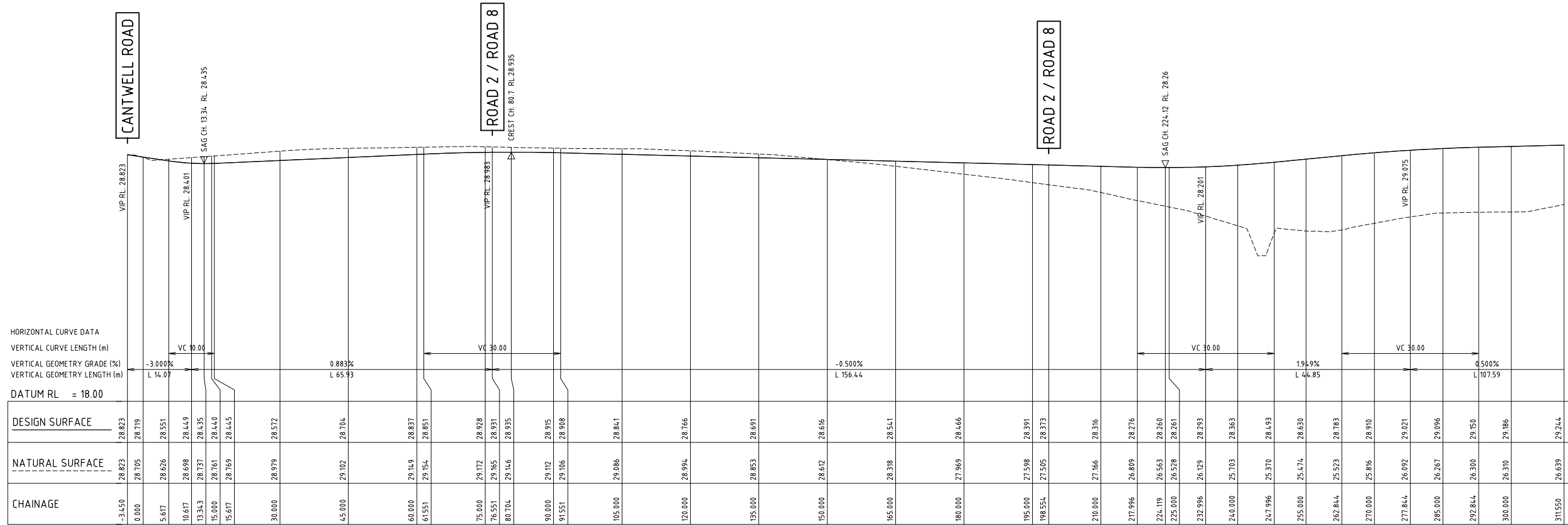
Drawing No  
C110

Revision  
5

A1 SHEET



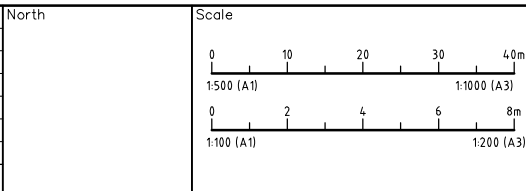
A1 SCALE: HORIZONTAL 1:500, VERTICAL 1:100  
 LONGITUDINAL SECTION ROAD 1



A1 SCALE: HORIZONTAL 1:500, VERTICAL 1:100  
 LONGITUDINAL SECTION ROAD 1

PRELIMINARY ISSUE  
 NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24



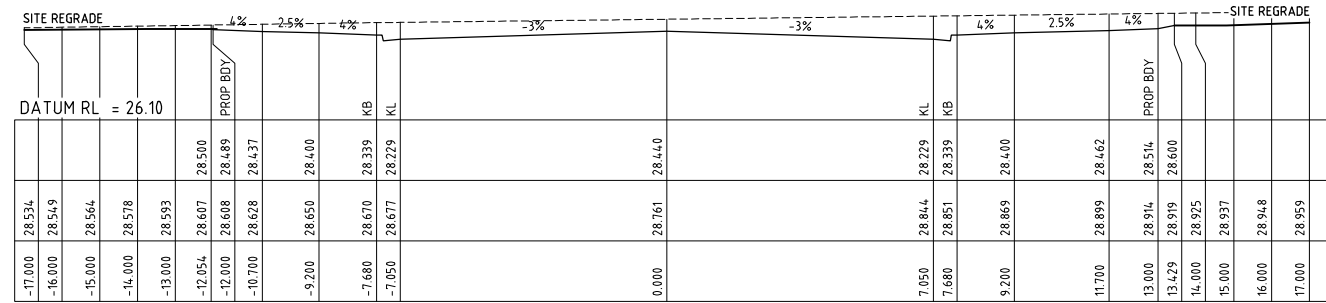
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Designed AM  
 Scale 1:500/1:100  
 Cad Reference 23290C dC111 r5  
 Project Approval IAN HILL (B.E)  
 Consulting Civil Engineer

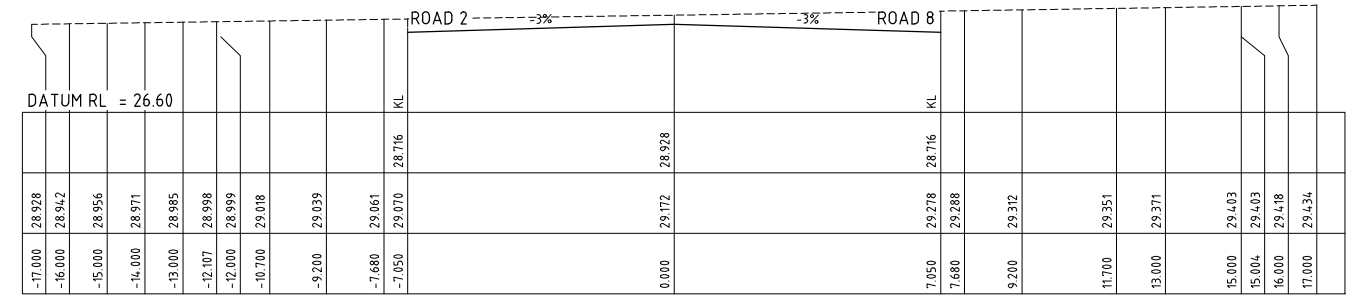


PROPOSED RESIDENTIAL SUBDIVISION  
 20 & 20A CANTWELL ROAD  
 LOCHINVAR  
 ROAD 1 LONGITUDINAL SECTION

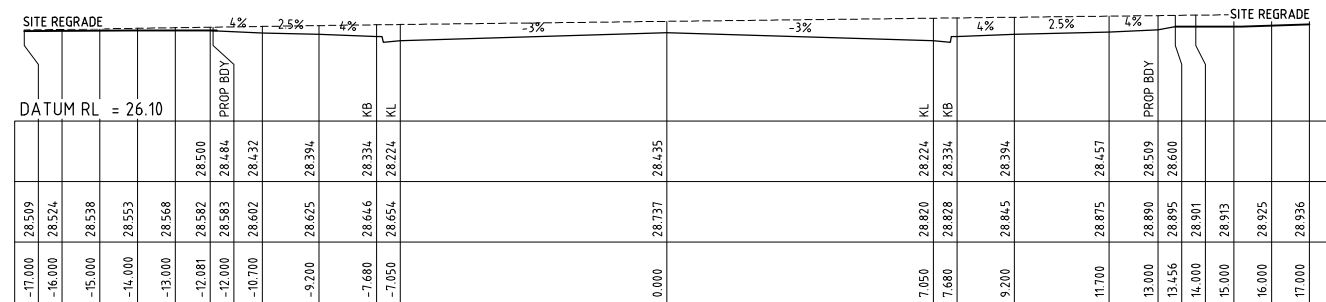
Project No 23290C	
Drawing No C111	Revision 5
A1 SHEET	



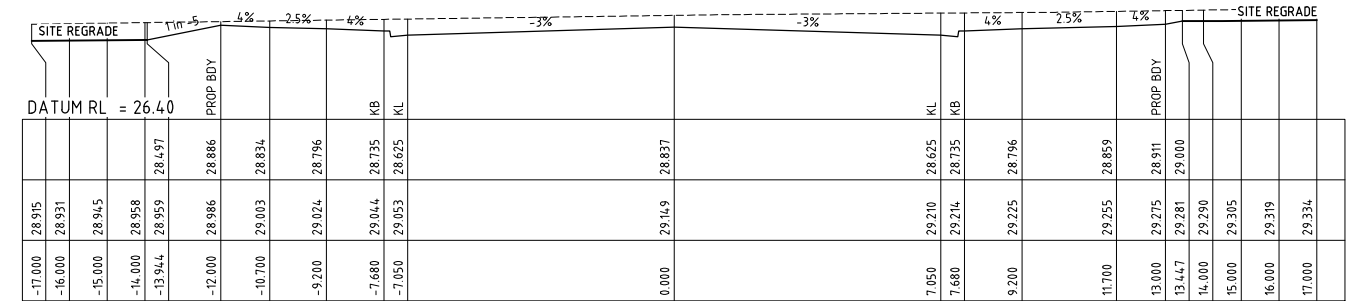
CH 15.000



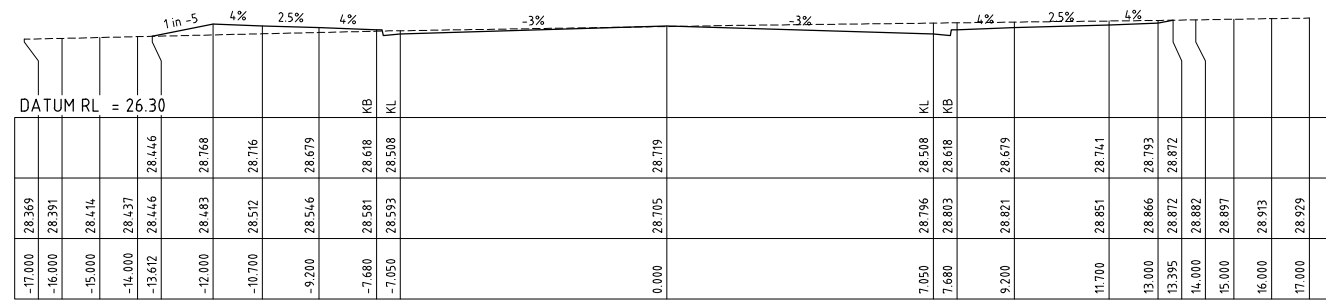
CH 75.000



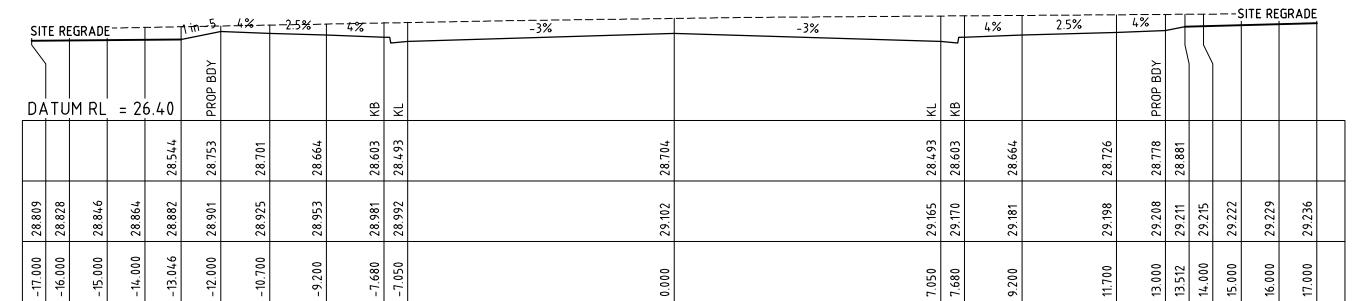
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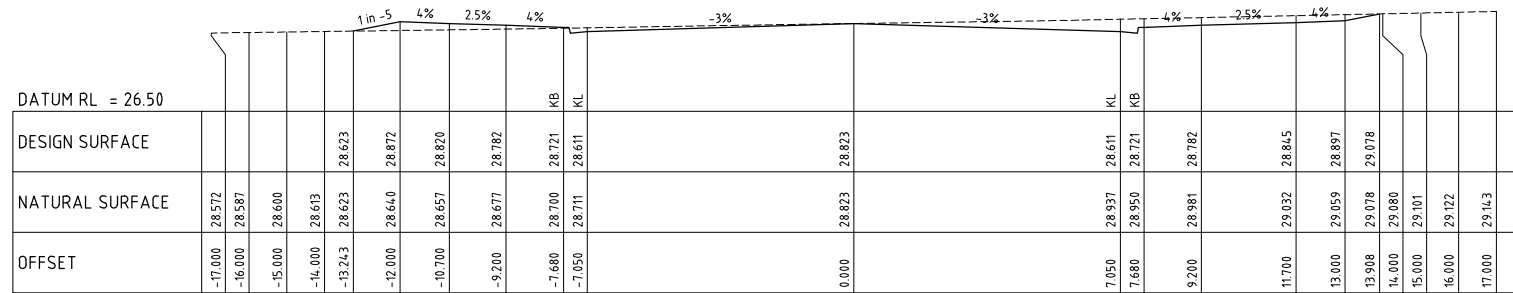
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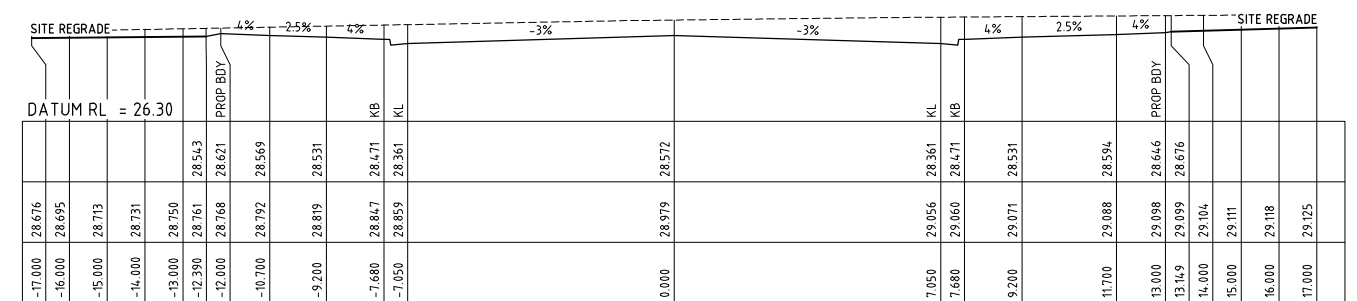
CH 0.000



CH 45.000



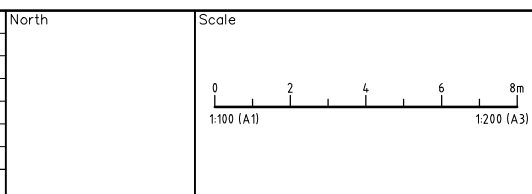
CH -3.450



CH 30.000

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24



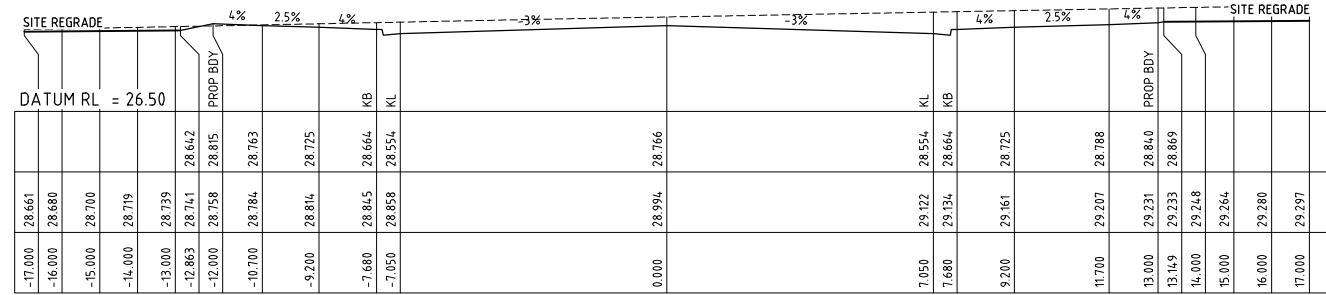
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Designed AM  
Scale 1:100  
Cad Reference 23290C dC112 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer

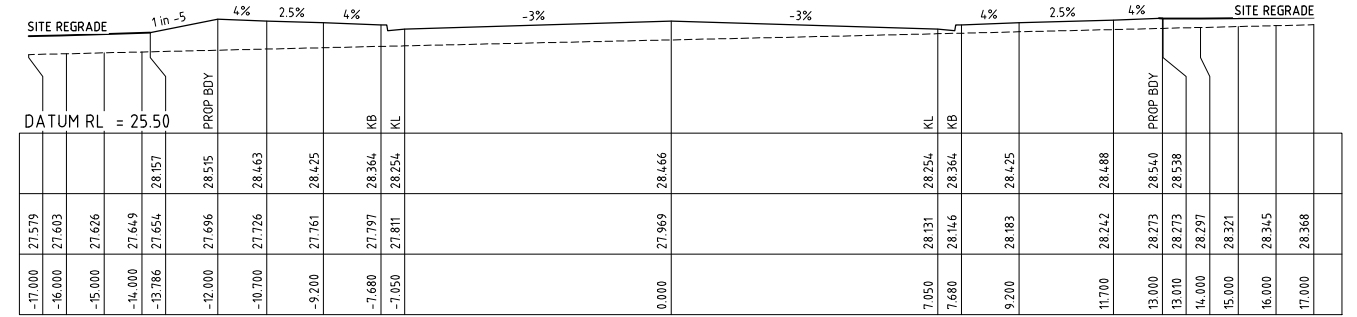


**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
ROAD 1 CROSS SECTIONS (1 OF 5)

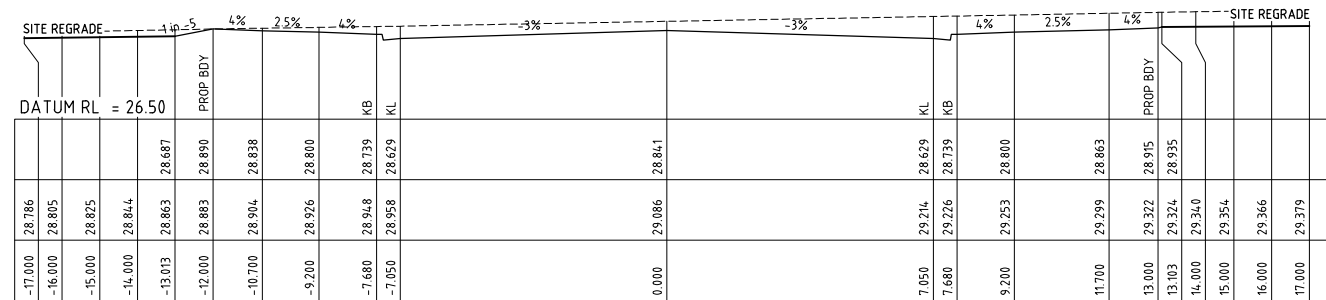
Project No		23290C	
Drawing No	C112	Revision	5
A1 SHEET			



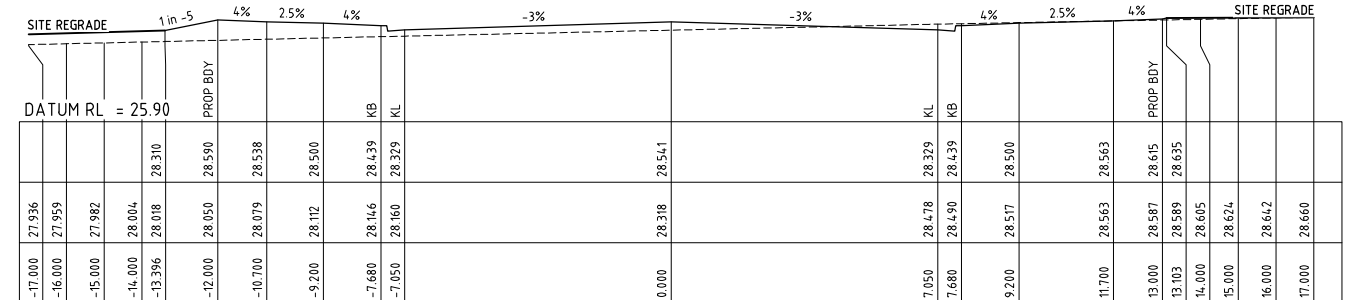
CH 120.000



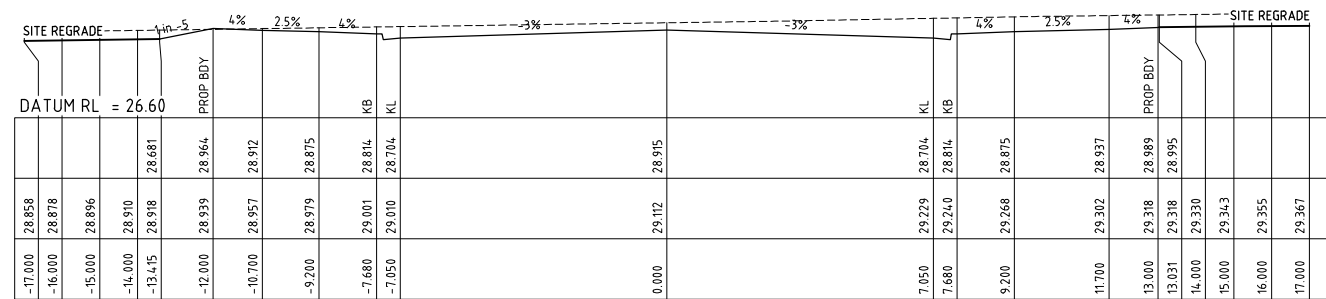
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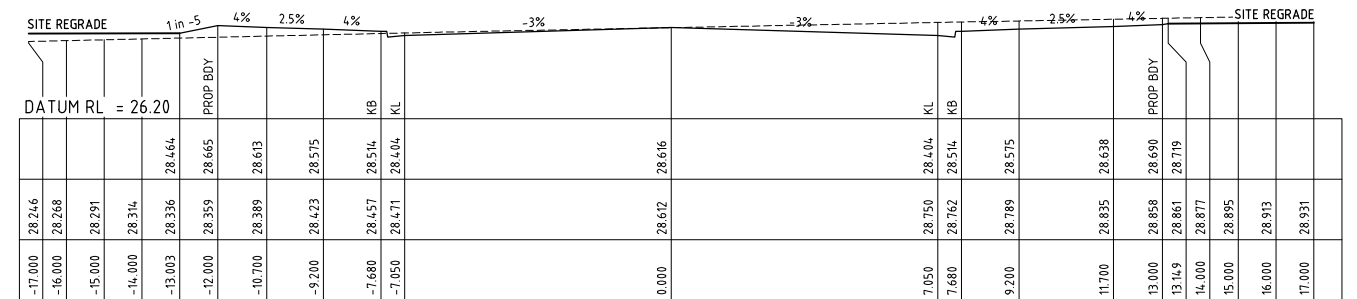
CH 105.000



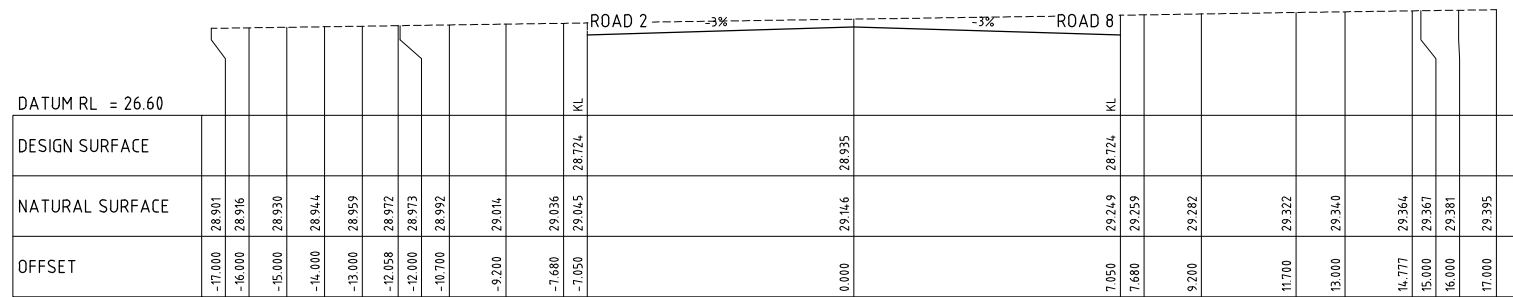
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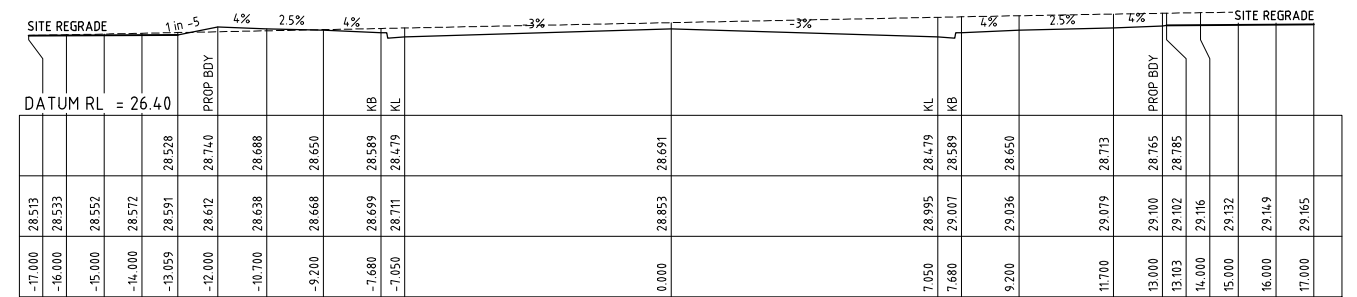
CH 90.000



CH 150.000



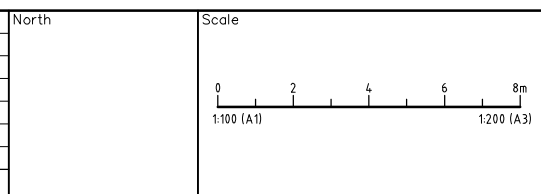
CH 80.704



CH 135.000

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24
REVISION	Description	Drawn	App'd	Date



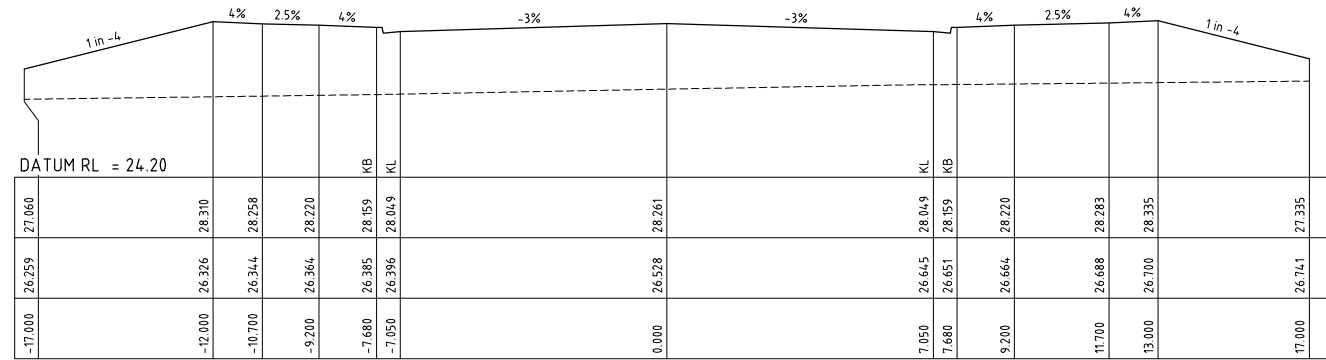
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Designed AM  
Scale 1:100  
Cad Reference 23290C dC113 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer

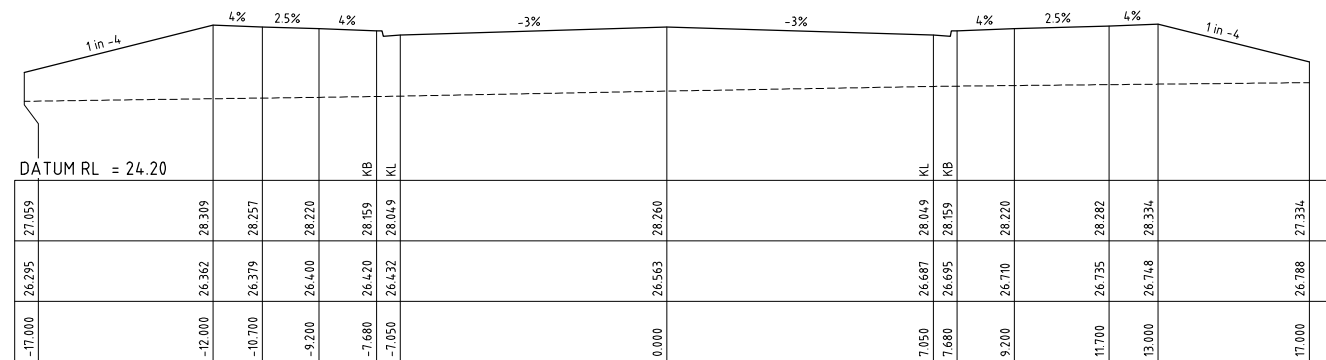


**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
ROAD 1 CROSS SECTIONS (2 OF 5)

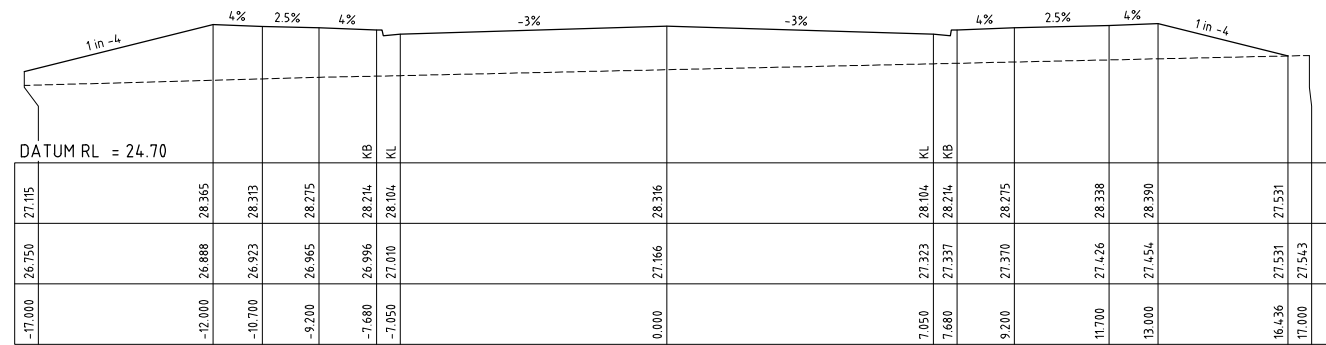
Project No	23290C
Drawing No	C113
Revision	5
A1 SHEET	



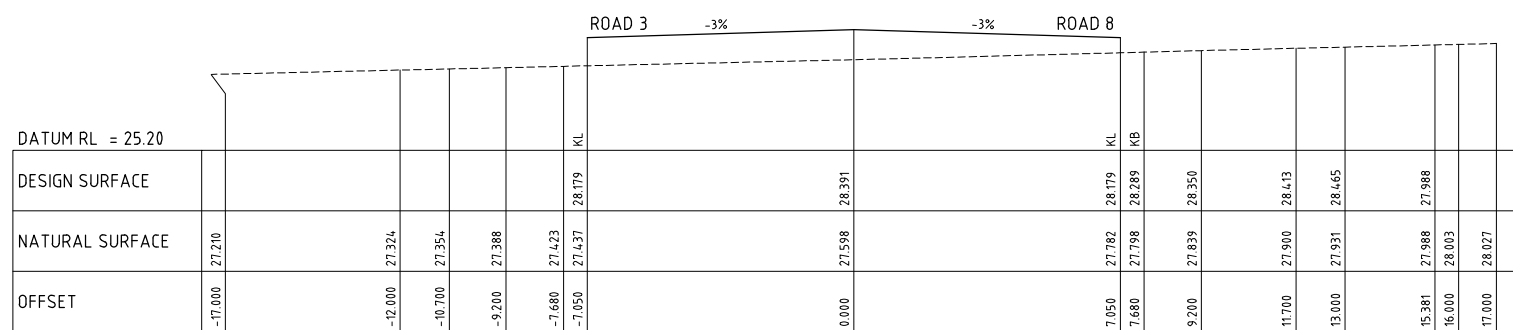
CH 225.000



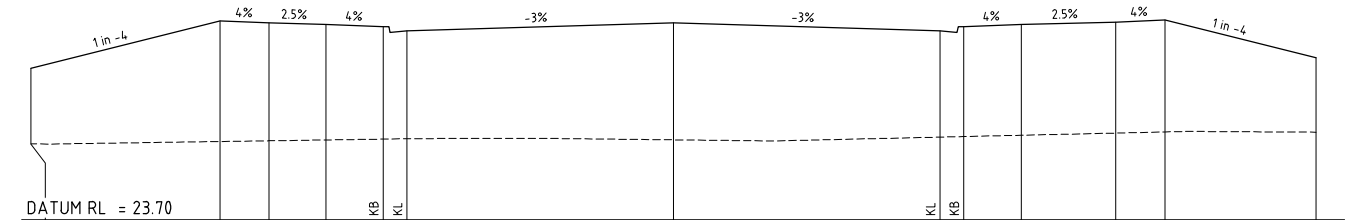
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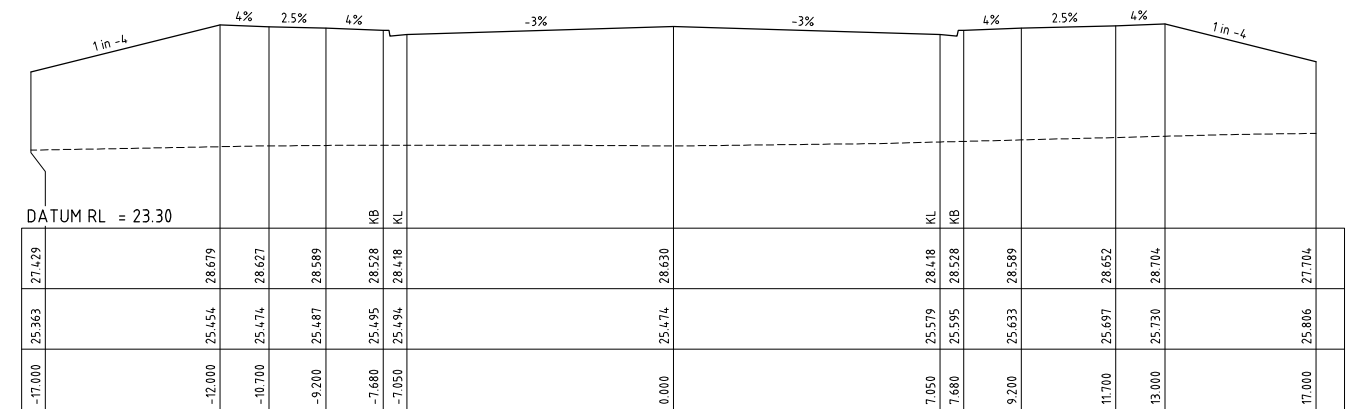
CH 210.000



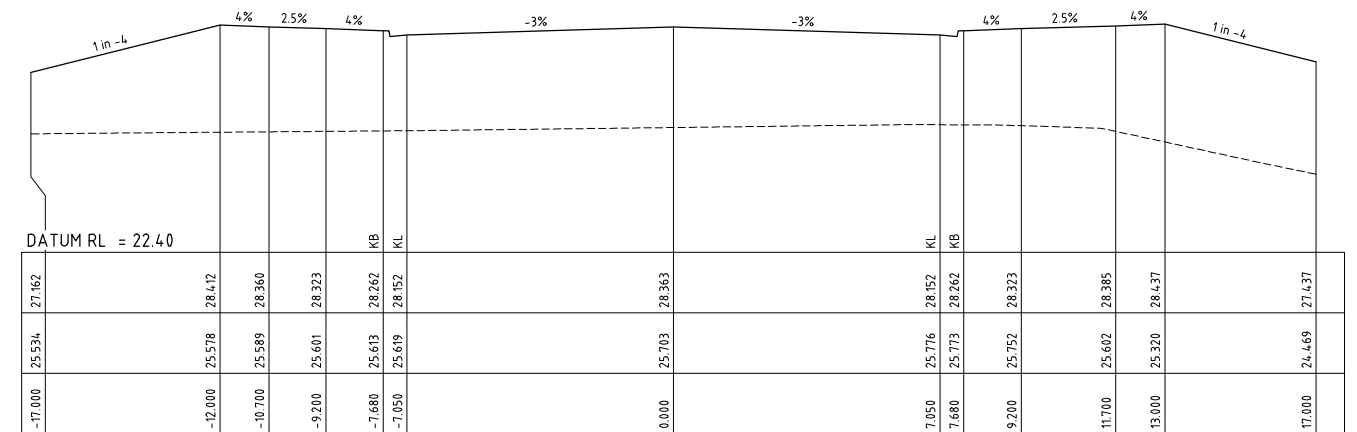
CH 195.000



CH 270.000



CH 255.000



CH 240.000

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24

North
Scale
0 2 4 6 8m
1:100 (A1) 1:200 (A3)

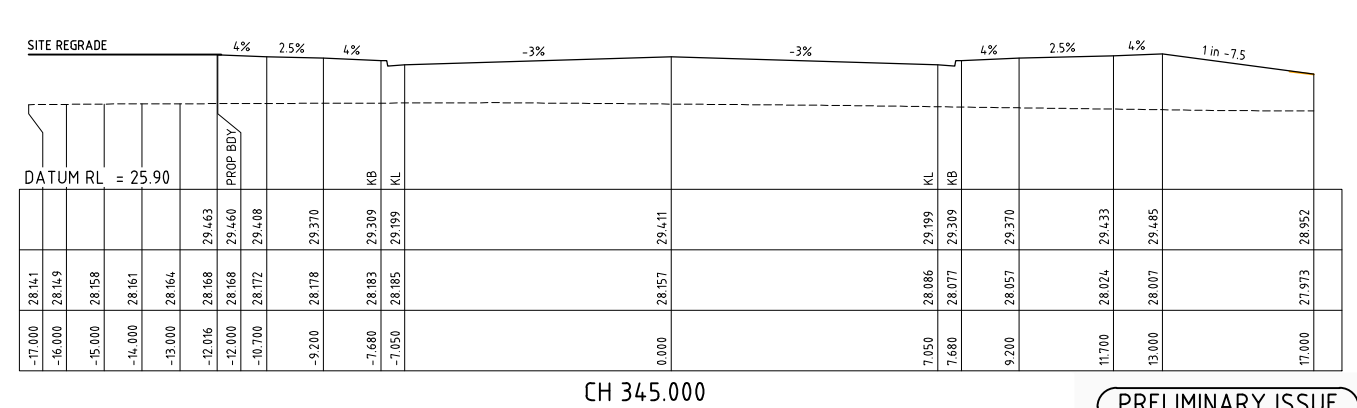
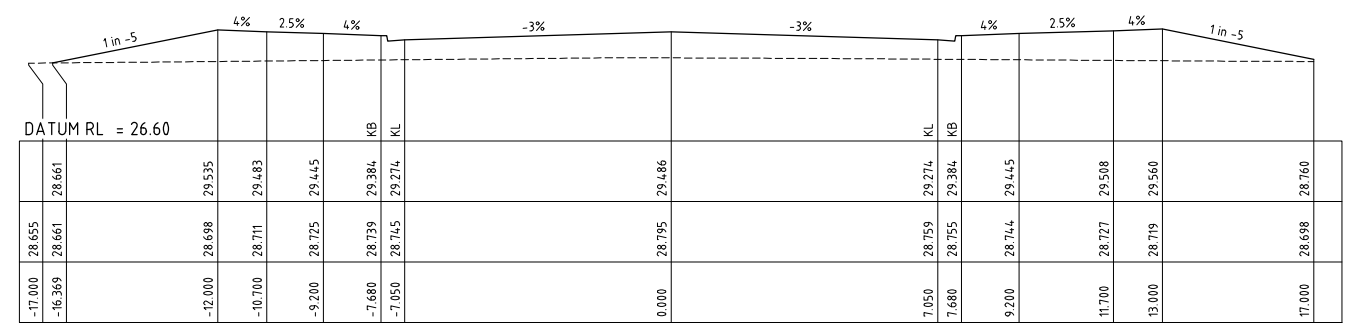
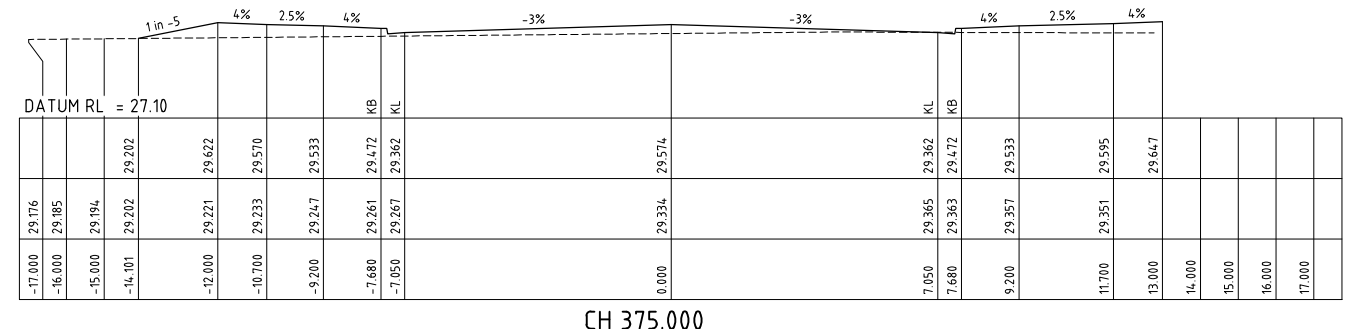
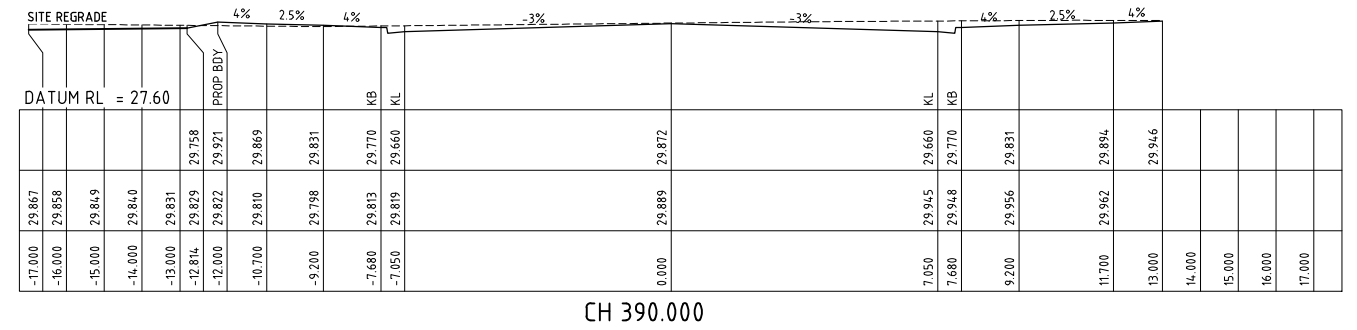
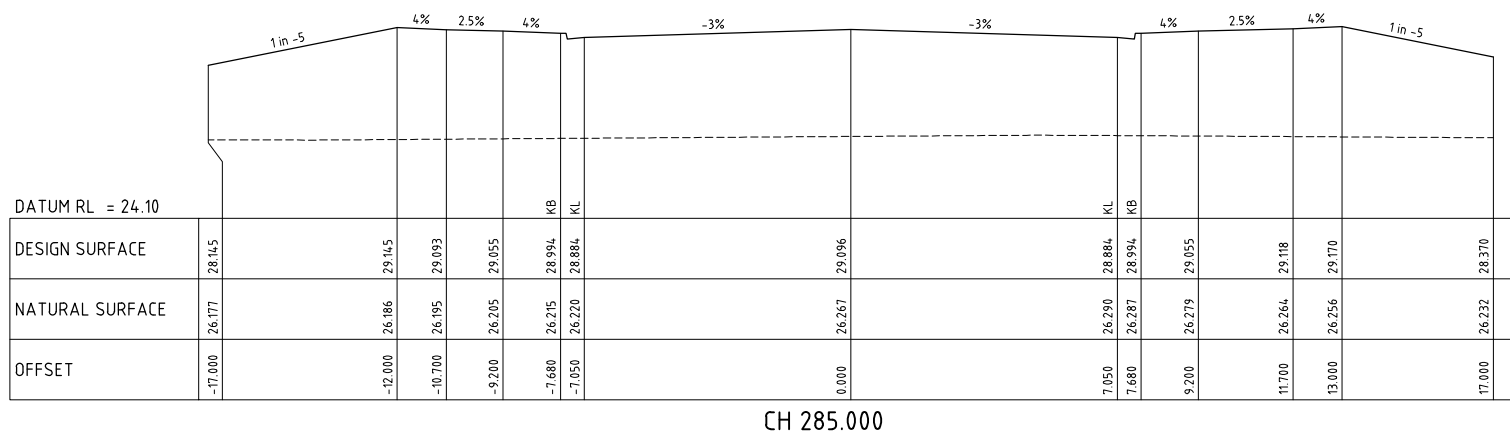
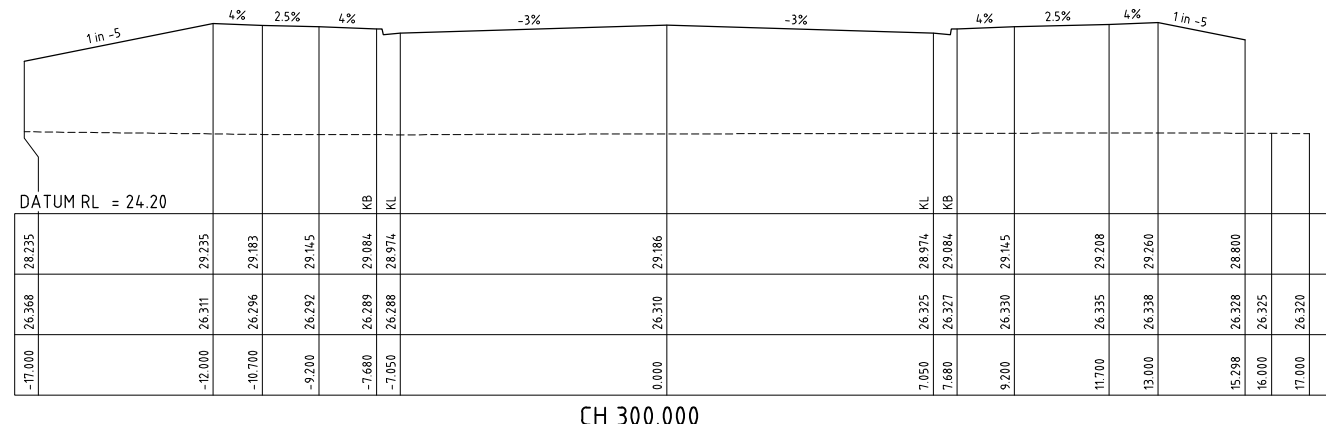
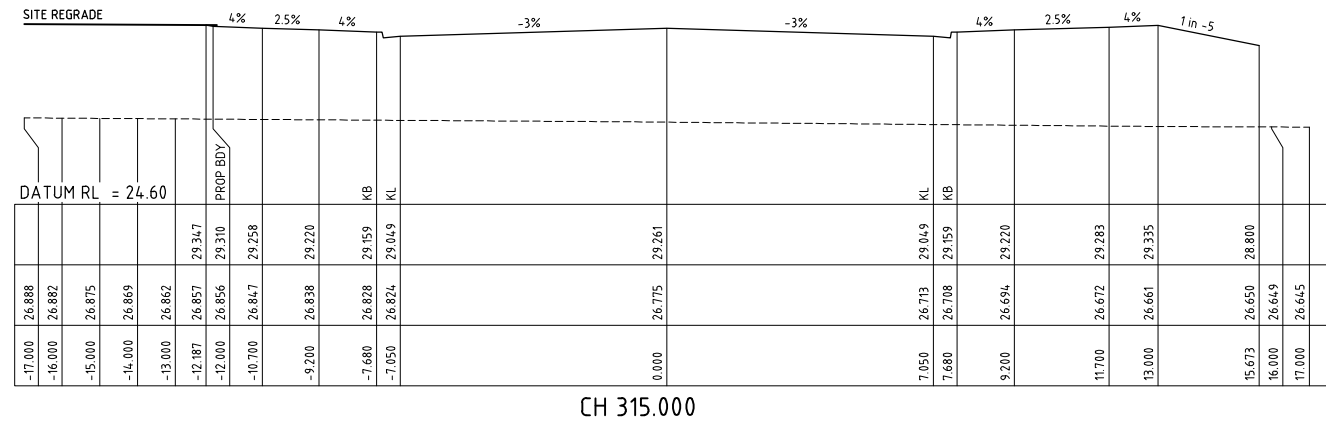
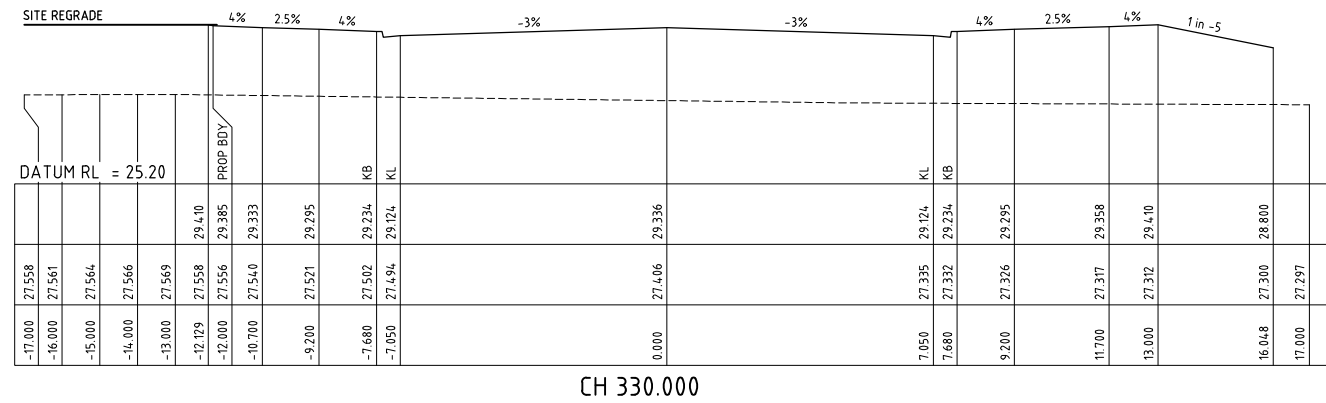
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Designed AM  
Scale 1:100  
Cad Reference 23290C dC114 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer



PROPOSED RESIDENTIAL SUBDIVISION  
20 & 20A CANTWELL ROAD  
LOCHINVAR  
ROAD 1 CROSS SECTIONS (3 OF 5)

Project No	23290C
Drawing No	C114
Revision	5
A1 SHEET	



PRELIMINARY ISSUE  
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REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
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1	ORIGINAL ISSUE	DB	IH	30.09.24

North
Scale
0 2 4 6 8m 1:100 (A1) 1:200 (A3)

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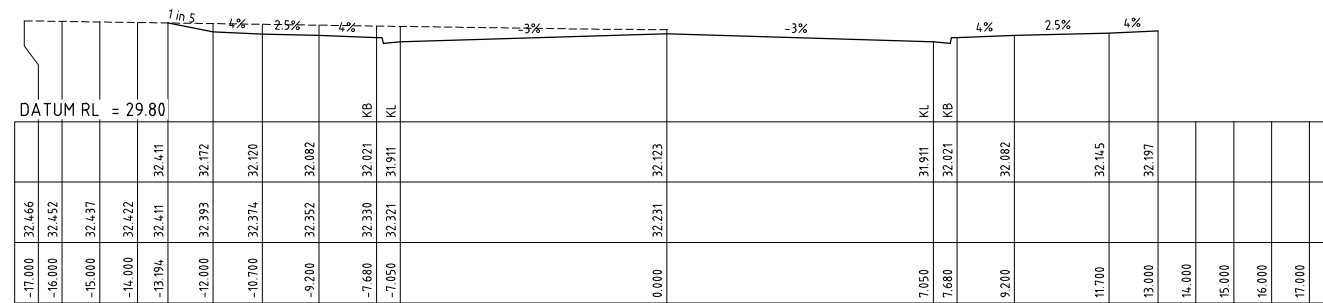
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Cad Reference 23290C dC115 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer



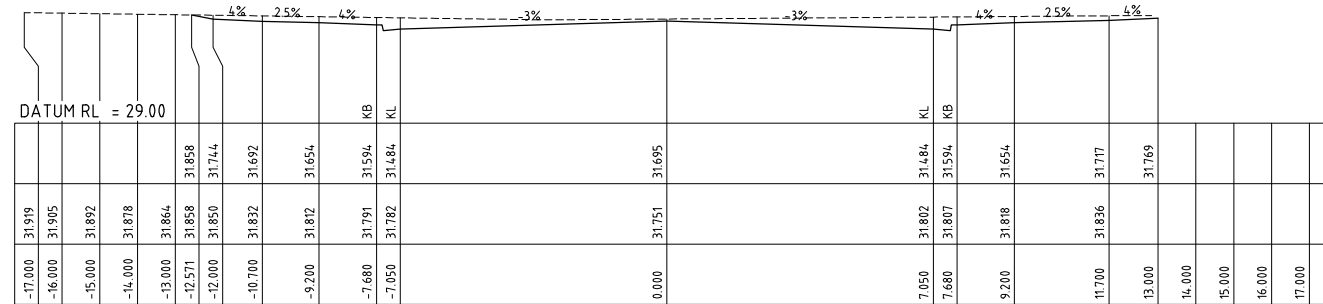
PROPOSED RESIDENTIAL SUBDIVISION  
20 & 20A CANTWELL ROAD  
LOCHINVAR  
ROAD 1 CROSS SECTIONS (4 OF 5)

Project No	23290C
Drawing No	C115
Revision	5
A1 SHEET	

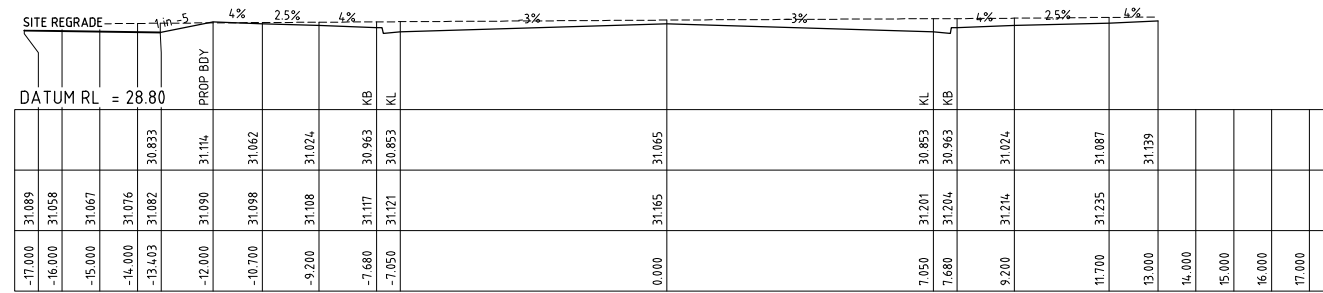




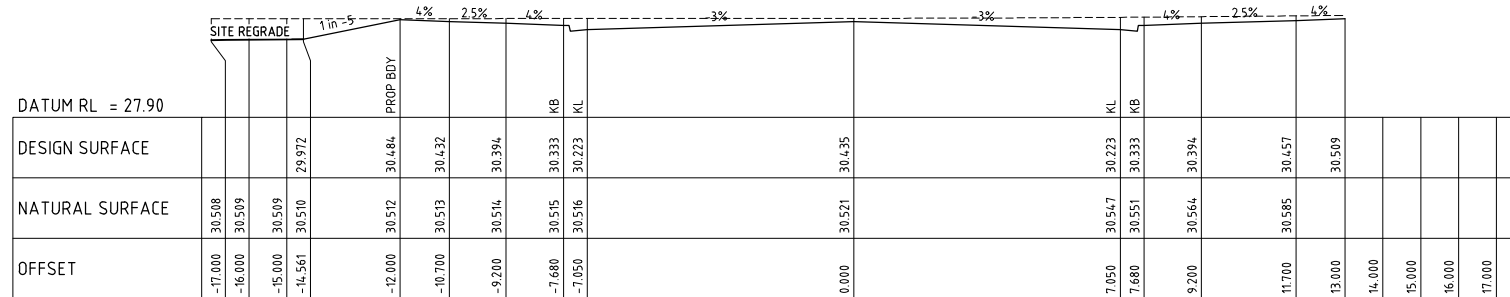
CH 445.680



CH 435.000



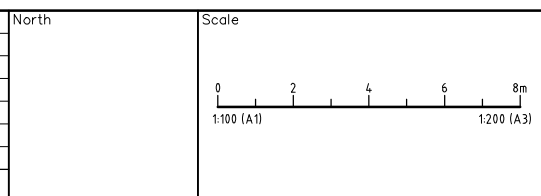
CH 420.000



CH 405.000

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
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1	ORIGINAL ISSUE	DB	IH	30.09.24



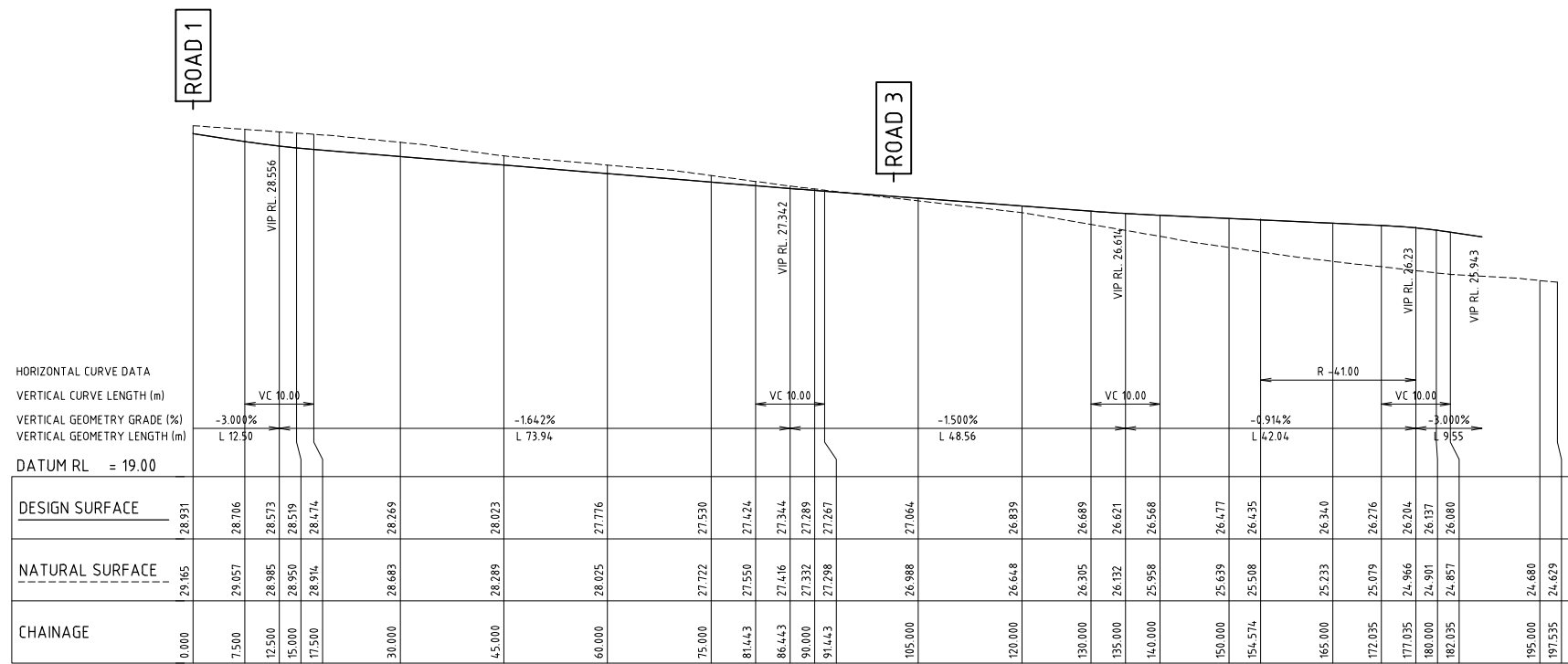
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Designed AM  
Scale 1:100  
Cad Reference 23290C dC116 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer



**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
ROAD 1 CROSS SECTIONS (5 OF 5)

Project No <b>23290C</b>	
Drawing No <b>C116</b>	Revision <b>5</b>
A1 SHEET	

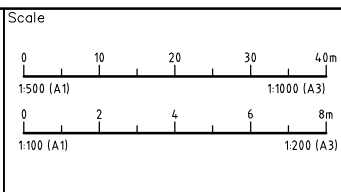


A1 SCALE: HORIZONTAL 1:500, VERTICAL 1:100  
LONGITUDINAL SECTION ROAD 2

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
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2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24

North
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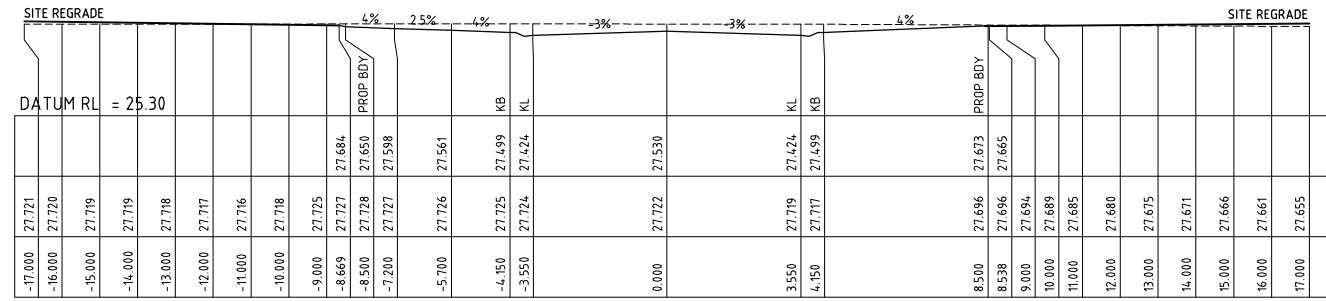
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Cad Reference 23290C dC117 r5	
Project Approval IAN HILL (B.E) Consulting Civil Engineer	



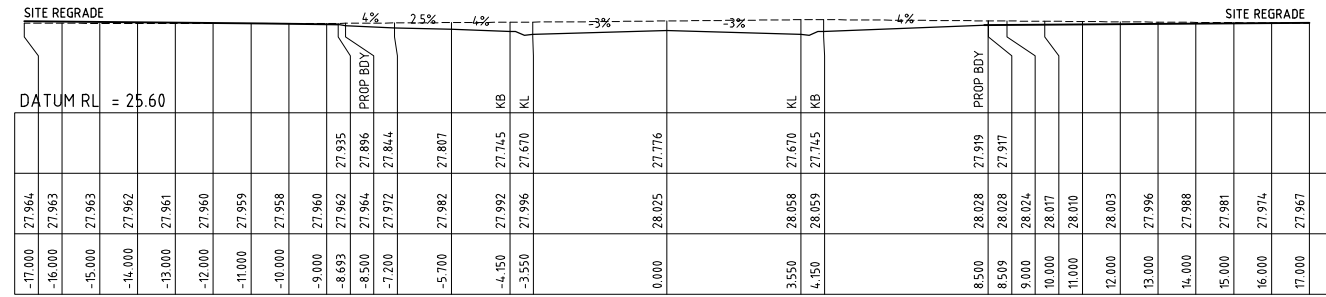
**GCA**  
ENGINEERING SOLUTIONS  
A.B.N. 92 086 017 745  
1 HARTLEY DRIVE, THORNTON NSW 2322  
PO BOX 3337, THORNTON NSW 2322  
PHONE: (02) 4964 1811

**PROPOSED RESIDENTIAL SUBDIVISION**  
20 & 20A CANTWELL ROAD  
LOCHINVAR  
ROAD 2 LONGITUDINAL SECTION

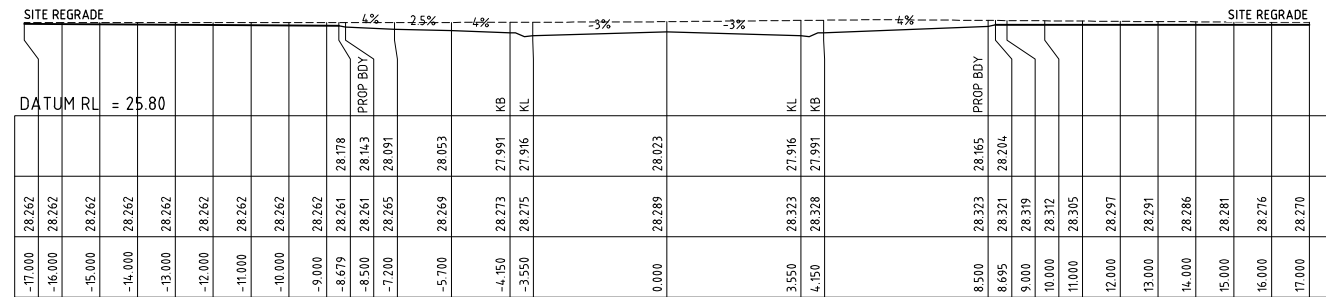
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Drawing No C117	Revision 5
A1 SHEET	



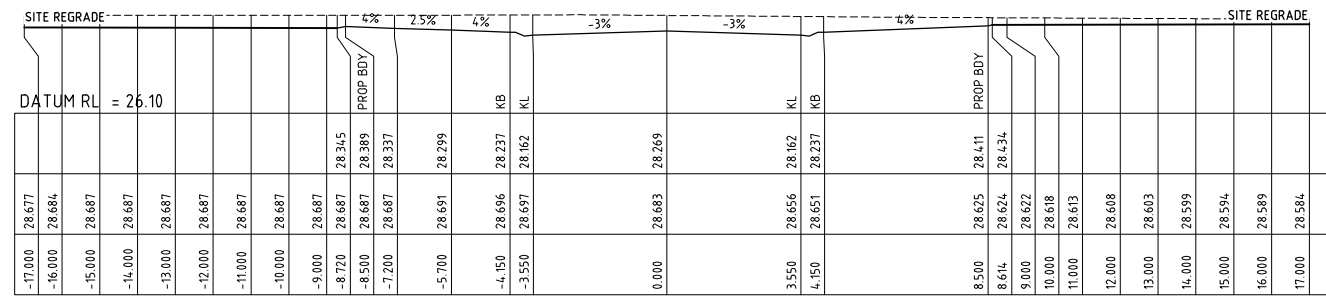
CH 75.000



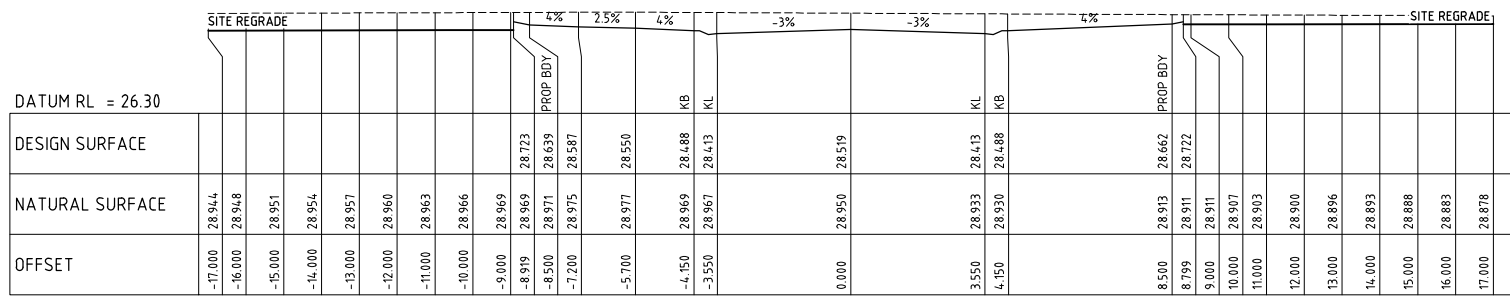
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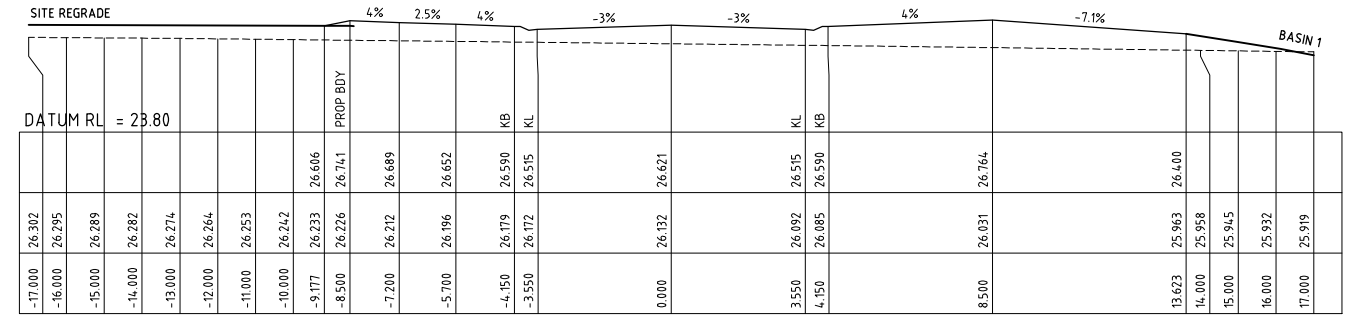
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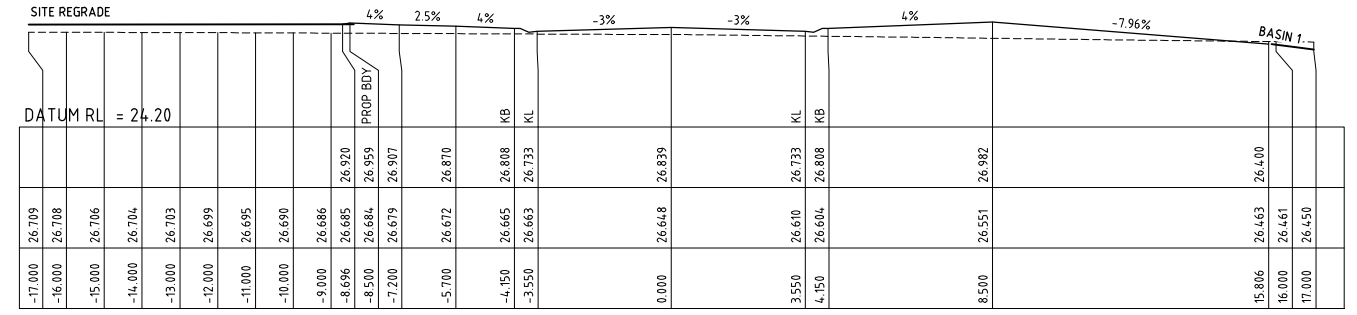
CH 30.000



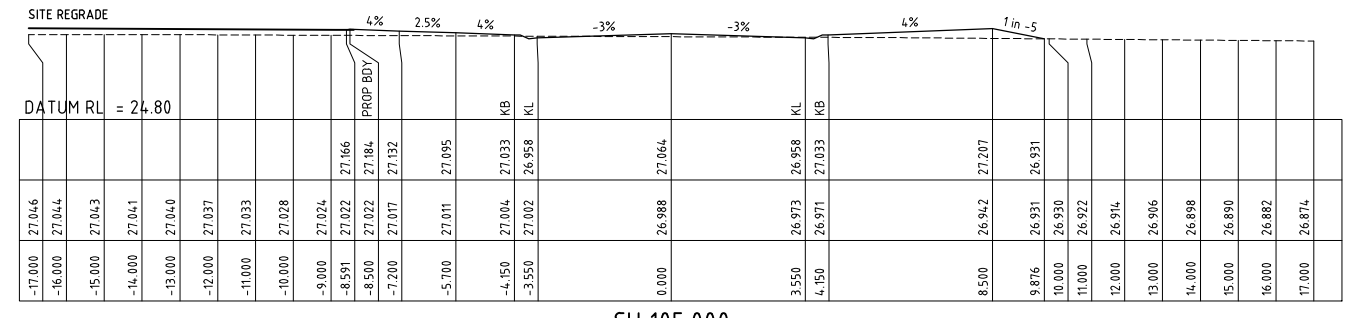
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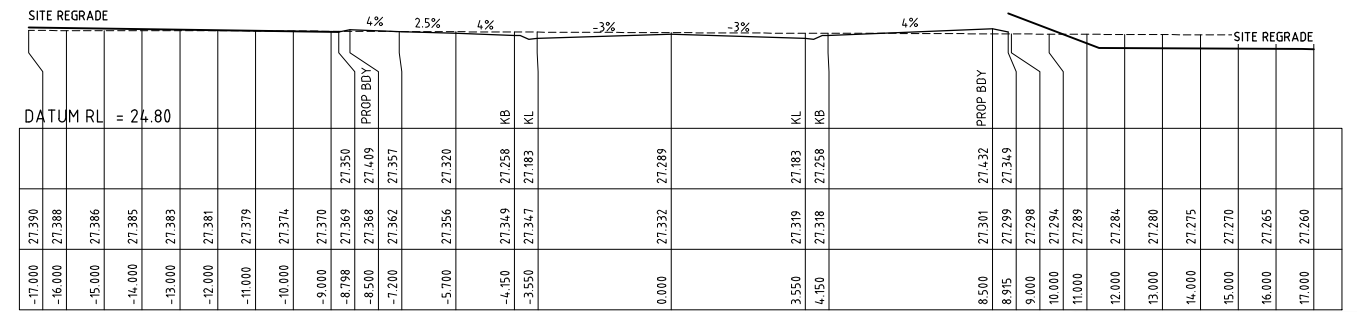
CH 135.000



CH 120.000



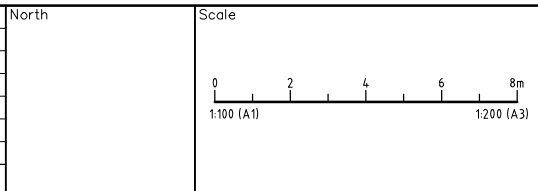
CH 105.000



CH 90.000

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24



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Designed  
AM

Scale  
1:100

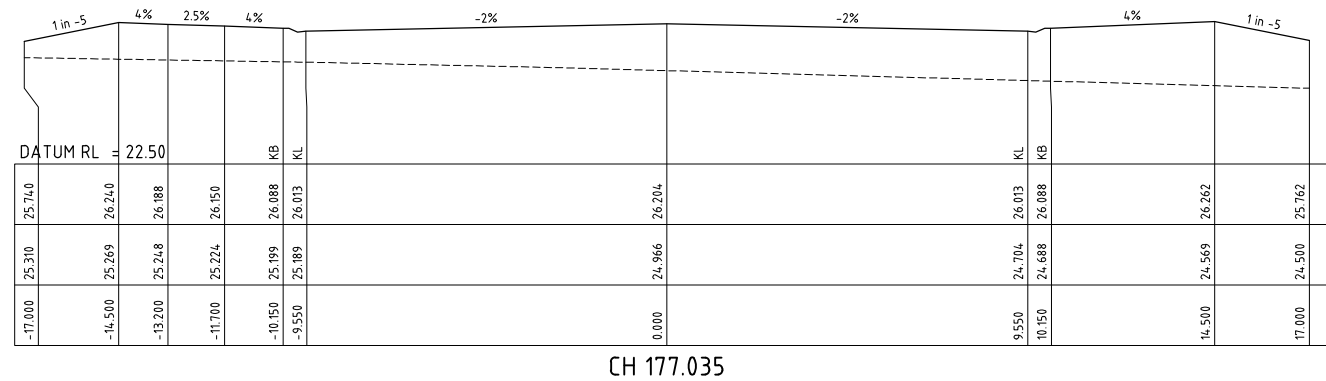
Cad Reference  
23290C dC118 r5

Project Approval  
IAN HILL (B.E)  
Consulting Civil Engineer

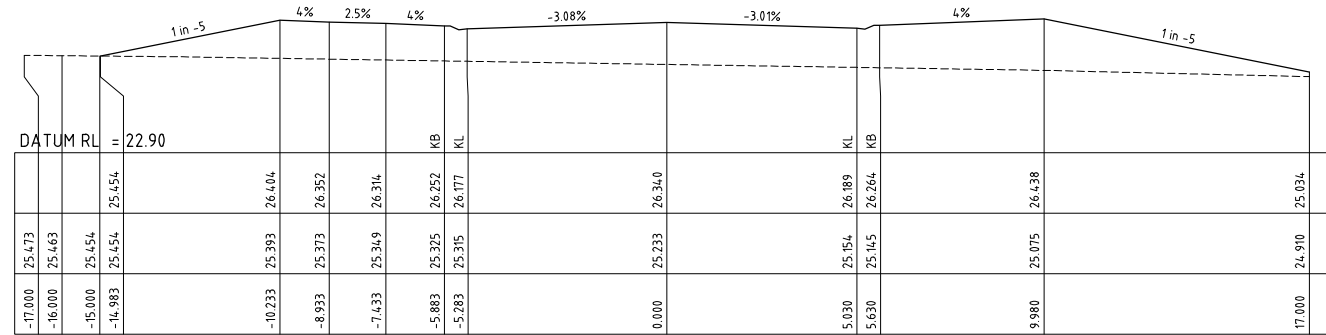


PROPOSED RESIDENTIAL SUBDIVISION  
20 & 20A CANTWELL ROAD  
LOCHINVAR  
ROAD 2 CROSS SECTIONS (1 OF 2)

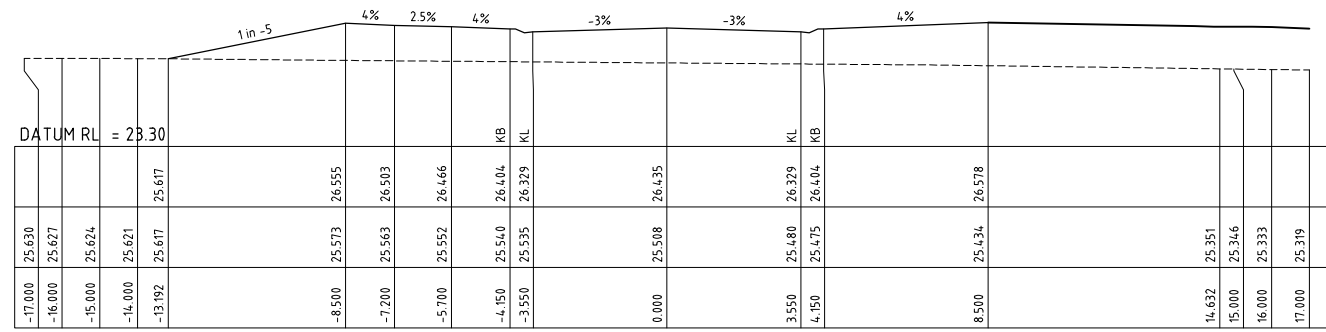
Project No	23290C	
Drawing No	C118	Revision
		5
A1 SHEET		



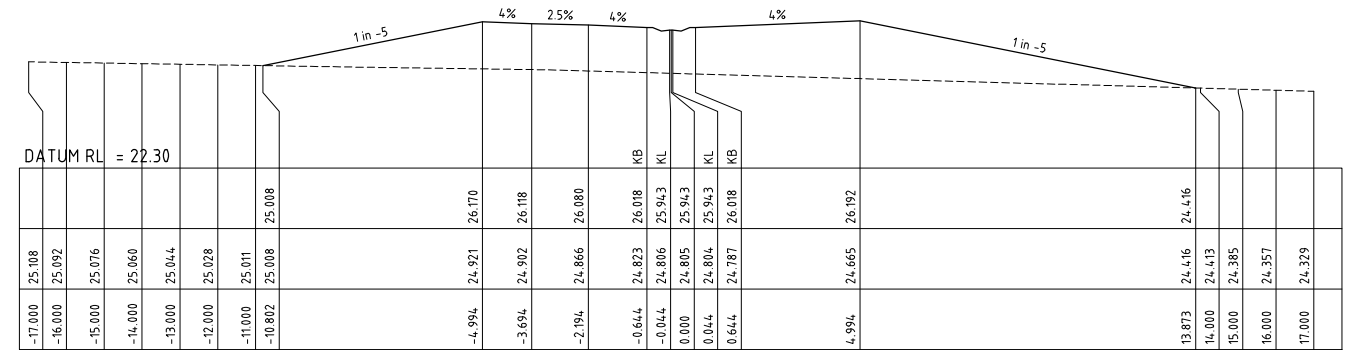
CH 177.035



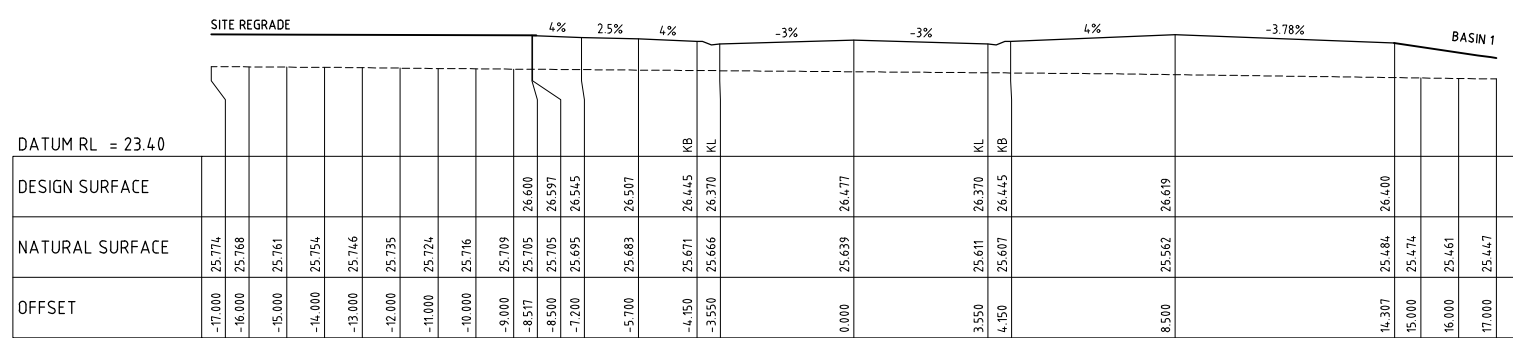
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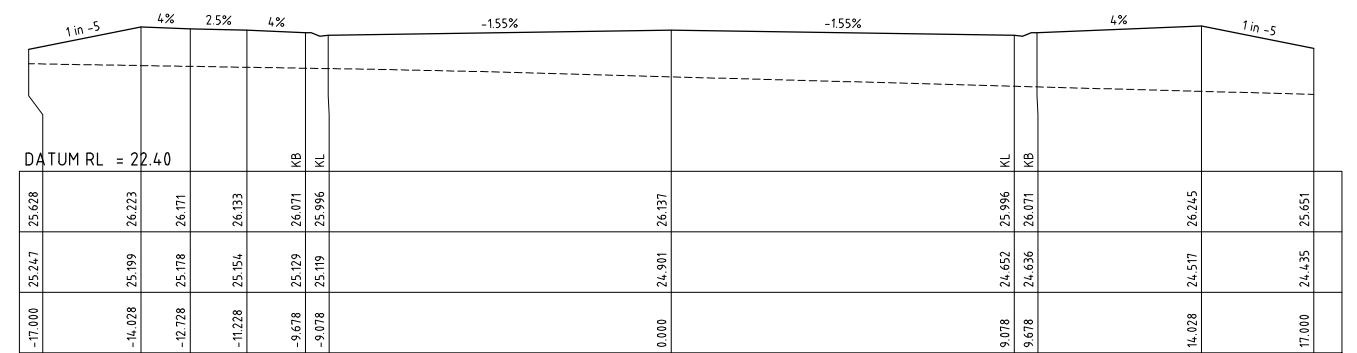
CH 154.574



CH 186.585



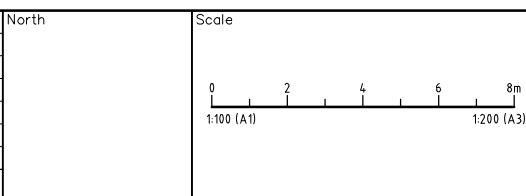
CH 150.000



CH 180.000

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

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5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
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3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24



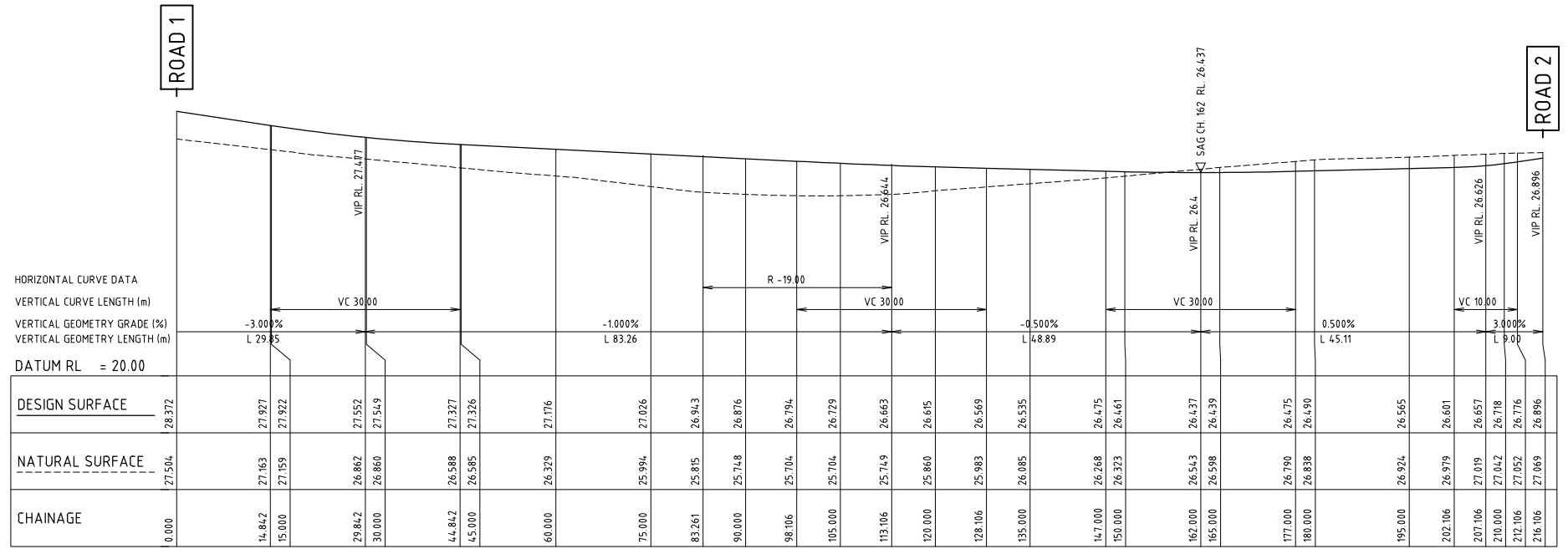
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Designed AM  
Scale 1:100  
Cad Reference 23290C dC119 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer



**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
ROAD 2 CROSS SECTIONS (2 OF 2)

Project No	23290C	
Drawing No	C119	Revision 5
A1 SHEET		

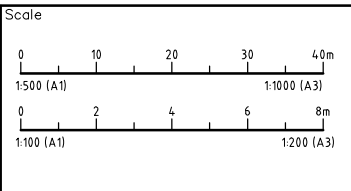


A1 SCALE: HORIZONTAL 1:500, VERTICAL 1:100  
LONGITUDINAL SECTION ROAD 3

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24

North
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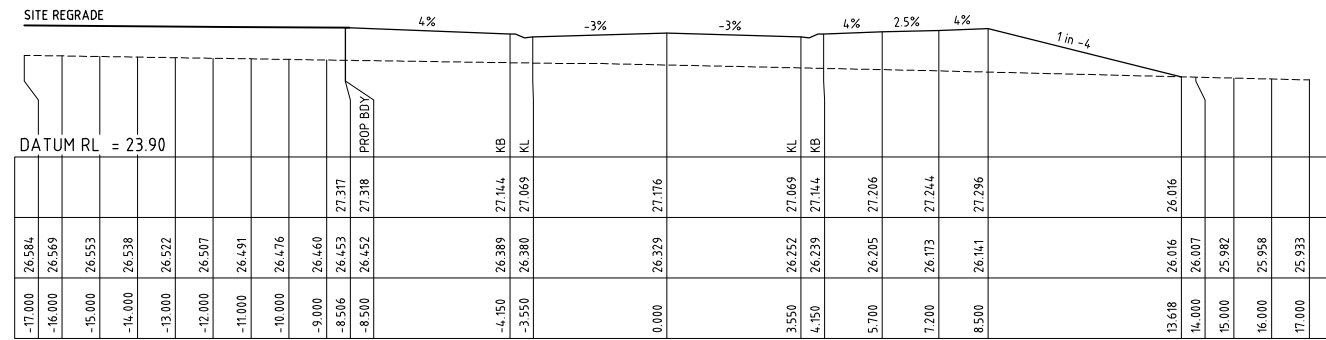
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Scale 1:500/1:100  
Cad Reference 23290C dC120 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer

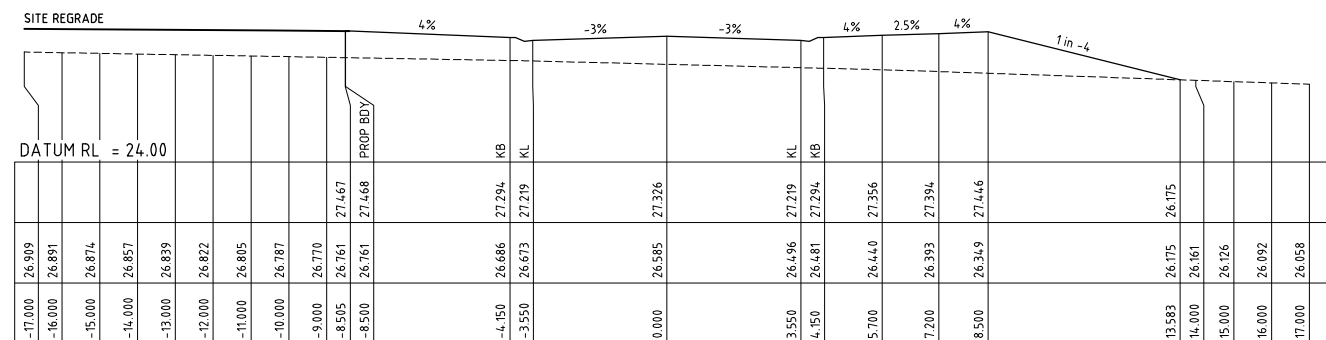


**PROPOSED RESIDENTIAL SUBDIVISION**  
20 & 20A CANTWELL ROAD  
LOCHINVAR  
ROAD 3 LONGITUDINAL SECTION

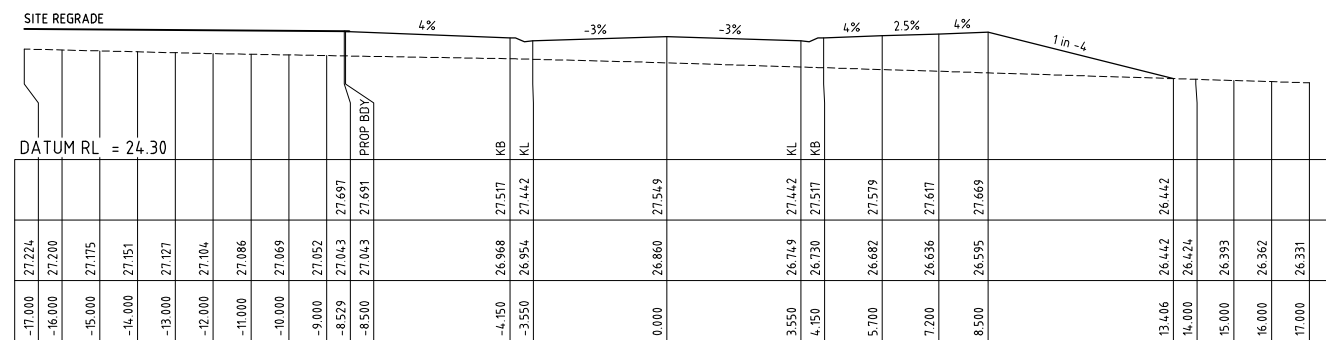
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Drawing No <b>C120</b>	Revision <b>5</b>
A1 SHEET	



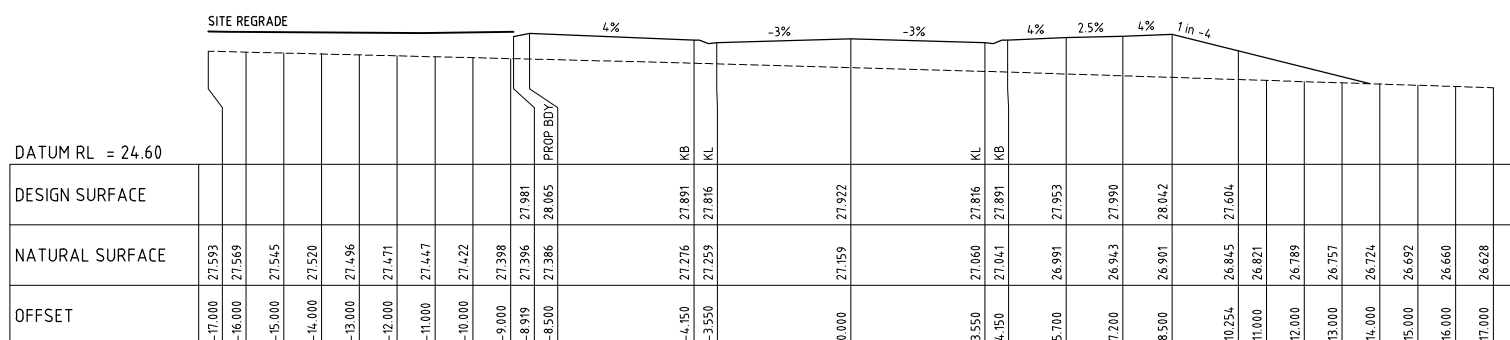
CH 60.00



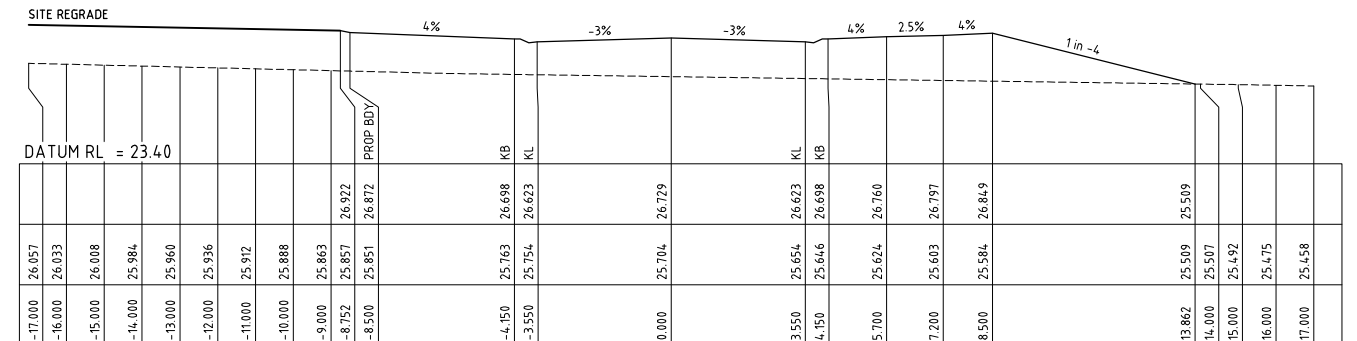
CH 45.00



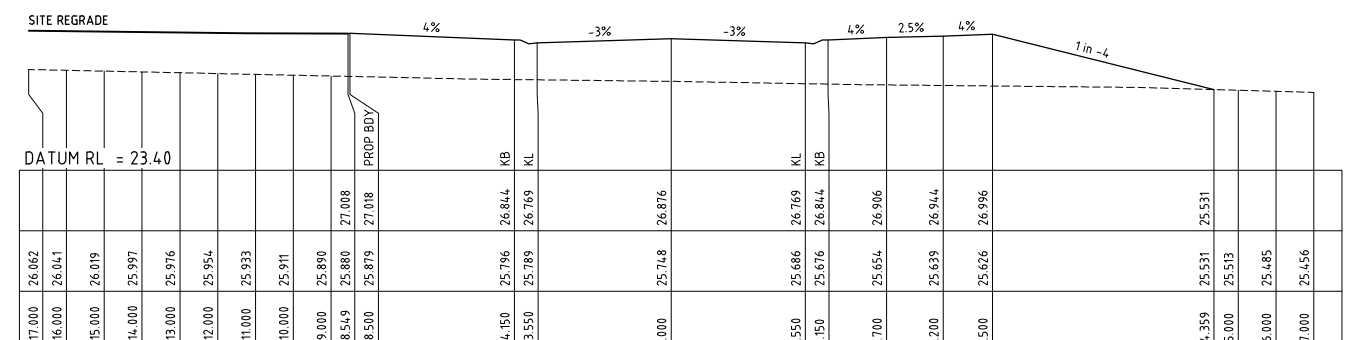
CH 30.00



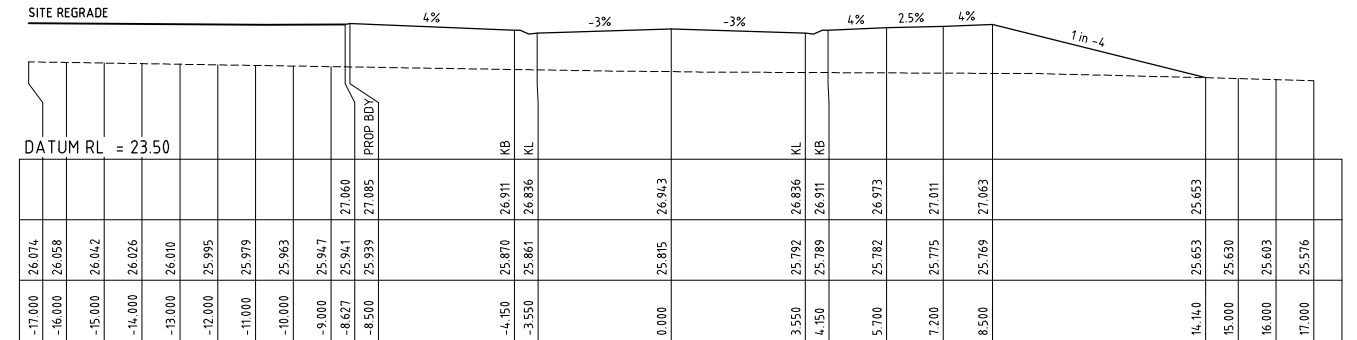
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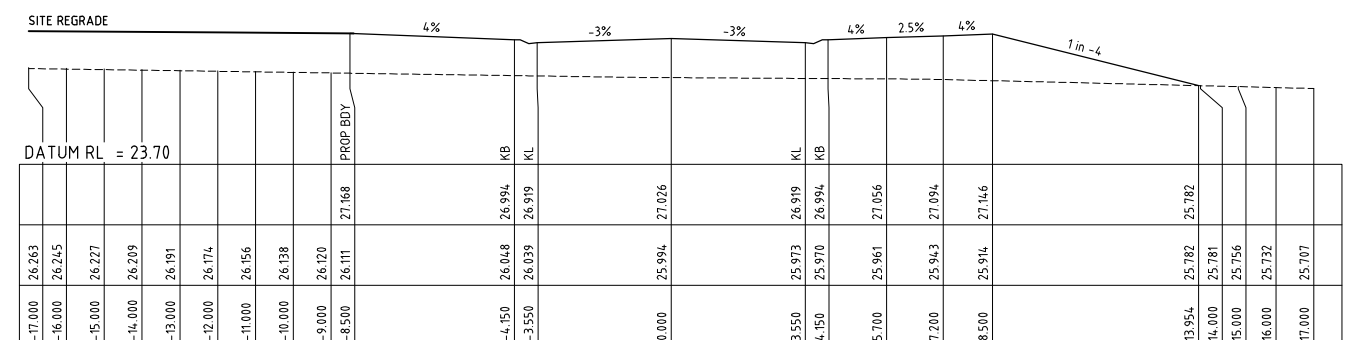
CH 105.00



CH 90.00



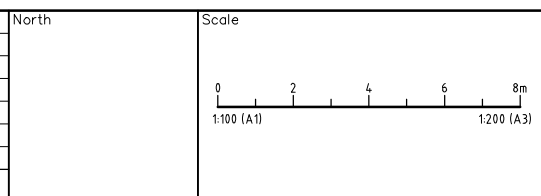
CH 83.261



CH 75.00

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
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3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24



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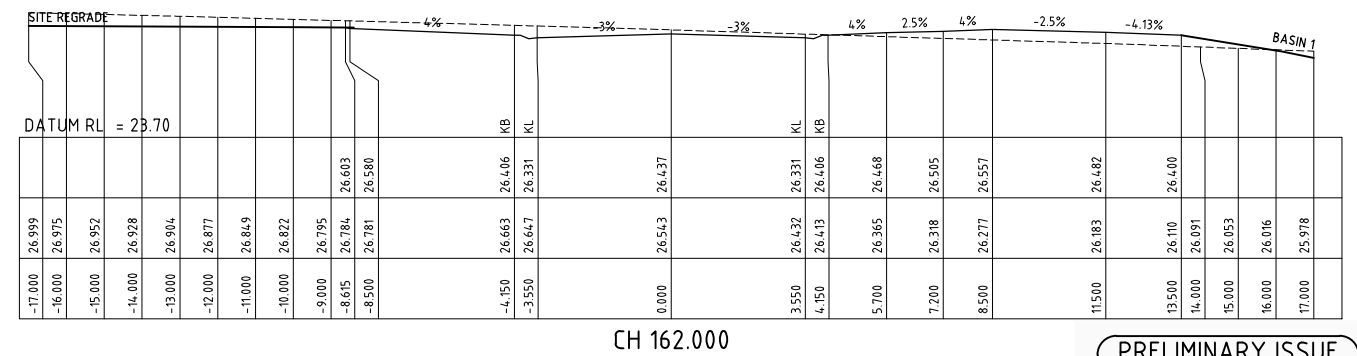
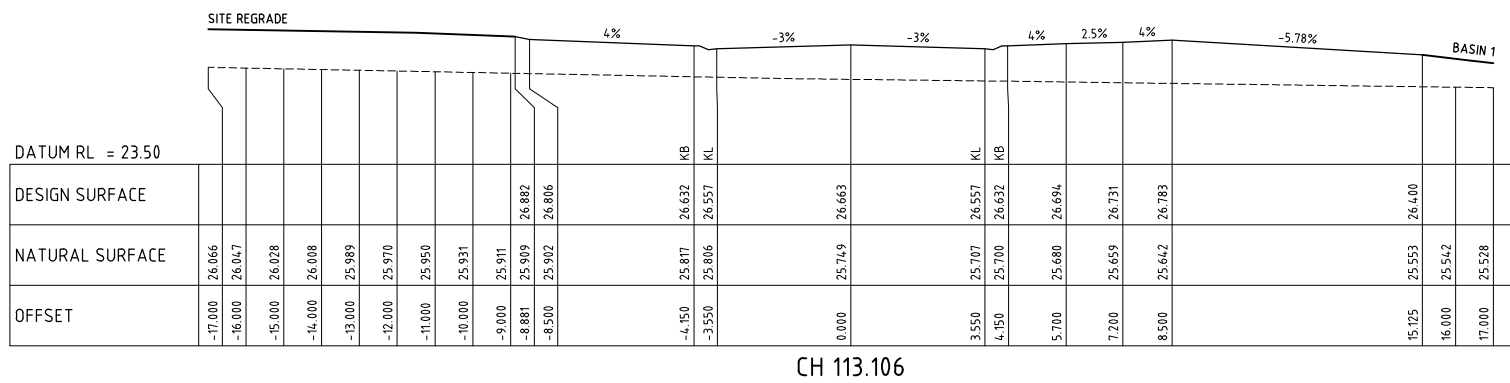
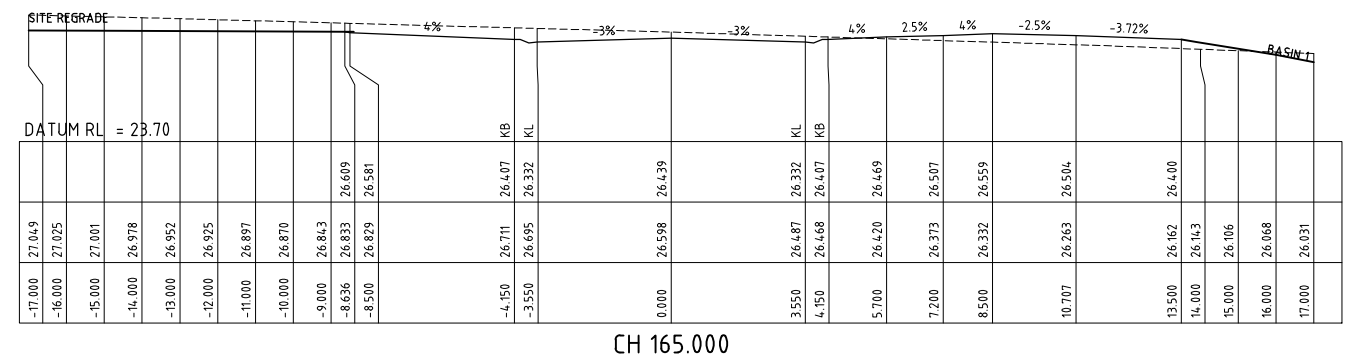
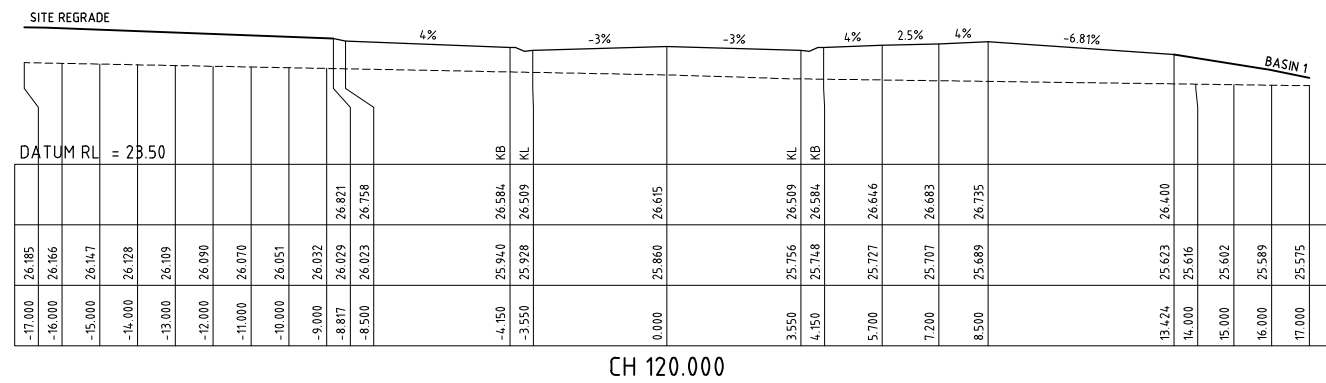
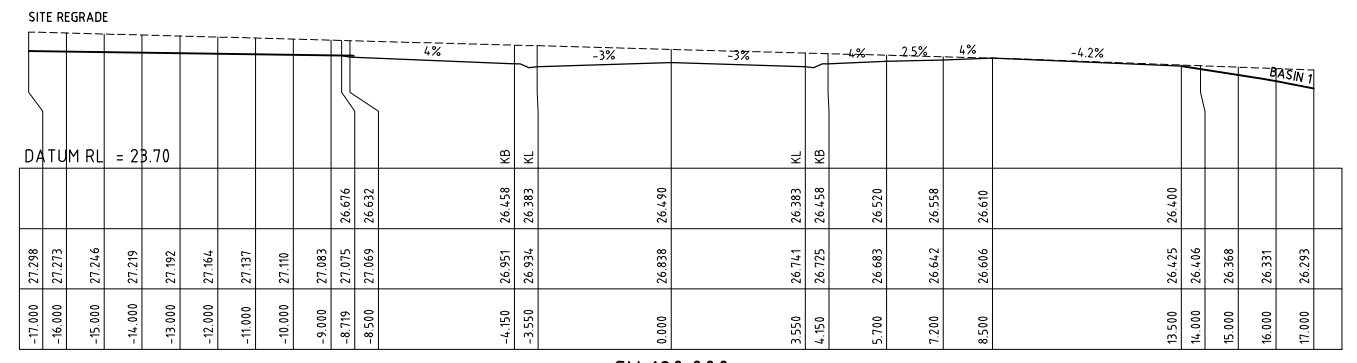
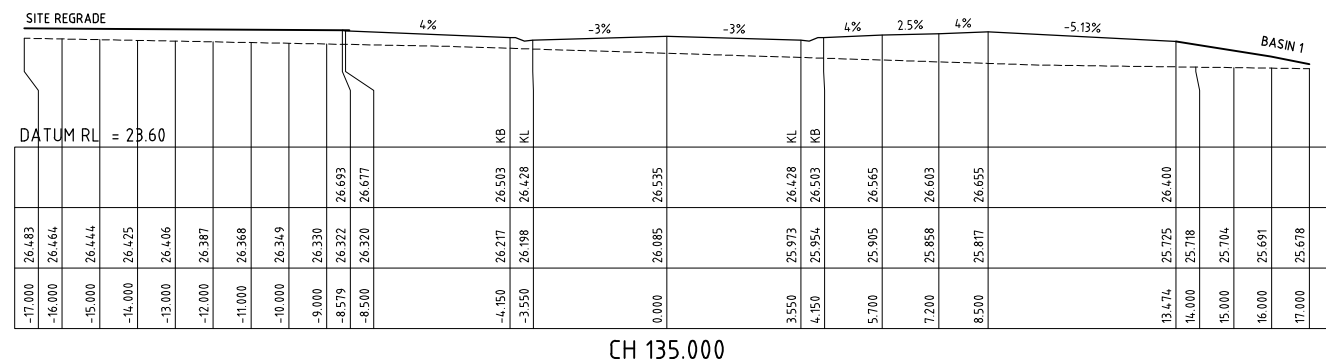
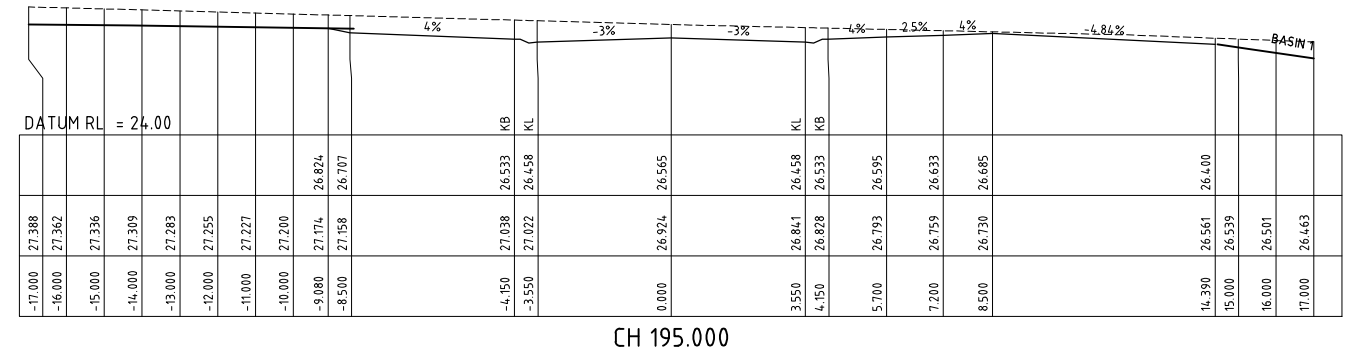
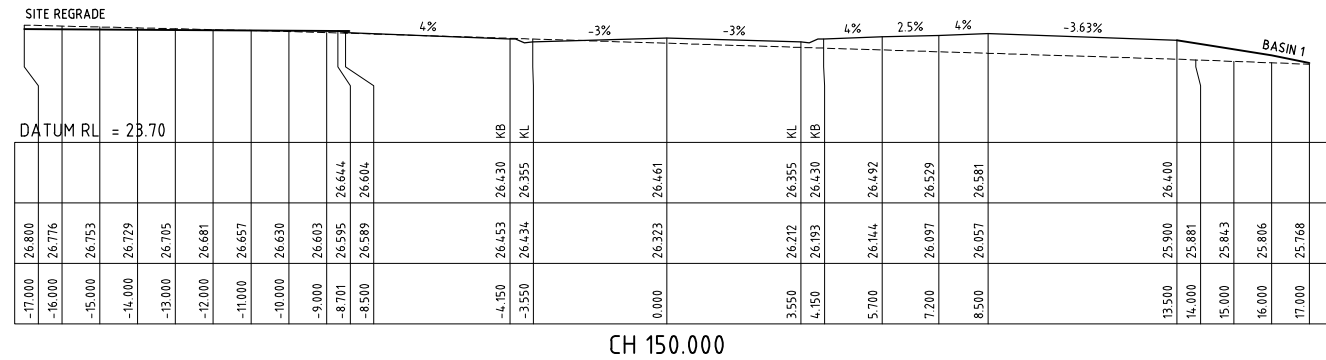
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Designed AM  
Scale 1:100  
Cad Reference 23290C dC121 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer



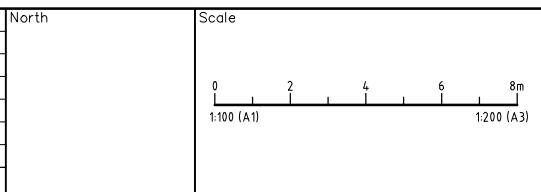
**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
ROAD 3 CROSS SECTIONS (1 OF 2)

Project No	23290C	
Drawing No	C121	Revision 5
A1 SHEET		



PRELIMINARY ISSUE  
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5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
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1	ORIGINAL ISSUE	DB	IH	30.09.24
REVISION	Description	Drawn	App'd	Date



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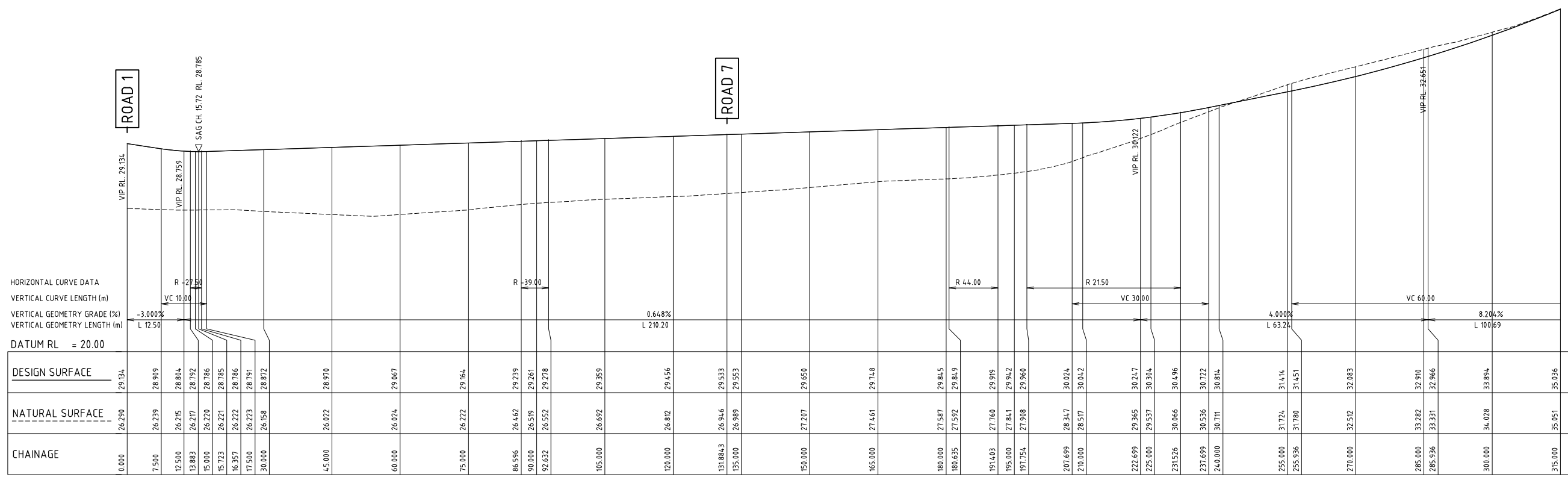
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Designed AM  
Scale 1:100  
Cad Reference 23290C dC122 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer



PROPOSED RESIDENTIAL SUBDIVISION  
20 & 20A CANTWELL ROAD  
LOCHINVAR  
ROAD 3 CROSS SECTIONS (2 OF 2)

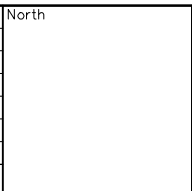
Project No	23290C
Drawing No	C122
Revision	5
A1 SHEET	



A1 SCALE: HORIZONTAL 1:500, VERTICAL 1:100  
 LONGITUDINAL SECTION ROAD 4

PRELIMINARY ISSUE  
 NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
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1	ORIGINAL ISSUE	DB	IH	30.09.24



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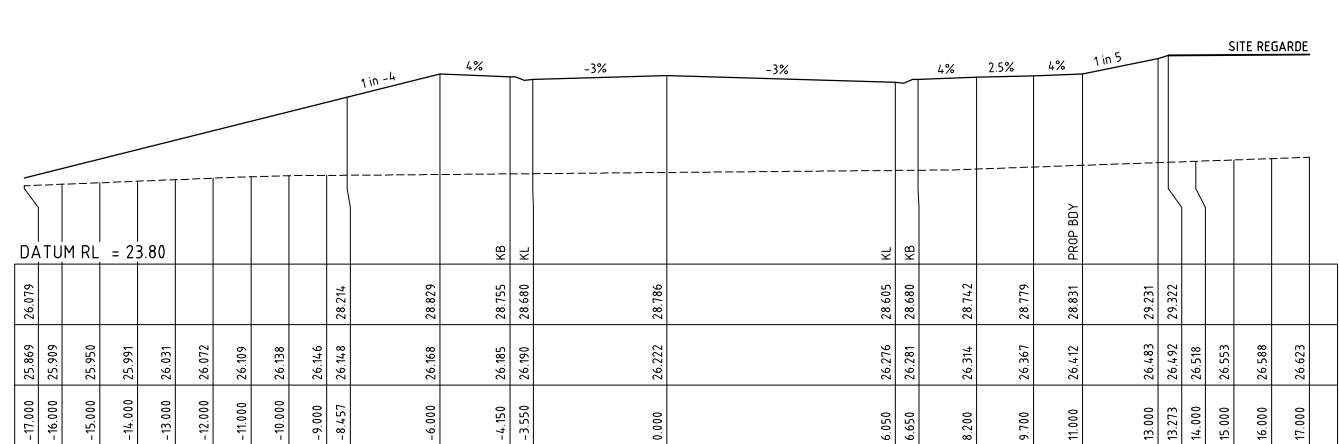
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 Project Approval IAN HILL (B.E)  
 Consulting Civil Engineer



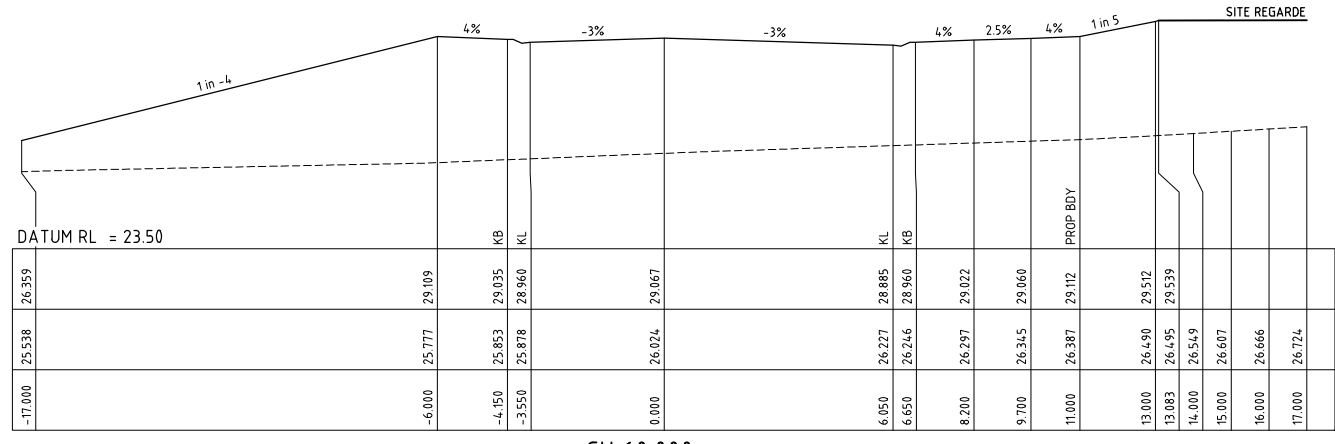
**PROPOSED RESIDENTIAL SUBDIVISION**  
 20 & 20A CANTWELL ROAD  
 LOCHINVAR  
 ROAD 4 LONGITUDINAL SECTION

Project No <b>23290C</b>	
Drawing No <b>C123</b>	Revision <b>5</b>
A1 SHEET	

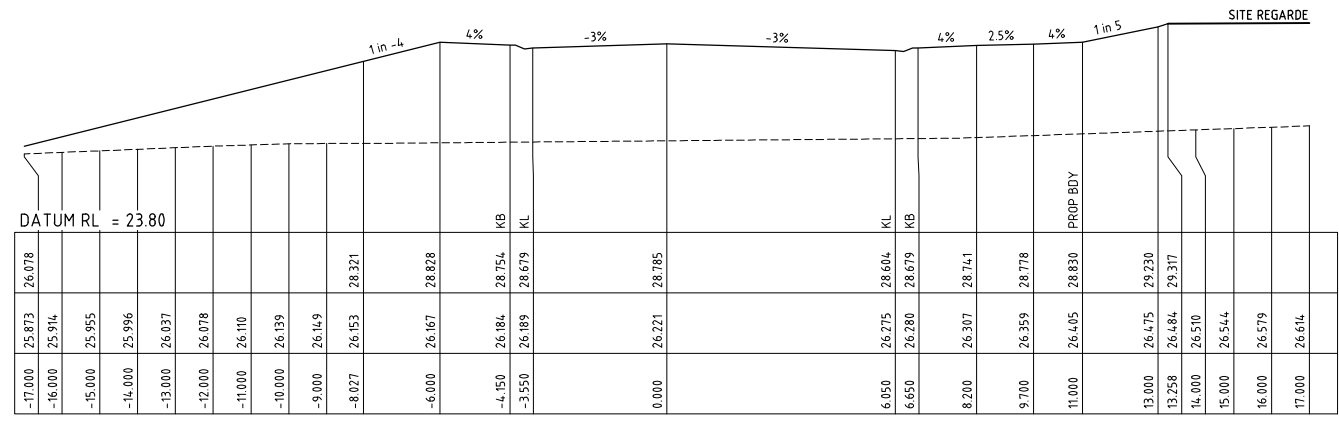




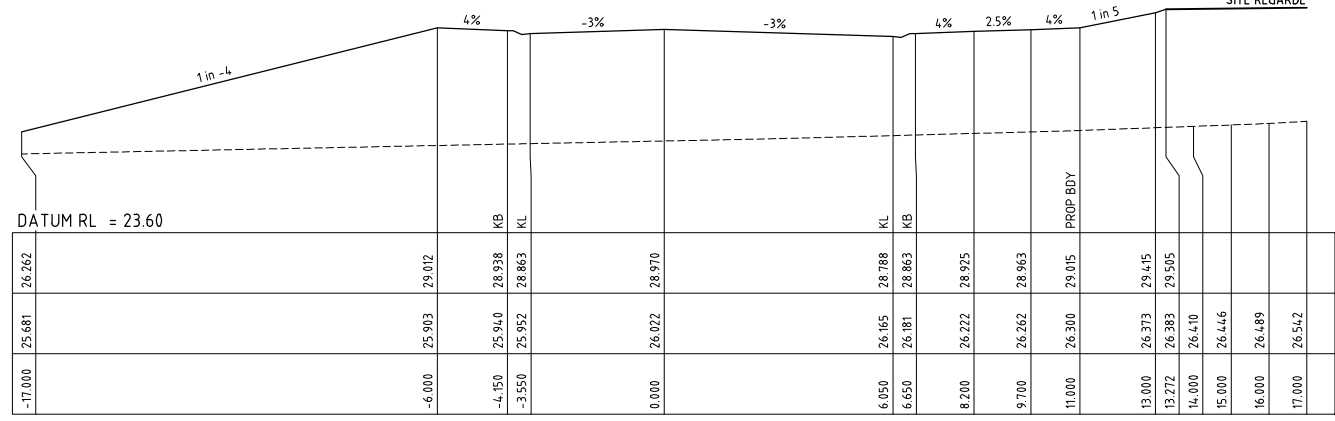
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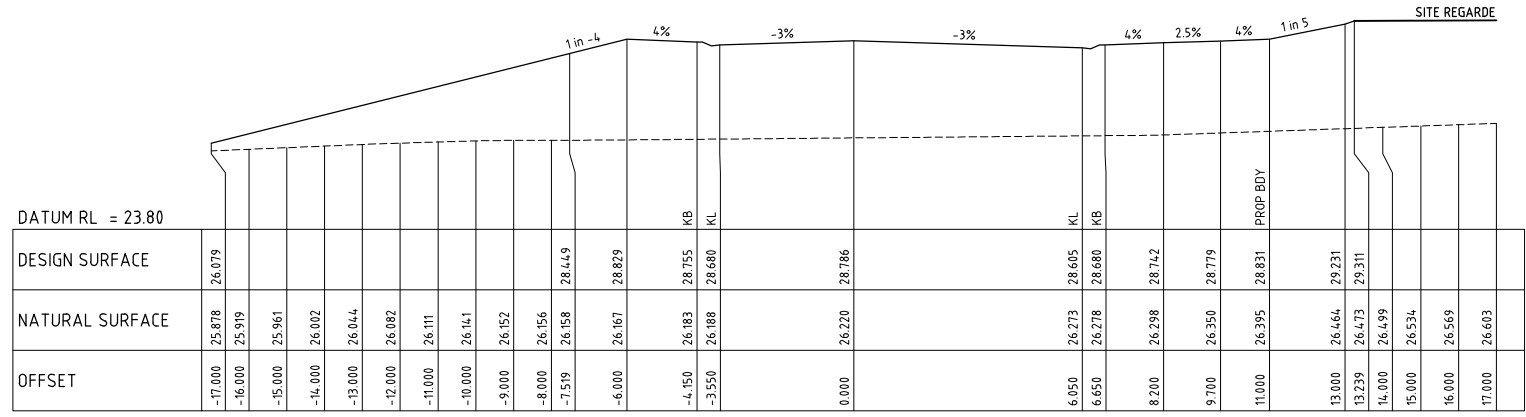
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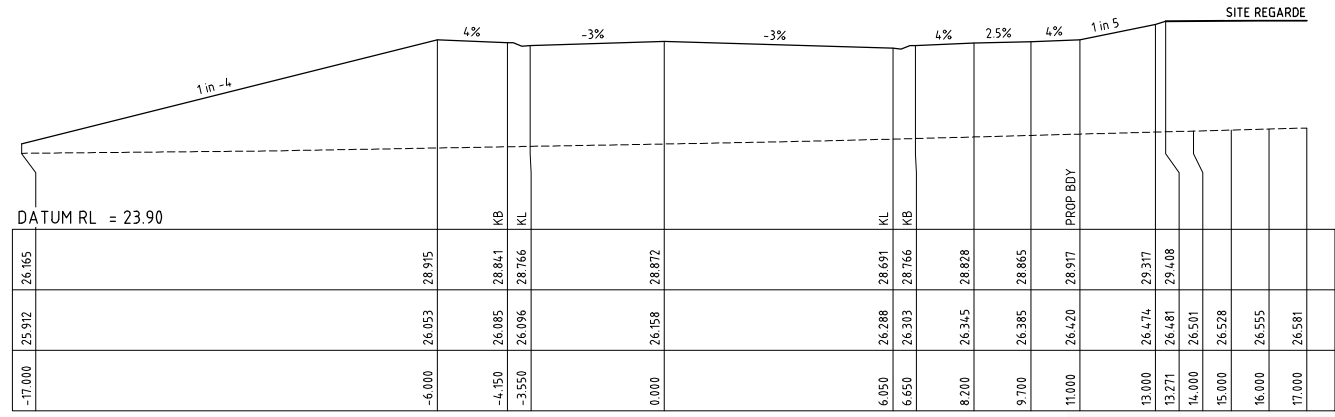
CH 15.723



CH 45.000



CH 15.000



CH 30.000

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
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1	ORIGINAL ISSUE	DB	IH	30.09.24

North

Scale

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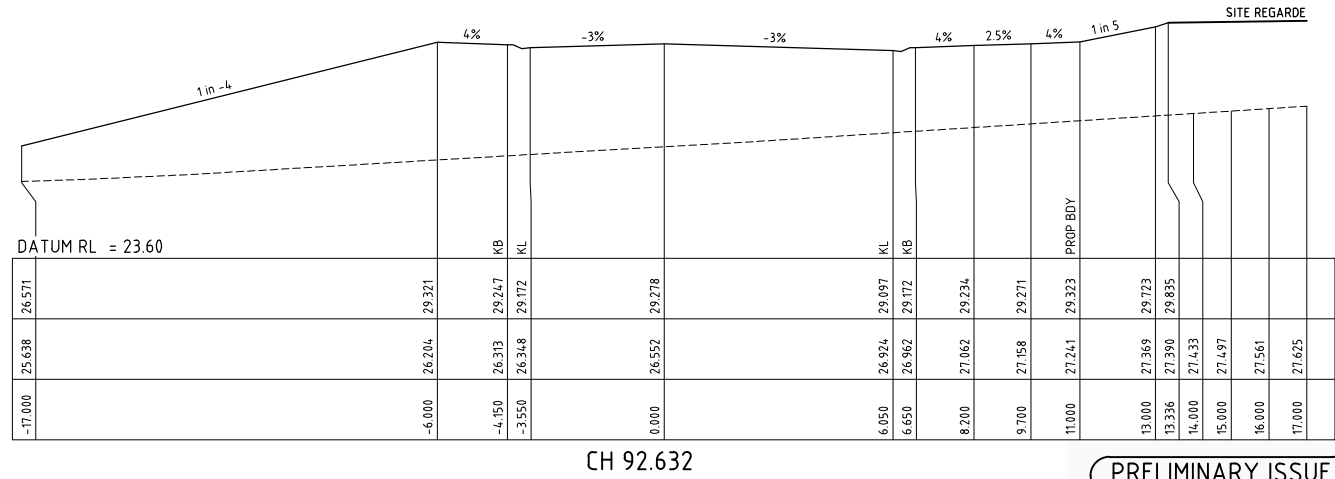
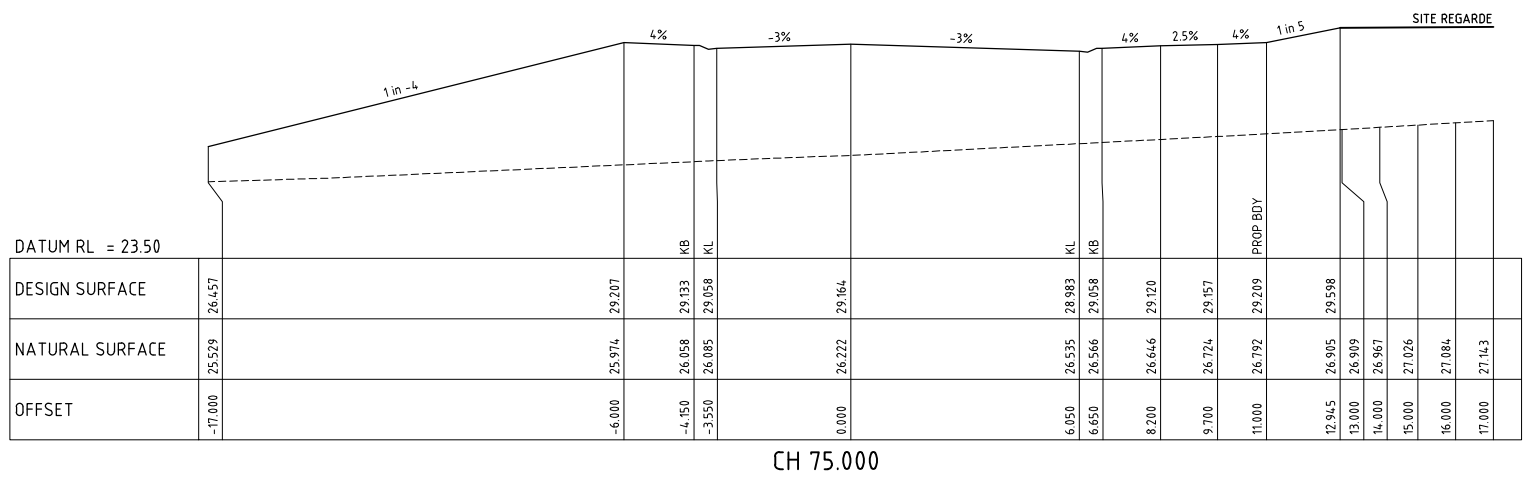
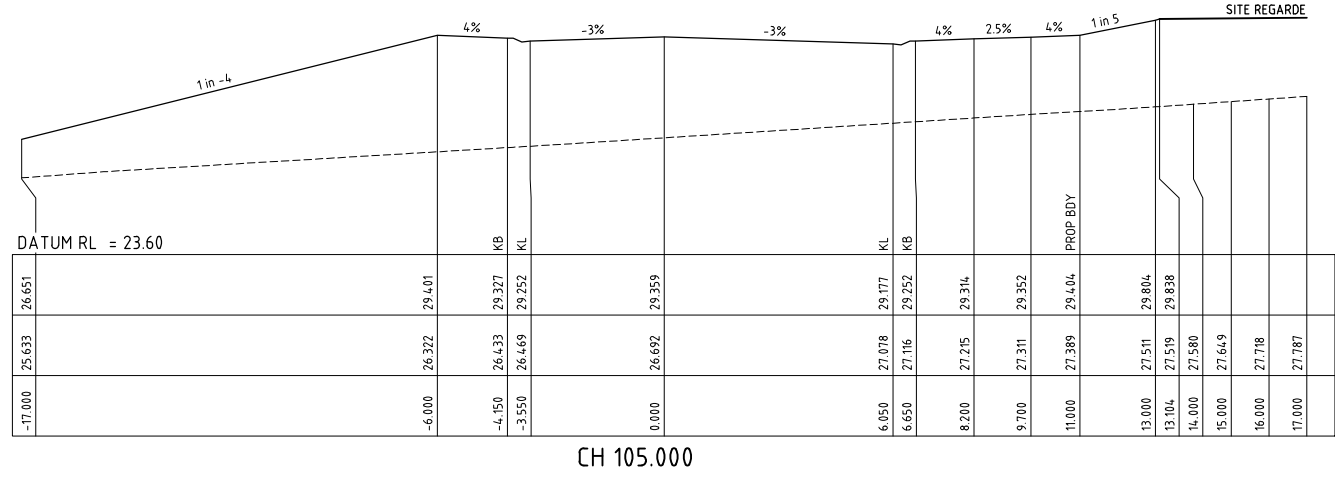
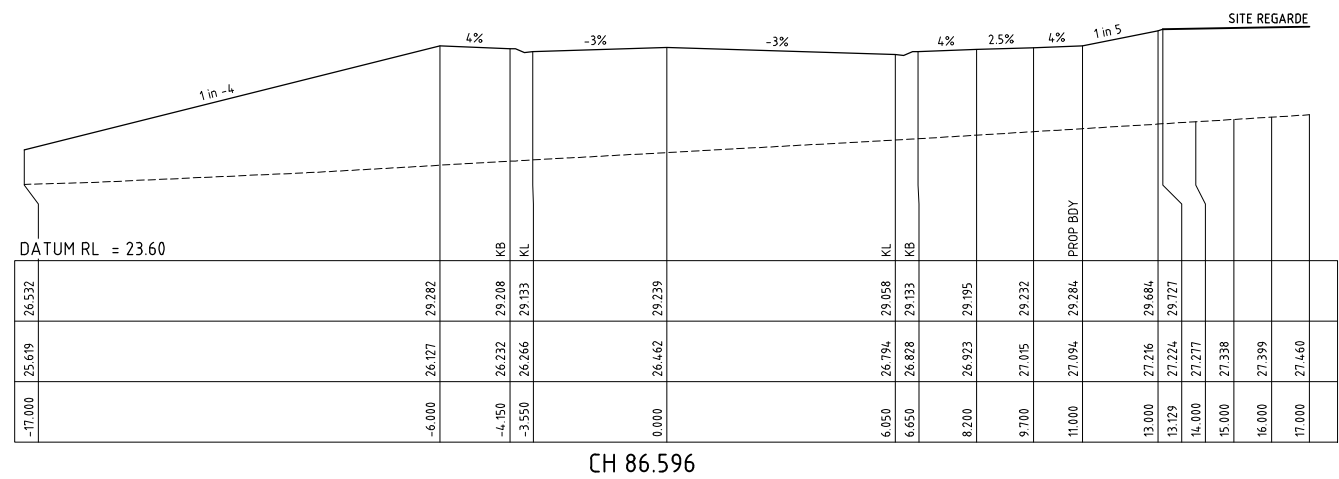
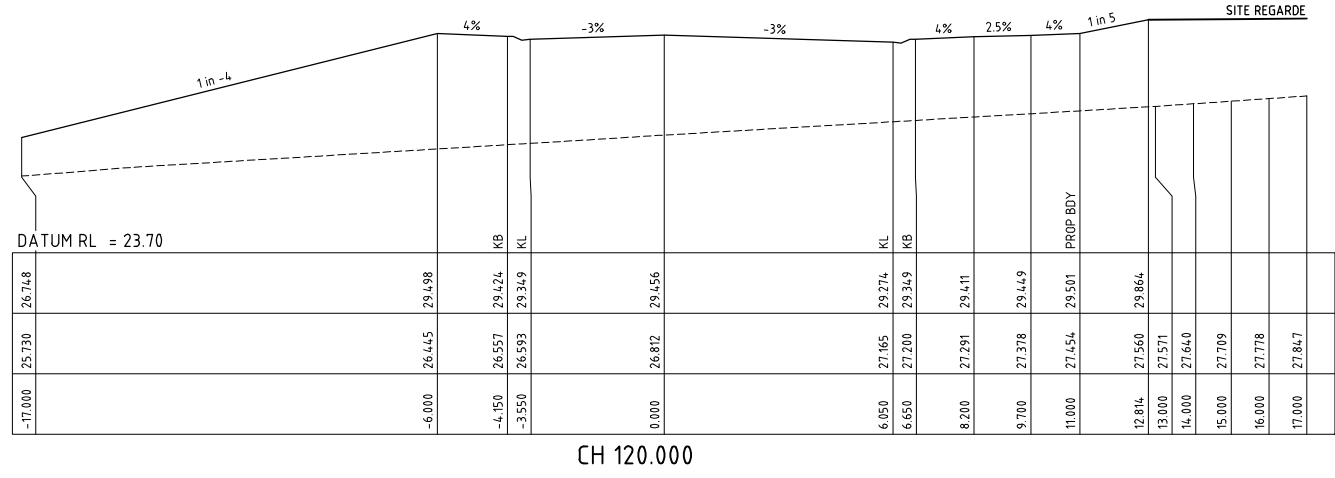
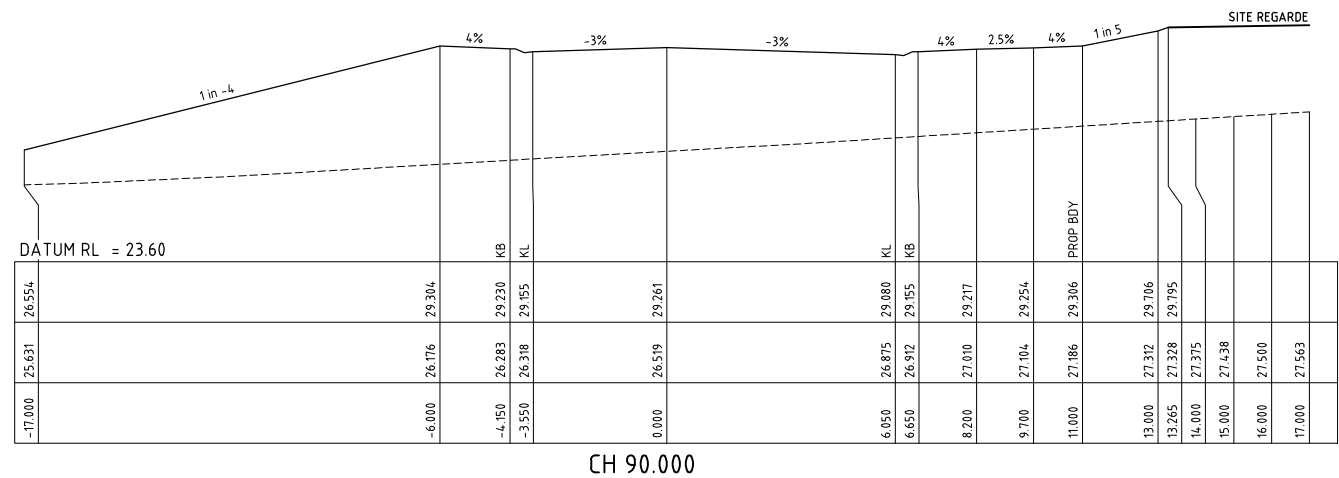
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Scale 1:100  
Cad Reference 23290C dC124 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer



A.B.N. 92 086 017 745  
1 HARTLEY DRIVE, THORNTON NSW 2322  
PO BOX 3337, THORNTON NSW 2322  
PHONE: (02) 4964 1811

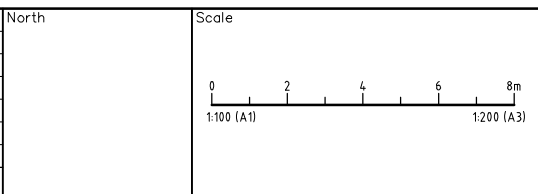
**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
ROAD 4 CROSS SECTIONS (1 OF 6)

Project No <b>23290C</b>	
Drawing No <b>C124</b>	Revision <b>5</b>
A1 SHEET	



PRELIMINARY ISSUE  
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REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24



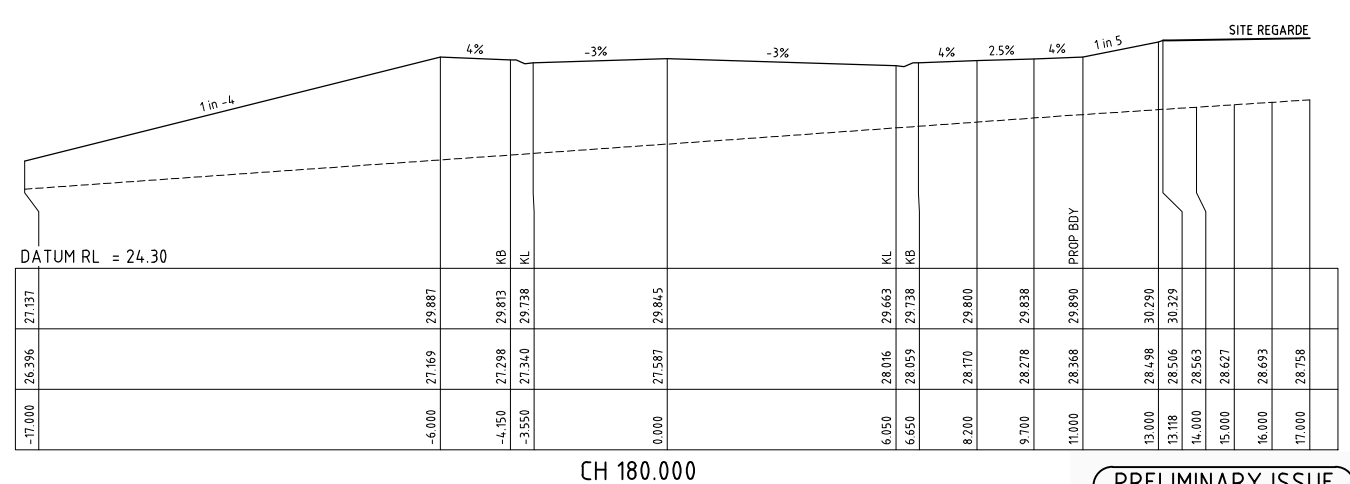
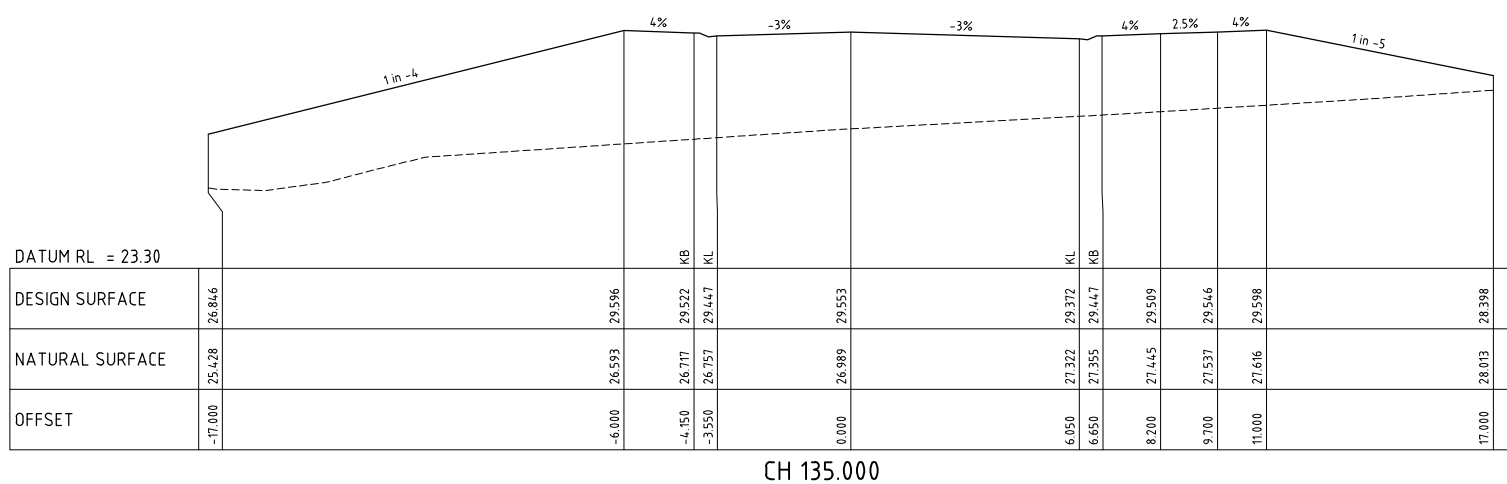
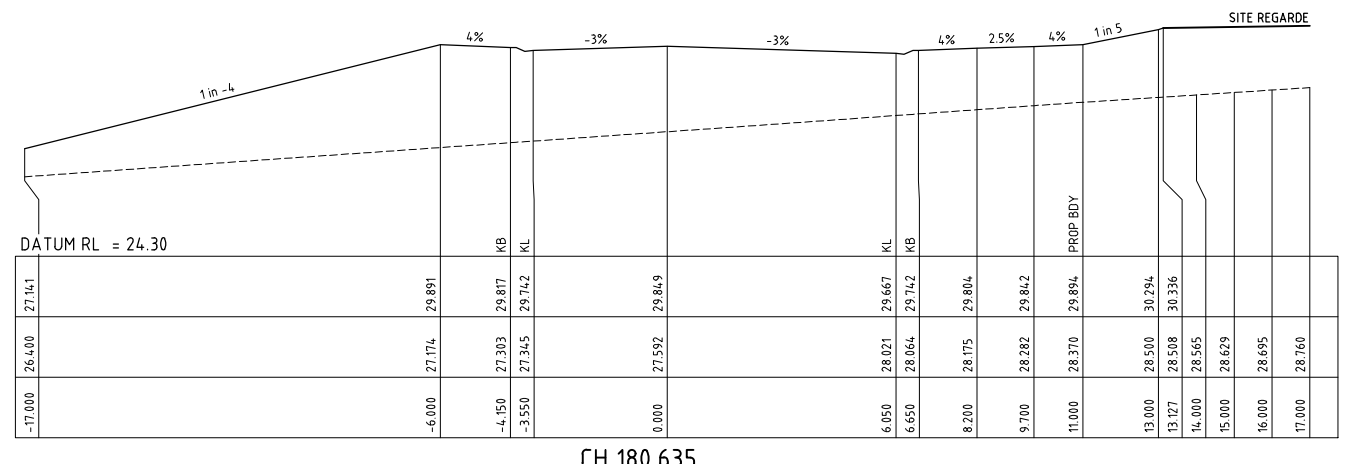
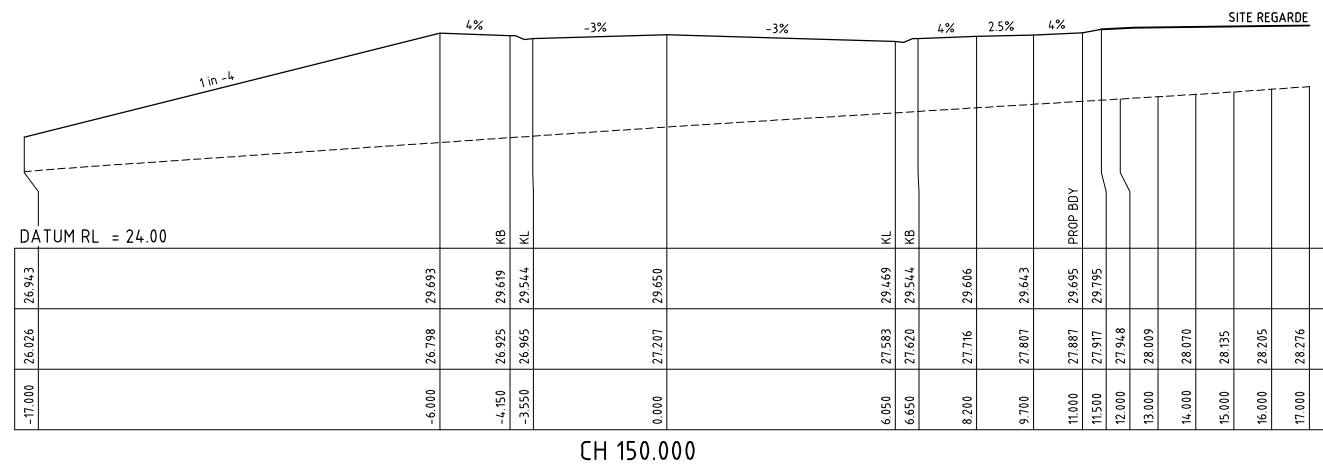
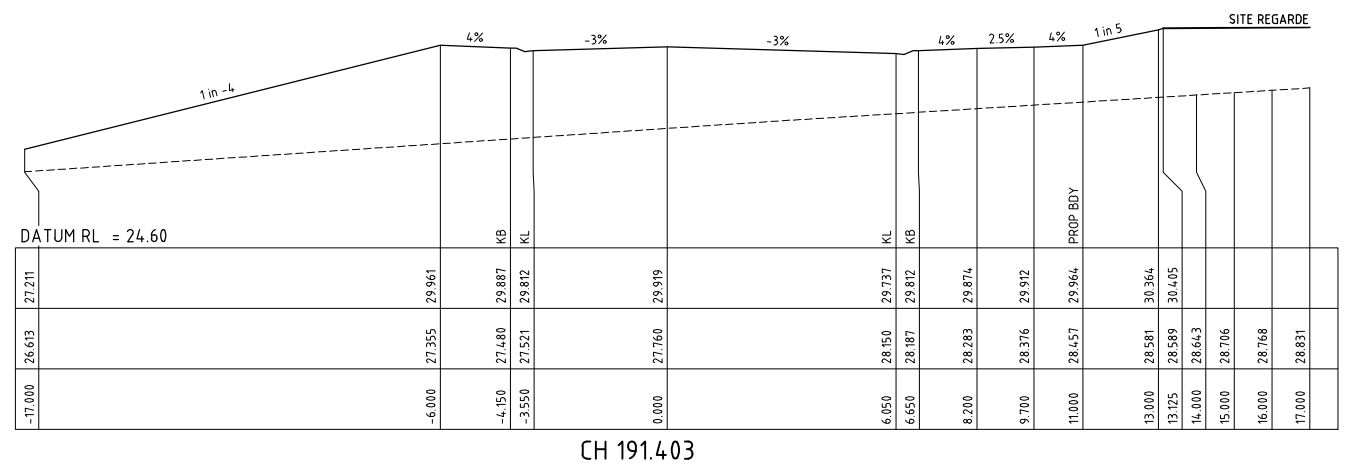
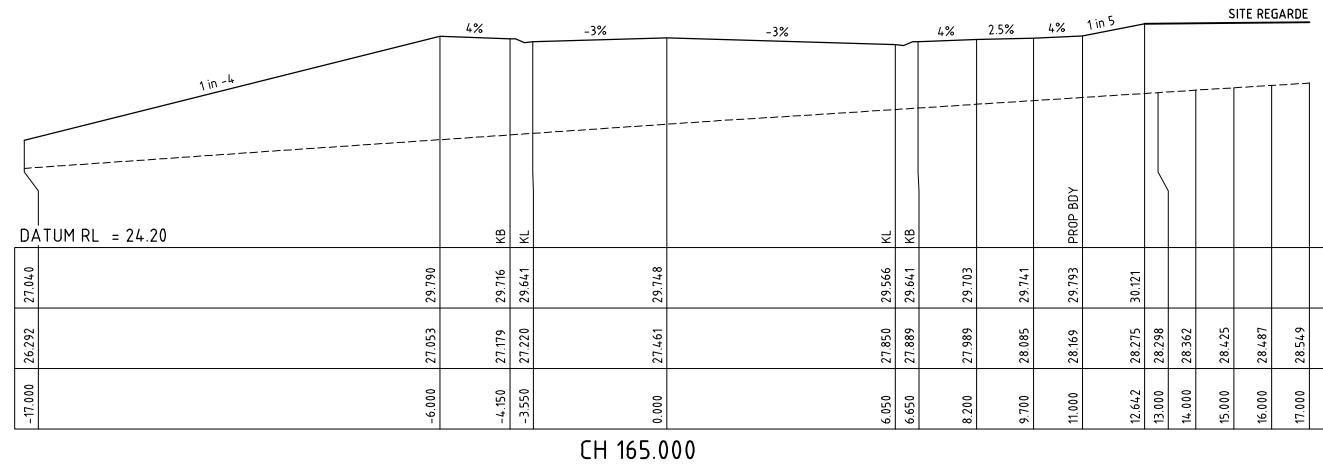
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Designed AM  
Scale 1:100  
Cad Reference 23290C dC125 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer



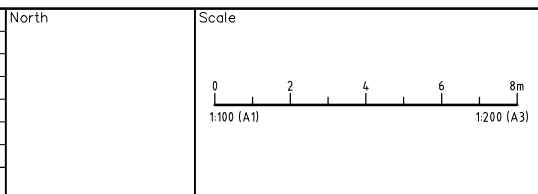
**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
ROAD 4 CROSS SECTIONS (2 OF 6)

Project No	23290C	
Drawing No	C125	Revision 5
A1 SHEET		



PRELIMINARY ISSUE  
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5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
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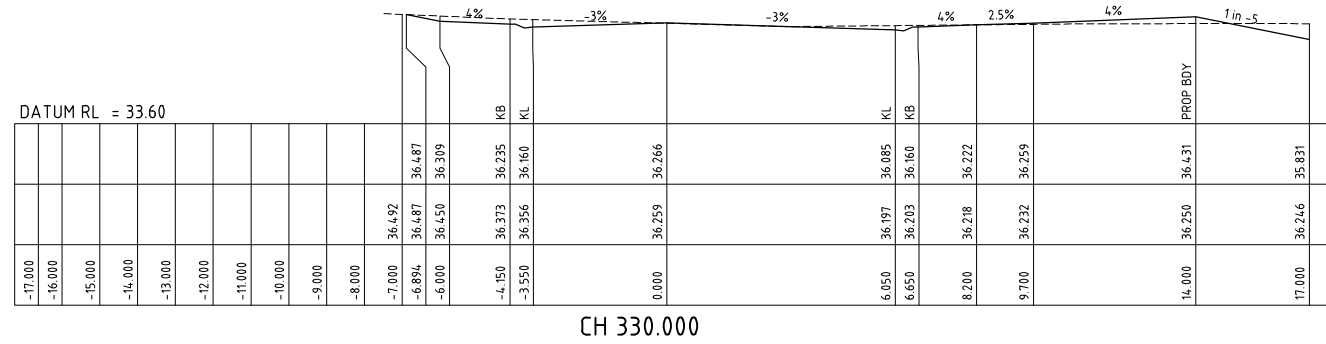
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Cad Reference: 23290C dC126 r5  
Project Approval: IAN HILL (B.E)  
Consulting Civil Engineer



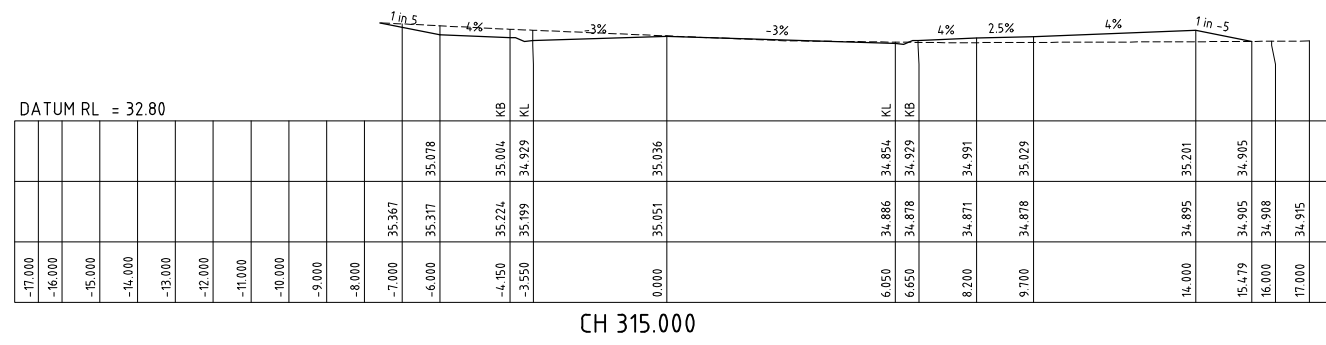
**PROPOSED RESIDENTIAL SUBDIVISION**  
20 & 20A CANTWELL ROAD  
LOCHINVAR  
ROAD 4 CROSS SECTIONS (3 OF 6)

Project No	23290C
Drawing No	C126
Revision	5
A1 SHEET	

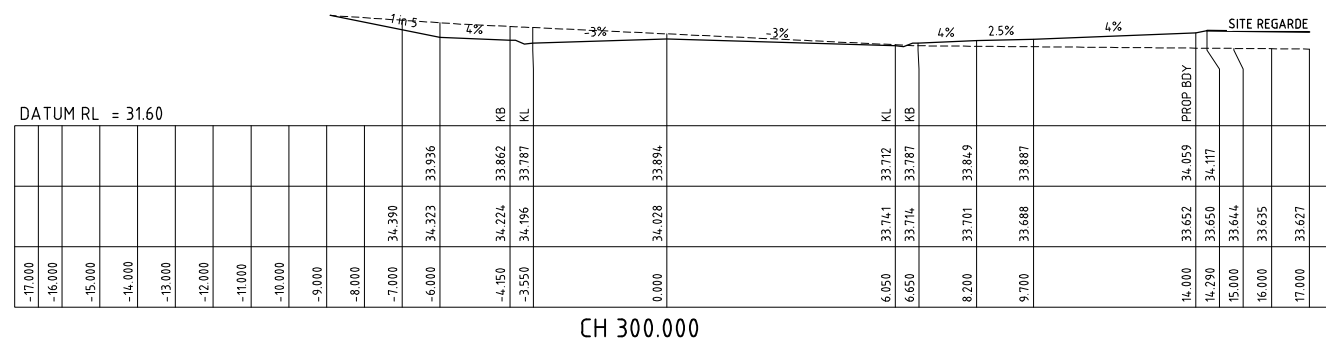




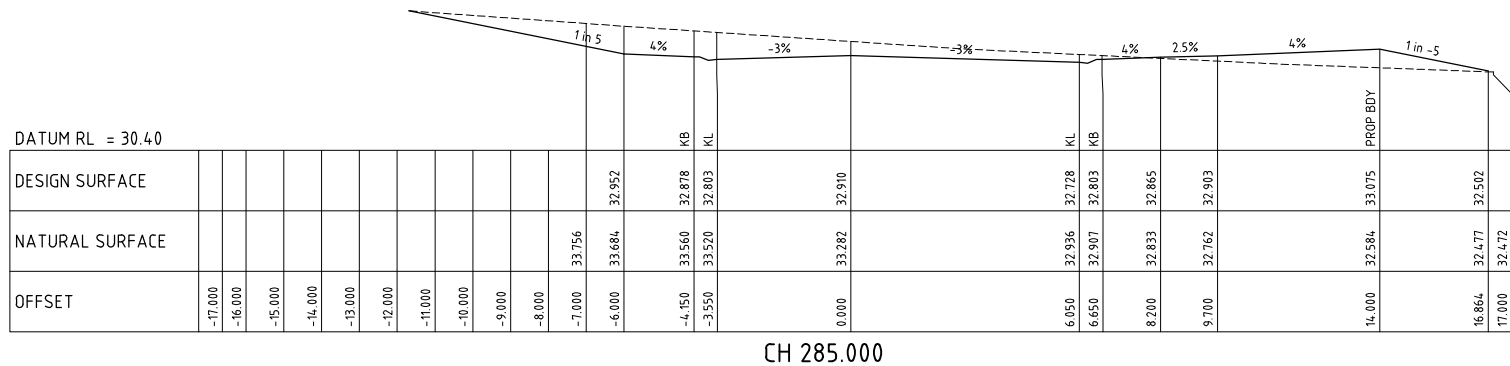
CH 330.000



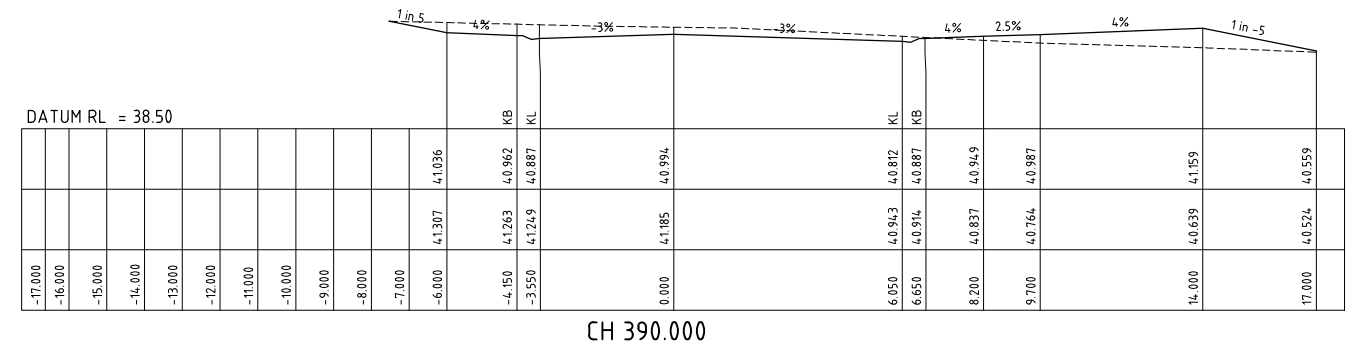
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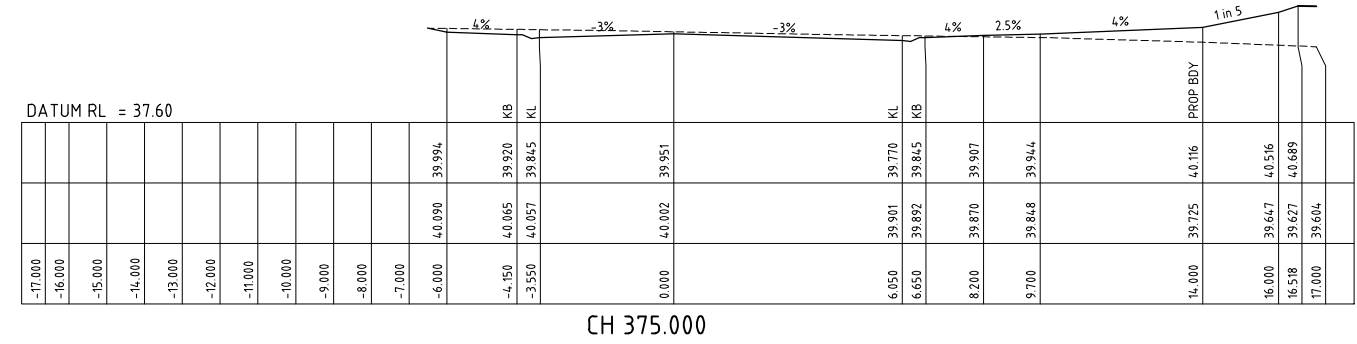
CH 300.000



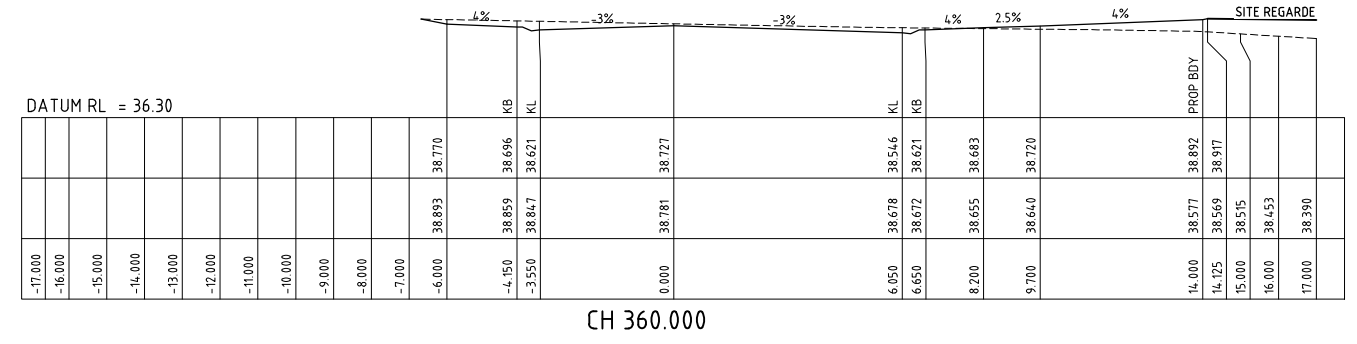
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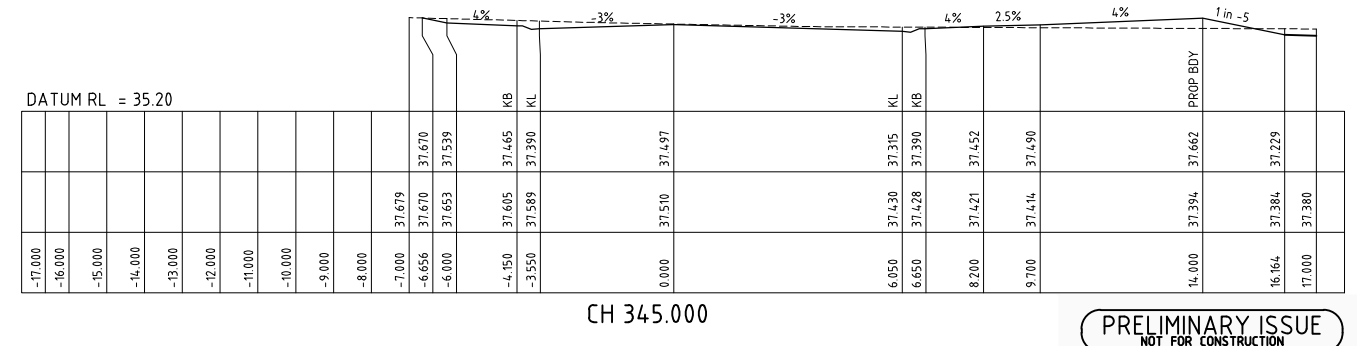
CH 390.000



CH 375.000



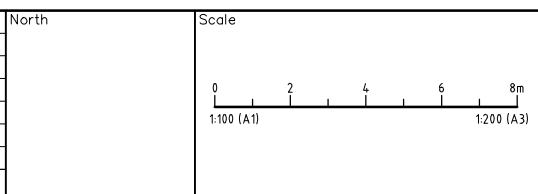
CH 360.000



CH 345.000

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24



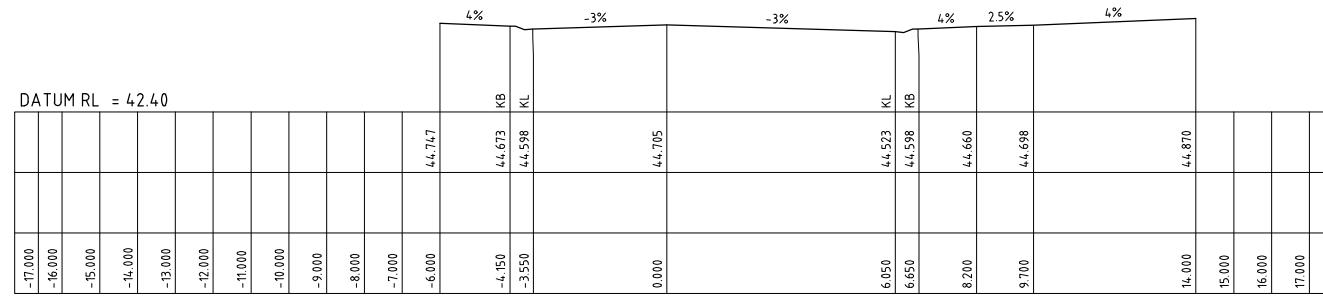
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Designed AM  
Scale 1:100  
Cad Reference 23290C dC128 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer

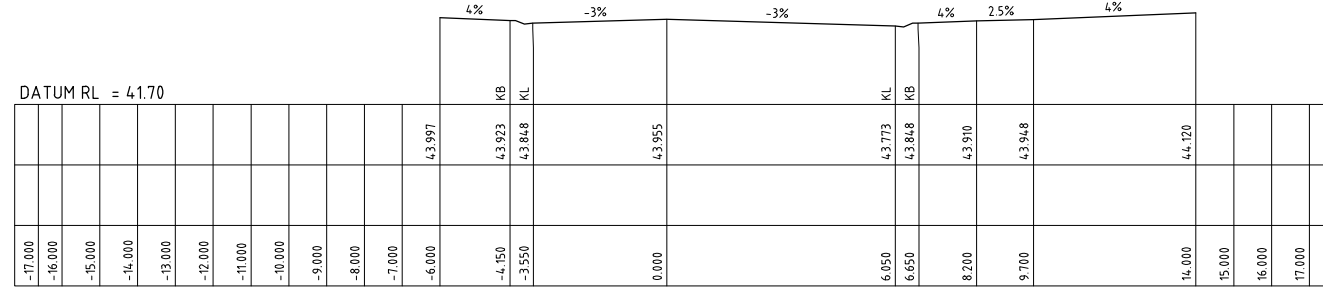


**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
ROAD 4 CROSS SECTIONS (5 OF 6)

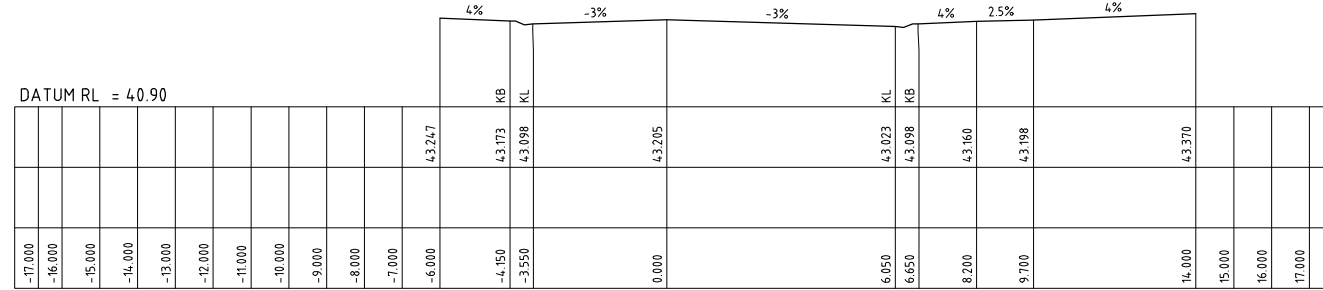
Project No	23290C	
Drawing No	C128	Revision 5
A1 SHEET		



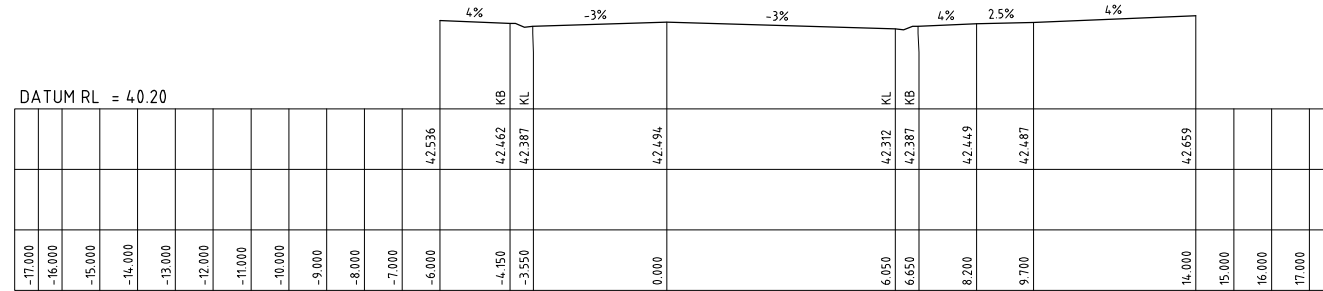
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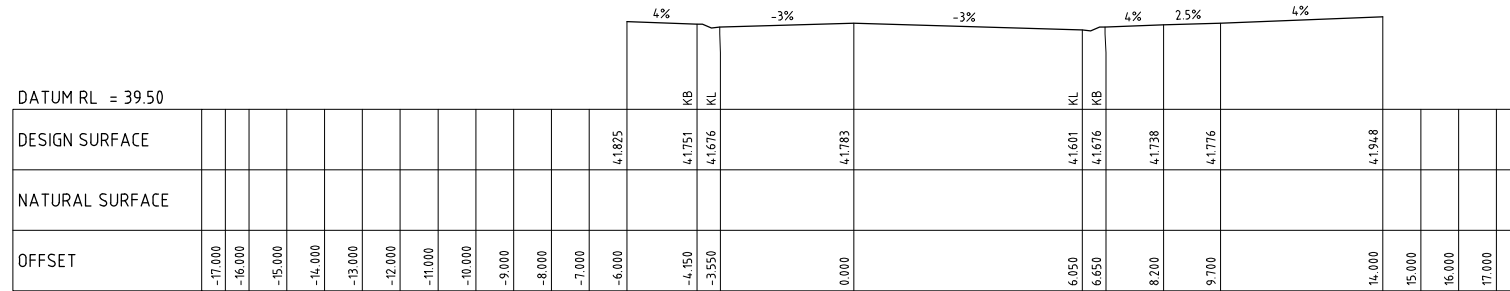
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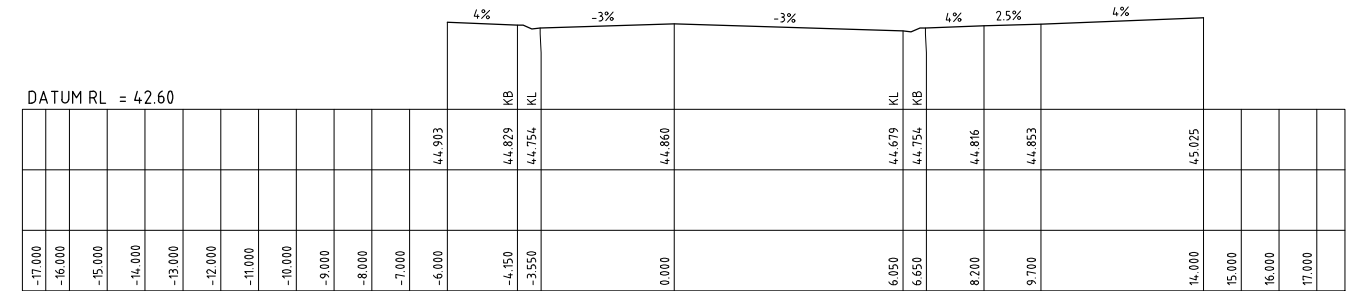
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CH 420.000



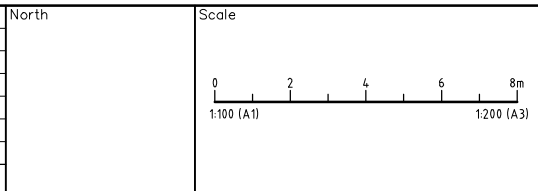
CH 405.000



CH 468.101

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
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4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24



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Designed AM  
Scale 1:100  
Cad Reference 23290C dC129 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer



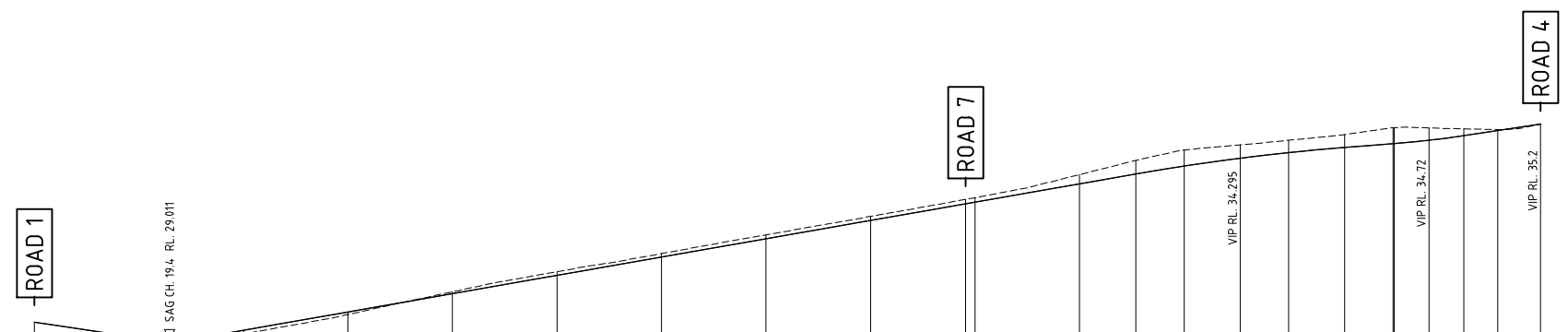
**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
ROAD 4 CROSS SECTIONS (6 OF 6)

Project No		23290C	
Drawing No	C129	Revision	5
A1 SHEET			

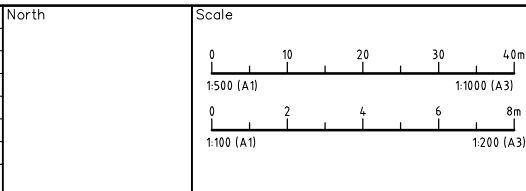
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 VERTICAL CURVE LENGTH (m)  
 VERTICAL GEOMETRY GRADE (%)  
 VERTICAL GEOMETRY LENGTH (m)  
 DATUM RL = 23.00

CHAINAGE	DESIGN SURFACE	NATURAL SURFACE
0.000	29.524	29.077
14.788	29.080	28.936
15.000	29.074	28.934
19.404	29.011	28.894
19.788	29.011	28.891
24.788	29.105	29.011
30.000	29.288	29.185
45.000	29.813	29.741
60.000	30.338	30.392
75.000	30.863	30.968
90.000	31.388	31.488
105.000	31.913	32.026
120.000	32.438	32.554
133.648	32.915	33.043
135.000	32.963	33.091
150.000	33.488	33.754
158.059	33.770	34.160
165.000	33.997	34.463
173.059	34.222	34.607
180.000	34.383	34.737
188.059	34.530	34.900
195.000	34.639	35.098
195.148	34.642	35.099
200.148	34.738	35.091
205.148	34.870	35.065
210.000	35.016	35.044
216.148	35.200	35.200

A1 SCALE: HORIZONTAL 1:500, VERTICAL 1:100  
 LONGITUDINAL SECTION ROAD 5



REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24



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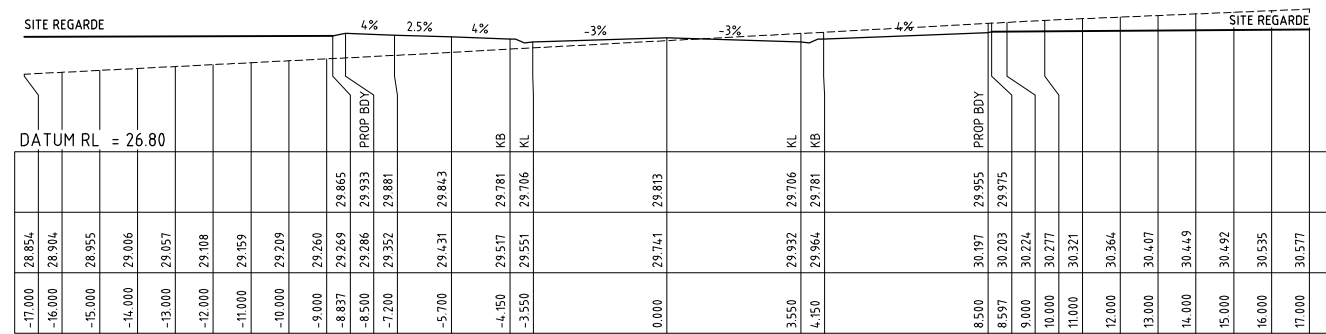
Designed AM  
 Scale 1:500/1:100  
 Cad Reference 23290C dC130 r5  
 Project Approval IAN HILL (B.E.) Consulting Civil Engineer



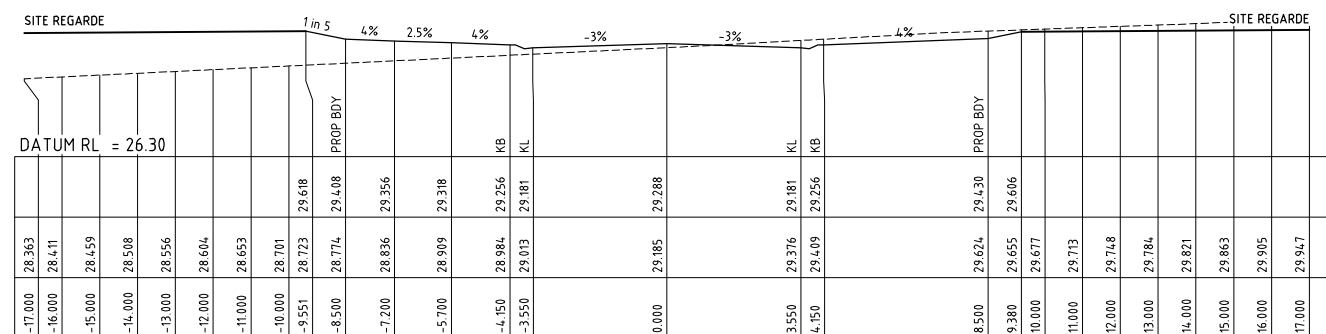
**PROPOSED RESIDENTIAL SUBDIVISION**  
 20 & 20A CANTWELL ROAD  
 LOCHINVAR  
 ROAD 5 LONGITUDINAL SECTION

Project No	
23290C	
Drawing No	Revision
C130	5
A1 SHEET	

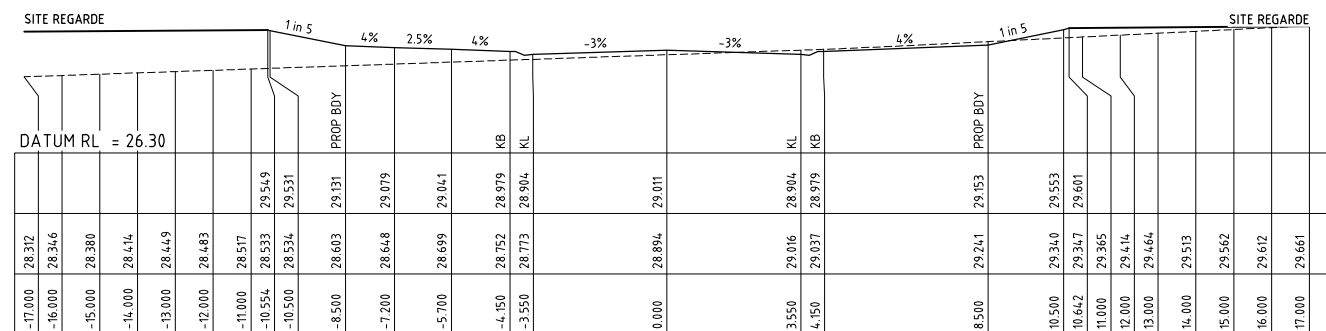
PRELIMINARY ISSUE  
 NOT FOR CONSTRUCTION



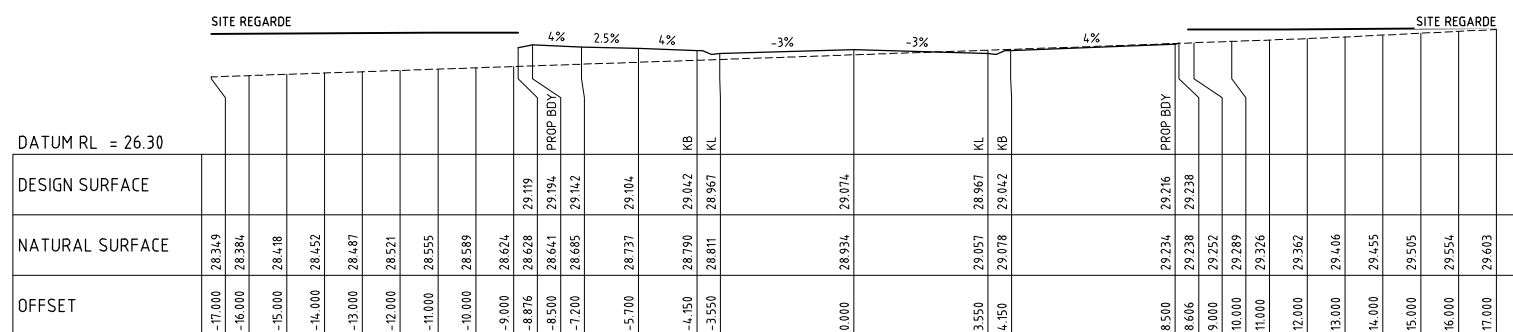
CH 45.00



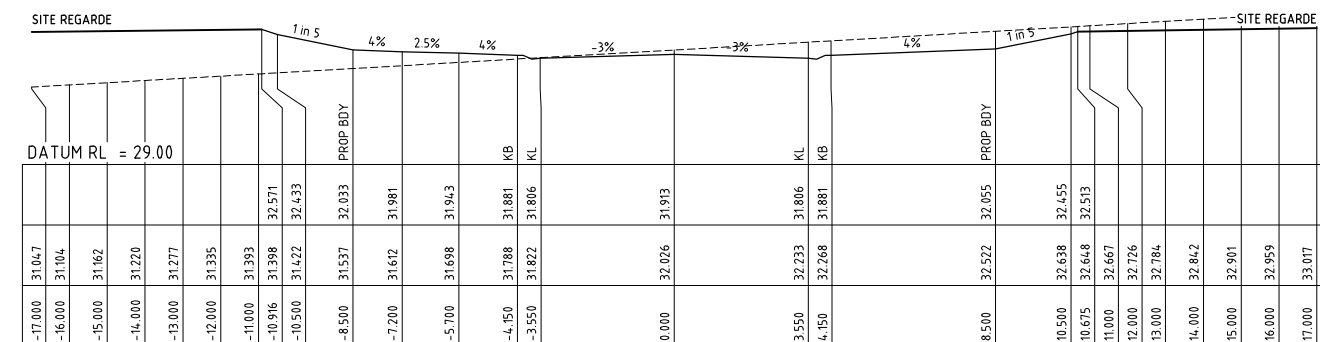
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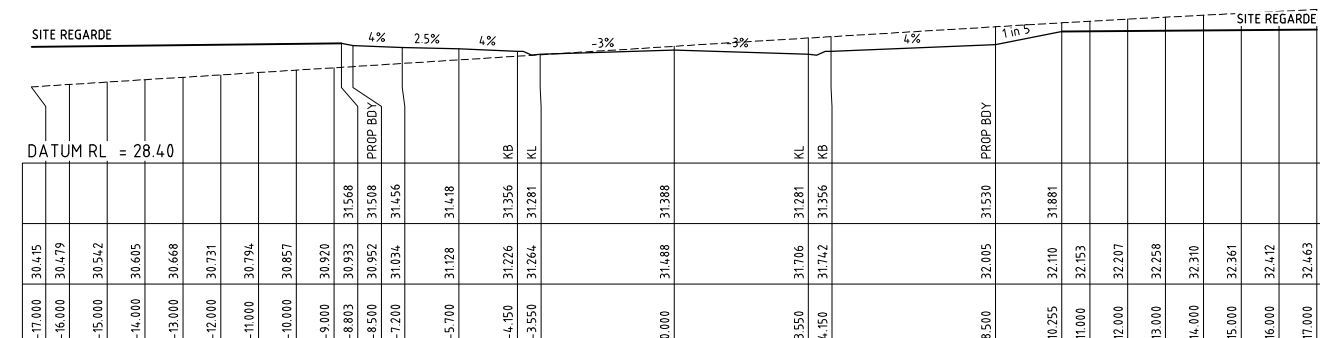
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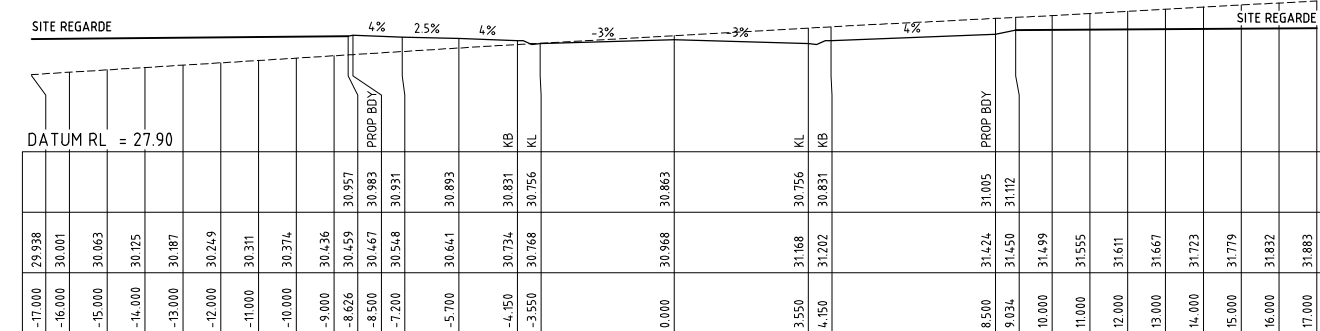
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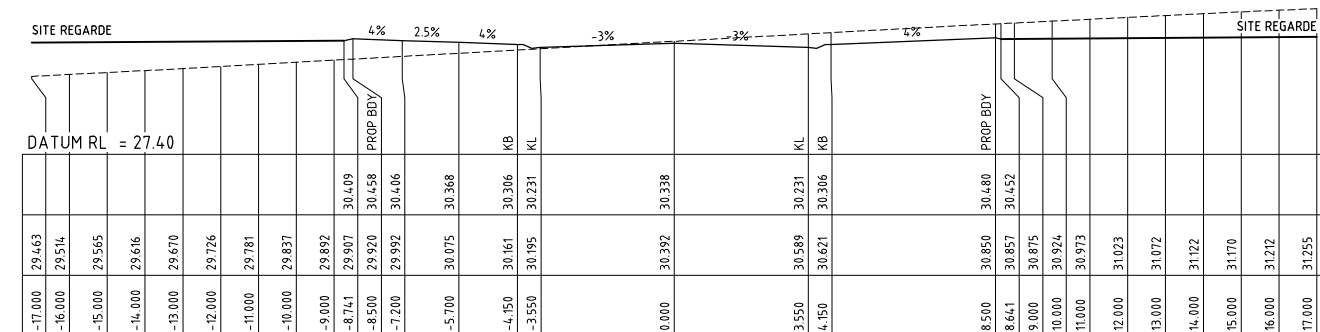
CH 105.000



CH 90.000



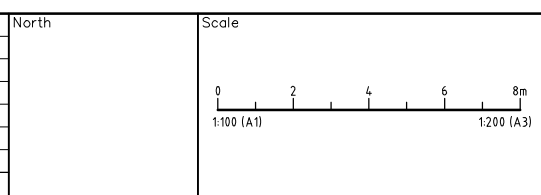
CH 75.000



CH 60.000

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24



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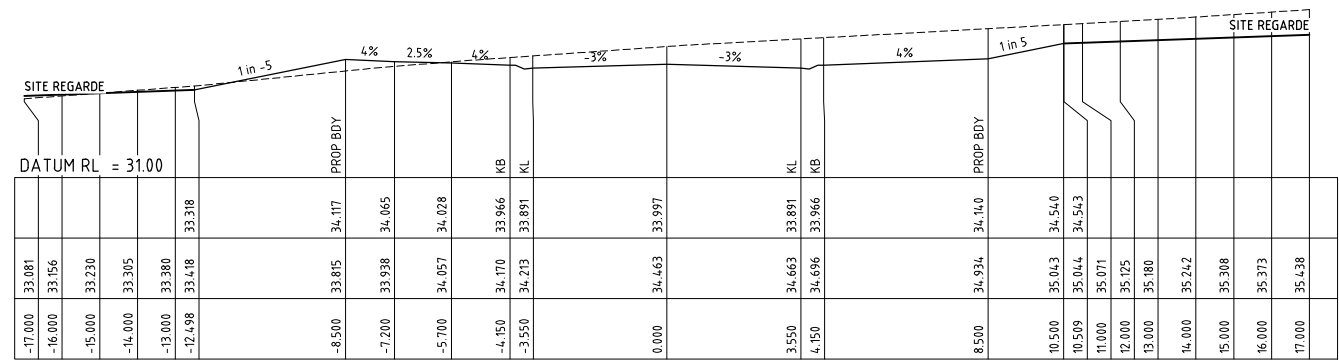
Designed AM  
Scale 1:100  
Cad Reference 23290C dC131 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer

**GCA**  
ENGINEERING SOLUTIONS  
A.B.N. 92 086 017 745  
1 HARTLEY DRIVE, THORNTON NSW 2322  
PO BOX 3337, THORNTON NSW 2322  
PHONE: (02) 4964 1811

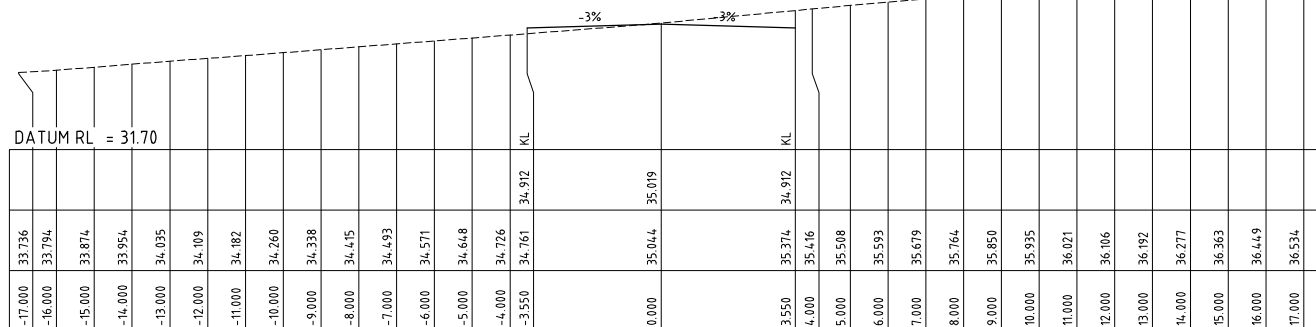
**PROPOSED RESIDENTIAL SUBDIVISION**  
20 & 20A CANTWELL ROAD  
LOCHINVAR  
ROAD 5 CROSS SECTIONS (1 OF 2)

Project No	
23290C	
Drawing No	Revision
C131	5
A1 SHEET	

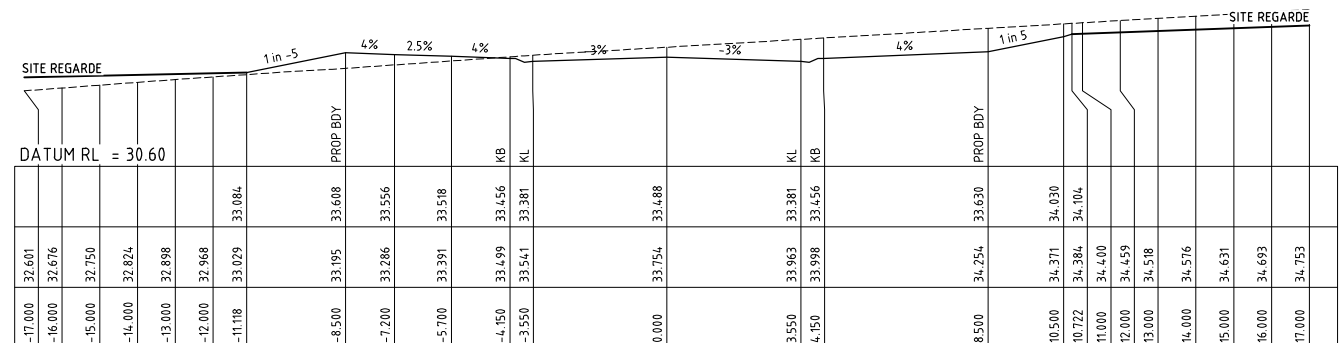




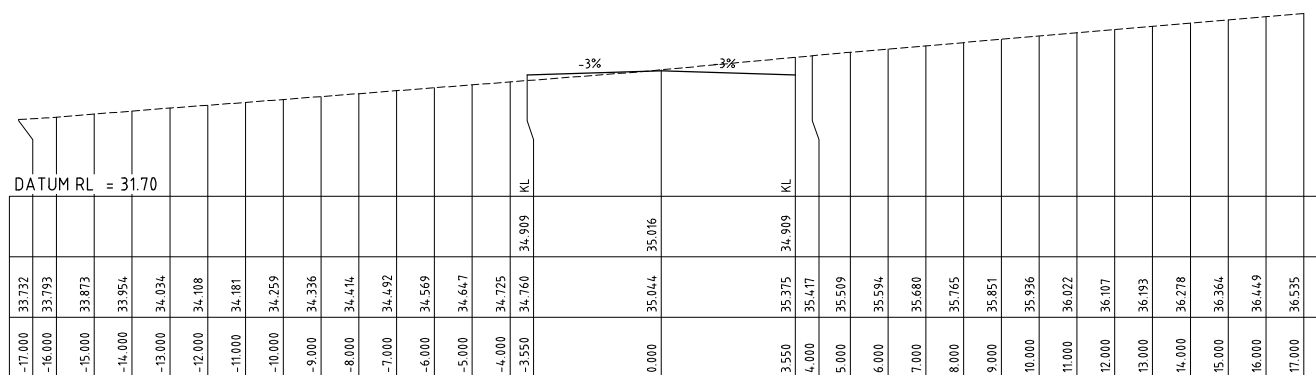
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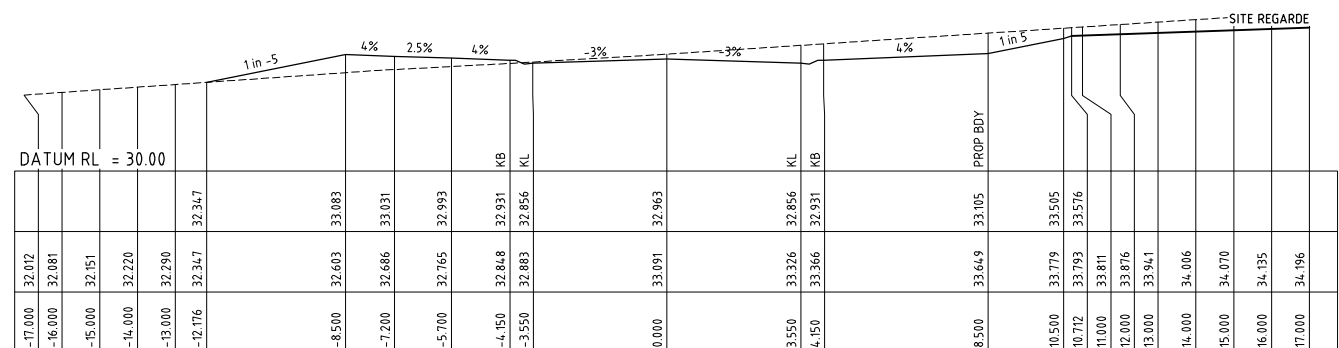
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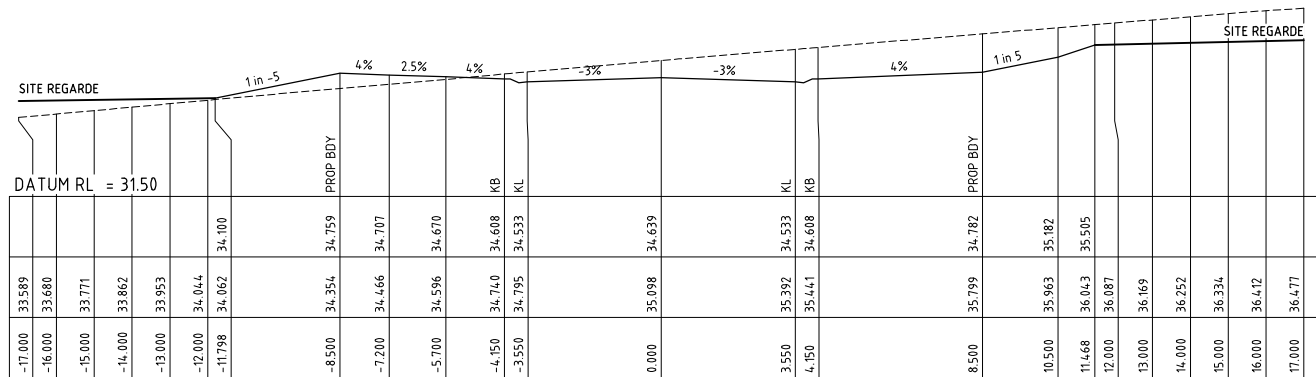
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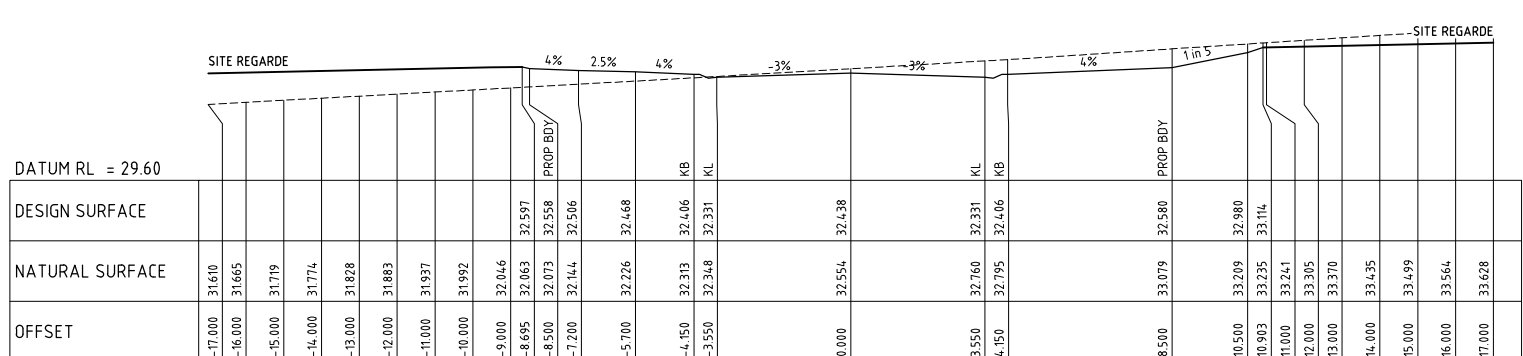
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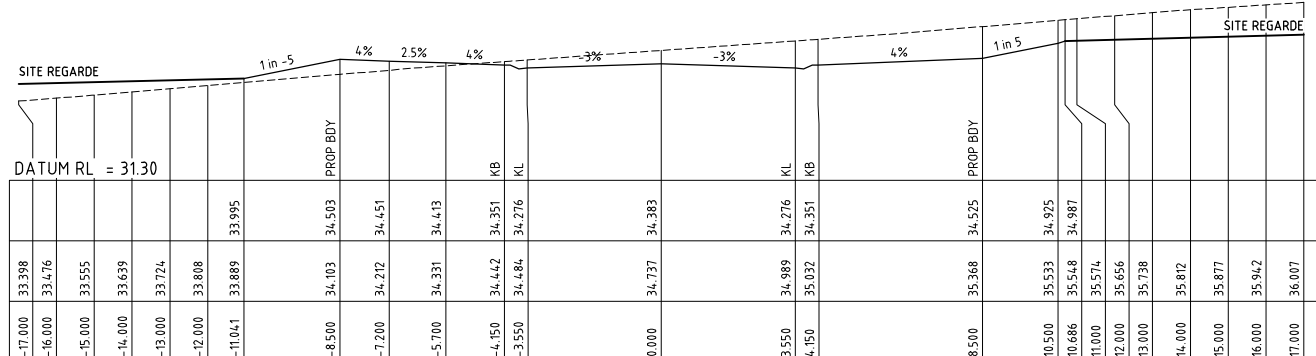
CH 135.000



CH 195.000



CH 120.000



CH 180.000

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24

North

Scale

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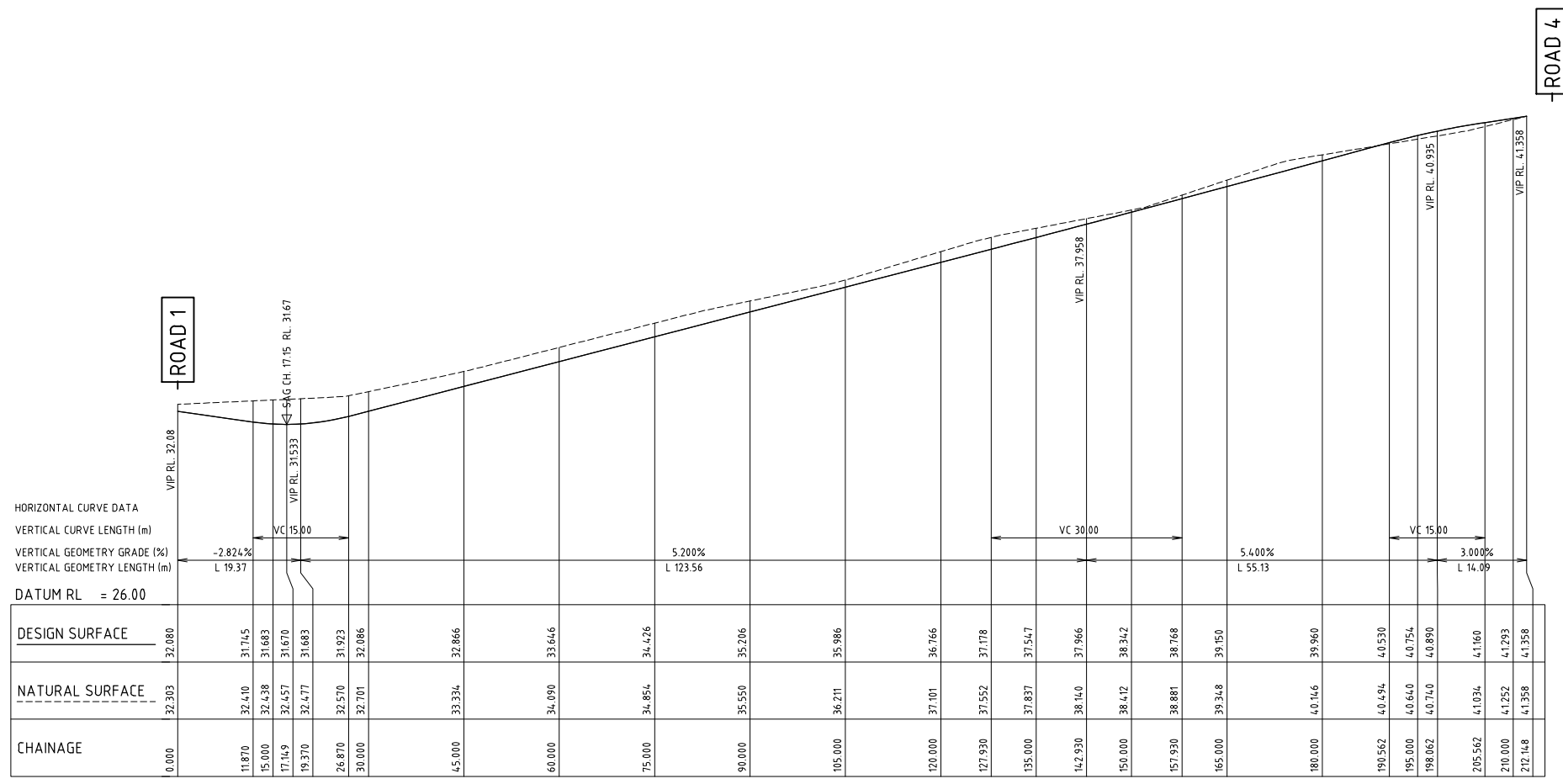
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Designed AM  
Scale 1:100  
Cad Reference 23290C dC132 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer



**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
 ROAD 5 CROSS SECTIONS (2 OF 2)

Project No <b>23290C</b>	
Drawing No <b>C132</b>	Revision <b>5</b>
A1 SHEET	

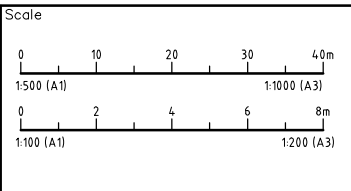


A1 SCALE: HORIZONTAL 1:500, VERTICAL 1:100  
LONGITUDINAL SECTION ROAD 6

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
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2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24

North
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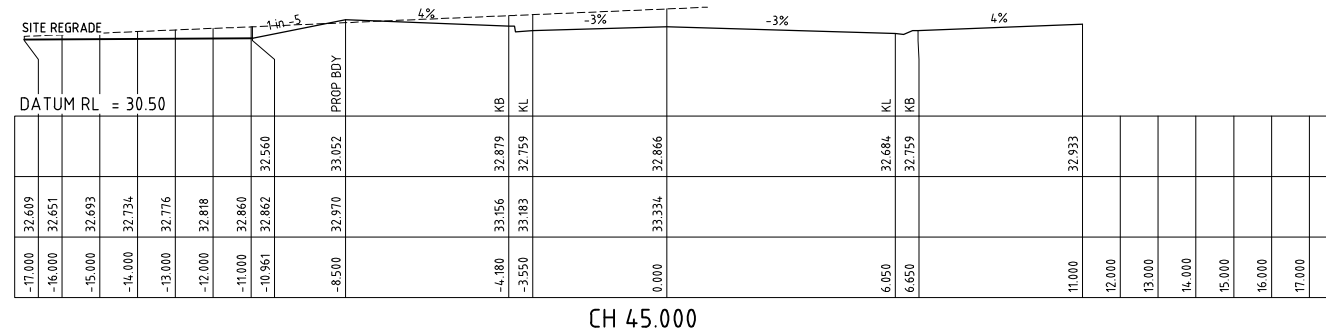
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Designed AM  
Scale 1:500/1:100  
Cad Reference 23290C dC133 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer

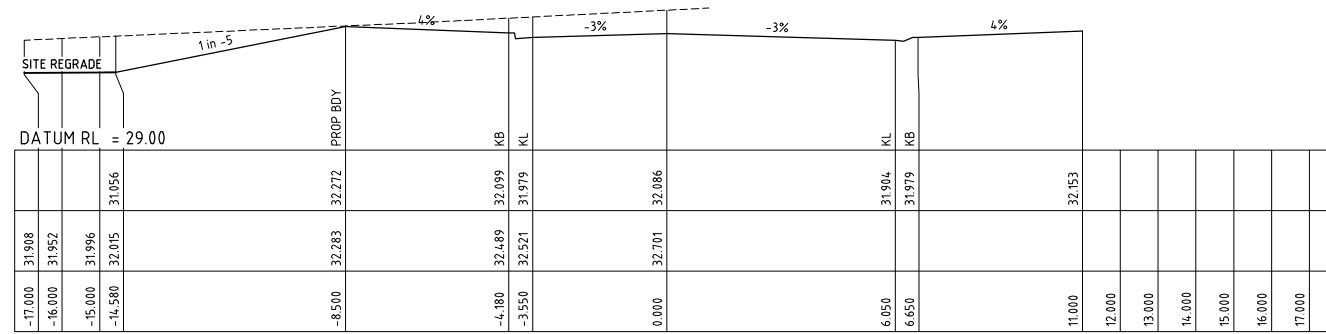


**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
ROAD 6 LONGITUDINAL SECTION

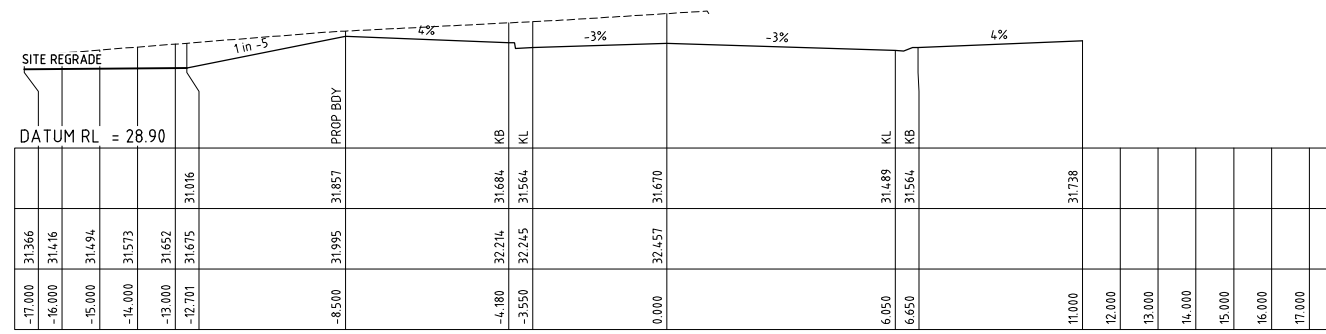
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Drawing No <b>C133</b>	Revision <b>5</b>
A1 SHEET	



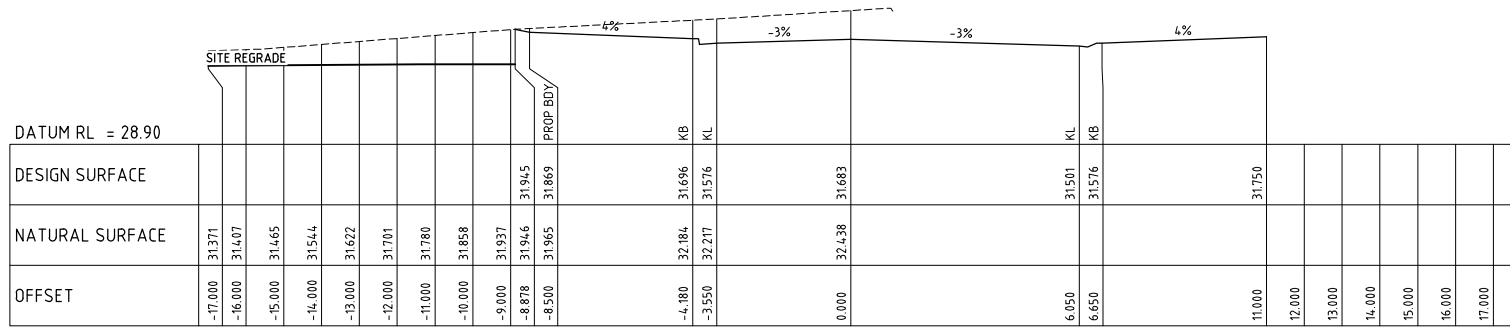
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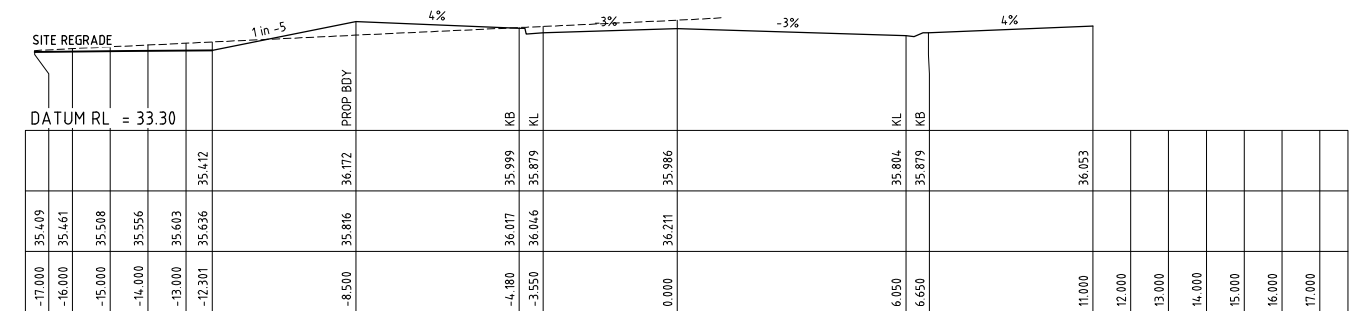
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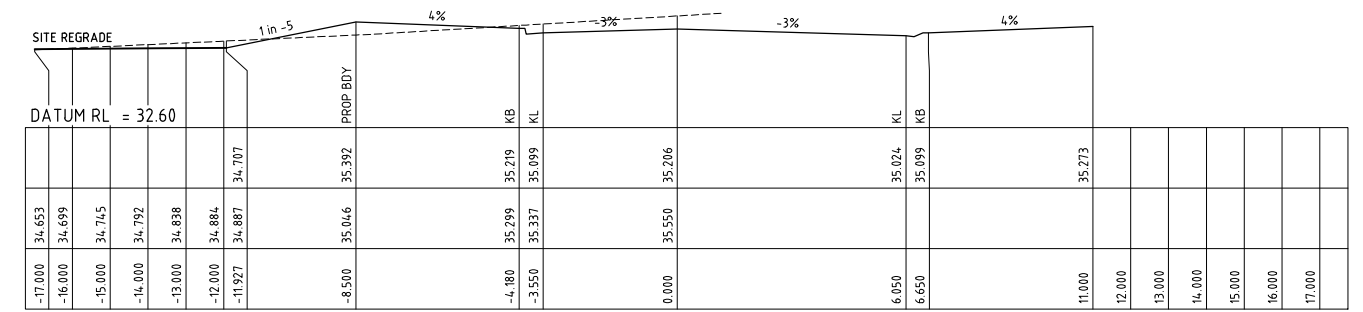
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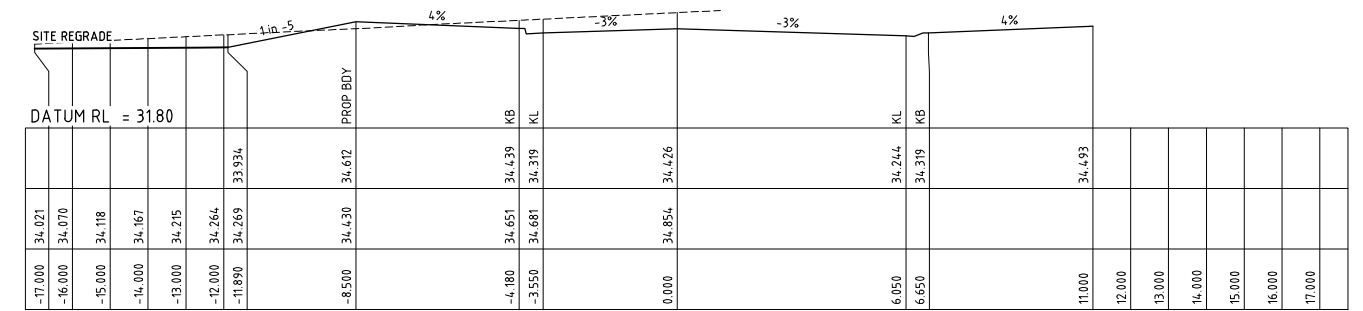
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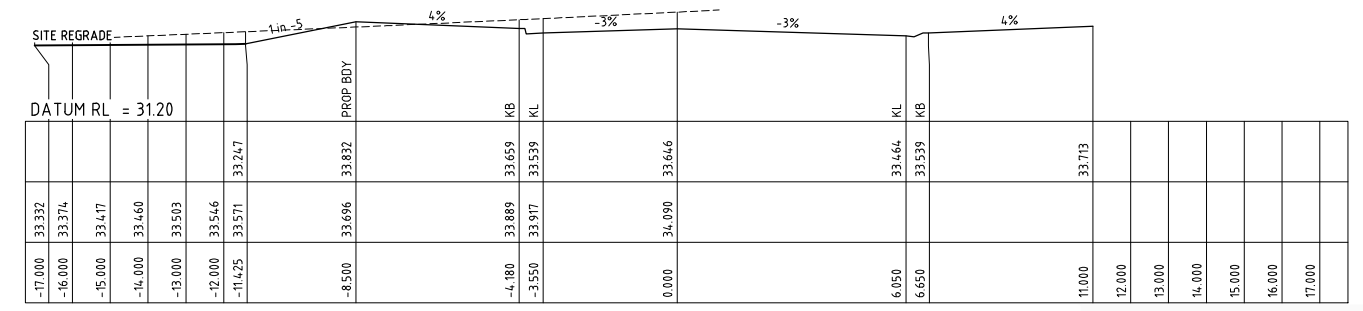
CH 105.00



CH 90.00



CH 75.00

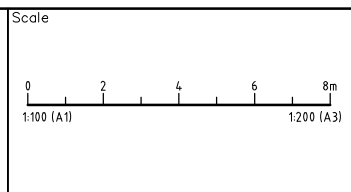


CH 60.00

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
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4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24

North



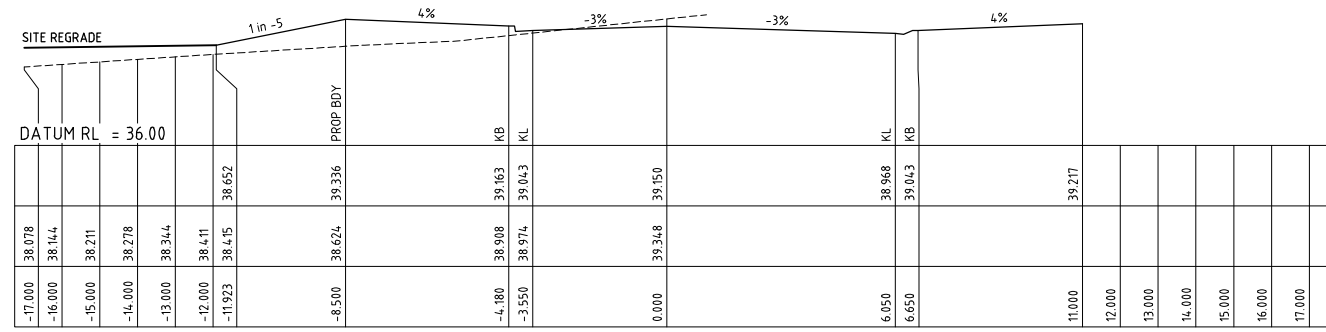
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Designed AM  
Scale 1:100  
Cad Reference  
23290C dC134 r5  
Project Approval  
IAN HILL (B.E)  
Consulting Civil Engineer

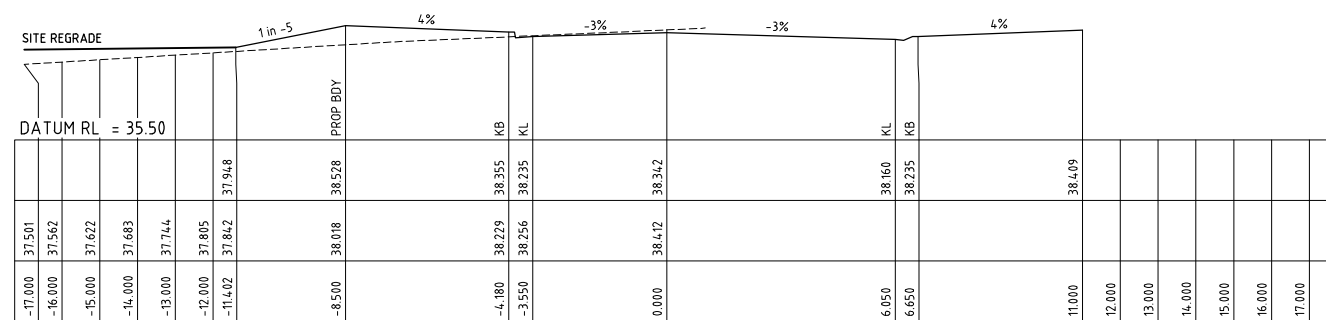


PROPOSED RESIDENTIAL SUBDIVISION  
20 & 20A CANTWELL ROAD  
LOCHINVAR  
ROAD 6 CROSS SECTIONS (1 OF 2)

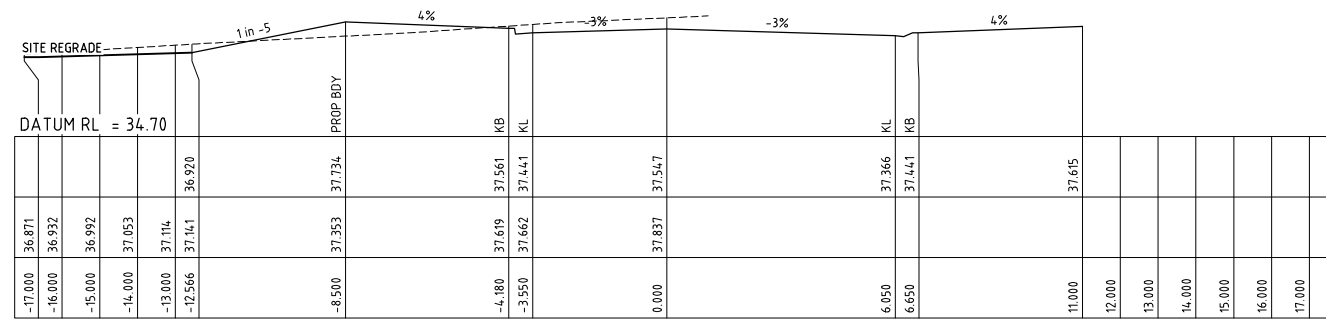
Project No  
23290C  
Drawing No  
C134  
Revision  
5  
A1 SHEET



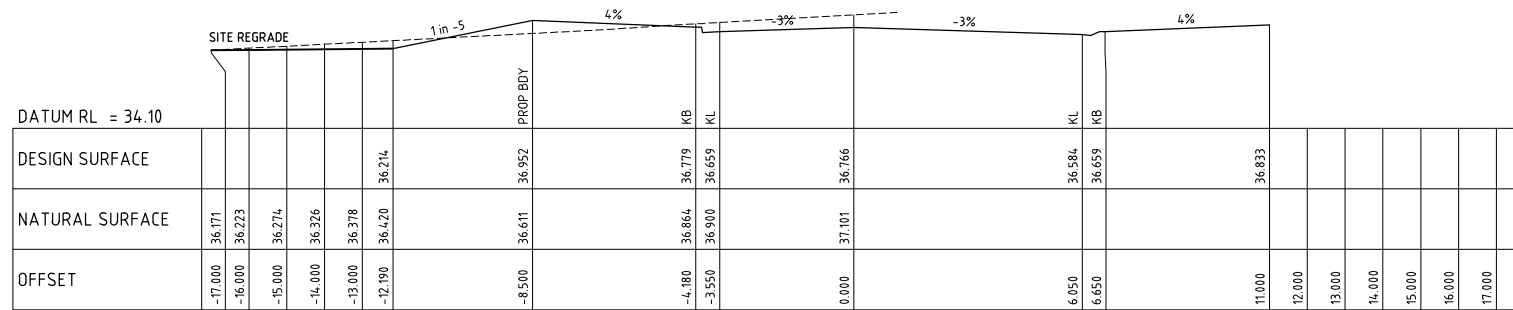
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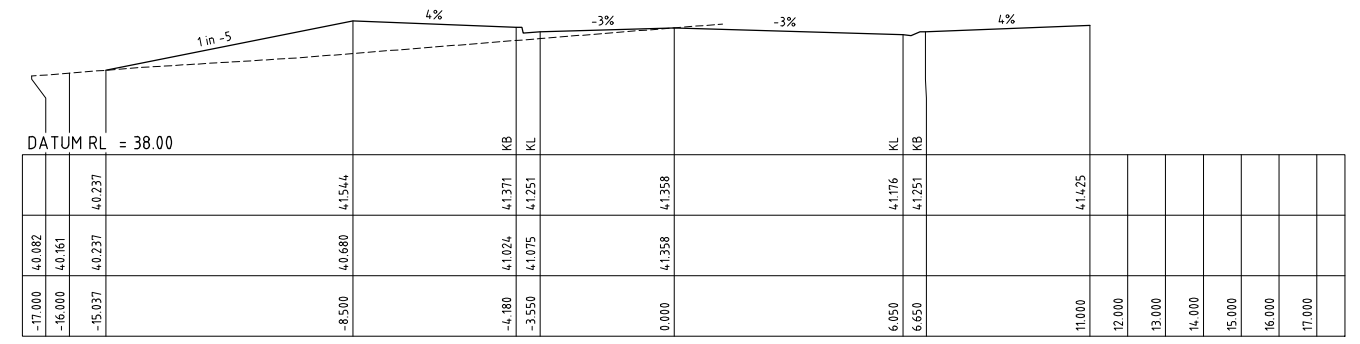
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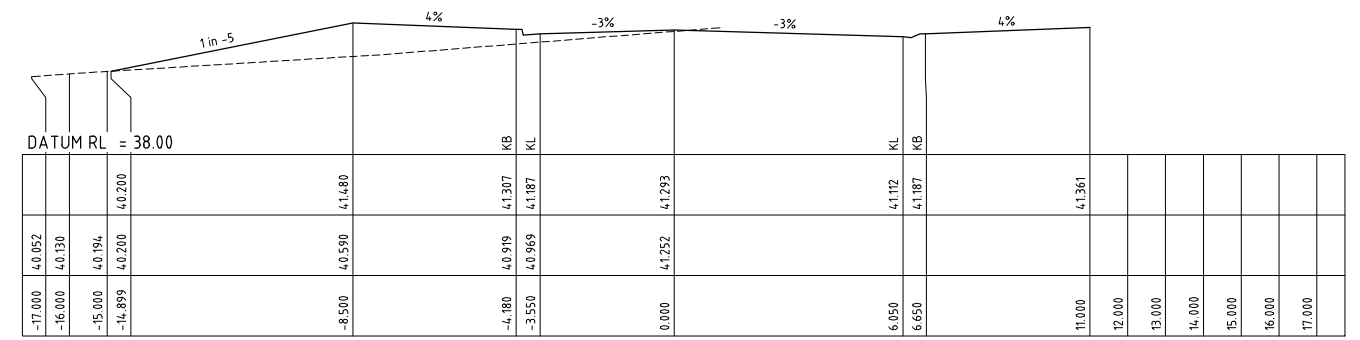
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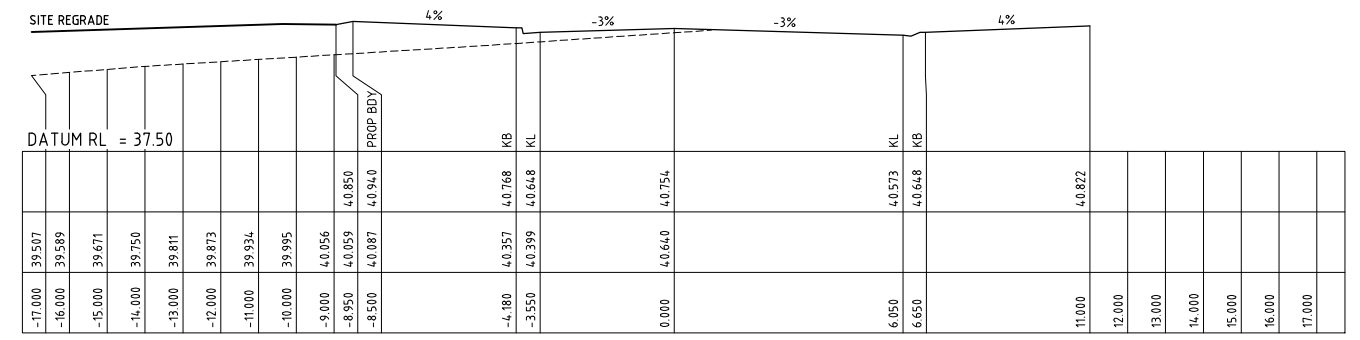
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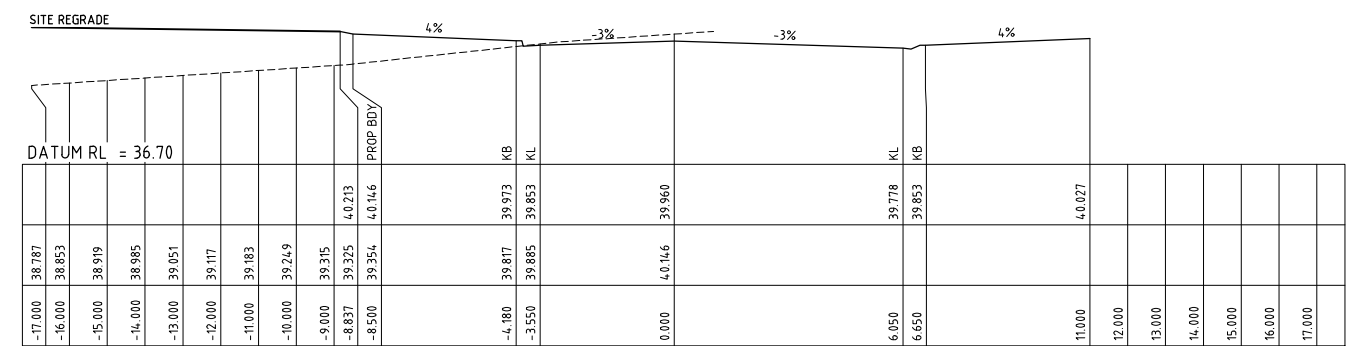
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CH 210.000



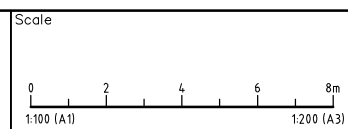
CH 195.000



CH 180.000

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

				North
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24
REVISION	Description	Drawn	App'd	Date



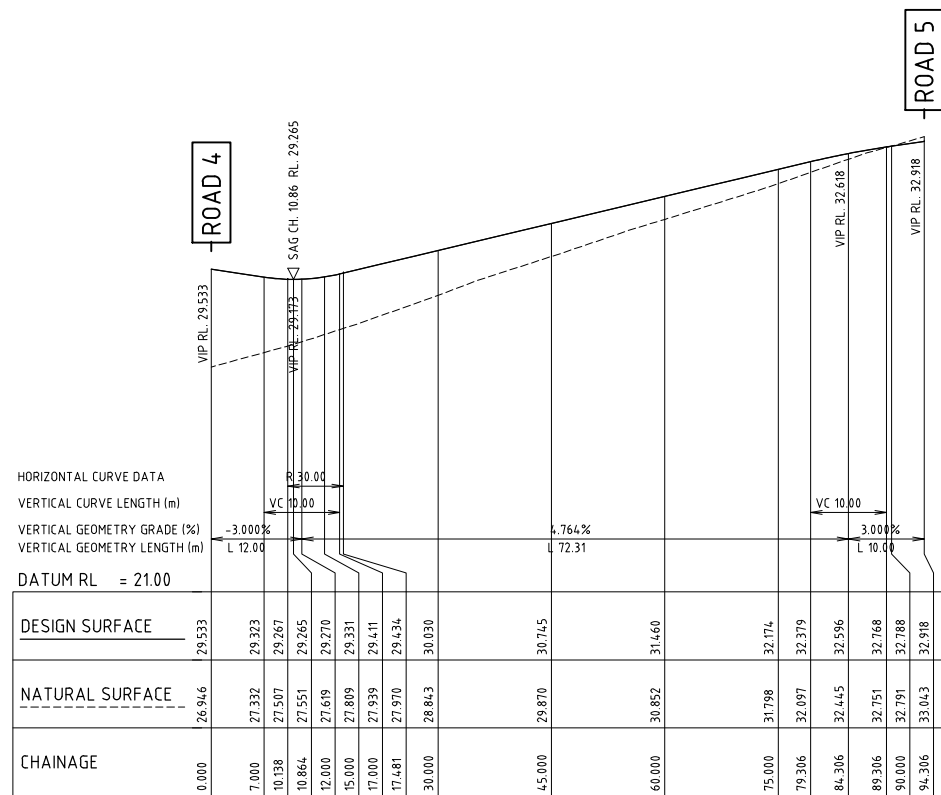
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Designed AM  
Scale 1:100  
Cad Reference 23290C dC135 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer



PROPOSED RESIDENTIAL SUBDIVISION  
20 & 20A CANTWELL ROAD  
LOCHINVAR  
ROAD 6 CROSS SECTIONS (2 OF 2)

Project No	
23290C	
Drawing No	Revision
C135	5
A1 SHEET	

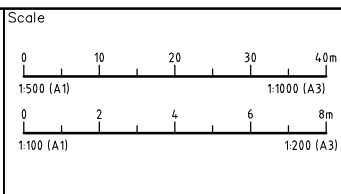


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LONGITUDINAL SECTION ROAD 7

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

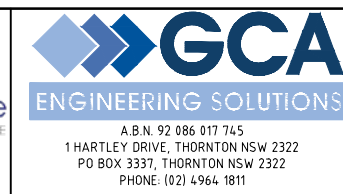
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4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24

North
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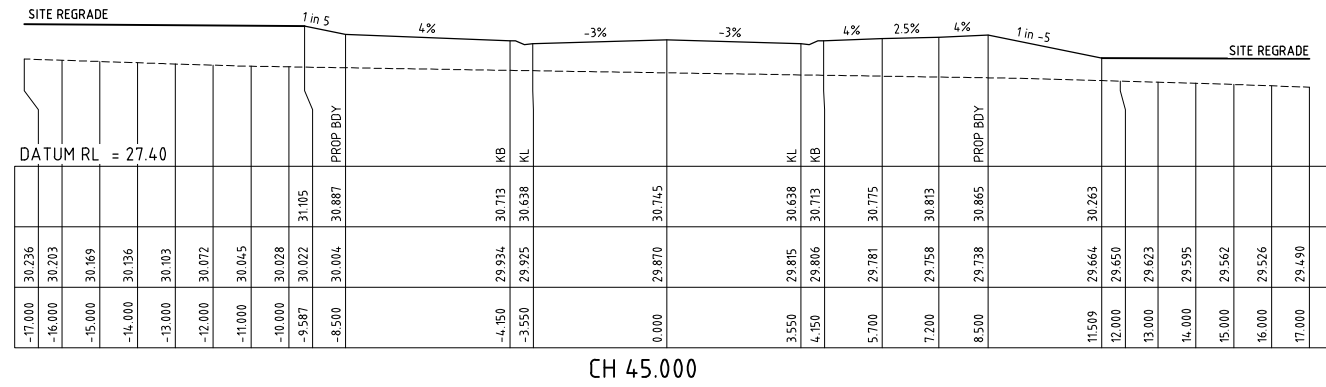
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Designed AM	Scale 1:500/1:100
Cad Reference 23290C dC136 r5	
Project Approval IAN HILL (B.E) Consulting Civil Engineer	

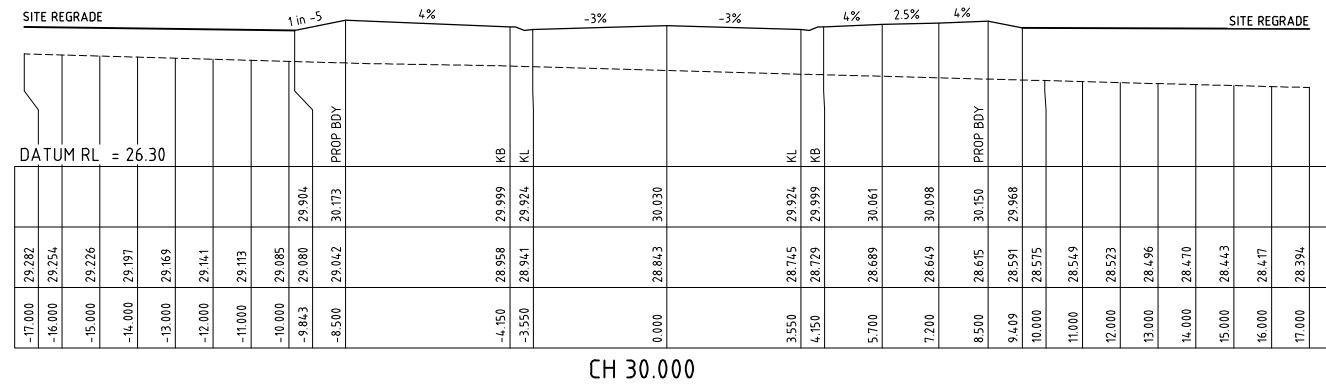


**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
ROAD 7 LONGITUDINAL SECTION

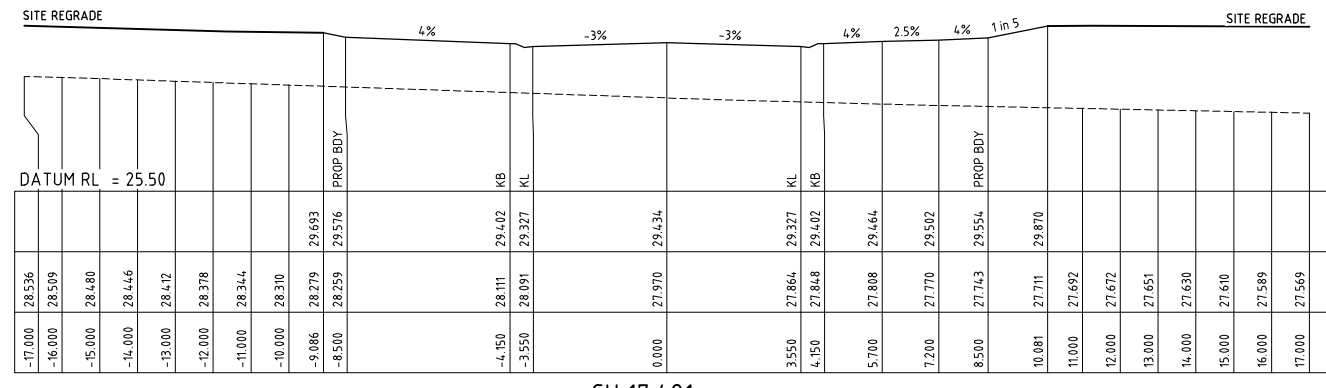
Project No <b>23290C</b>	
Drawing No <b>C136</b>	Revision <b>5</b>
A1 SHEET	



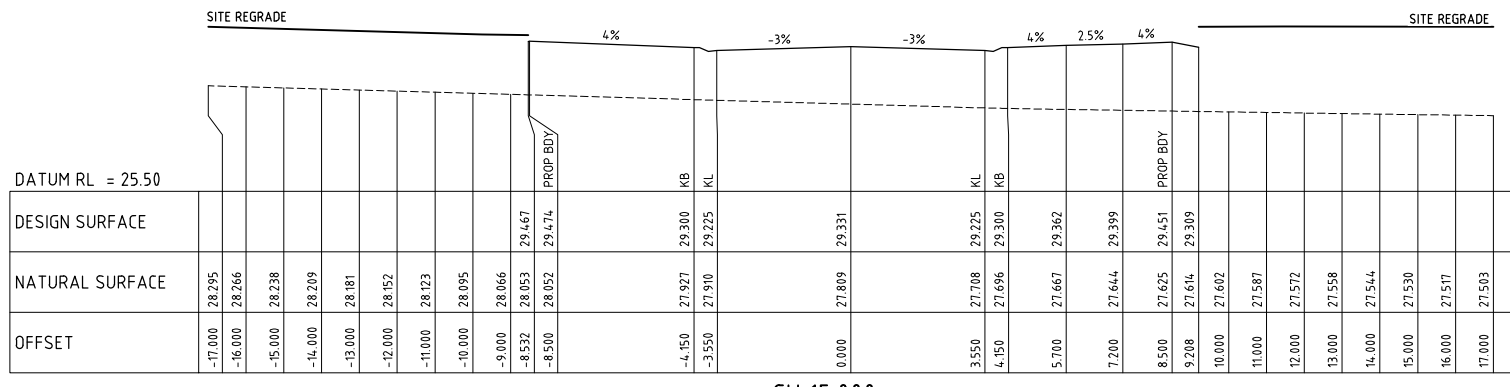
CH 45.00



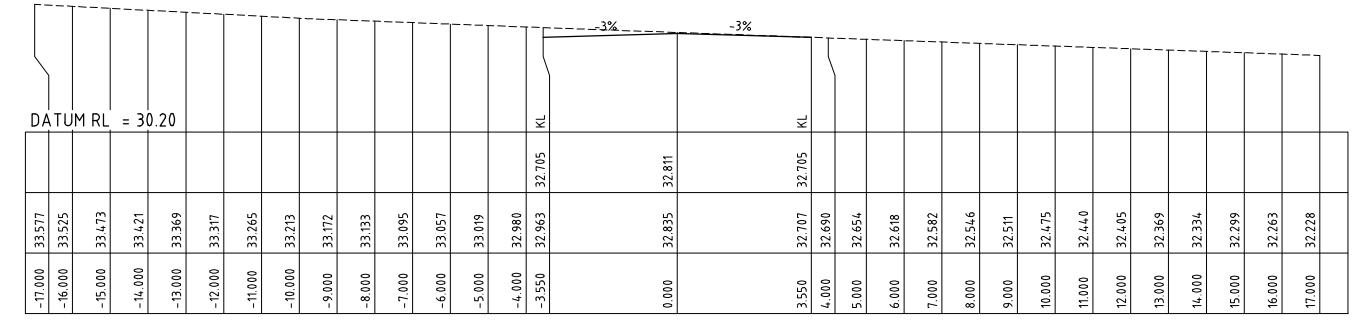
CH 30.00



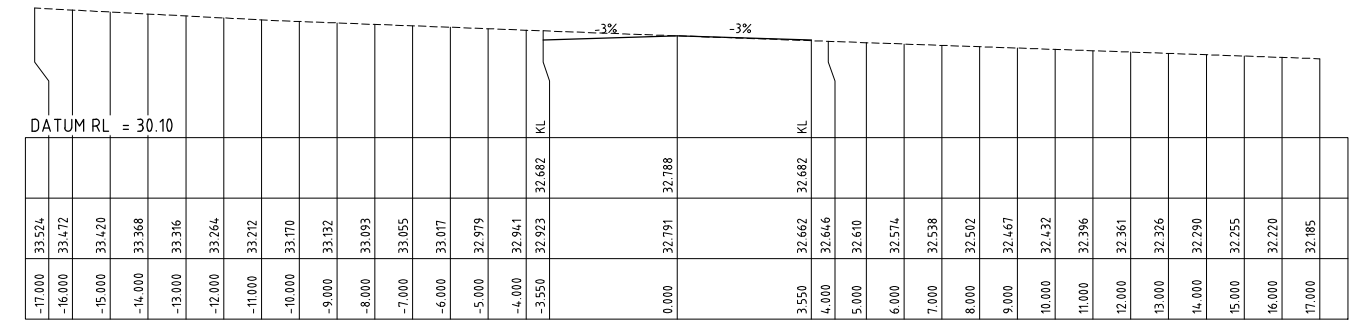
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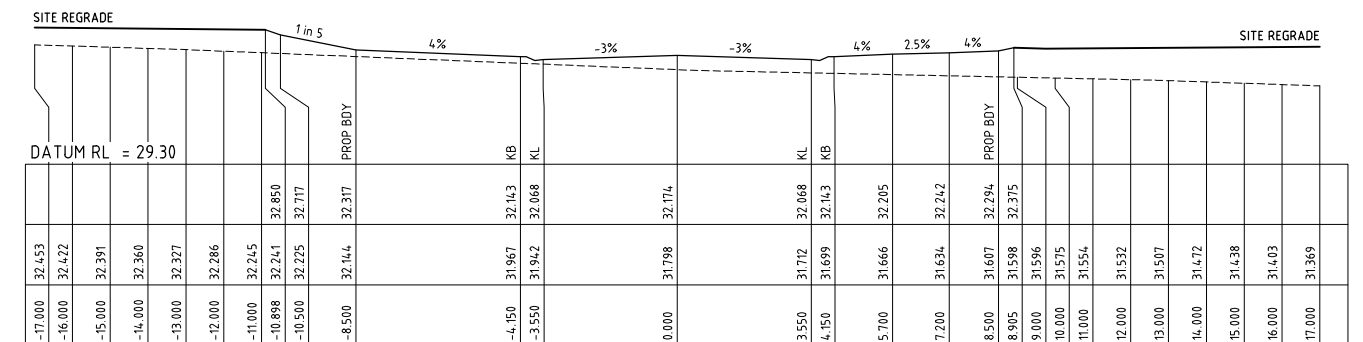
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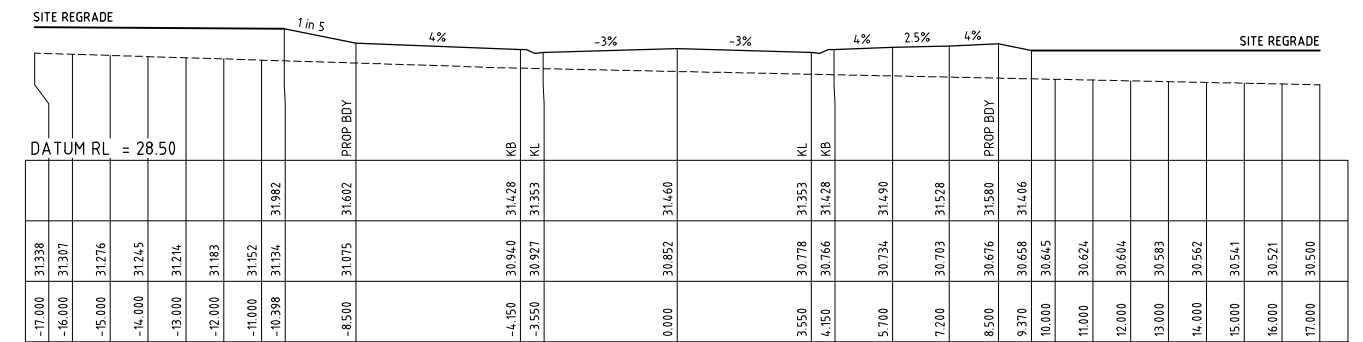
CH 90.756



CH 90.000



CH 75.000



CH 60.000

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24

North

Scale

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Designed AM

Scale 1:100

Cad Reference 23290C dC137 r5

Project Approval IAN HILL (B.E) Consulting Civil Engineer

Client

A.B.N. 92 086 017 745  
1 HARTLEY DRIVE, THORNTON NSW 2322  
PO BOX 3337, THORNTON NSW 2322  
PHONE: (02) 4964 1811

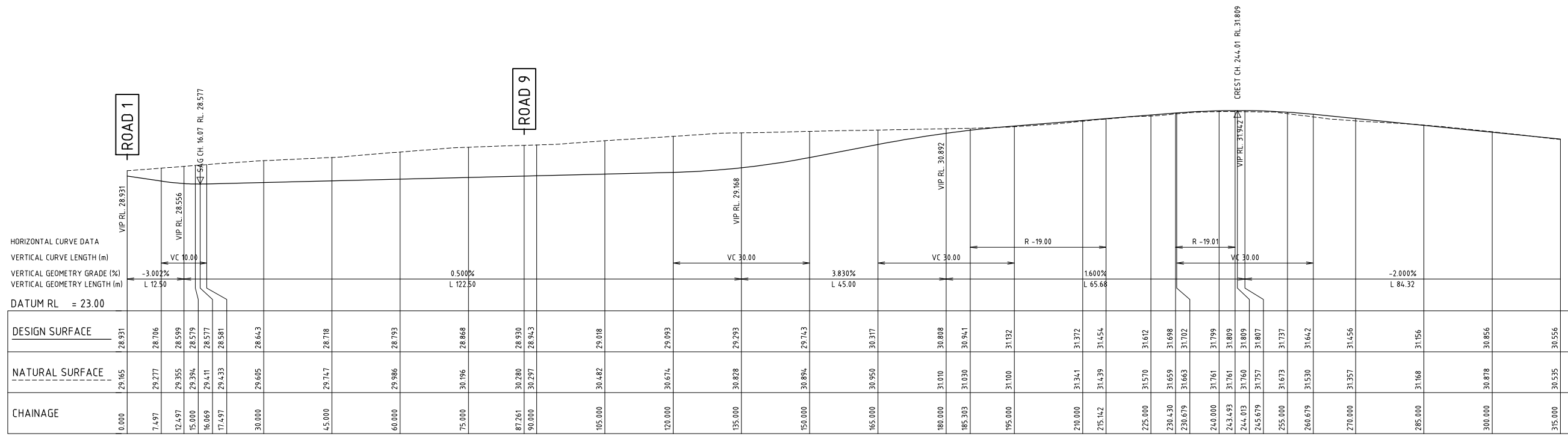
PROPOSED RESIDENTIAL SUBDIVISION  
20 & 20A CANTWELL ROAD  
LOCHINVAR  
ROAD 7 CROSS SECTIONS

Project No  
**23290C**

Drawing No  
**C137**

Revision  
**5**

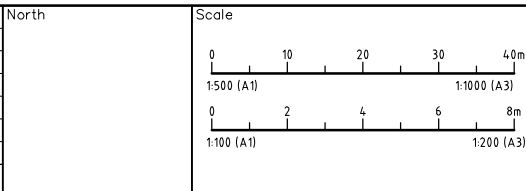
A1 SHEET



A1 SCALE: HORIZONTAL 1:500, VERTICAL 1:100  
 LONGITUDINAL SECTION ROAD 8

PRELIMINARY ISSUE  
 NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	MINOR AMENDMENTS	DB	IH	09.12.24
1	ORIGINAL ISSUE	DB	IH	30.09.24



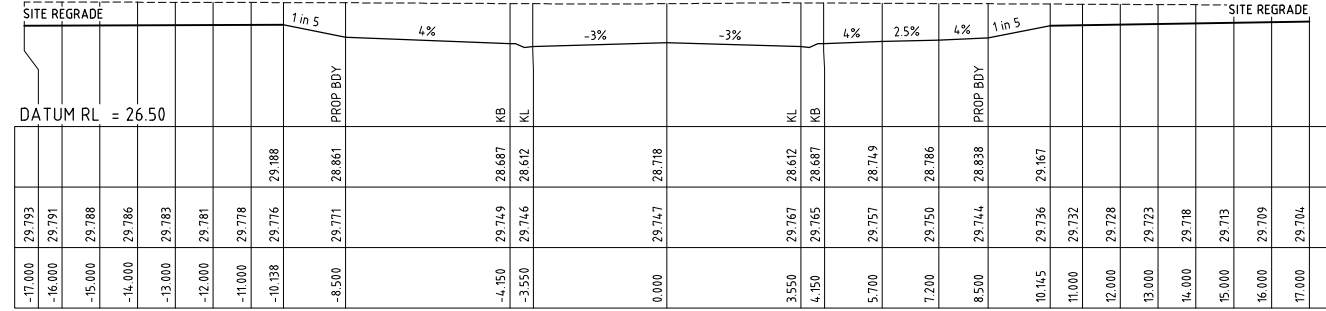
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Designed AM  
 Scale 1:500/1:100  
 Cad Reference 23290C dC138 r5  
 Project Approval IAN HILL (B.E)  
 Consulting Civil Engineer

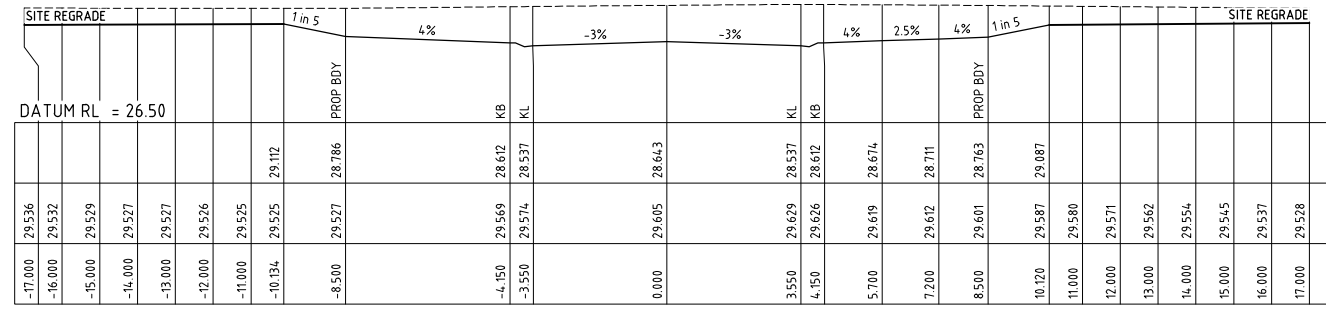


**PROPOSED RESIDENTIAL SUBDIVISION**  
 20 & 20A CANTWELL ROAD  
 LOCHINVAR  
 ROAD 8 LONGITUDINAL SECTION

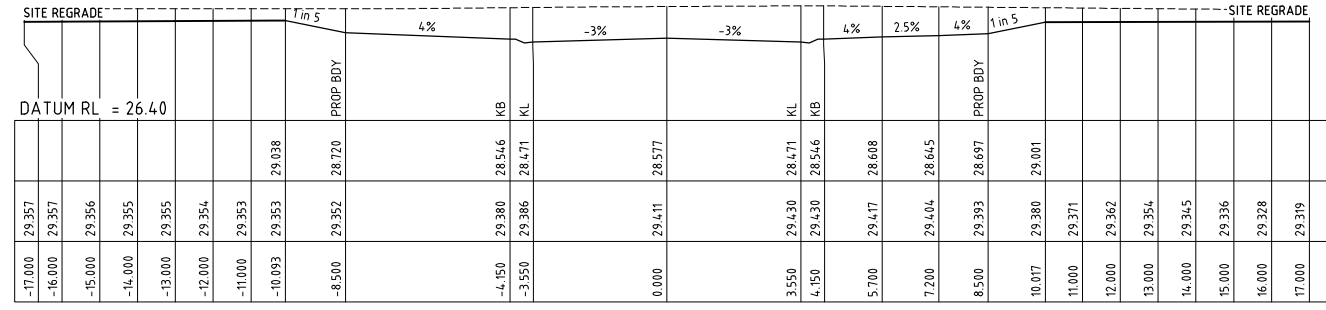
Project No <b>23290C</b>	
Drawing No <b>C138</b>	Revision <b>5</b>
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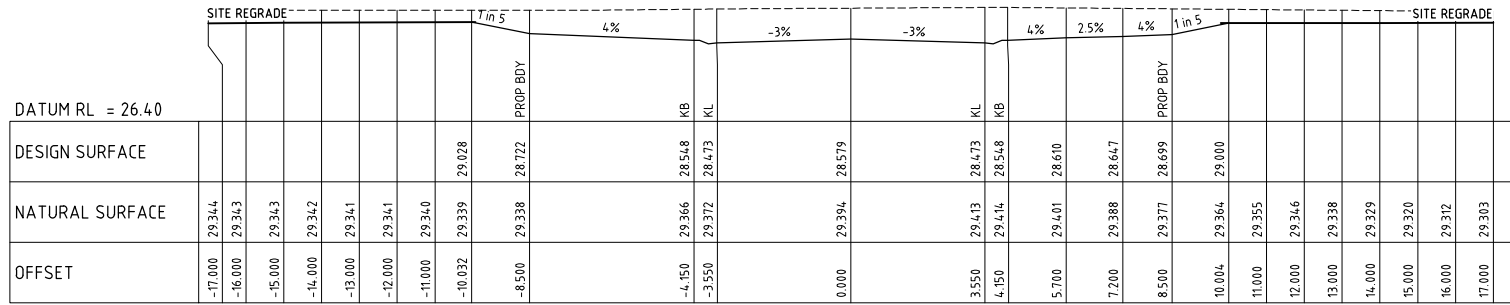
CH 45.000



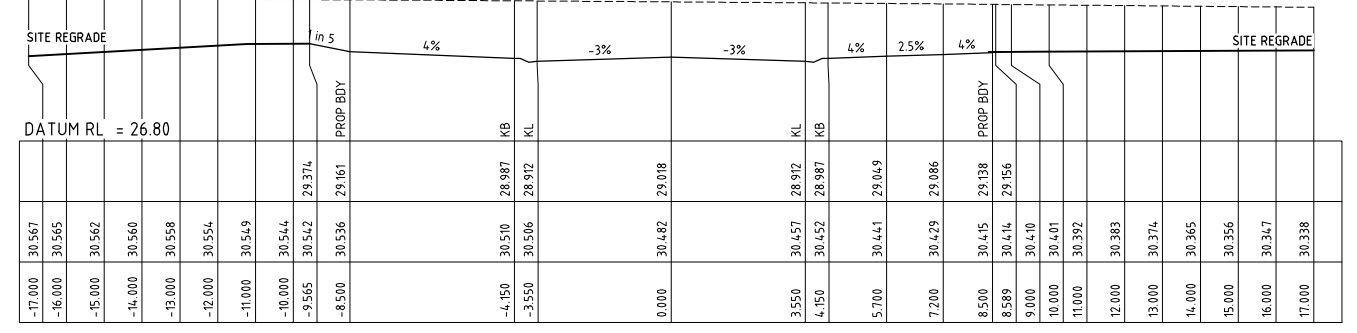
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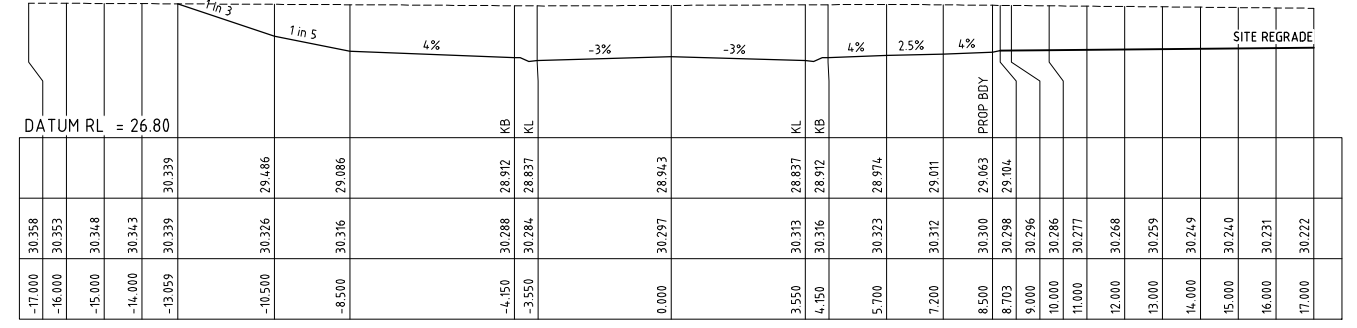
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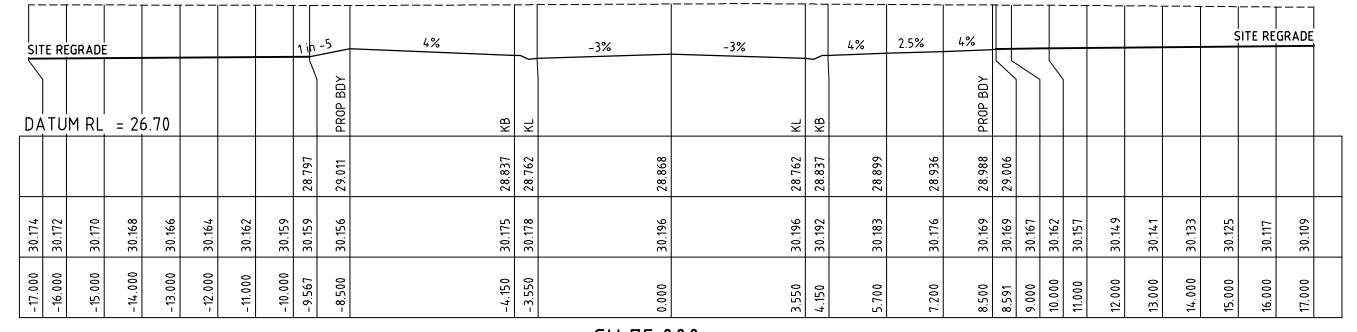
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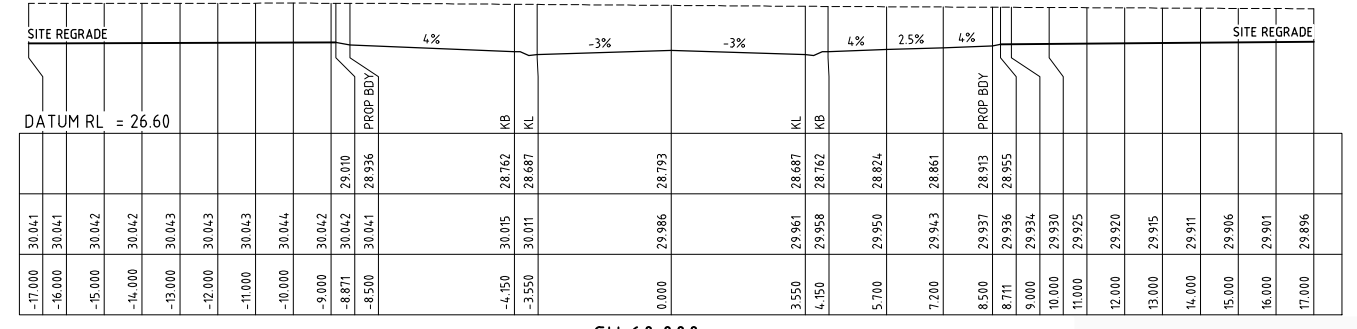
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CH 90.000



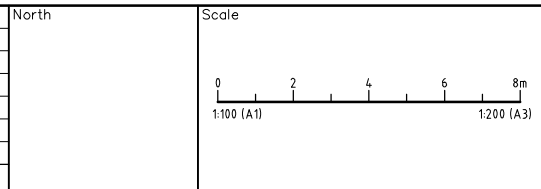
CH 75.000



CH 60.000

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24



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Designed AM Scale 1:100

Cad Reference 23290C dC139 r5

Project Approval IAN HILL (B.E) Consulting Civil Engineer

Client

Catholic Diocese OF MAITLAND-NEWCASTLE

GCA ENGINEERING SOLUTIONS

A.B.N. 92 086 017 745  
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PO BOX 3337, THORNTON NSW 2322  
PHONE: (02) 4964 1811

PROPOSED RESIDENTIAL SUBDIVISION  
20 & 20A CANTWELL ROAD  
LOCHINVAR

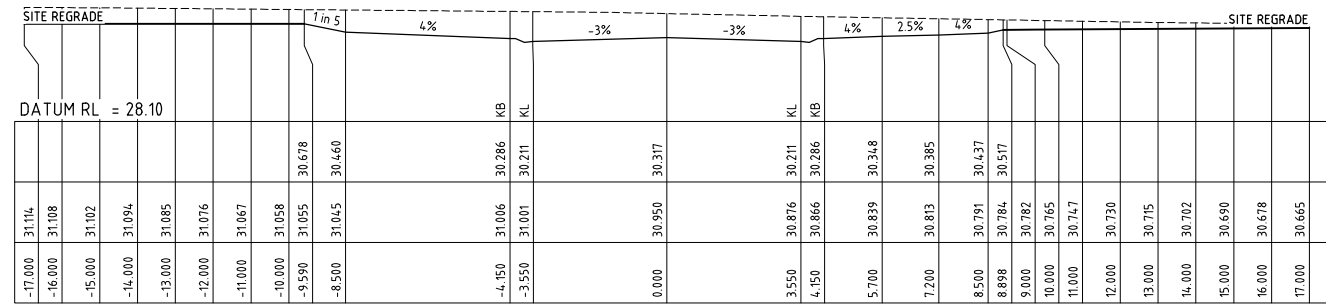
Project No 23290C

Drawing No C139 Revision 5

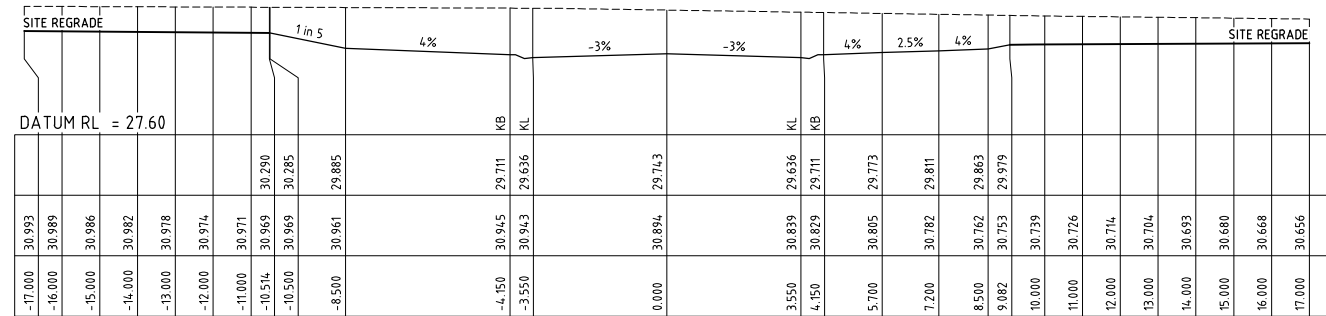
ROAD 8 CROSS SECTIONS (1 OF 5)

A1 SHEET

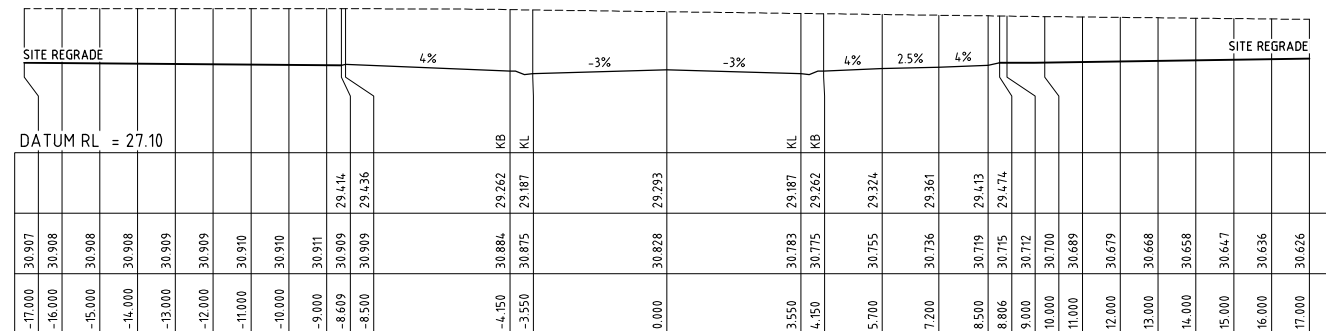




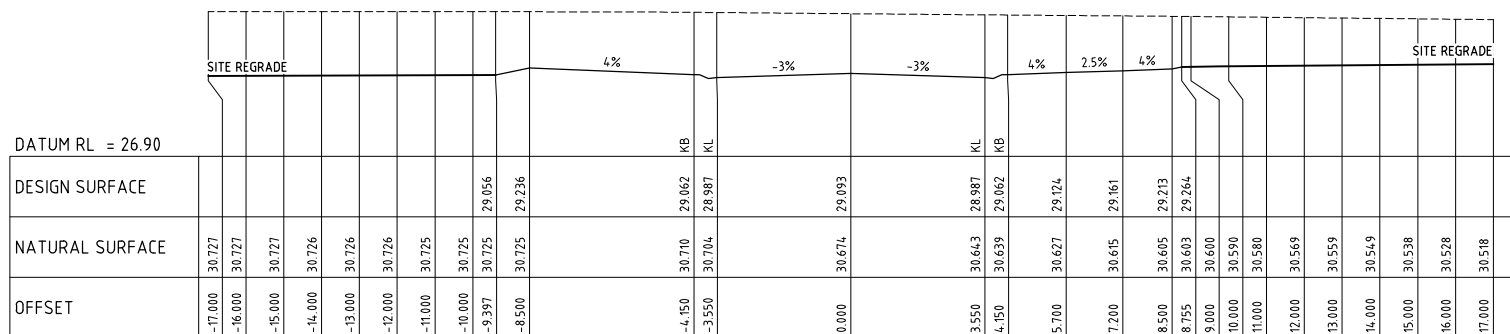
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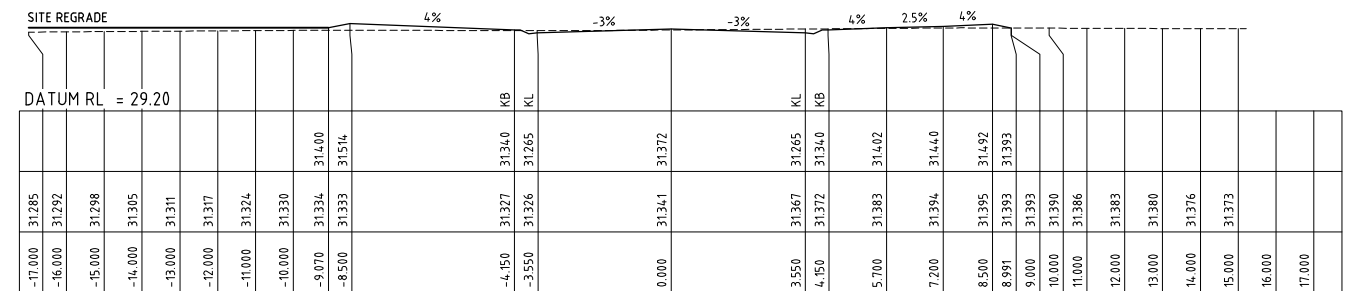
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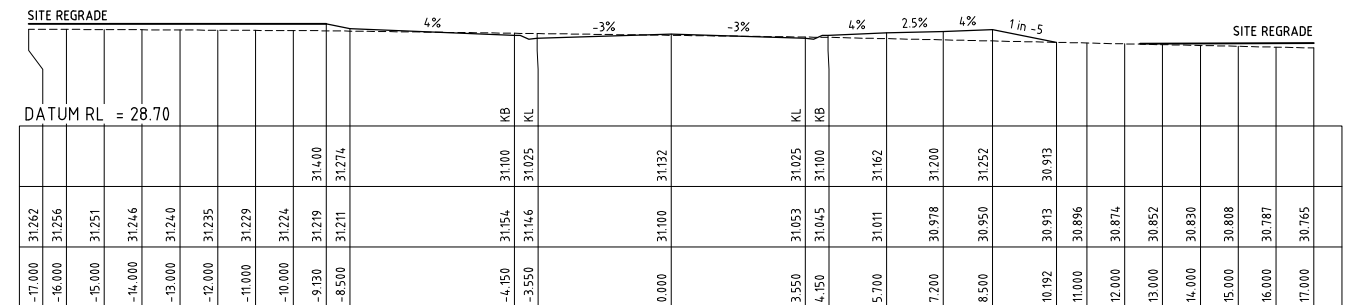
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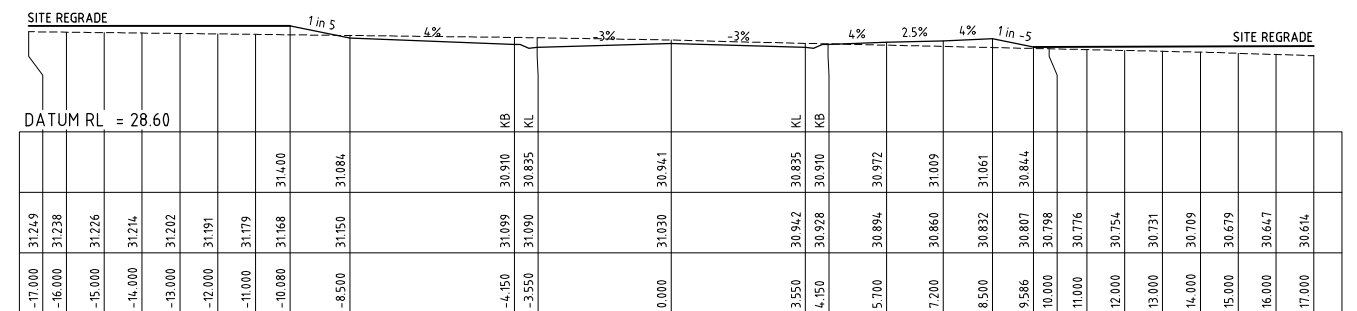
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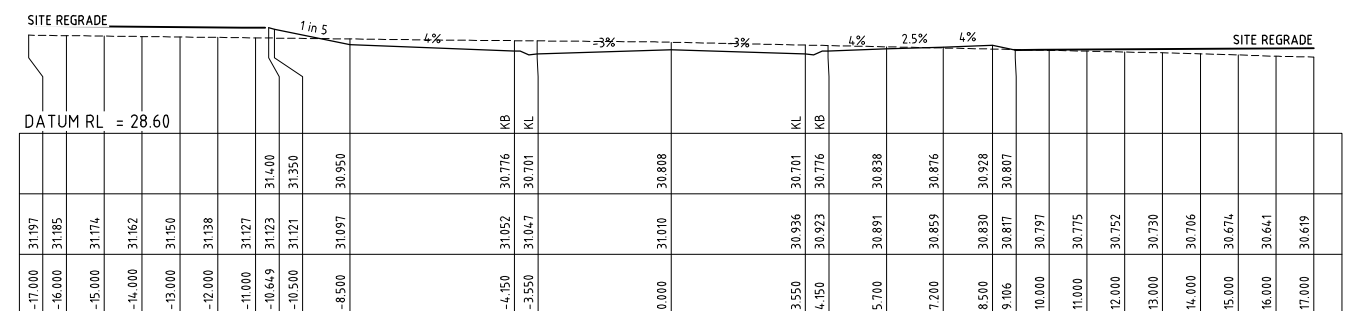
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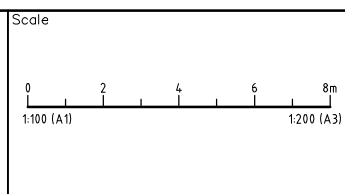


CH 180.000

PRELIMINARY ISSUE  
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REVISION	Description	Drawn	App'd	Date
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4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	MINOR AMENDMENTS	DB	IH	09.12.24
1	ORIGINAL ISSUE	DB	IH	30.09.24

North
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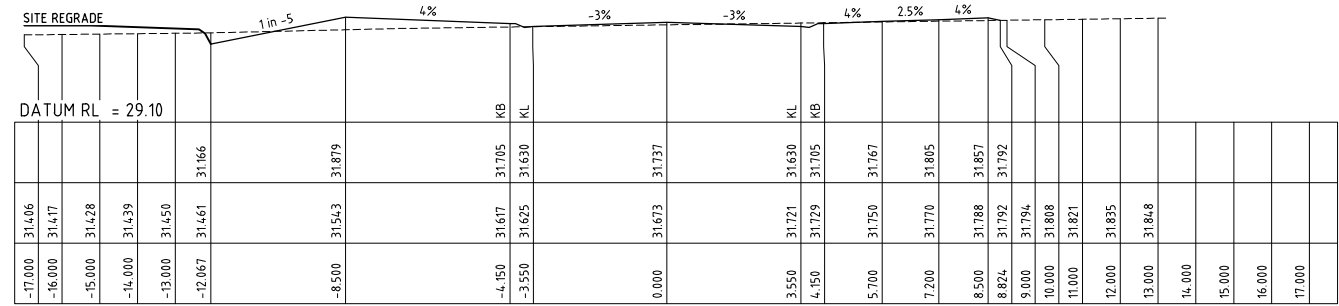
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Designed AM  
Scale 1:100  
Cad Reference 23290C dC140 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer

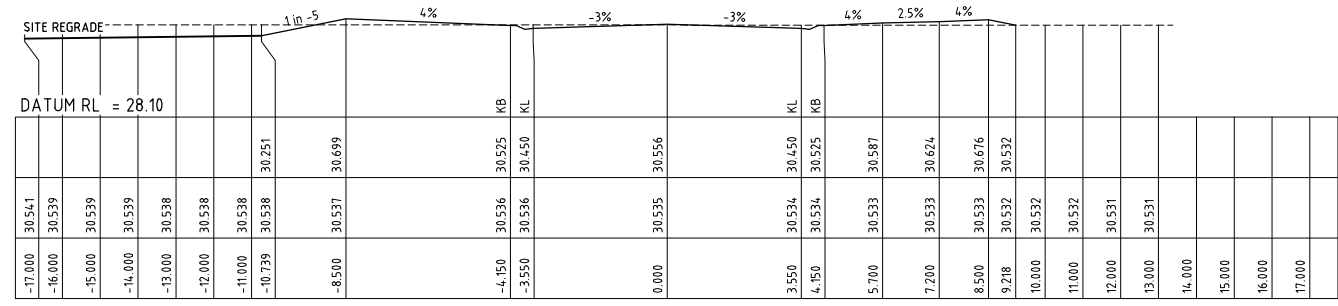


PROPOSED RESIDENTIAL SUBDIVISION  
20 & 20A CANTWELL ROAD  
LOCHINVAR  
ROAD 8 CROSS SECTIONS (2 OF 5)

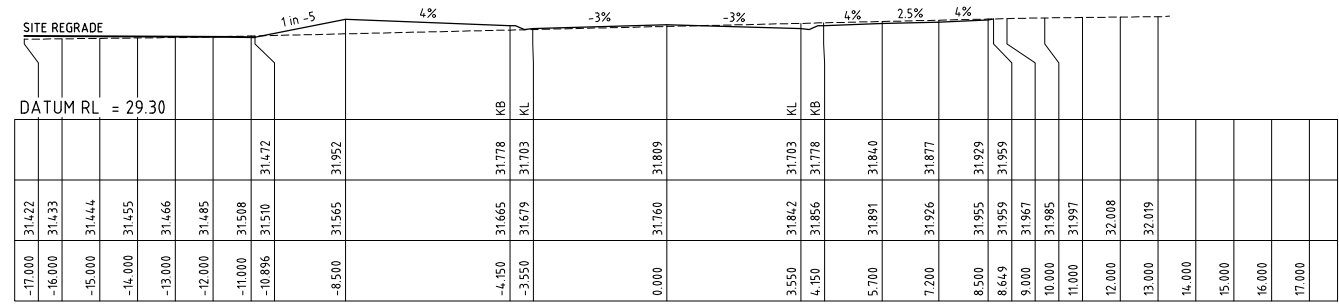
Project No	23290C
Drawing No	C140
Revision	5
A1 SHEET	



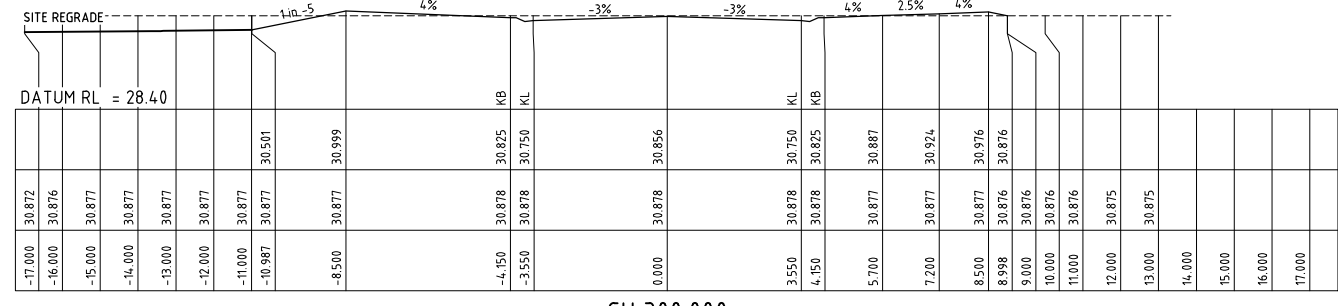
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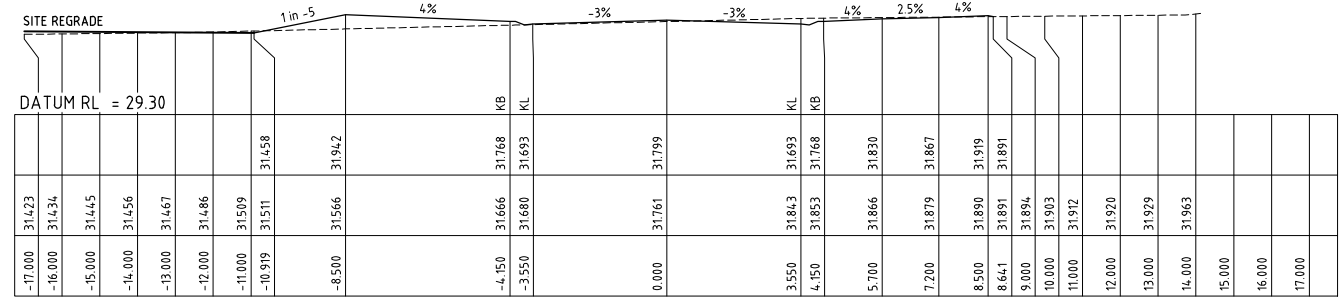
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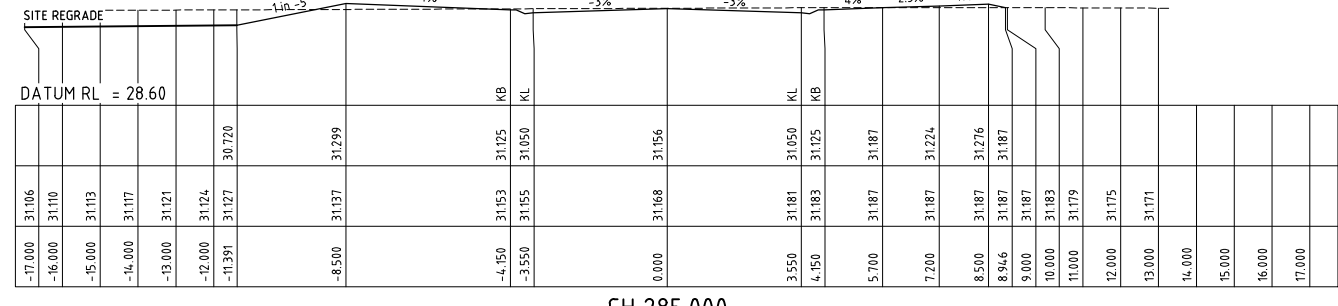
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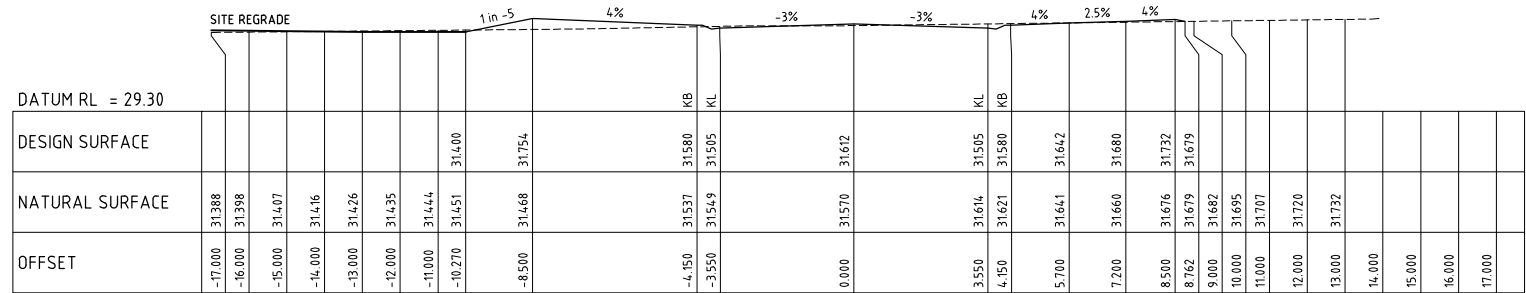
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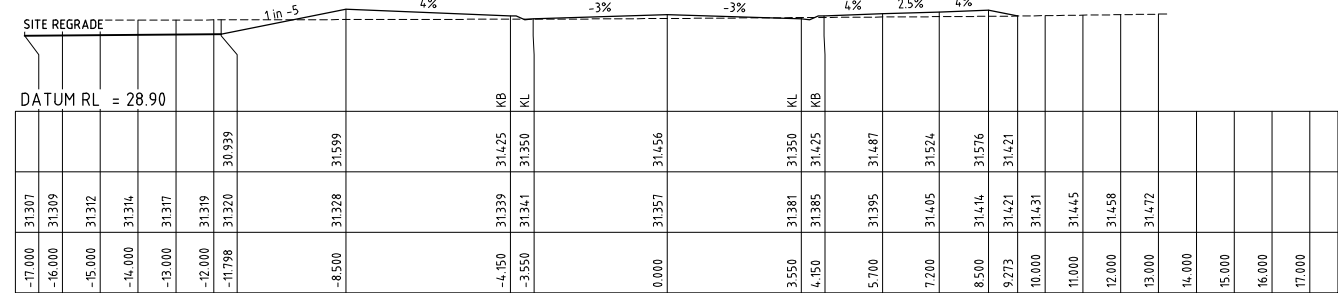
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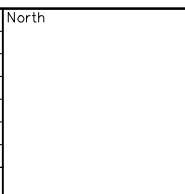
CH 225.000



CH 270.000

PRELIMINARY ISSUE  
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REVISION	Description	Drawn	App'd	Date
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4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	MINOR AMENDMENTS	DB	IH	09.12.24
1	ORIGINAL ISSUE	DB	IH	30.09.24



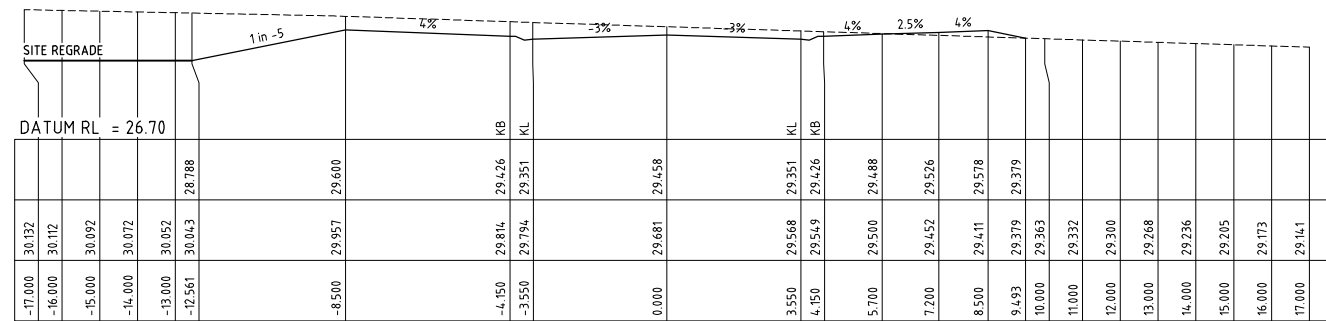
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Designed AM  
Scale 1:100  
Cad Reference 23290C dC141 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer

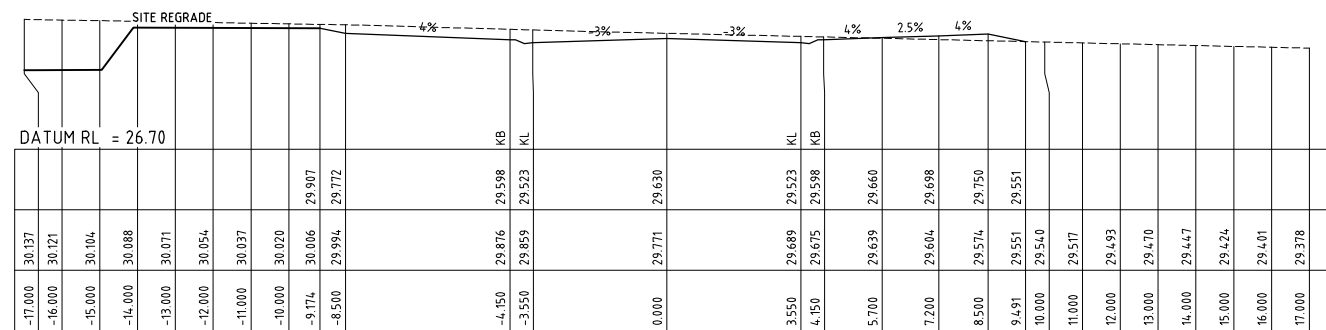


**PROPOSED RESIDENTIAL SUBDIVISION**  
20 & 20A CANTWELL ROAD  
LOCHINVAR  
ROAD 8 CROSS SECTIONS (3 OF 5)

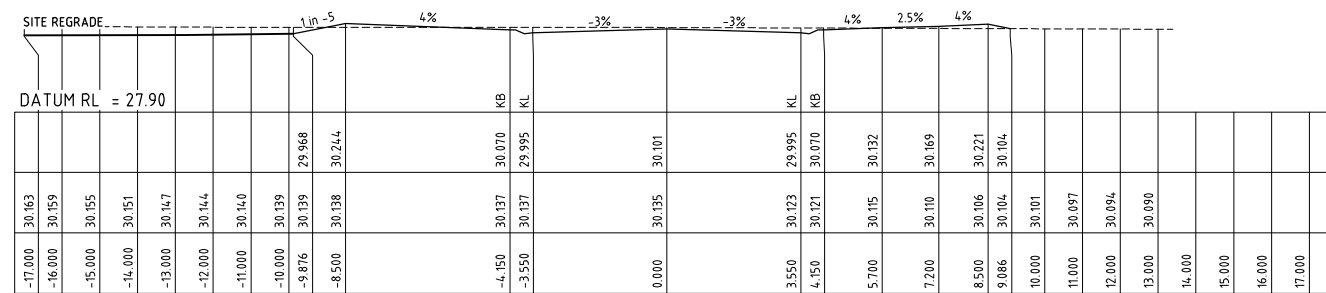
Project No	
23290C	
Drawing No	Revision
C141	5
A1 SHEET	



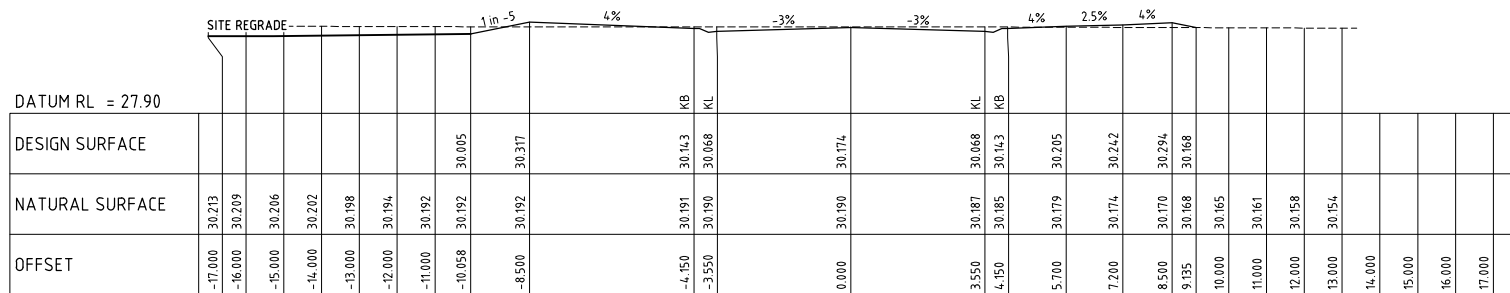
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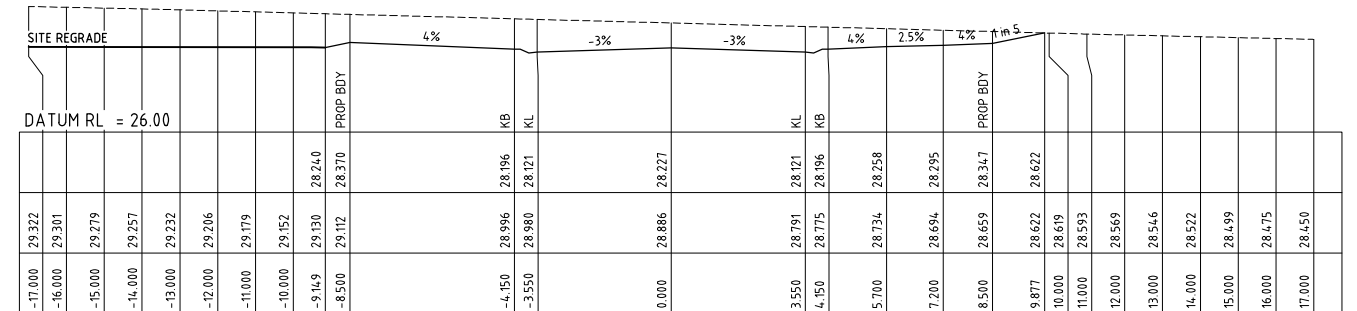
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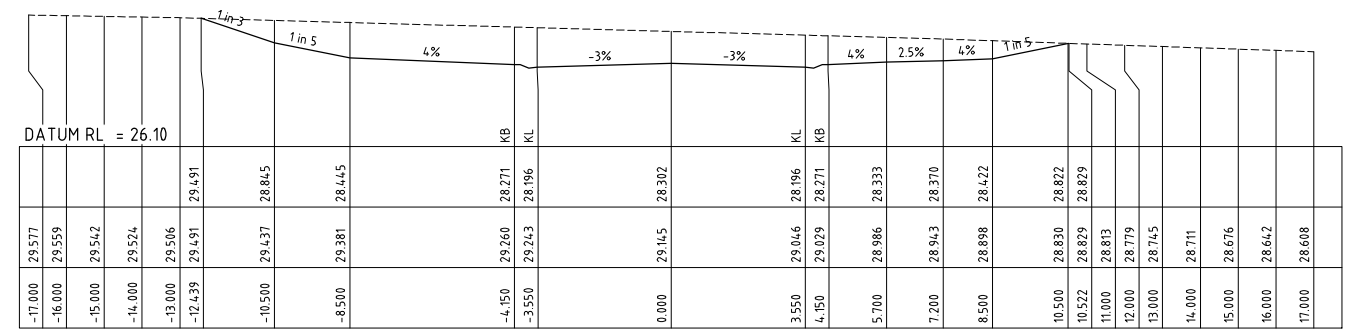
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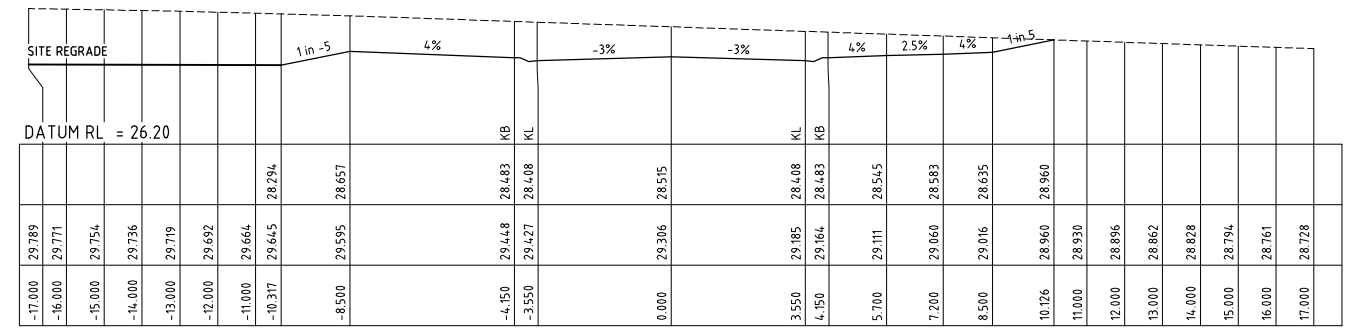
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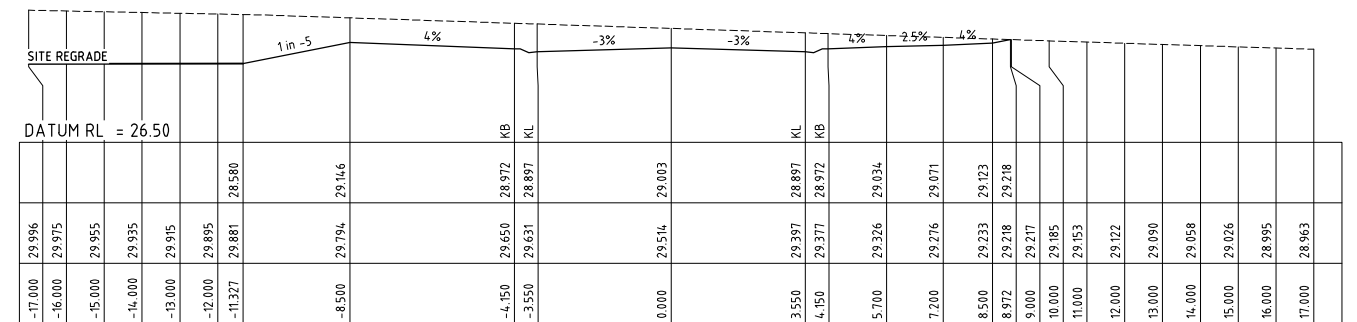
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CH 390.000



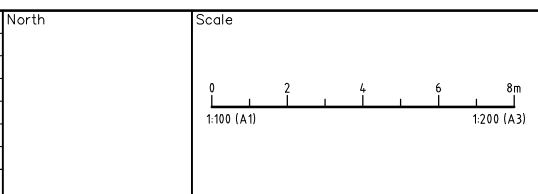
CH 375.000



CH 360.000

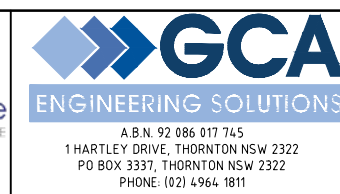
PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	MINOR AMENDMENTS	DB	IH	09.12.24
1	ORIGINAL ISSUE	DB	IH	30.09.24



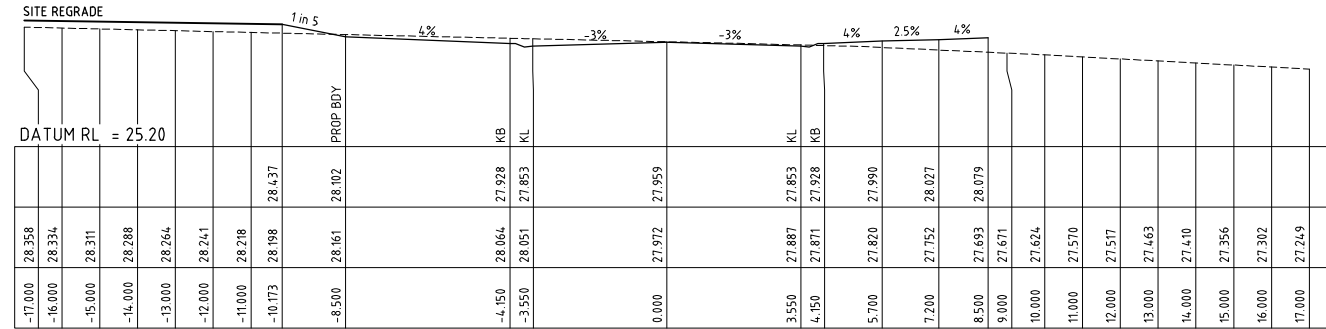
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Designed AM  
Scale 1:100  
Cad Reference 23290C dC142 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer

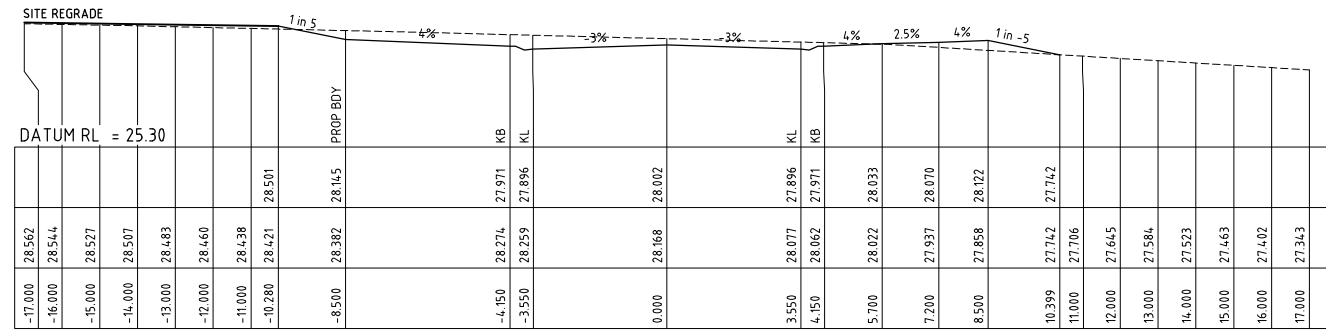


**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
ROAD 8 CROSS SECTIONS (4 OF 5)

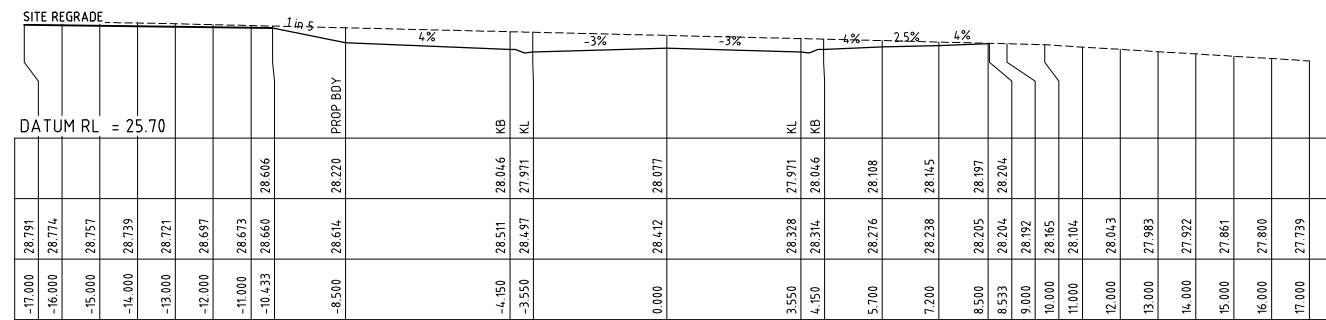
Project No	23290C
Drawing No	C142
Revision	5
A1 SHEET	



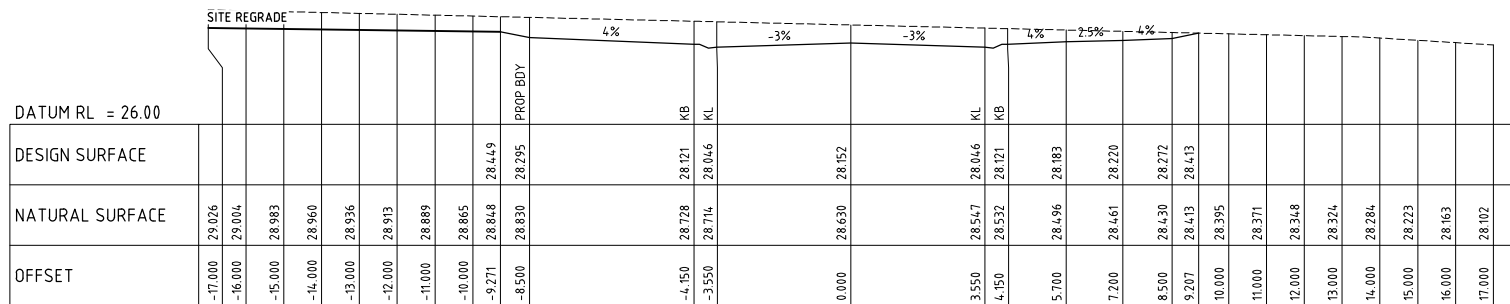
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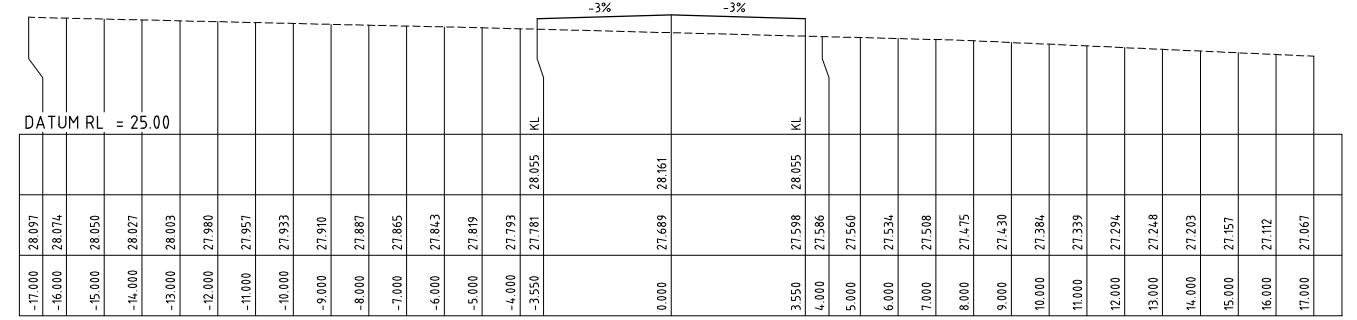
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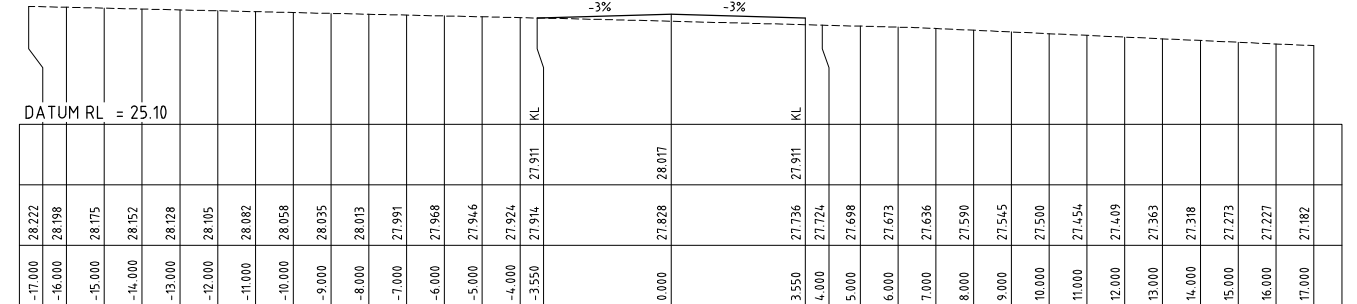
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CH 420.000



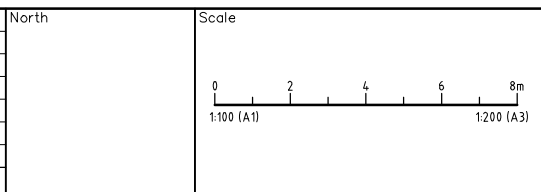
CH 470.272



CH 465.000

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24



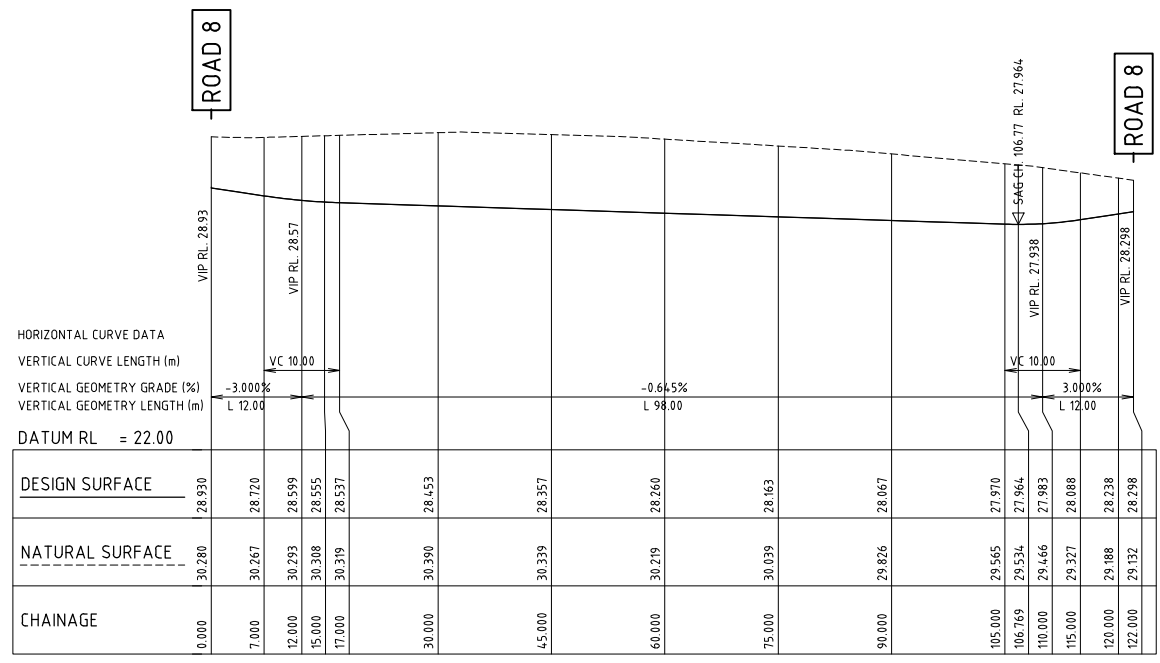
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Designed AM  
Scale 1:100  
Cad Reference 23290C dC143 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer



**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
ROAD 8 CROSS SECTIONS (5 OF 5)

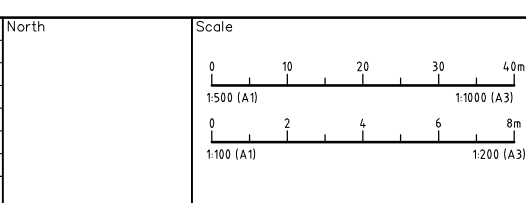
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Drawing No <b>C143</b>	Revision <b>5</b>
A1 SHEET	



A1 SCALE: HORIZONTAL 1:500, VERTICAL 1:100  
LONGITUDINAL SECTION ROAD 9

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24



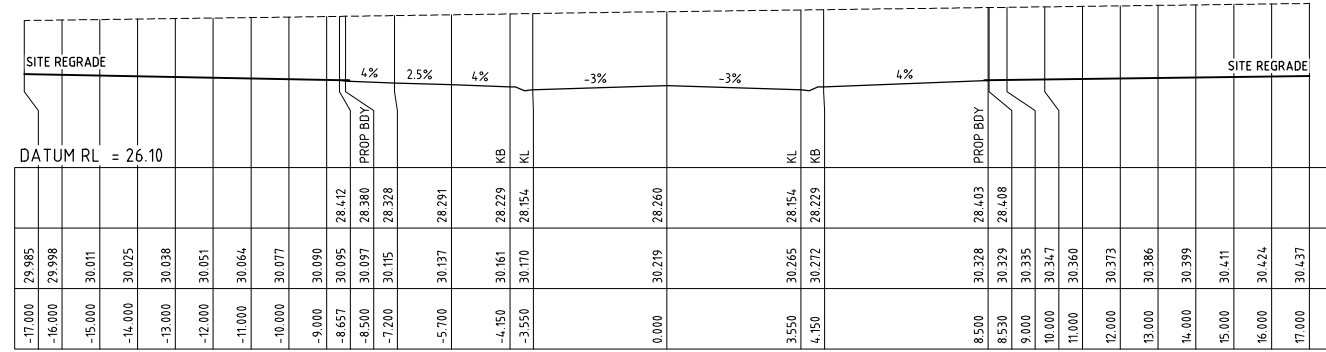
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Designed AM  
Scale 1:500/1:100  
Cad Reference 23290C dC144 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer

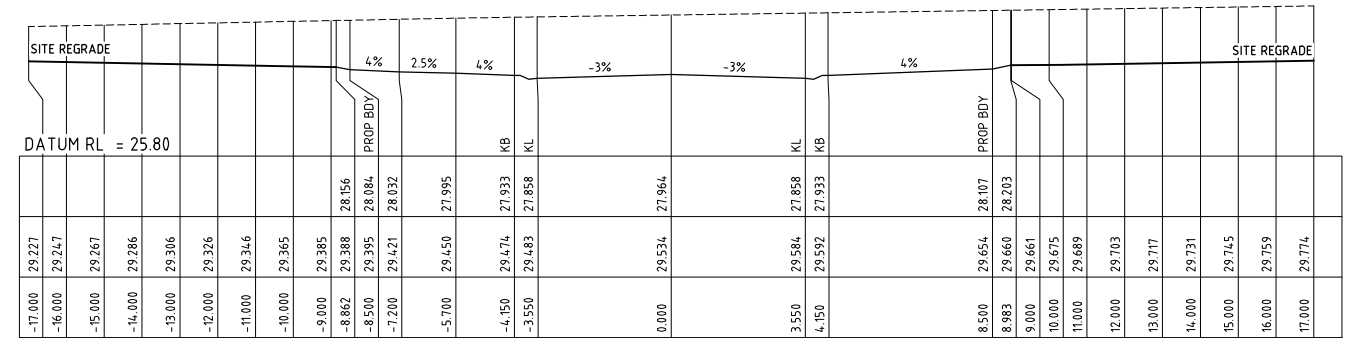


**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
ROAD 9 LONGITUDINAL SECTION

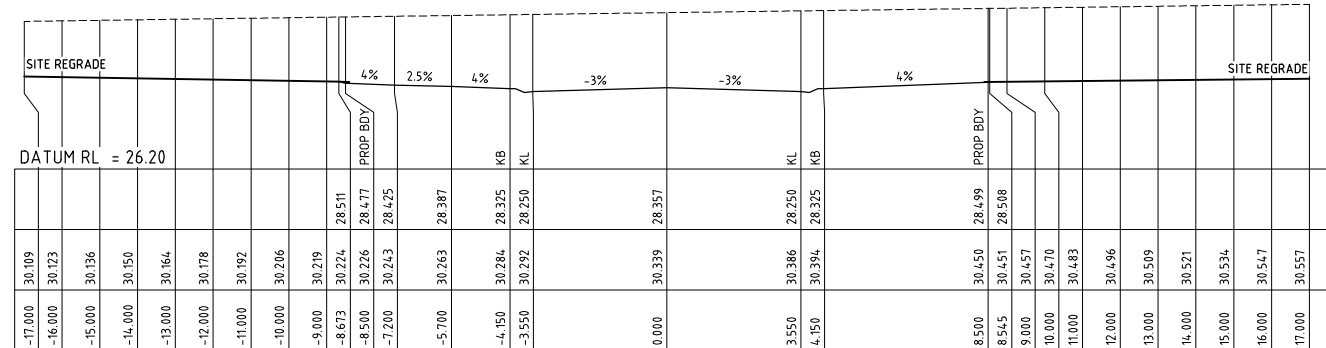
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Drawing No <b>C144</b>	Revision <b>5</b>
A1 SHEET	



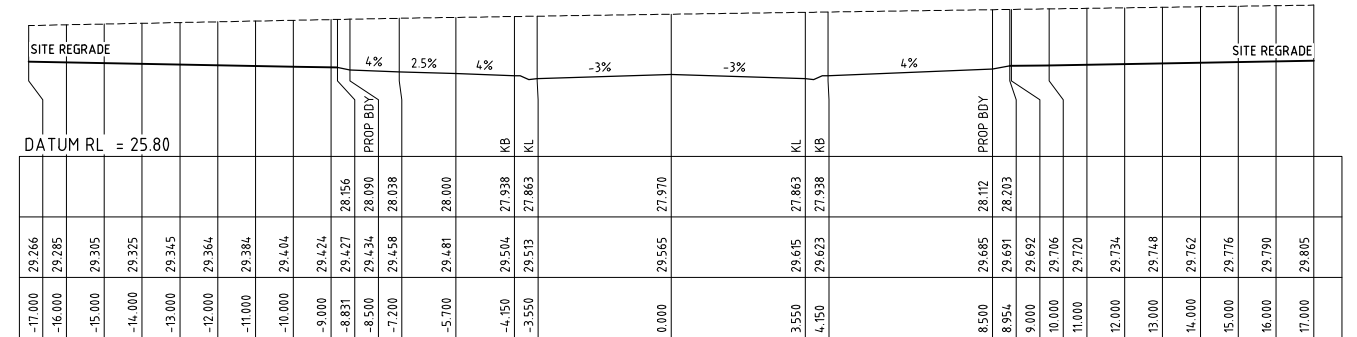
CH 60.00



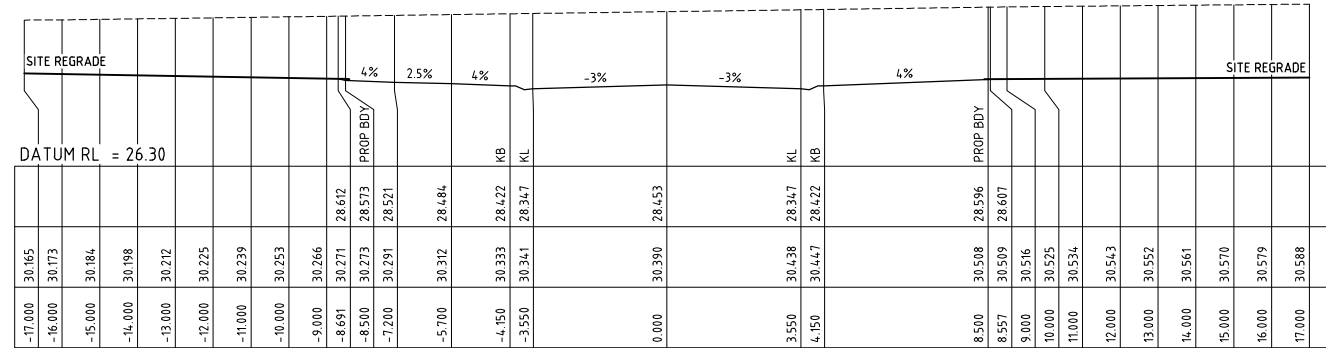
CH 106.769



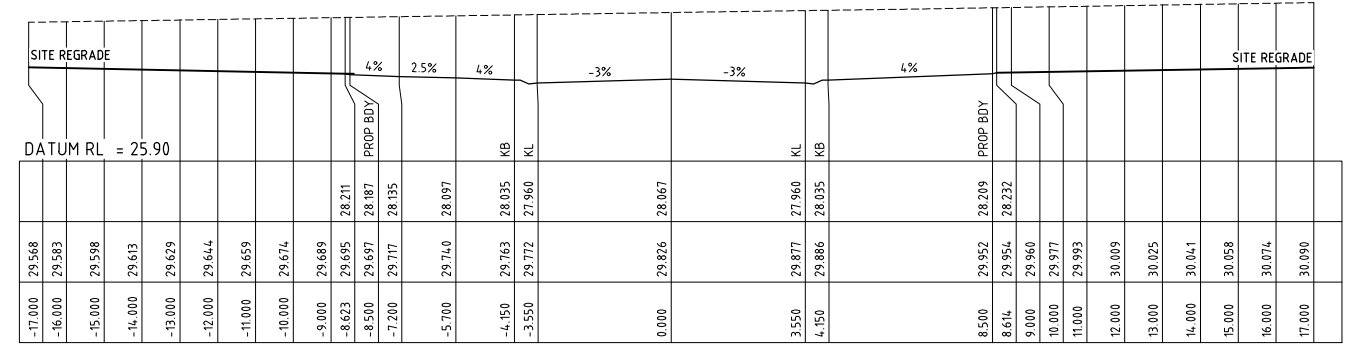
CH 45.00



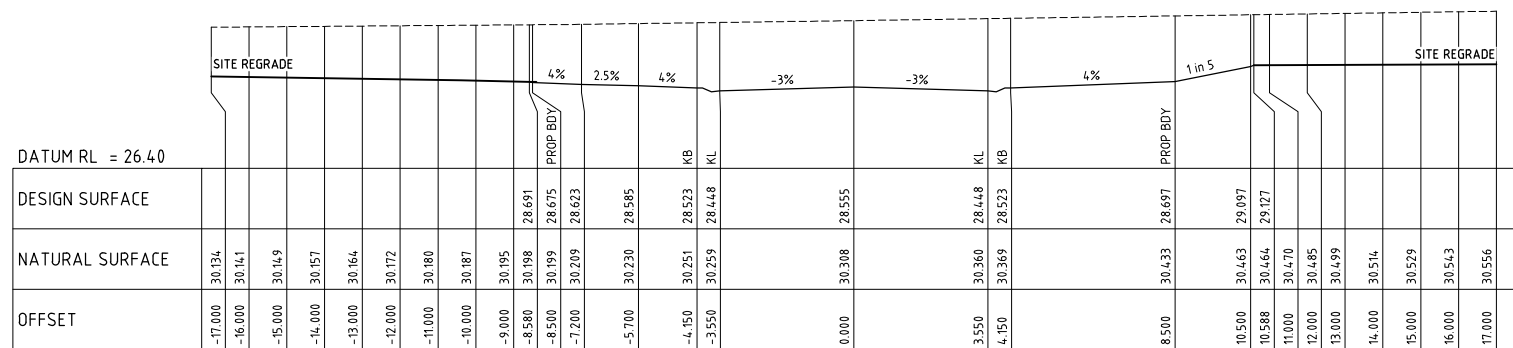
CH 105.00



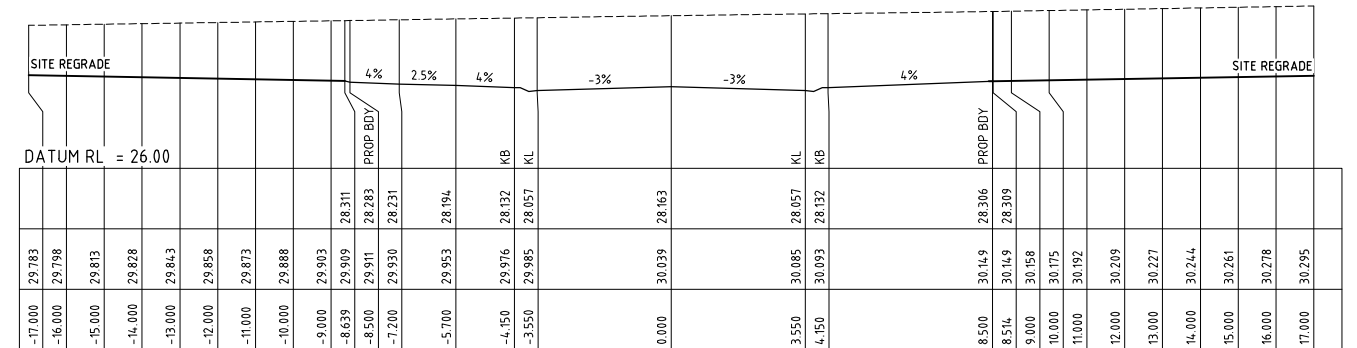
CH 30.00



CH 90.00



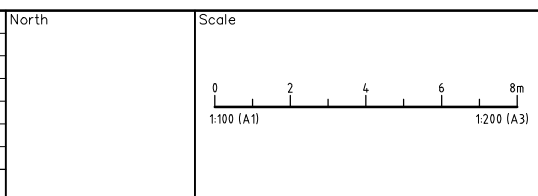
CH 15.00



CH 75.00

PRELIMINARY ISSUE  
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5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24
REVISION	Description	Drawn	App'd	Date



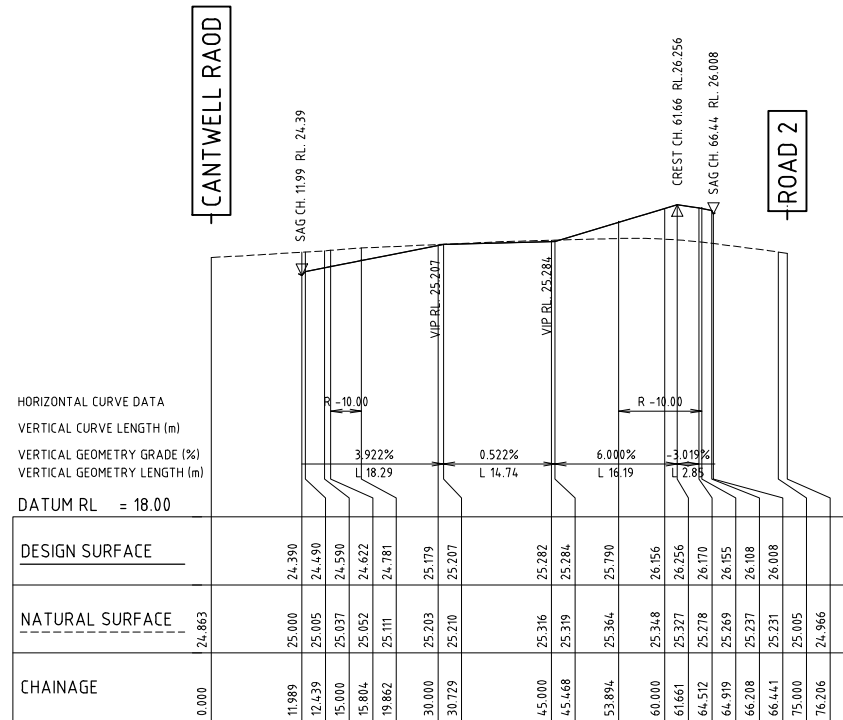
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Designed AM  
Scale 1:100  
Cad Reference 23290C dC145 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer



PROPOSED RESIDENTIAL SUBDIVISION  
20 & 20A CANTWELL ROAD  
LOCHINVAR  
ROAD 9 CROSS SECTIONS

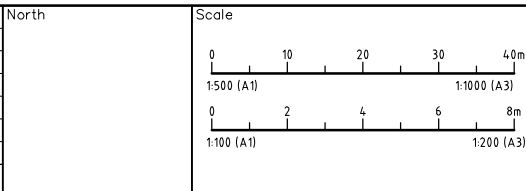
Project No	23290C
Drawing No	C145
Revision	5
A1 SHEET	



A1 SCALE: HORIZONTAL 1:500, VERTICAL 1:100  
 LONGITUDINAL SECTION FIRETRAIL

PRELIMINARY ISSUE  
 NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
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3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24



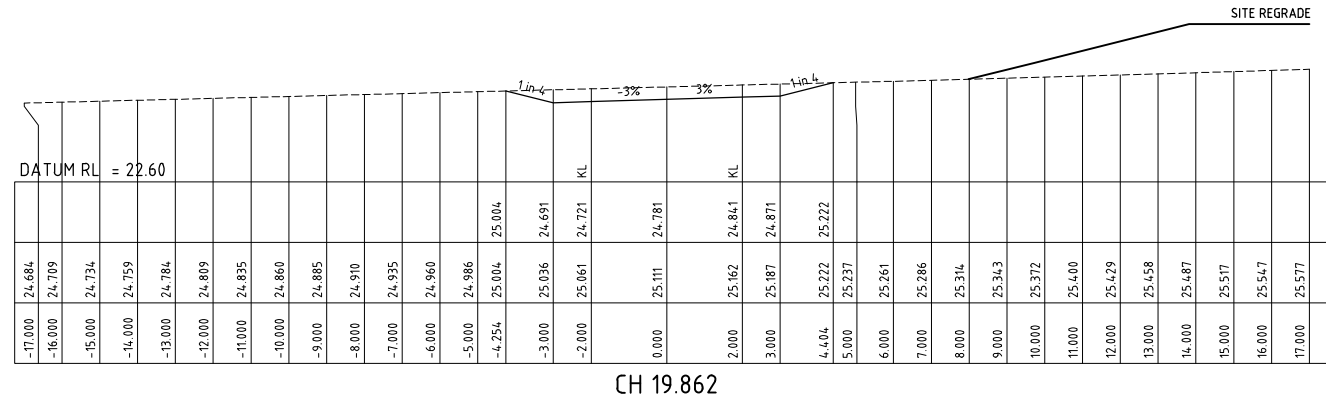
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Designed AM  
 Scale 1:500/1:100  
 Cad Reference 23290C dC146 r5  
 Project Approval IAN HILL (B.E)  
 Consulting Civil Engineer

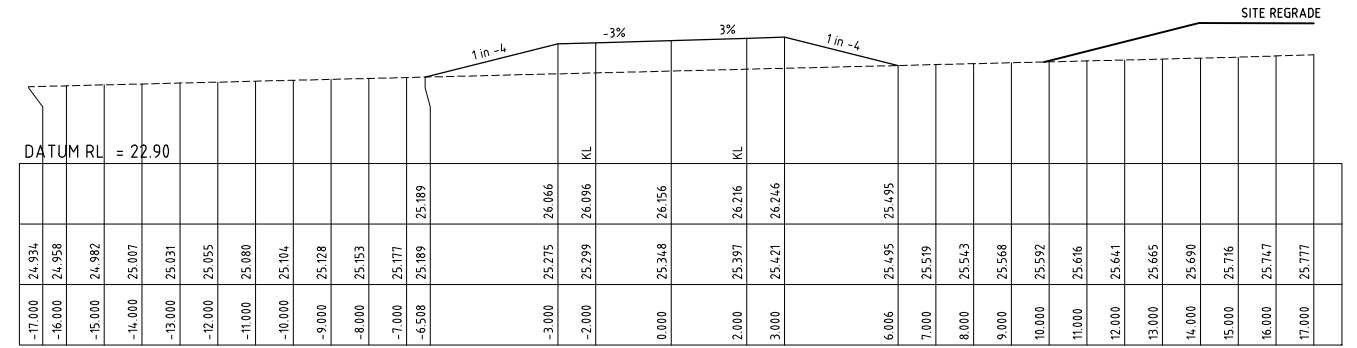


**PROPOSED RESIDENTIAL SUBDIVISION**  
 20 & 20A CANTWELL ROAD  
 LOCHINVAR  
 FIRE TRAIL LONGITUDINAL SECTION

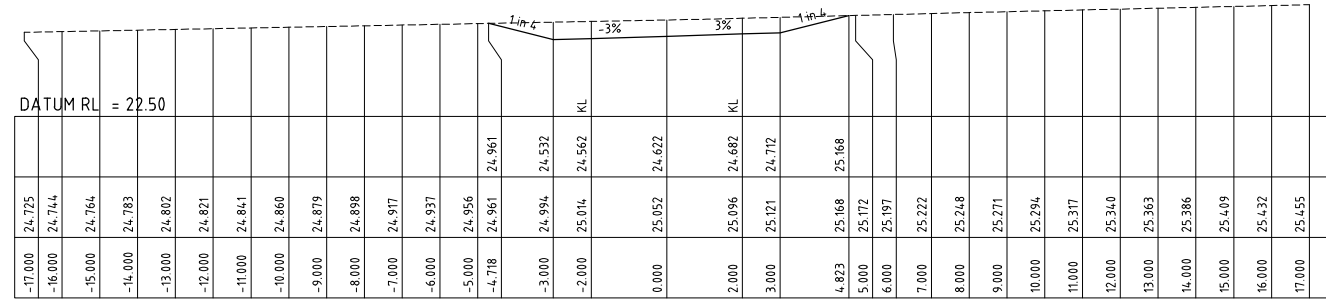
Project No		23290C
Drawing No	Revision	
C146	5	
A1 SHEET		



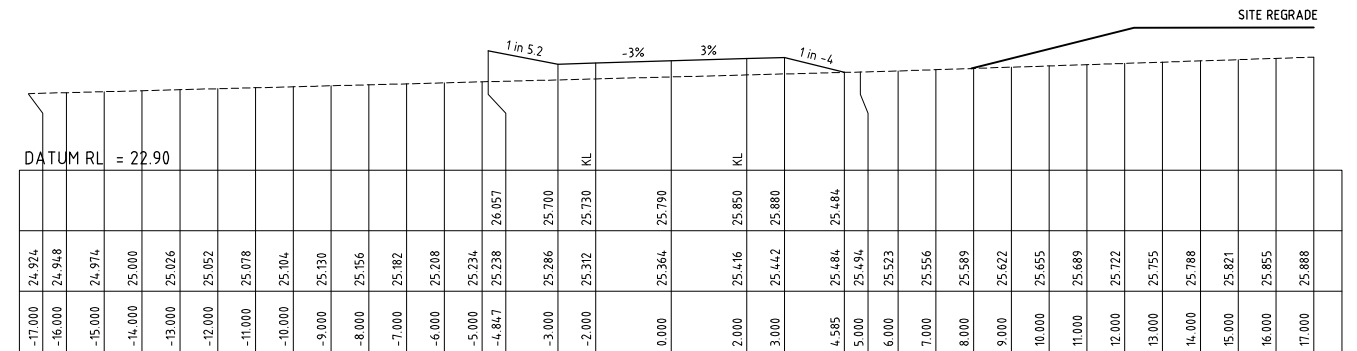
CH 19.862



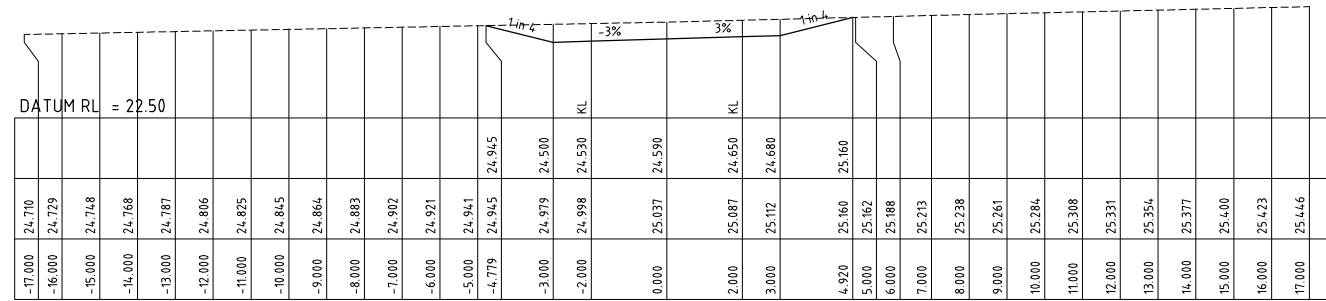
CH 60.000



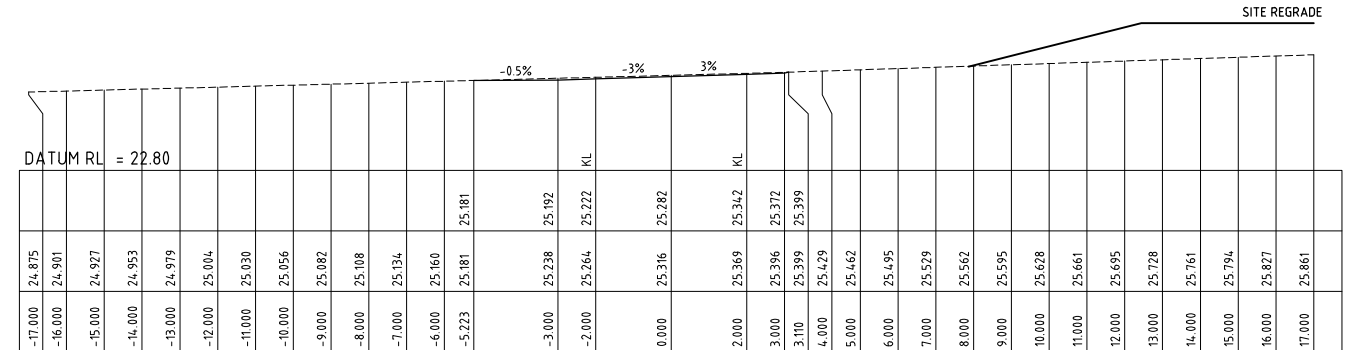
CH 15.804



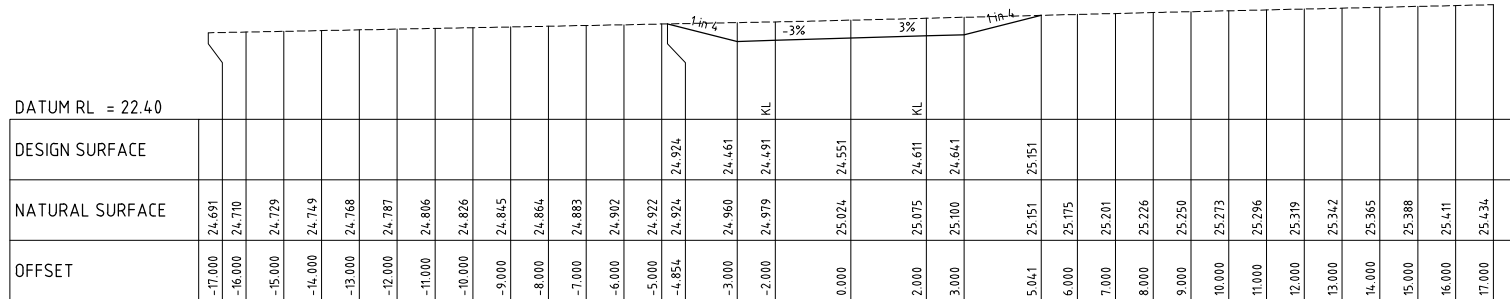
CH 53.894



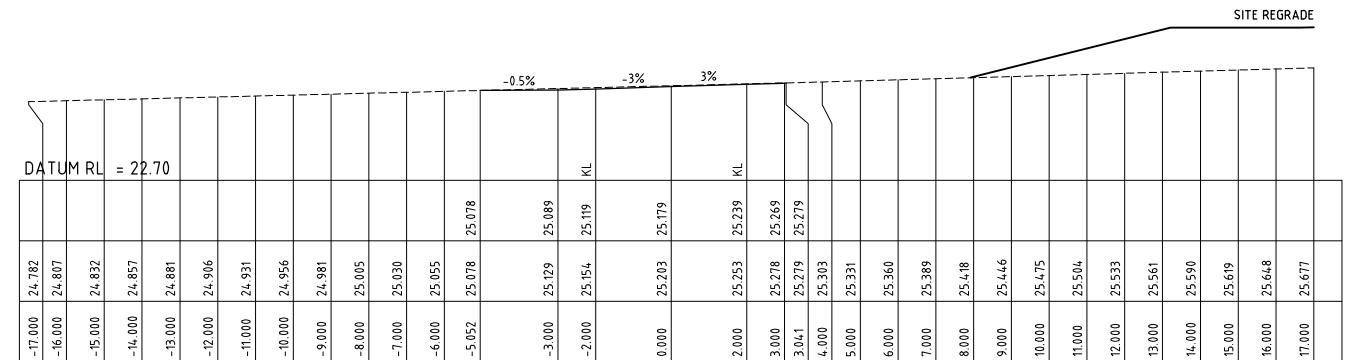
CH 15.000



CH 45.000



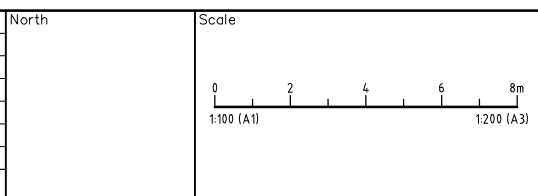
CH 14.000



CH 30.000

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
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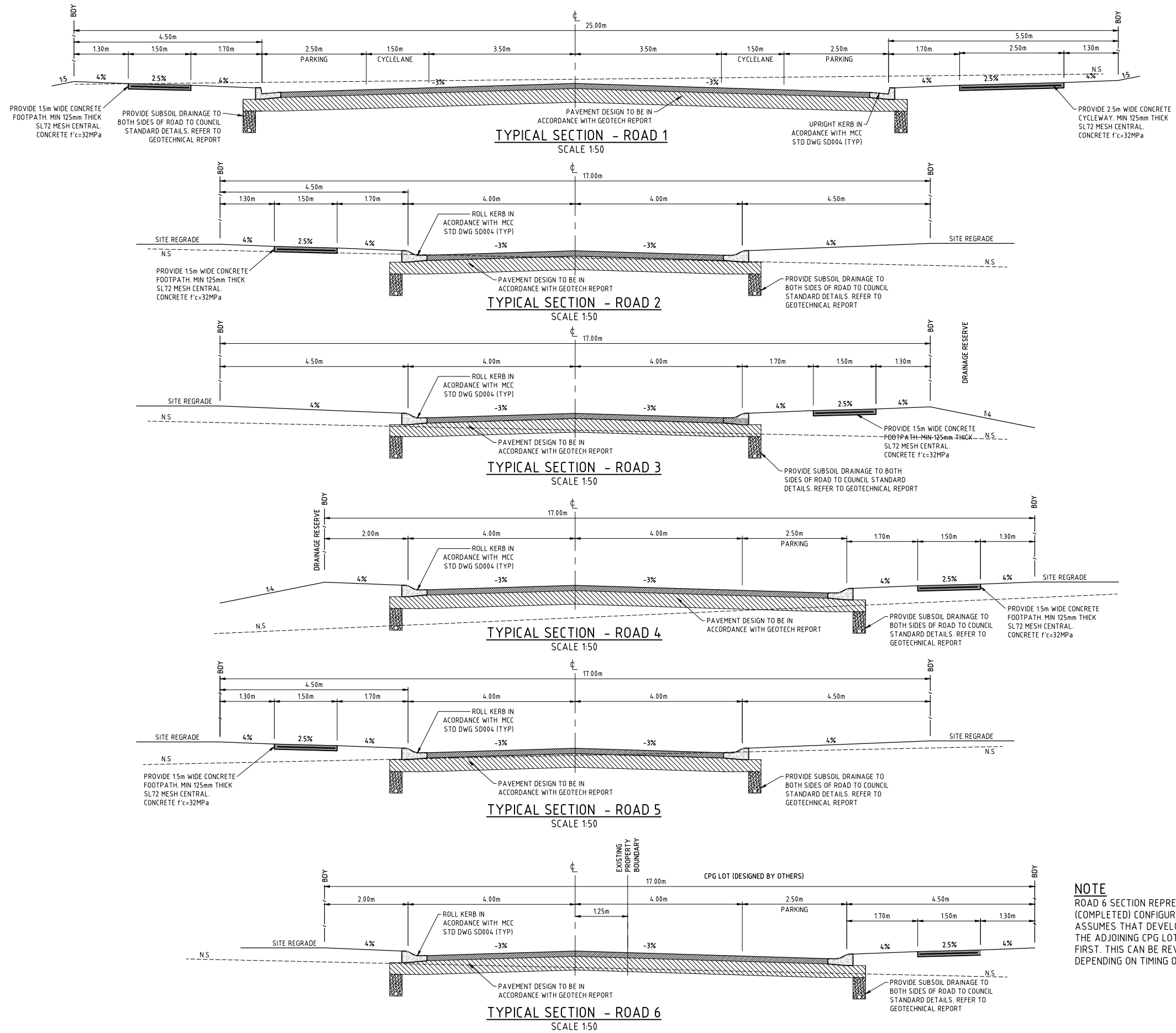
Designed AM  
Scale 1:100  
Cad Reference 23290C dC147 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer



**PROPOSED RESIDENTIAL SUBDIVISION**  
20 & 20A CANTWELL ROAD  
LOCHINVAR  
FIRE TRAIL CROSS SECTIONS

Project No <b>23290C</b>	
Drawing No <b>C147</b>	Revision <b>5</b>
A1 SHEET	

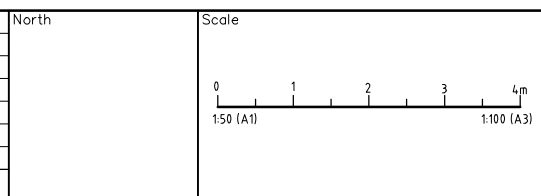




**NOTE**  
 ROAD 6 SECTION REPRESENTS ULTIMATE (COMPLETED) CONFIGURATION AND ASSUMES THAT DEVELOPMENT WITHIN THE ADJOINING CPG LOT PROCEEDS FIRST. THIS CAN BE REVIEWED AT SWC DEPENDING ON TIMING OF DEVELOPMENT

**PRELIMINARY ISSUE**  
 NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
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3	CLIENT COMMENTS	DB	AS	17.12.24
2	MINOR AMENDMENTS	DB	IH	09.12.24
1	ORIGINAL ISSUE	DB	IH	30.09.24



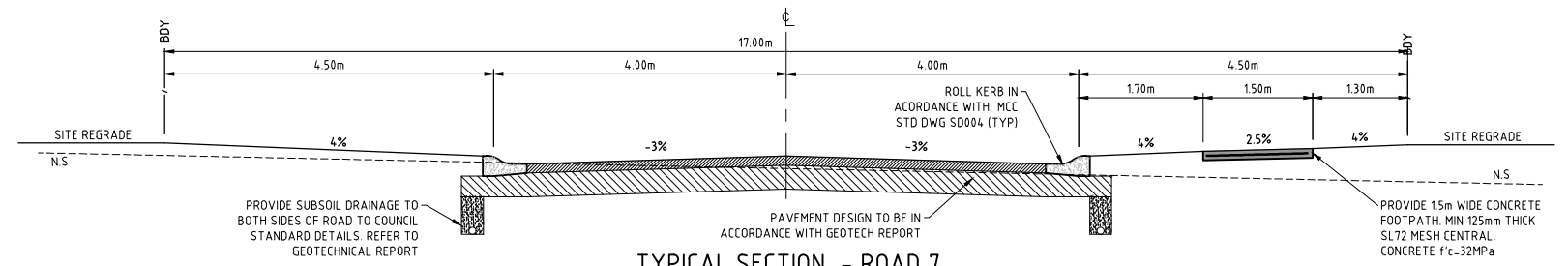
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Designed AM  
 Scale 1:150  
 Cad Reference 23290C dC148 r5  
 Project Approval IAN HILL (B.E)  
 Consulting Civil Engineer

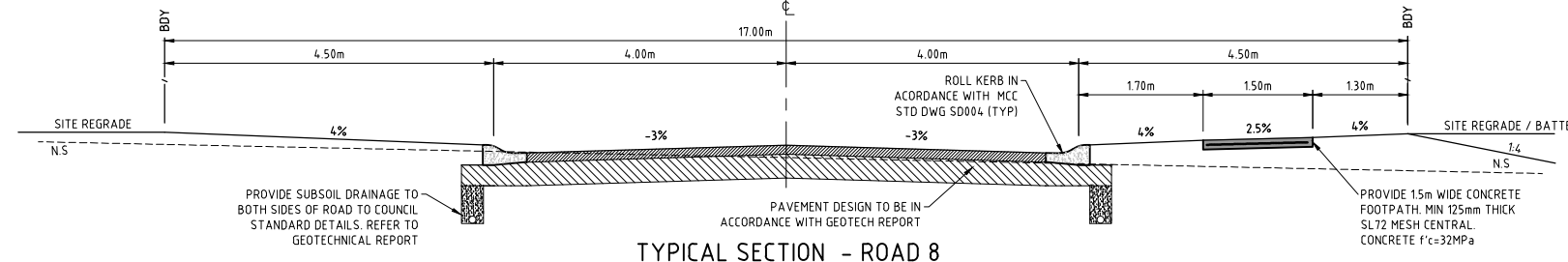


**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
 TYPICAL SECTIONS (1 OF 2)

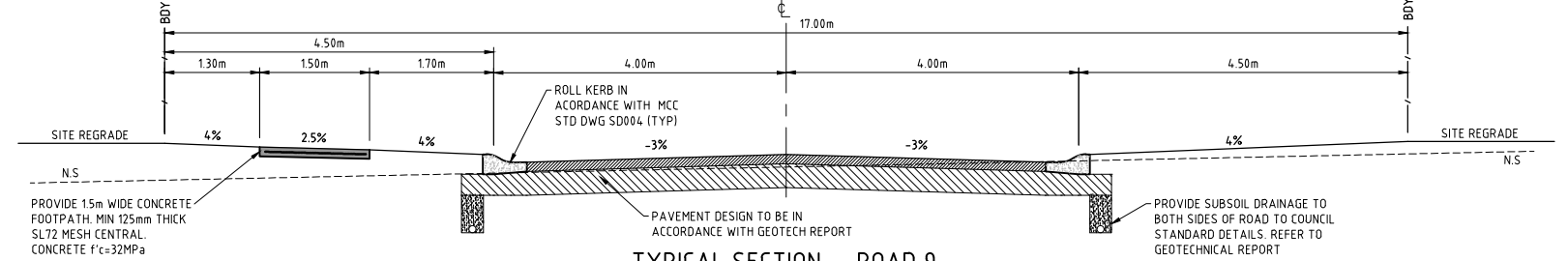
Project No <b>23290C</b>	
Drawing No <b>C148</b>	Revision <b>5</b>
A1 SHEET	



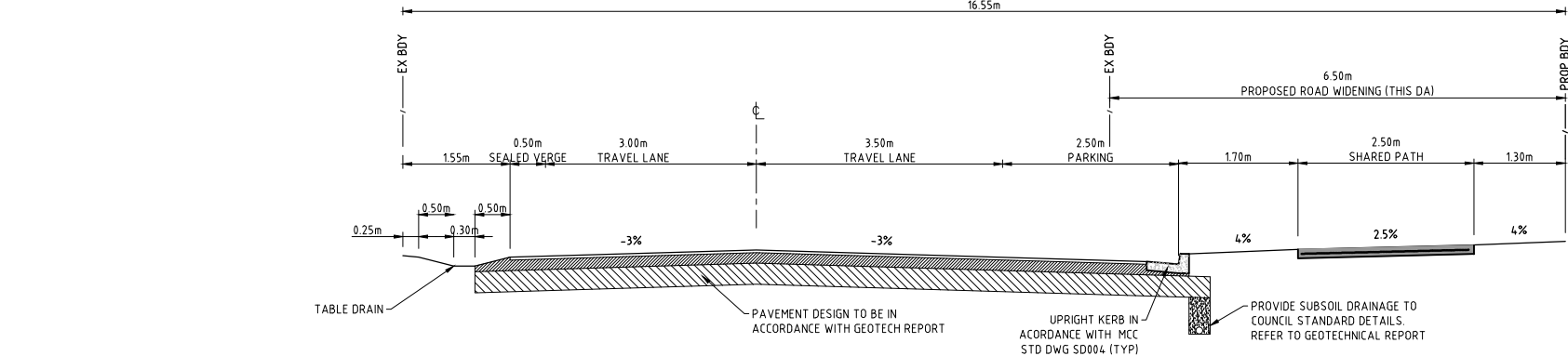
**TYPICAL SECTION - ROAD 7**  
SCALE 1:50



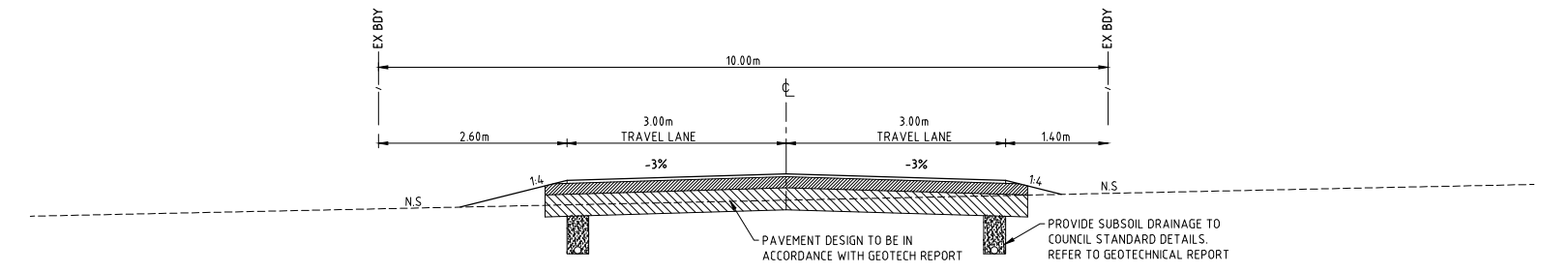
**TYPICAL SECTION - ROAD 8**  
SCALE 1:50



**TYPICAL SECTION - ROAD 9**  
SCALE 1:50



**TYPICAL SECTION - CANTWELL ROAD  
(AT DEVELOPMENT FRONTAGE)**  
SCALE 1:50

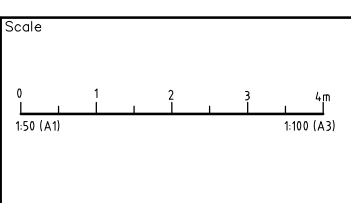


**TYPICAL SECTION - CANTWELL ROAD  
(NEW ENGLAND HIGHWAY TO SOUTHERN BOUNDARY OF SITE)**  
SCALE 1:50

**PRELIMINARY ISSUE**  
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3	CLIENT COMMENTS	DB	AS	17.12.24
2	MINOR AMENDMENTS	DB	IH	09.12.24
1	ORIGINAL ISSUE	DB	IH	30.09.24

North

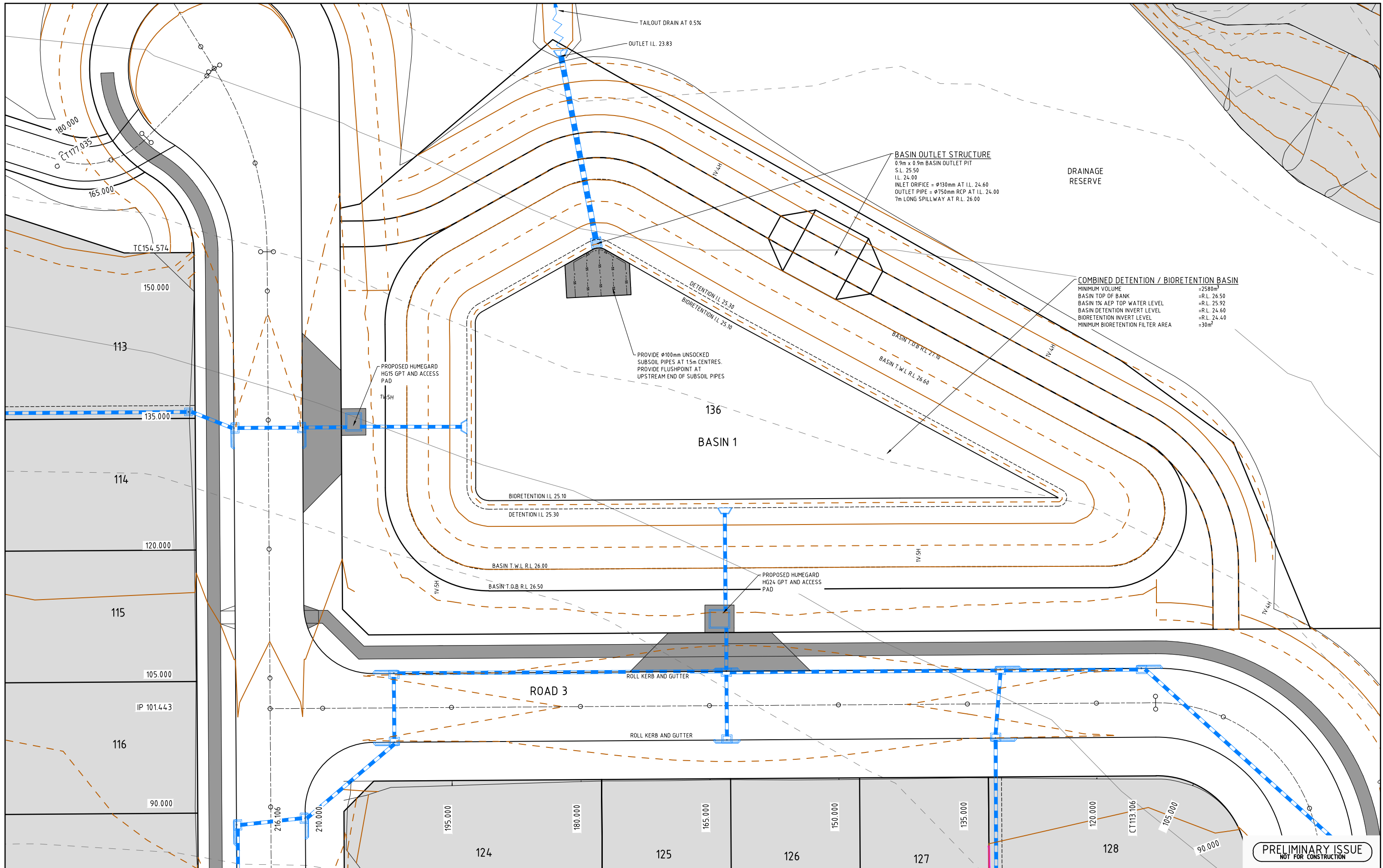


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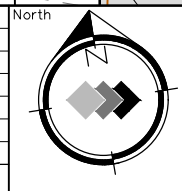
Designed AM  
Scale 1:50  
Cad Reference 23290C dC149 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer

**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
TYPICAL SECTIONS (2 OF 2)

Project No <b>23290C</b>	
Drawing No <b>C149</b>	Revision <b>5</b>
A1 SHEET	



REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24



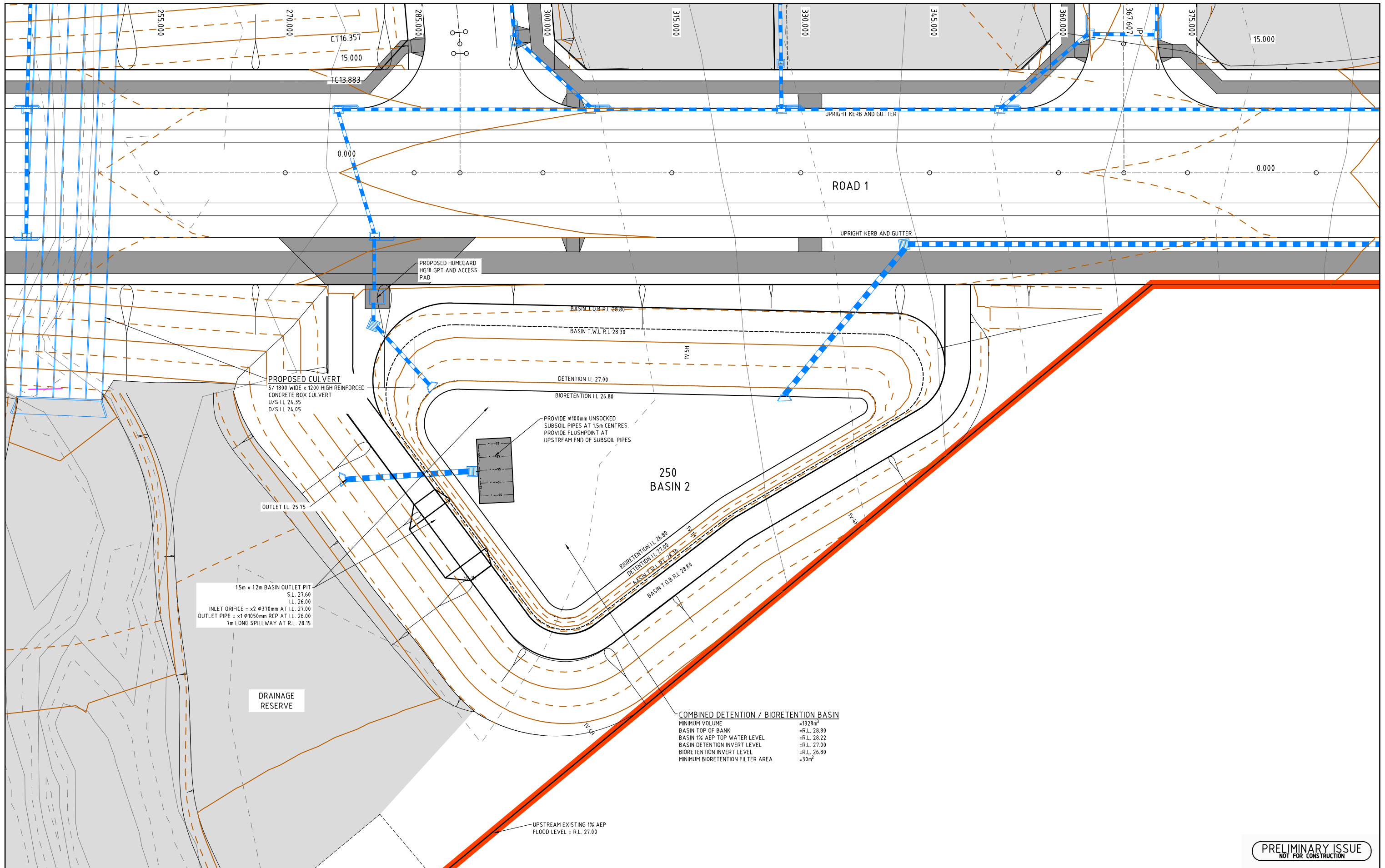
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Designed AM  
 Scale 1:200  
 Cad Reference 23290C dC150 r5  
 Project Approval IAN HILL (B.E)  
 Consulting Civil Engineer



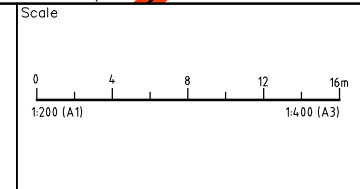
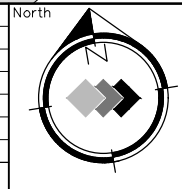
**PROPOSED RESIDENTIAL SUBDIVISION**  
 20 & 20A CANTWELL ROAD  
 LOCHINVAR  
 BASIN 1 DETAIL PLAN

Project No <b>23290C</b>	
Drawing No <b>C150</b>	Revision <b>5</b>
A1 SHEET	



**PRELIMINARY ISSUE**  
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REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24



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Designed  
AM

Scale  
1:200

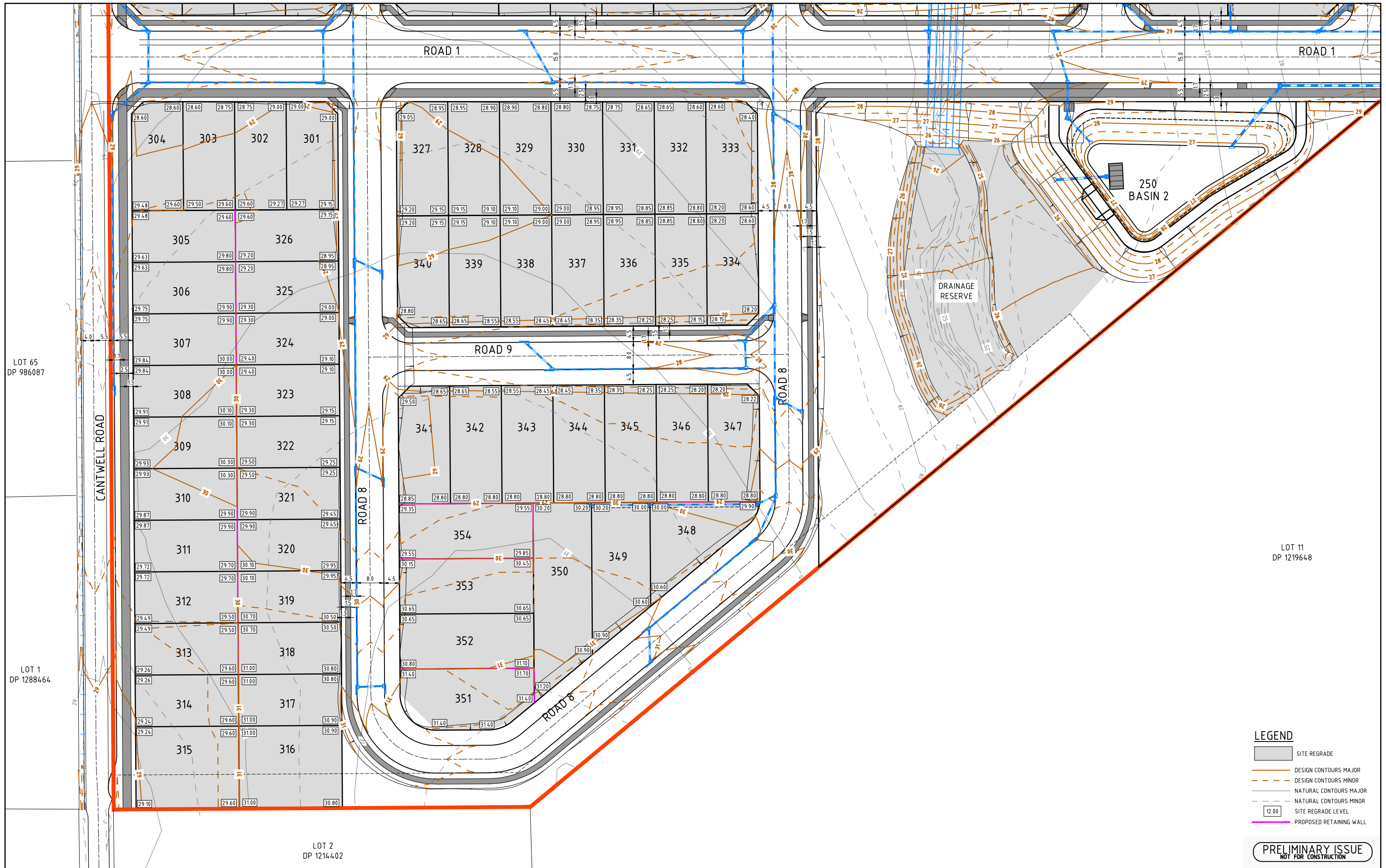
Cad Reference  
23290C dC151 r5

Project Approval  
IAN HILL (B.E)  
Consulting Civil Engineer



**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
BASIN 2 DETAIL PLAN

Project No		23290C	
Drawing No	C151	Revision	5
A1 SHEET			



LOT 65  
DP 986087

LOT 1  
DP 1288464

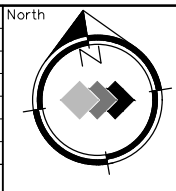
LOT 2  
DP 1214402

LOT 11  
DP 1219648

- LEGEND**
- SITE REGRADE
  - DESIGN CONTOURS MAJOR
  - DESIGN CONTOURS MINOR
  - NATURAL CONTOURS MAJOR
  - NATURAL CONTOURS MINOR
  - 12.00 SITE REGRADE LEVEL
  - PROPOSED RETAINING WALL

**PRELIMINARY ISSUE**  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	MINOR AMENDMENTS	DB	IH	09.12.24
1	ORIGINAL ISSUE	DB	IH	30.09.24



Scale  
0 10 20 30 40m  
1:500 (A1) 1:1000 (A3)

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Designed AM  
Scale 1:500  
Cad Reference 23290C dC152 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer



**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
REGRADE PLAN (1 OF 3)

Project No <b>23290C</b>	
Drawing No <b>C152</b>	Revision <b>5</b>
A1 SHEET	

**LEGEND**

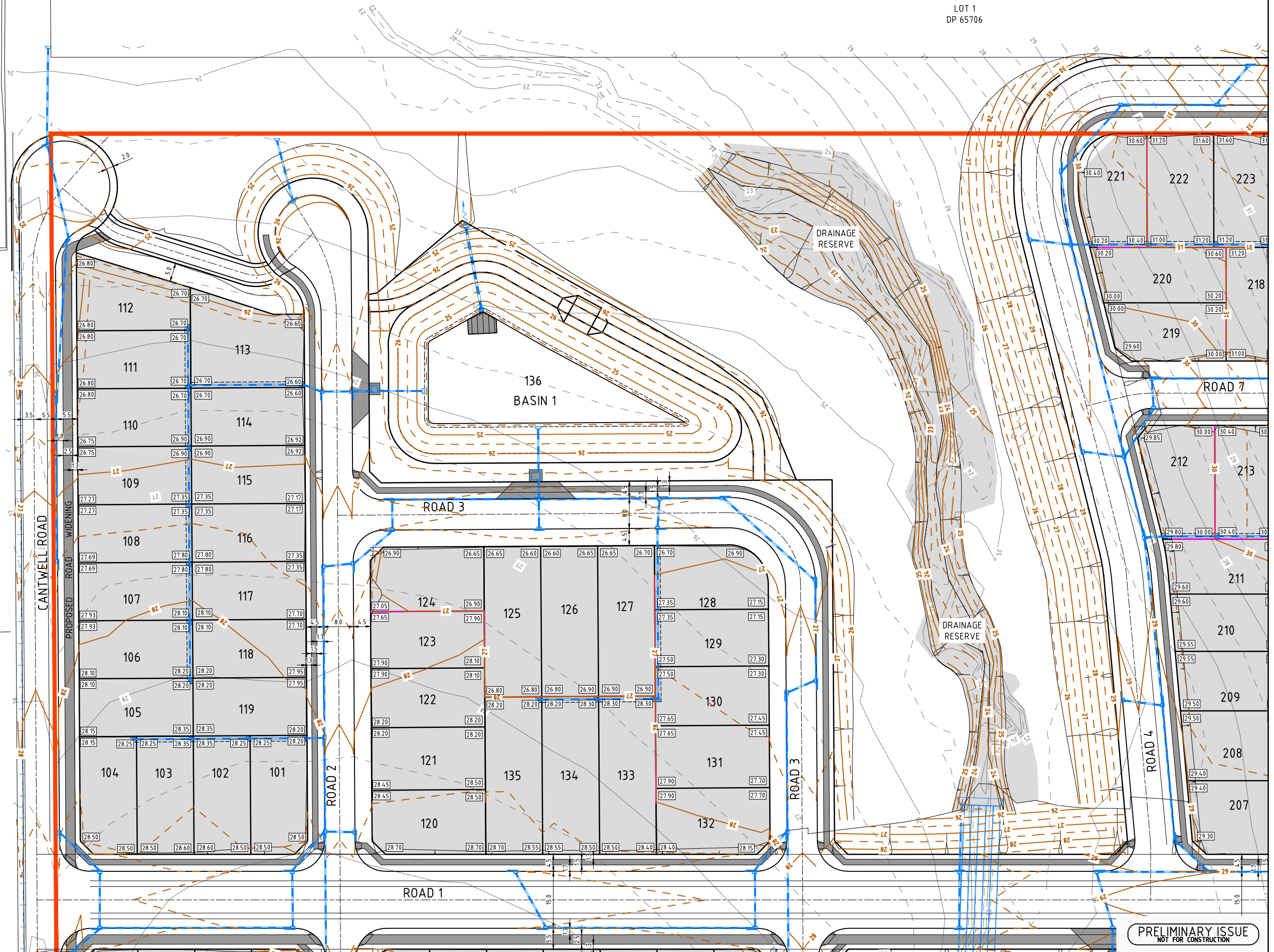
- SITE REGRADE
- DESIGN CONTOURS MAJOR
- DESIGN CONTOURS MINOR
- NATURAL CONTOURS MAJOR
- NATURAL CONTOURS MINOR
- SITE REGRADE LEVEL
- PROPOSED RETAINING WALL

LOT 1902  
DP 1112961

LOT 67  
DP 837392

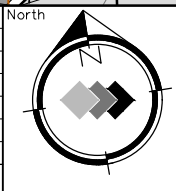
LOT 66  
DP 837392

LOT 1  
DP 65706



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REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
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3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24



Scale  
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1500 (A1) 1:1000 (A3)

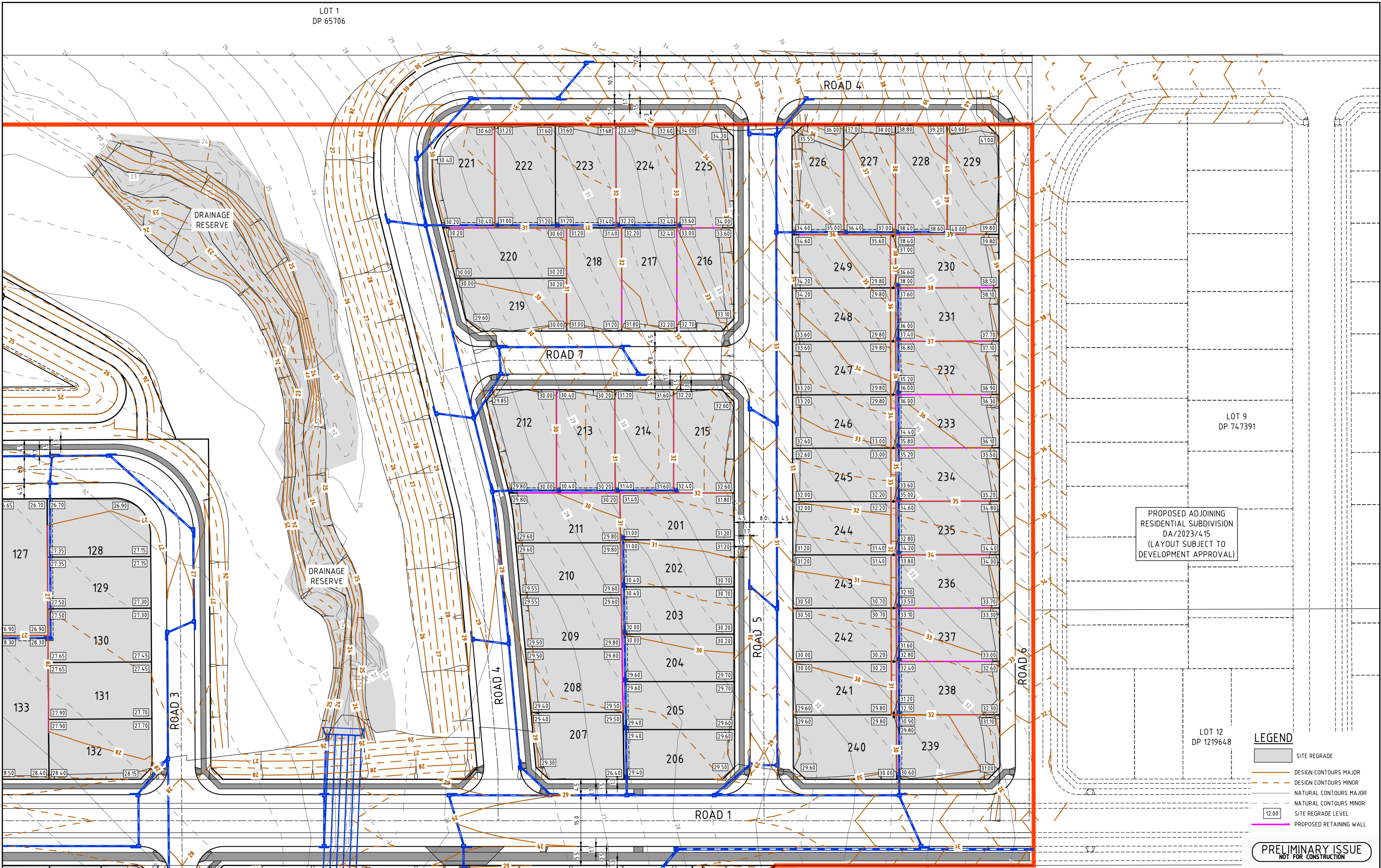
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Designed AM  
Scale 1:500  
Cad Reference 23290C dC153 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer

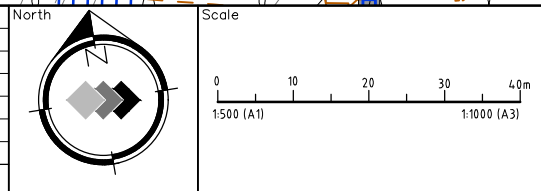


**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
REGRADE PLAN (2 OF 3)

Project No	23290C	
Drawing No	C153	Revision 5
A1 SHEET		



REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24



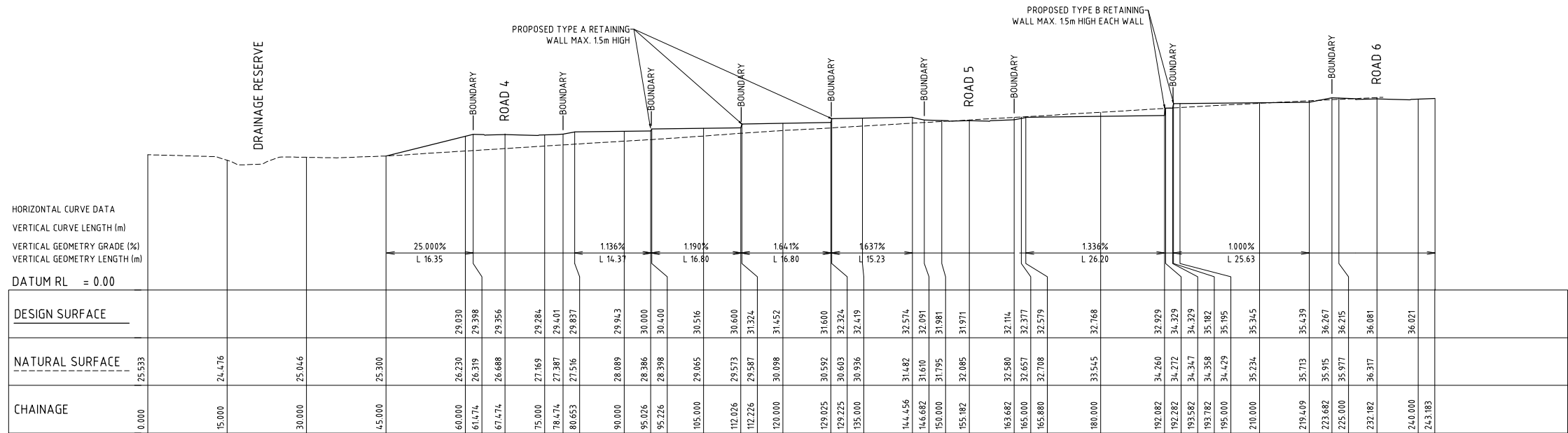
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Designed AM  
 Scale 1:500  
 Cad Reference 23290C dC154 r5  
 Project Approval IAN HILL (B.E.)  
 Consulting Civil Engineer

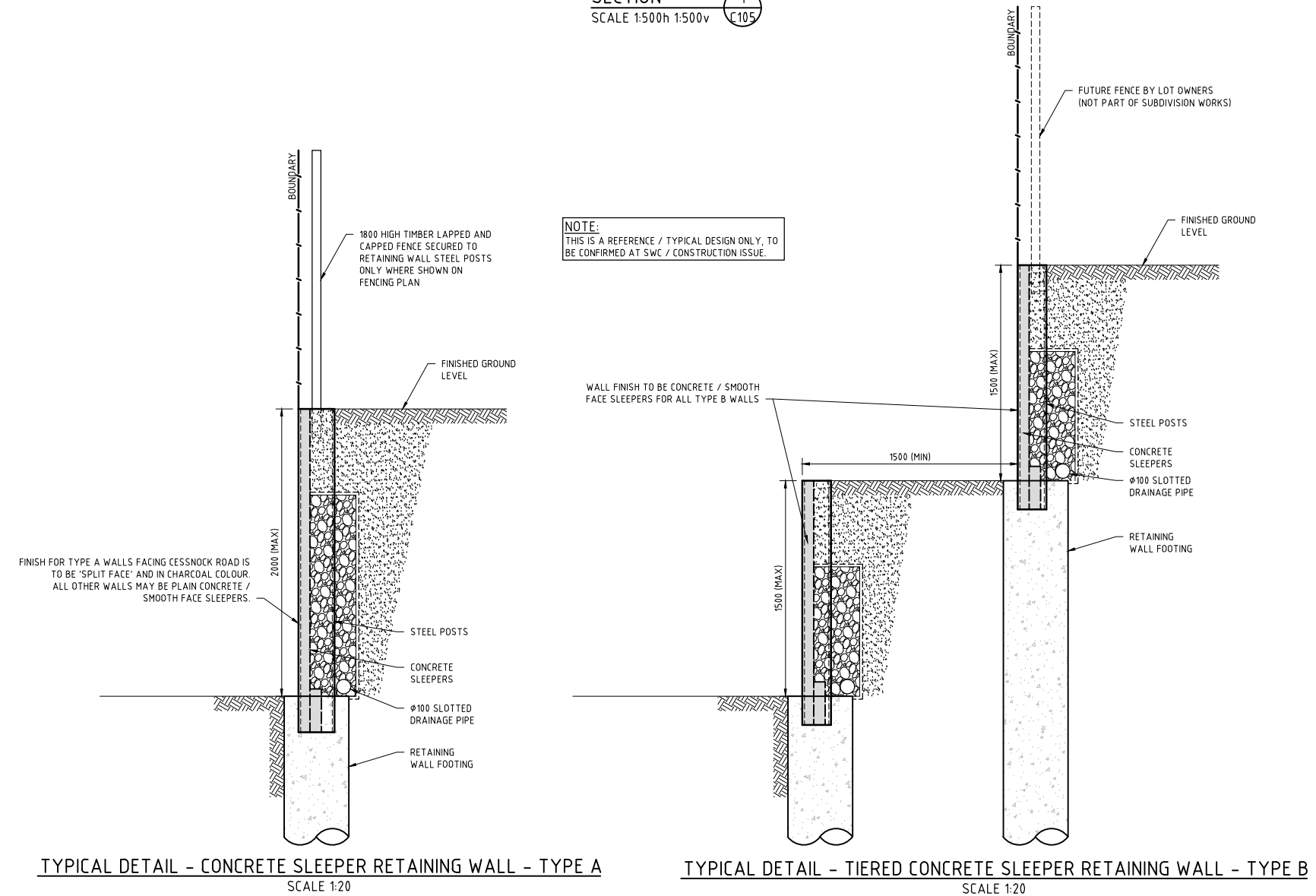


**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
 REGRADE PLAN (3 OF 3)

Project No	23290C	
Drawing No	C154	Revision 5
A1 SHEET		

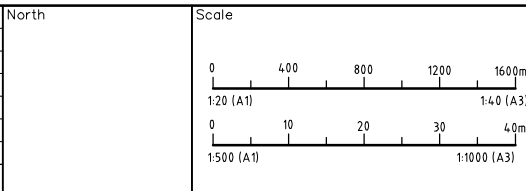


SECTION 1  
SCALE 1:500h 1:500v



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REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
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2	NOT ISSUED			
1	ORIGINAL ISSUE	DB	IH	30.09.24



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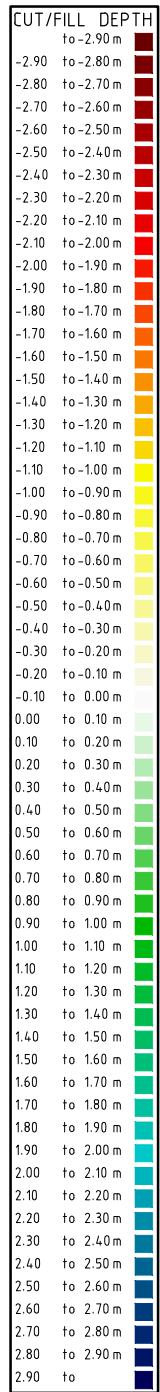
Designed AM  
Scale AS SHOWN  
Cad Reference 23290C d155 r5  
Project Approval IAN HILL (B.E.) Consulting Civil Engineer



**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
SITE SECTIONS AND RETAINING WALL DETAILS

Project No	23290C	
Drawing No	C155	Revision 5
A1 SHEET		

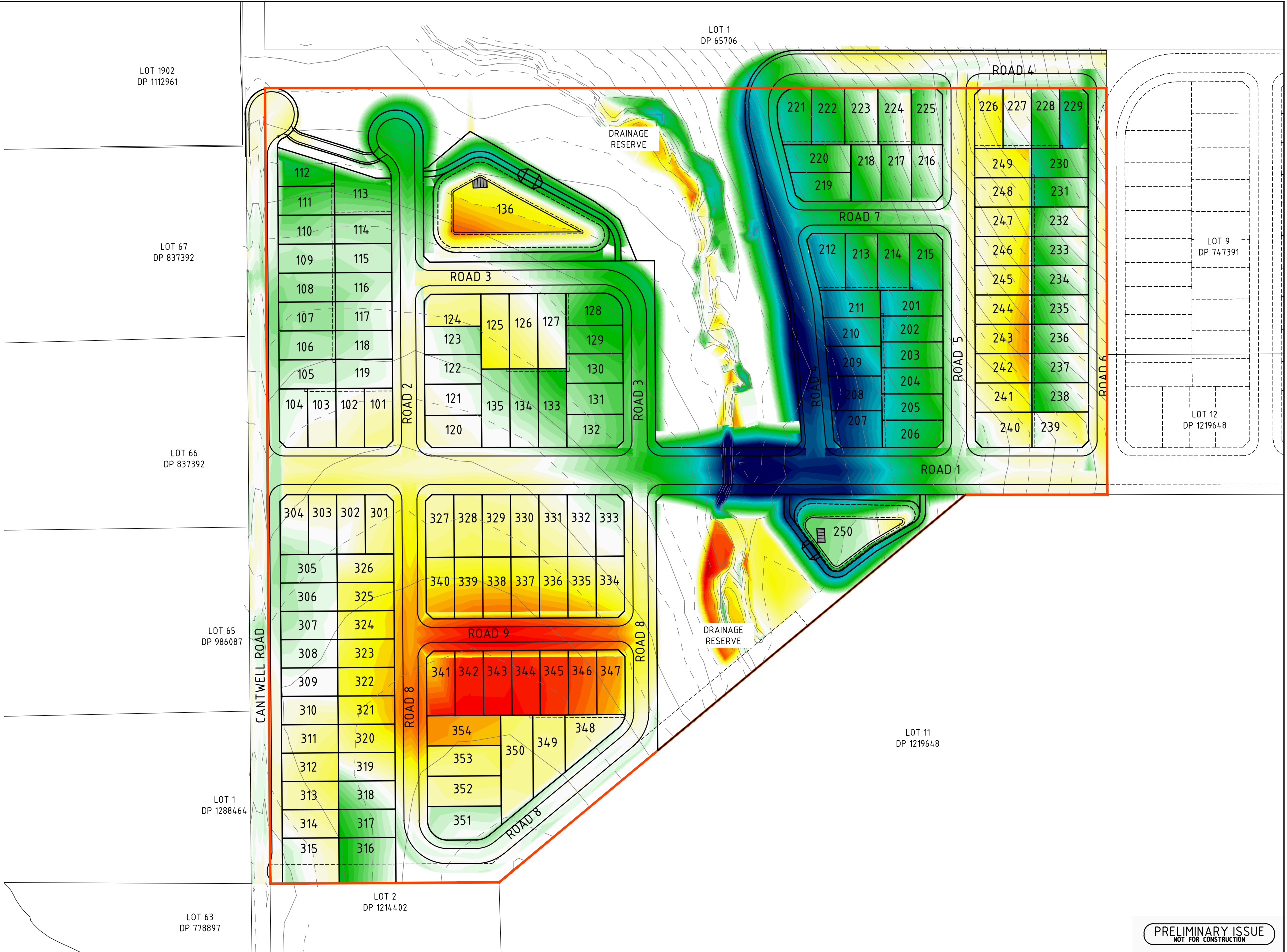




**ESTIMATED VOLUMES**

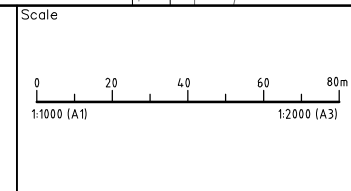
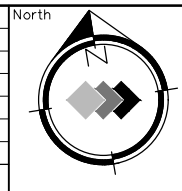
TOTAL CUT = 40,605m<sup>3</sup>  
 TOTAL FILL = 61912m<sup>3</sup>

NOTE: VOLUMES ARE DESIGN SURFACE TO NATURAL SURFACE ONLY AND DO NOT ACCOUNT FOR PAVEMENT (BOXING TO SUBGRADE) AND SPOIL FROM SERVICE TRENCHING.



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3	CLIENT COMMENTS	DB	AS	17.12.24
2	MINOR AMENDMENTS	DB	IH	09.12.24
1	ORIGINAL ISSUE	DB	IH	30.09.24



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 Cad Reference 23290C dC156 r5  
 Project Approval IAN HILL (B.E)  
 Consulting Civil Engineer

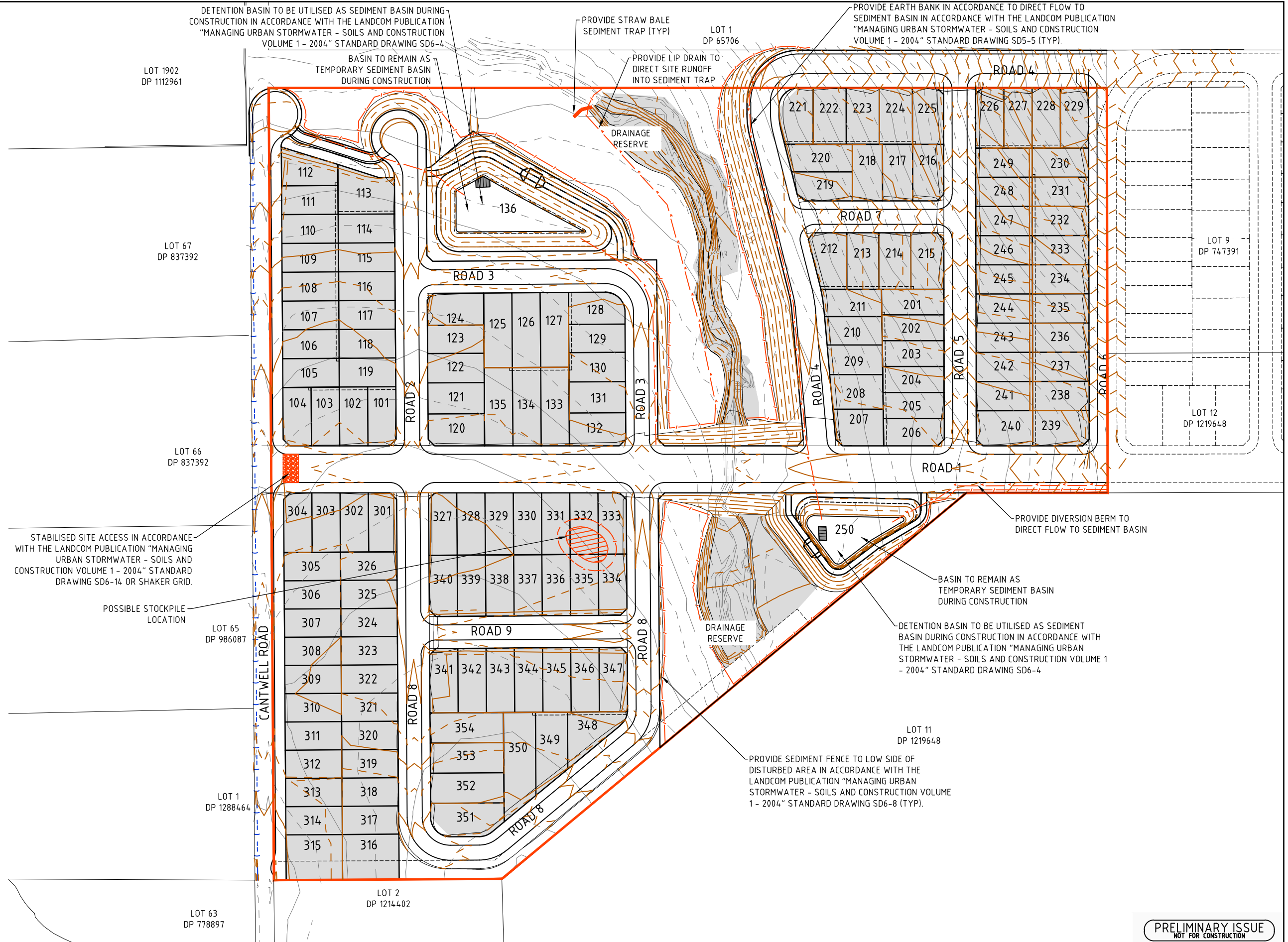


**PROPOSED RESIDENTIAL SUBDIVISION**  
 20 & 20A CANTWELL ROAD  
 LOCHINVAR  
 CUT/FILL RELIEF PLAN

Project No <b>23290C</b>	
Drawing No <b>C156</b>	Revision <b>5</b>
A1 SHEET	

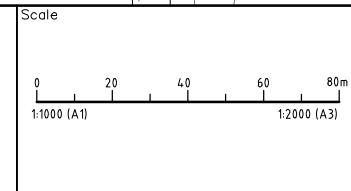
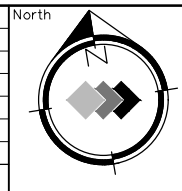
**LEGEND:**

-  STOCKPILE
-  STRAW BALE
-  STABILISED SITE ACCESS
-  EARTH BANK
-  SEDIMENT FENCE



**PRELIMINARY ISSUE**  
NOT FOR CONSTRUCTION

REVISION	Description	Drawn	App'd	Date
5	FOR DEVELOPMENT APPROVAL (UPDATED)	TS	AS	28.01.25
4	FOR DEVELOPMENT APPROVAL	JE	AS	16.01.25
3	CLIENT COMMENTS	DB	AS	17.12.24
2	MINOR AMENDMENTS	DB	IH	09.12.24
1	ORIGINAL ISSUE	DB	IH	30.09.24



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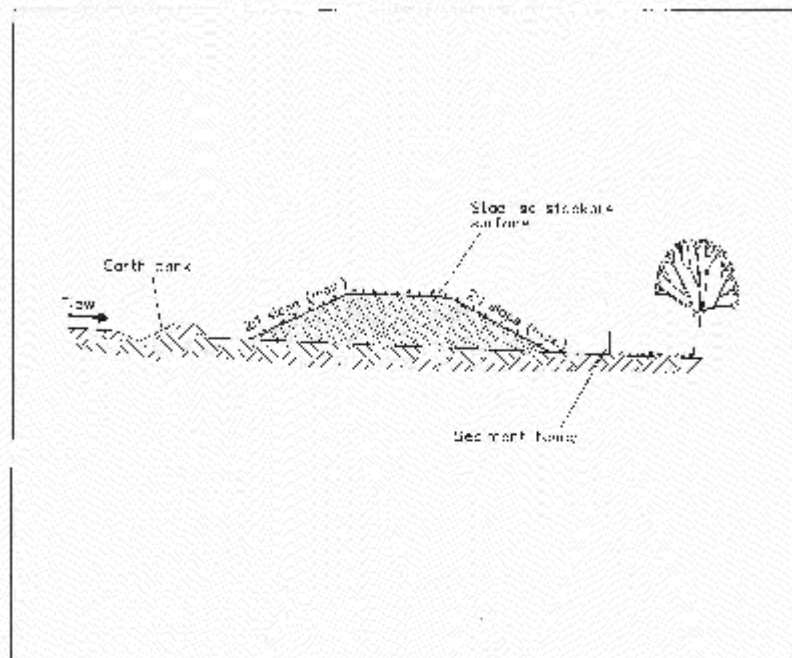
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Project Approval IAN HILL (B.E)  
Consulting Civil Engineer



**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
SOIL AND WATER MANAGEMENT PLAN

Project No <b>23290C</b>	
Drawing No <b>C157</b>	Revision <b>5</b>
A1 SHEET	

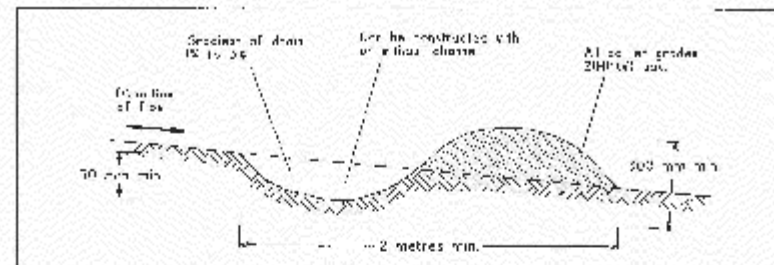


**Construction Notes**

1. Place stockpiles more than 2 (preferably 5) metres from existing vegetation, concentrated water flow, roads and hazard areas.
2. Construct on the contour as low flat, elongated mounds.
3. Where there is sufficient area, install stockpiles shall be less than 2 metres in height.
4. Where they are to be in place for more than 14 days, stabilise following the approved E-SWP or SWMP to reduce the C-factor to less than 0.10.
5. Construct earth banks (Standard Drawing 5-5) on the upslope side to divert water around stockpiles and sediment fences (Standard Drawing 6-8) 1 to 2 metres downslope.

**STOCKPILES**

**SD 4-1**



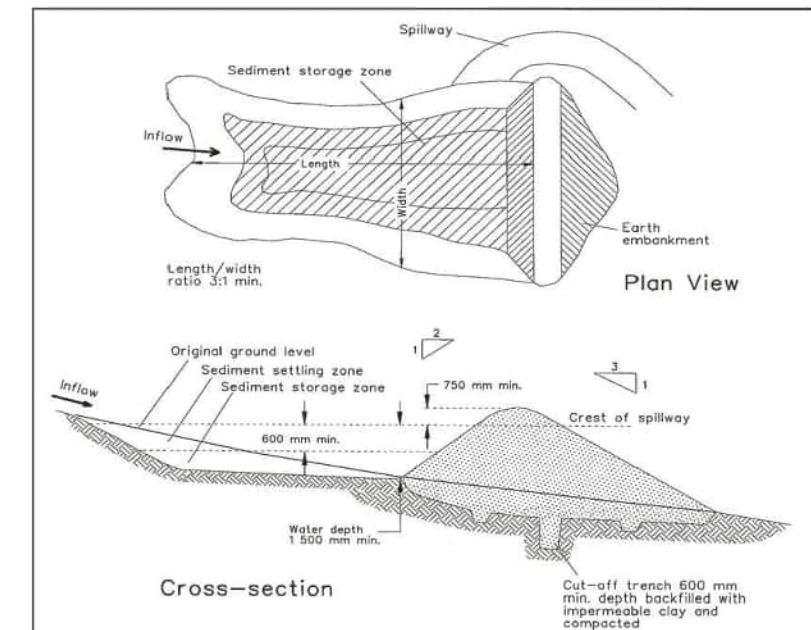
NOTE: Only to be used as temporary bank where maximum slope length is 60 metres

**Construction Notes**

1. Build with gradients between 1 percent and 5 percent
2. Avoid removing trees and shrubs if possible - work around them.
3. Ensure the structures are free of projections or other irregularities that could impede water flow.
4. Build the drains with circular, parabolic or trapezoidal cross sections, not V-shaped.
5. Ensure the banks are properly compacted to prevent failure.
6. Compact permanent or temporary stabilisation within 10 days of construction.

**EARTH BANK (LOW FLOW)**

**SD 5-5**



**Construction Notes**

1. Remove all vegetation and topsoil from under the dam wall and from within the storage area.
2. Construct a cut-off trench 500 mm deep and 1,200 mm wide along the centreline of the embankment extending to a point on the gully wall level with the riser crest.
3. Maintain the trench free of water and recompact the materials with equipment as specified in the SWMP to 95 per cent Standard Proctor Density.
4. Select fill following the SWMP that is free of roots, wood, rock, large stone or foreign material.
5. Prepare the site under the embankment by ripping to at least 100 mm to help bond compacted fill to the existing substrate.
6. Spread the fill in 100 mm to 150 mm layers and compact it at optimum moisture content following the SWMP.
7. Construct the emergency spillway.
8. Rehabilitate the structure following the SWMP.

**EARTH BASIN - WET**  
(APPLIES TO 'TYPE D' AND 'TYPE F' SOILS ONLY)

**SD 6-4**

REVISION	Description	Drawn	App'd	Date
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North	Scale
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Cod Reference 23290C dC158 r5	
Project Approval IAN HILL (B.E) Consulting Civil Engineer	

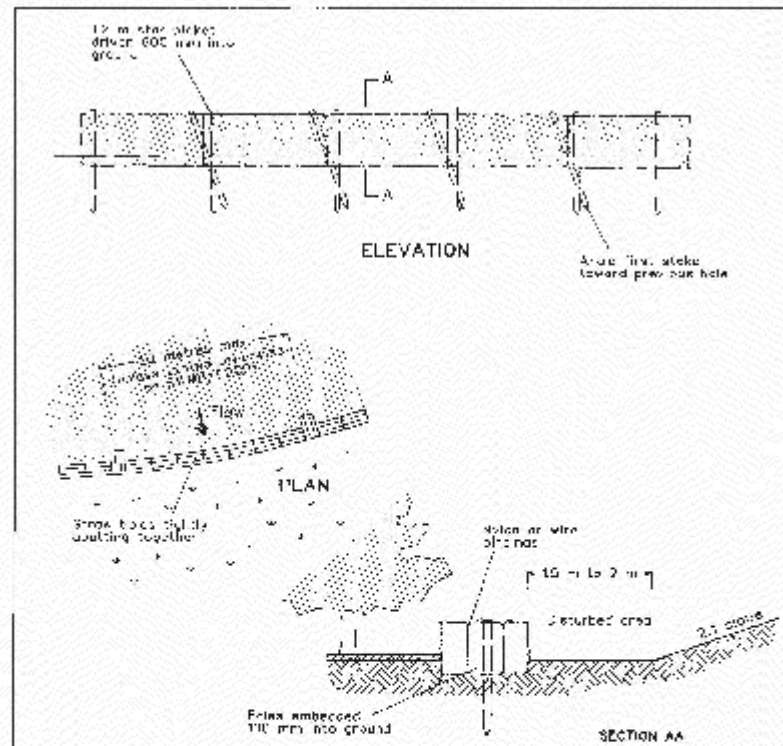
Client

A.B.N. 92 086 017 745  
1 HARTLEY DRIVE, THORNTON NSW 2322  
PO BOX 3337, THORNTON NSW 2322  
PHONE: (02) 4964 1811

**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
SOIL AND WATER MANAGEMENT DETAILS (1 OF 2)

Project No <b>23290C</b>	
Drawing No <b>C158</b>	Revision <b>5</b>
A1 SHEET	

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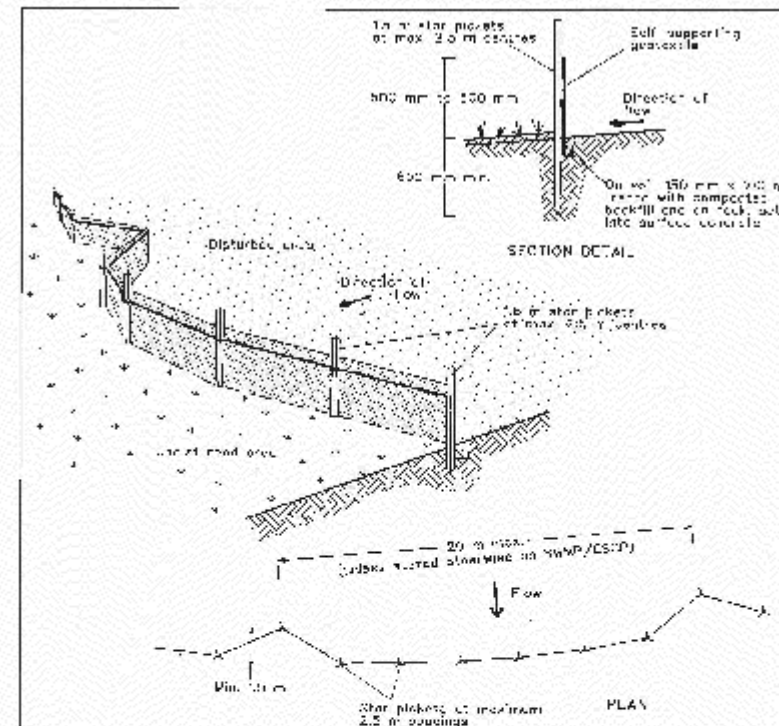
**Construction Notes**

- Construct the straw bale filter as close as possible to being parallel to the contours of the site.
- Place bales lengthwise in a row with ends tightly abutting. Use straw to fill any gaps between bales. Straws are to be placed parallel to flowline.
- Ensure that the maximum height of the filter is one bale.
- Embed each bale in the ground 75 mm to 100 mm and anchor with two 1.2 metre star pickets or elapas. Auger the fire, star picket or stake in such a way towards the previously laid bale. Drive them 600 mm into the ground and if possible, flush with the top of the bale. Where star pickets are used and they protrude above the bales, ensure they are fitted with safety caps.
- Where a straw bale filter is constructed downslope from a disturbed area, ensure the bales are placed 1 to 2 metres downslope from the toe.
- Establish a maintenance program that ensures the integrity of the bales is retained - they could require replacement each two to four months.

**STRAW BALE FILTER**

**SD 6-7**

6-35



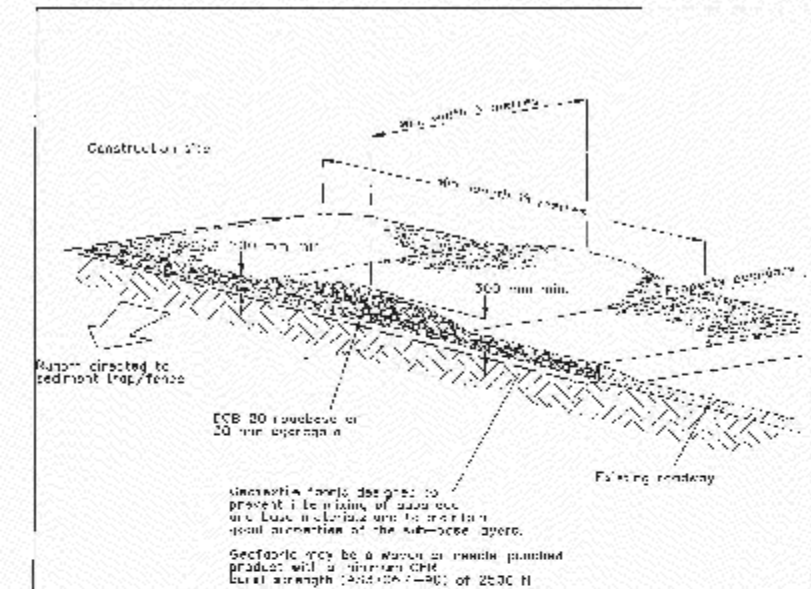
**Construction Notes**

- Construct sediment fences as close as possible to being parallel to the contours of the site, but with small offsets as shown in the drawing to limit the catchment area of any one section. The catchment area should be small enough to limit water flow if concentrated at one point to 30 litres per second in the design storm event, usually the 10-year event.
- Construct a 150mm deep trench along the upslope face of the fence for the bottom of the fabric to be anchored.
- Drive 1.5 metre long star pickets into ground at 2.5 metre intervals (max) at the downslope edge of the trench. Ensure any star pickets with a 150mm safety caps.
- Fix self-supporting geotextile to the upslope side of the posts ensuring it goes to the base of the trench. Fix the geotextile with wire ties or as recommended by the manufacturer. Only use geotextile specifically produced for sediment fencing. The use of sheet piling for this purpose is not satisfactory.
- Join sections of fabric at a staggered joint with a 150mm overlap.
- Backfill the trench over the base of the fabric and compact it thoroughly over the geotextile.

**SEDIMENT FENCE**

**SD 6-8**

6-36



**Construction Notes**

- Stim the topsoil, level the site and compact the subgrade.
- Cover the area with nonde-purched geotextile.
- Construct a 200mm thick pad over the geotextile using road base or 30mm aggregate.
- Ensure the structure is at least 1.5 metres long in to building, alignment and at least 3 metres wide.
- Where a sediment fence joins onto the stabilised access, construct a hump in the stabilised access to divert water to the sediment fence.

**STABILISED SITE ACCESS**

**SD 6-14**

6-38

**PRELIMINARY ISSUE**  
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1	ORIGINAL ISSUE	DB	IH	30.09.24

North	Scale







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		Cad Reference		
		23290C dC159 r5		
		Project Approval		
		IAN HILL (B.E)		
		Consulting Civil Engineer		

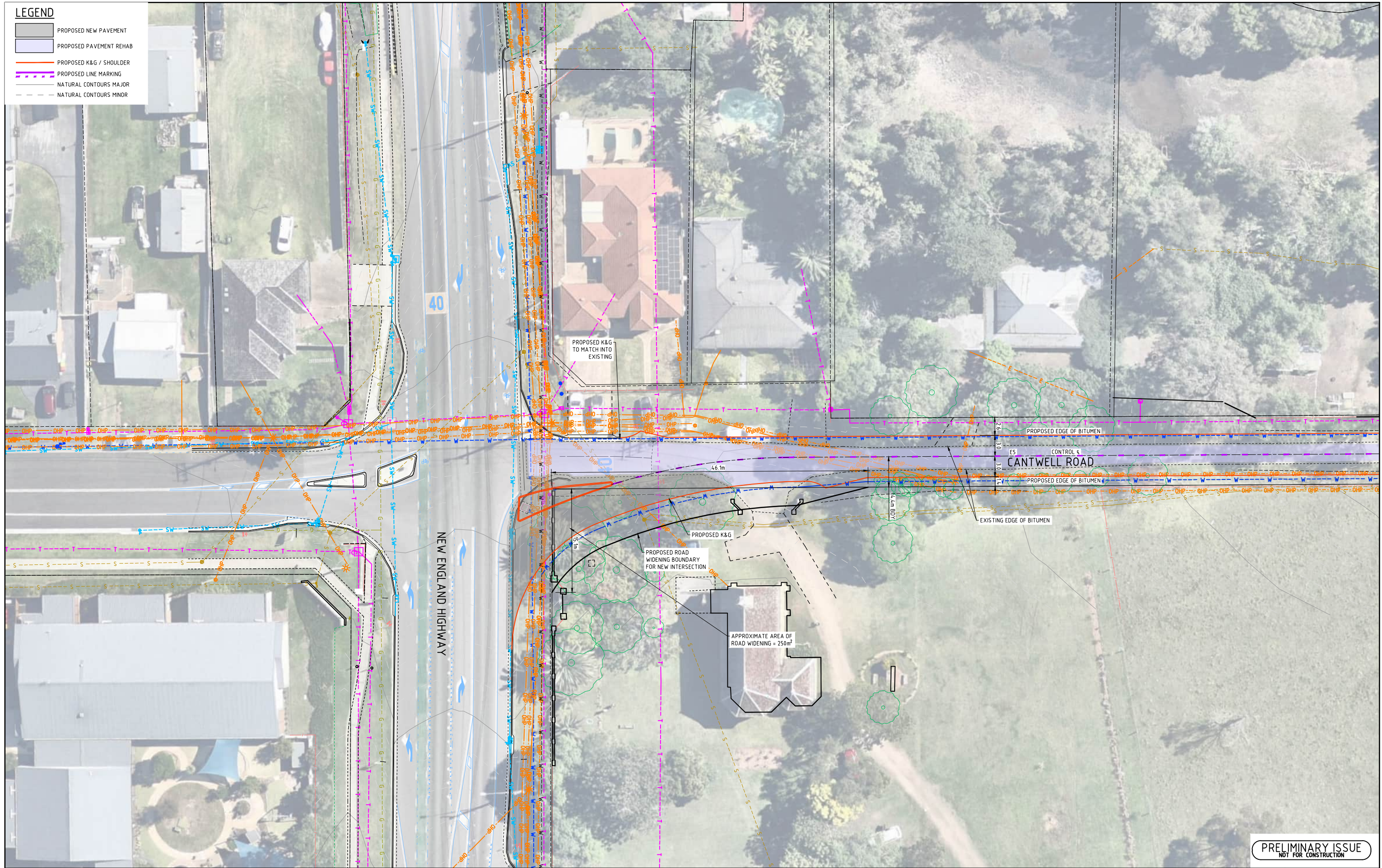
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PO BOX 3337, THORNTON NSW 2322  
PHONE: (02) 4964 1811

**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
SOIL AND WATER MANAGEMENT DETAILS (2 OF 2)

Project No	
23290C	
Drawing No	Revision
C159	5
A1 SHEET	

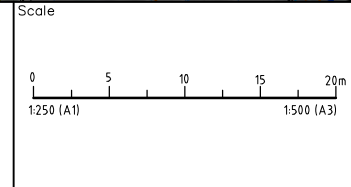
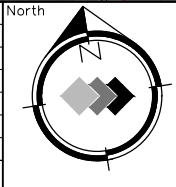
**LEGEND**

	PROPOSED NEW PAVEMENT
	PROPOSED PAVEMENT REHAB
	PROPOSED K&G / SHOULDER
	PROPOSED LINE MARKING
	NATURAL CONTOURS MAJOR
	NATURAL CONTOURS MINOR



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AM

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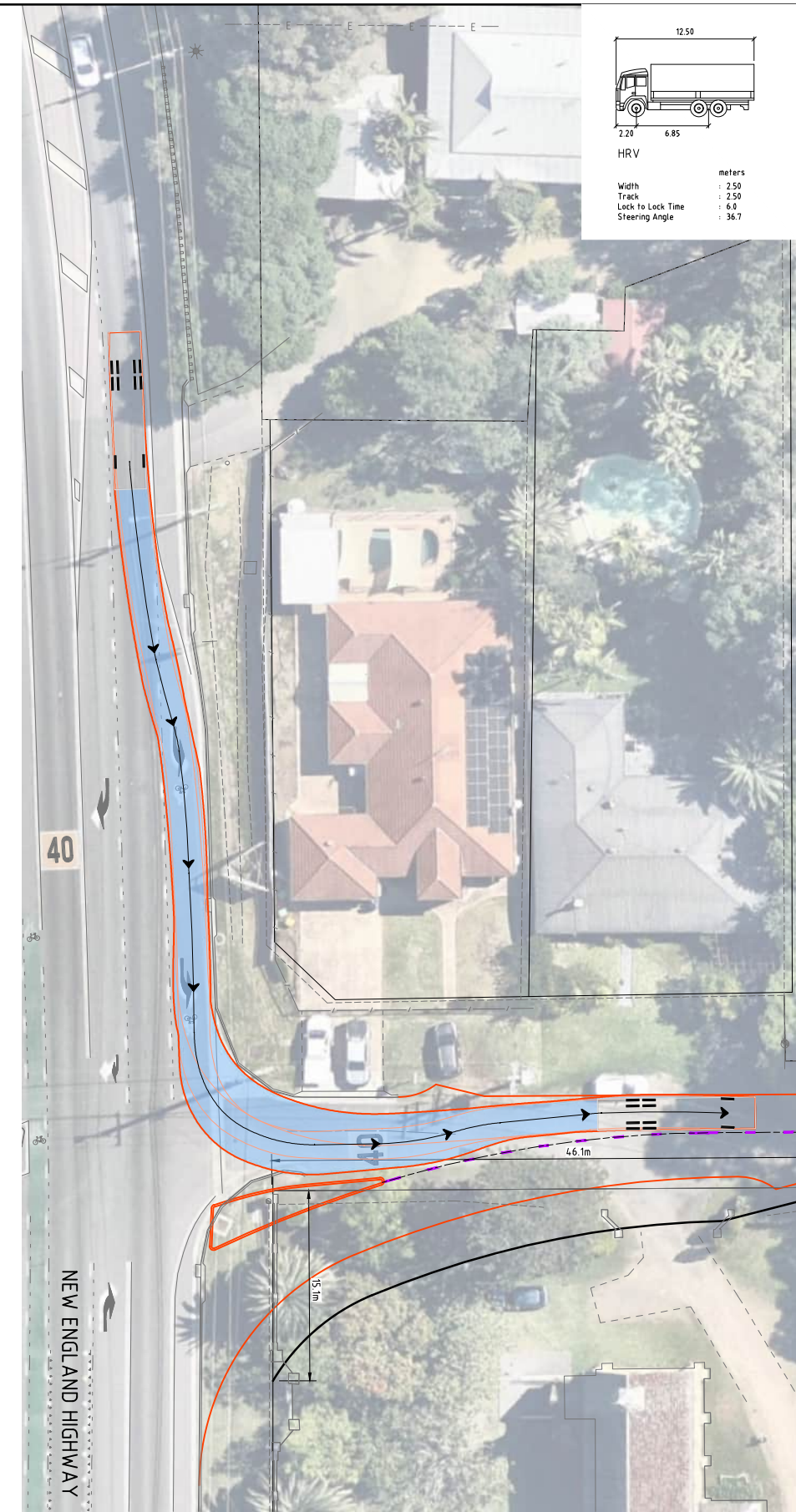
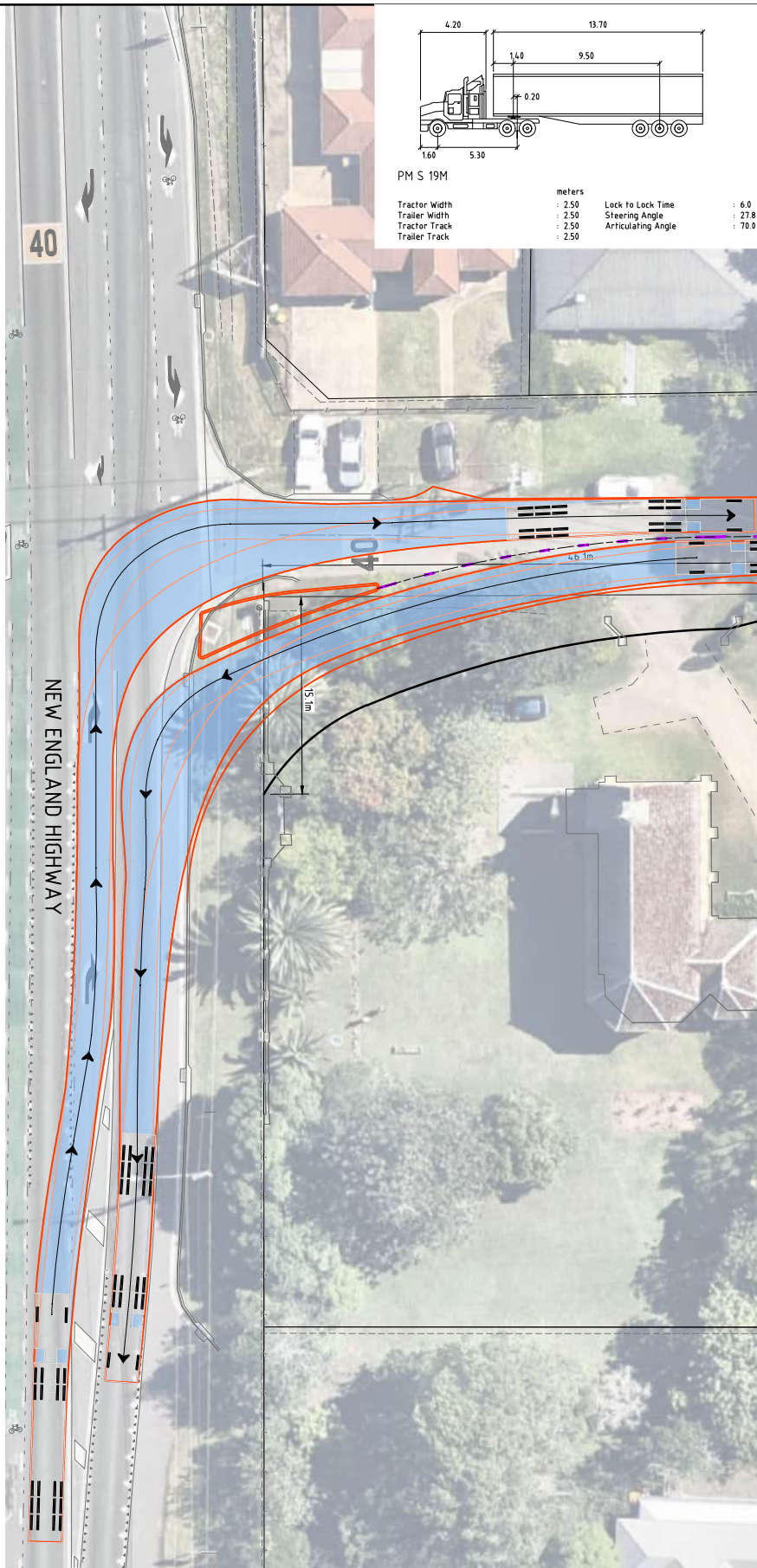
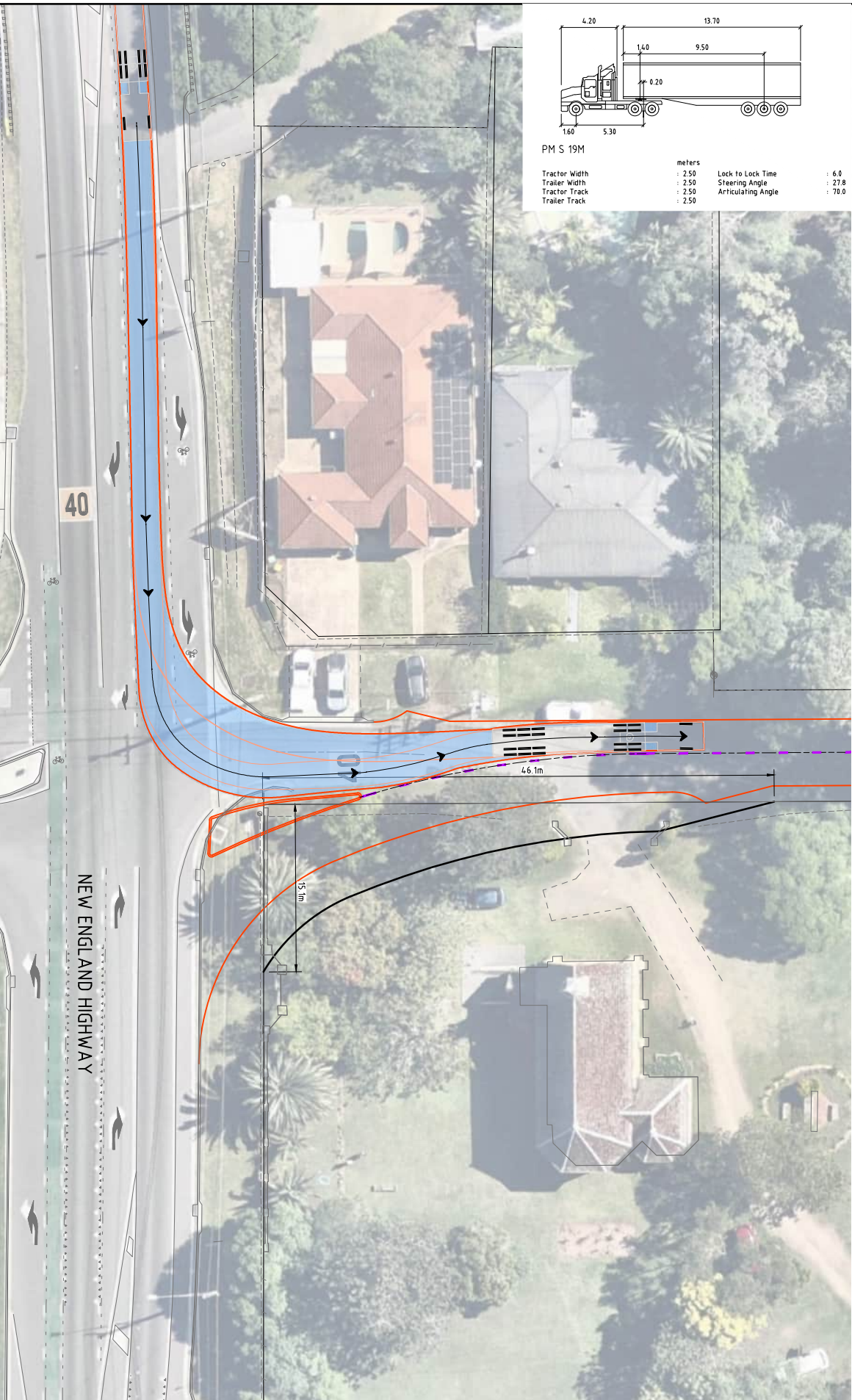
Cad Reference  
23290C dC160 r5

Project Approval  
IAN HILL (B.E)  
Consulting Civil Engineer



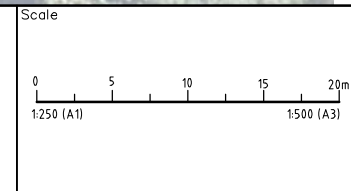
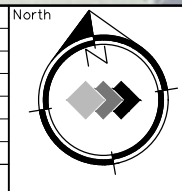
**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
NEW ENGLAND HIGHWAY INTERSECTION PLAN

Project No		23290C	
Drawing No	Revision	C160	5
A1 SHEET			



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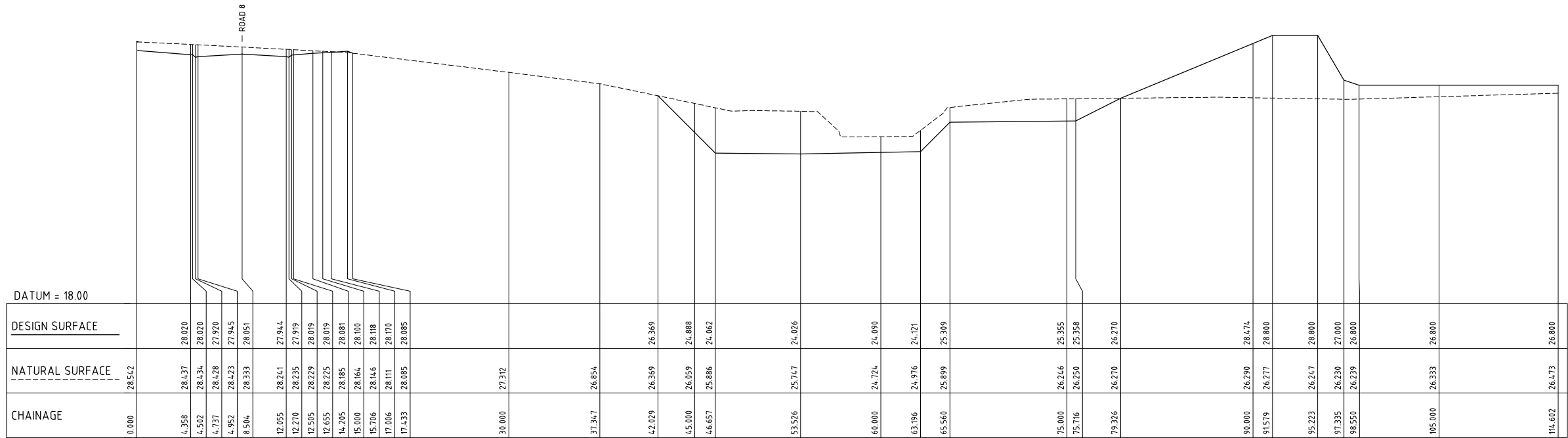
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Cad Reference 23290C dC161 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer



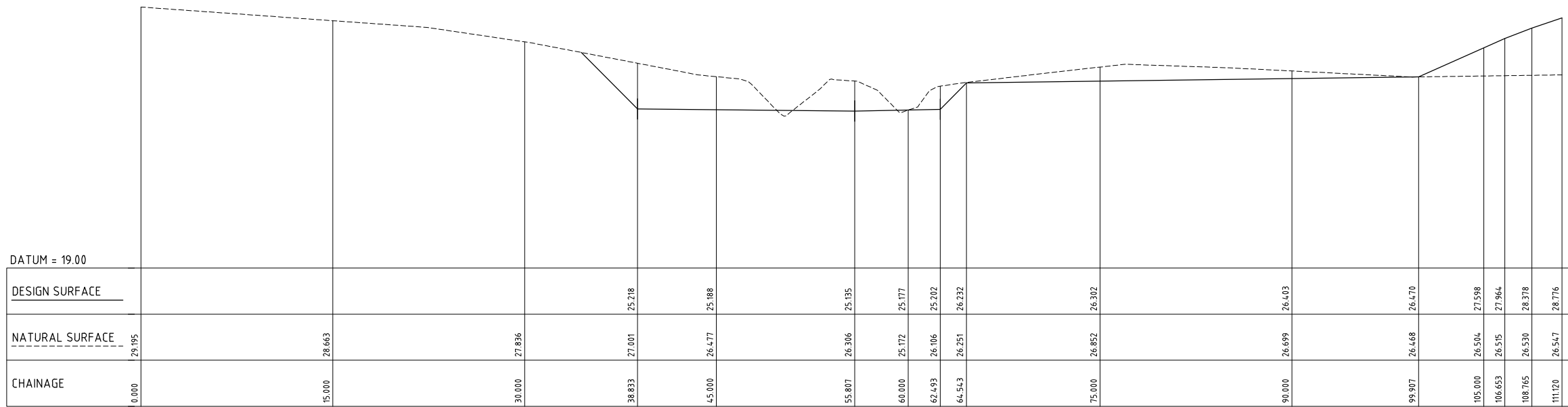
**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
NEW ENGLAND HIGHWAY INTERSECTION  
TURNING MOVEMENT PLAN

Project No		23290C	
Drawing No	C161	Revision	5
A1 SHEET			



A1 SCALE: HORIZONTAL 1:200, VERTICAL 1:100

CREEK CROSS SECTION 2  
C103



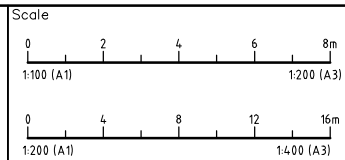
A1 SCALE: HORIZONTAL 1:200, VERTICAL 1:100

CREEK CROSS SECTION 1  
C103

PRELIMINARY ISSUE  
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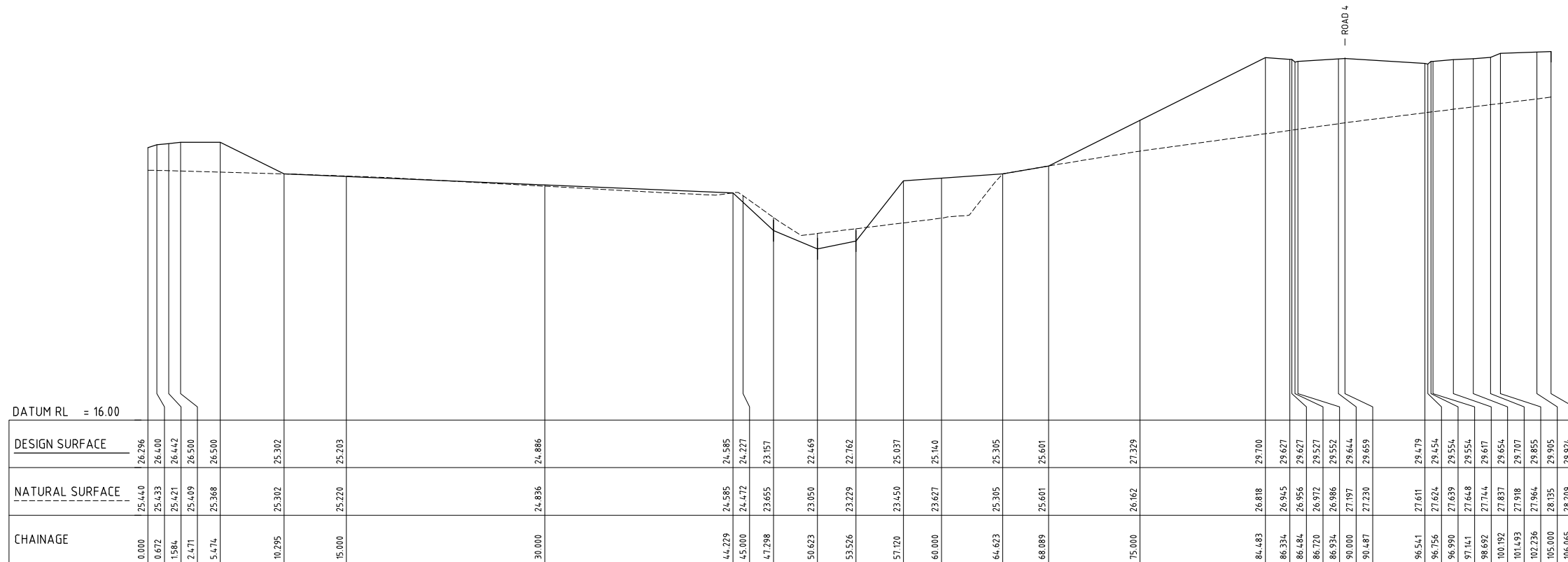
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Cad Reference 23290C dC162 r5  
Project Approval IAN HILL (B.E)  
Consulting Civil Engineer



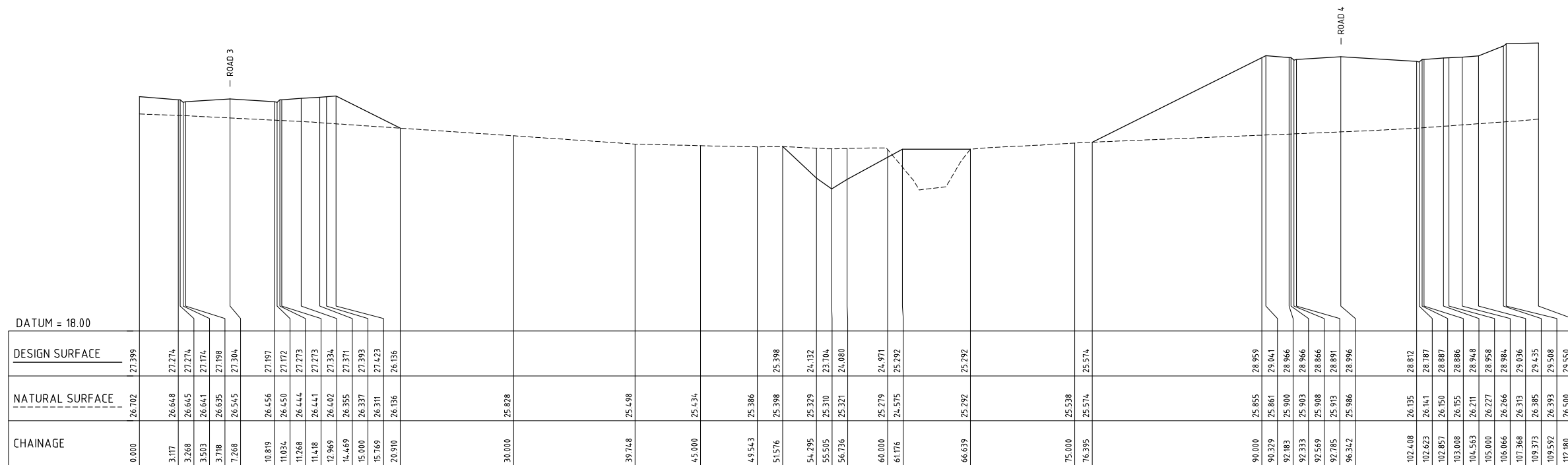
**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
DRAINAGE RESERVE SECTIONS (1 OF 3)

Project No <b>23290C</b>	
Drawing No <b>C162</b>	Revision <b>5</b>
A1 SHEET	



A1 SCALE: HORIZONTAL 1:200, VERTICAL 1:100

CREEK CROSS SECTION 4



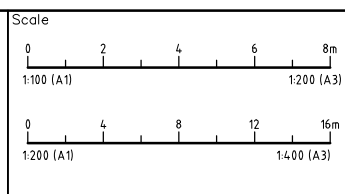
A1 SCALE: HORIZONTAL 1:200, VERTICAL 1:100

CREEK CROSS SECTION 3

PRELIMINARY ISSUE  
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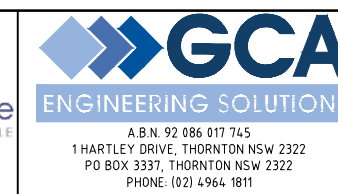
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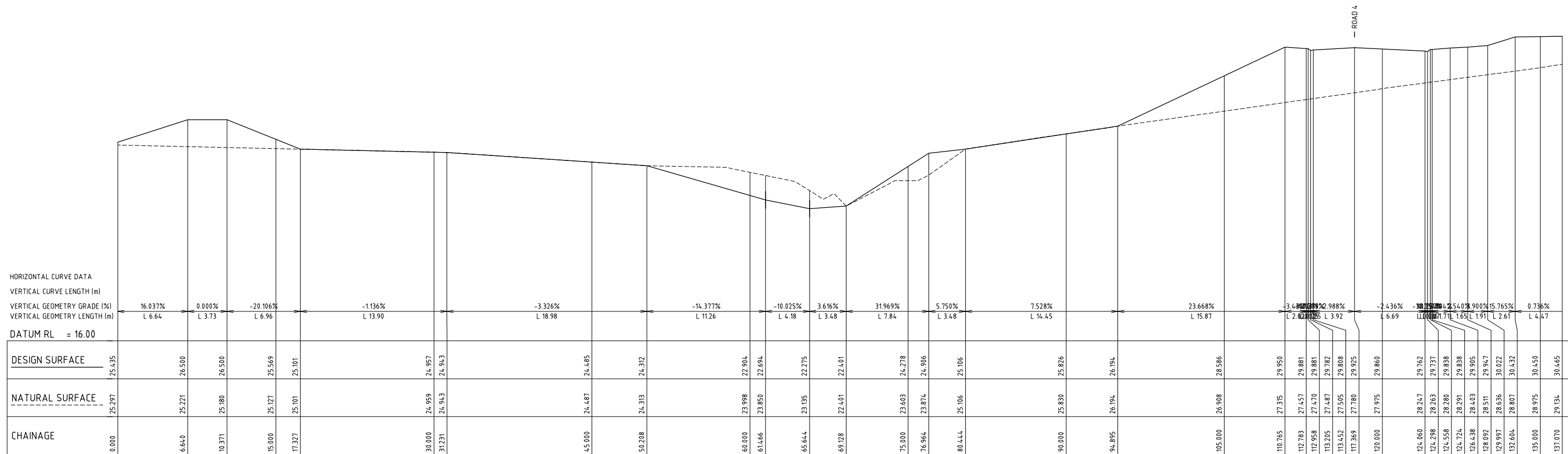
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PROPOSED RESIDENTIAL SUBDIVISION  
20 & 20A CANTWELL ROAD  
LOCHINVAR  
DRAINAGE RESERVE SECTIONS (2 OF 3)

Project No	Revision
23290C	5
Drawing No	Revision
C163	5
A1 SHEET	



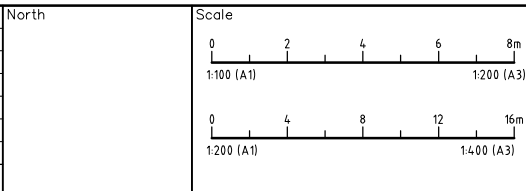


A1 SCALE: HORIZONTAL 1:200, VERTICAL 1:100

CREEK CROSS SECTION 5  
1:100

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Project Approval IAN HILL (B.E)  
Consulting Civil Engineer



**PROPOSED RESIDENTIAL SUBDIVISION**  
**20 & 20A CANTWELL ROAD**  
**LOCHINVAR**  
DRAINAGE RESERVE SECTIONS (3 OF 3)

Project No <b>23290C</b>	
Drawing No <b>C164</b>	Revision <b>5</b>
A1 SHEET	