

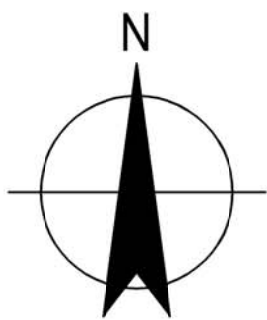
Appendix J Design Drawings



HYDRO ALUMINIUM KURRI KURRI PTY LTD

CONTAINMENT CELL DETAILED DESIGN

SR 2015-001



LOCALITY PLAN
NTS

DRAWING LIST

DRAWING NO.	DESCRIPTION
22-18015-C001	COVER SHEET, LOCALITY PLAN AND DRAWING LIST
22-18015-C011	EXISTING SITE PLAN - SHEET 1 OF 2
22-18015-C012	EXISTING SITE PLAN - SHEET 2 OF 2
22-18015-C013	SITE CLEARANCE PLAN
22-18015-C021	GENERAL ARRANGEMENT - CONTAINMENT CELL
22-18015-C022	GENERAL ARRANGEMENT - ACCESS ROADS
22-18015-C023	GENERAL ARRANGEMENT - STORMWATER
22-18015-C024	DETAIL PLAN - SEDIMENT BASINS AND STORAGE DAM
22-18015-C025	GENERAL ARRANGEMENT - FINAL CAP
22-18015-C031	SETOUT PLAN - CONTAINMENT CELL AND PONDS - SHEET 1 OF 2
22-18015-C032	SETOUT PLAN - CONTAINMENT CELL AND PONDS - SHEET 2 OF 2
22-18015-C033	SETOUT PLAN - CONTAINMENT CELL AND PONDS - SHEET 1 OF 2
22-18015-C034	SETOUT PLAN - CONTAINMENT CELL AND PONDS - SHEET 2 OF 2
22-18015-C041	SECTION A - LONGITUDINAL SECTION
22-18015-C042	SECTION B - LONGITUDINAL SECTION
22-18015-C043	ACCESS ROAD - LONGITUDINAL SECTION
22-18015-C044	PERIMETER ROAD - LONGITUDINAL SECTION - SHEET 1 OF 3
22-18015-C045	PERIMETER ROAD - LONGITUDINAL SECTION - SHEET 2 OF 3
22-18015-C046	PERIMETER ROAD - LONGITUDINAL SECTION - SHEET 3 OF 3
22-18015-C047	RAMP 01 LONGITUDINAL SECTIONS - SHEET 1 OF 4
22-18015-C048	RAMP 02 LONGITUDINAL SECTIONS - SHEET 2 OF 4
22-18015-C049	RAMP 03 LONGITUDINAL SECTIONS - SHEET 3 OF 4
22-18015-C050	RAMP 04 LONGITUDINAL SECTIONS - SHEET 4 OF 4
22-18015-C051	ACCESS ROAD RETURN LONGITUDINAL SECTION
22-18015-C052	VEHICLE TURN AROUND PAD01 PLAN & PROFILE
22-18015-C061	ACCESS ROAD CROSS SECTIONS - SHEET 1 OF 2
22-18015-C062	ACCESS ROAD CROSS SECTIONS - SHEET 2 OF 2
22-18015-C063	PERIMETER ROAD CROSS SECTIONS - SHEET 1 OF 7
22-18015-C064	PERIMETER ROAD CROSS SECTIONS - SHEET 2 OF 7
22-18015-C065	PERIMETER ROAD CROSS SECTIONS - SHEET 3 OF 7
22-18015-C066	PERIMETER ROAD CROSS SECTIONS - SHEET 4 OF 7
22-18015-C067	PERIMETER ROAD CROSS SECTIONS - SHEET 5 OF 7
22-18015-C068	PERIMETER ROAD CROSS SECTIONS - SHEET 6 OF 7
22-18015-C069	PERIMETER ROAD CROSS SECTIONS - SHEET 7 OF 7
22-18015-C071	LINER DETAILS - SHEET 1 OF 3
22-18015-C072	LINER DETAILS - SHEET 2 OF 3
22-18015-C073	LINER DETAILS - SHEET 3 OF 3
22-18015-C081	SUMP DETAILS - SHEET 1 OF 4
22-18015-C082	SUMP DETAILS - SHEET 2 OF 4
22-18015-C083	SUMP DETAILS - SHEET 3 OF 4
22-18015-C084	SUMP DETAILS - SHEET 4 OF 4
22-18015-C091	CAPPING DETAILS - SHEET 1 OF 2
22-18015-C092	CAPPING DETAILS - SHEET 2 OF 2

DRAWING NO.	DESCRIPTION
22-18015-C101	LEACHATE BUFFER STORAGE DAM DETAILS
22-18015-C102	LEACHATE TRANSFER SYSTEM - PLAN AND DETAILS
22-18015-C103	LEACHATE TRANSFER SYSTEM - UTILITIES SLAB DETAILS
22-18015-C111	STORMWATER DETAILS - SHEET 1 OF 2
22-18015-C112	STORMWATER DETAILS - SHEET 2 OF 2
22-18015-C113	CULVERT LONGITUDINAL SECTIONS - SHEET 1 OF 2
22-18015-C114	CULVERT LONGITUDINAL SECTION - SHEET 2 OF 2
22-18015-C121	SEDIMENT DETENTION BASIN DETAILS
22-18015-C131	ACCESS ROAD DETAILS - SHEET 1 OF 3
22-18015-C132	ACCESS ROAD DETAILS - SHEET 2 OF 3
22-18015-C133	ACCESS ROAD DETAILS - SHEET 3 OF 3
22-18015-C141	LANDFILL GAS MANAGEMENT SYSTEM DETAILS
22-18015-C151	SWALE - LONGITUDINAL SECTION - SHEET 1 OF 8
22-18015-C152	SWALE - LONGITUDINAL SECTION - SHEET 2 OF 8
22-18015-C153	SWALE - LONGITUDINAL SECTION - SHEET 3 OF 8
22-18015-C154	SWALE - LONGITUDINAL SECTION - SHEET 4 OF 8
22-18015-C155	SWALE - LONGITUDINAL SECTION - SHEET 5 OF 8
22-18015-C156	SWALE - LONGITUDINAL SECTION - SHEET 6 OF 8
22-18015-C157	SWALE - LONGITUDINAL SECTION - SHEET 7 OF 8
22-18015-C158	SWALE - LONGITUDINAL SECTION - SHEET 8 OF 8
22-18015-C161	VEHICLE TRACKING PLAN
22-18015-C162	SECURITY AND UTILITIES PLAN
22-18015-C163	EROSION AND SEDIMENT CONTROL - PLANS AND DETAILS

DETAIL DESIGN

E	100% DETAILED DESIGN RE-ISSUE		HT	DB	IG	04.05.18
D	100% DETAILED DESIGN REVIEW COMMENTS		CD	DB*	IG*	15.09.17
C	100% DETAILED DESIGN		JSC	DB*	IG*	04.08.17
B	ISSUE FOR CLIENT REVIEW		EAN	DB*	IG*	13.01.17
A	ISSUE FOR REVIEW		EAN	DB*	IG*	28.11.16
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date



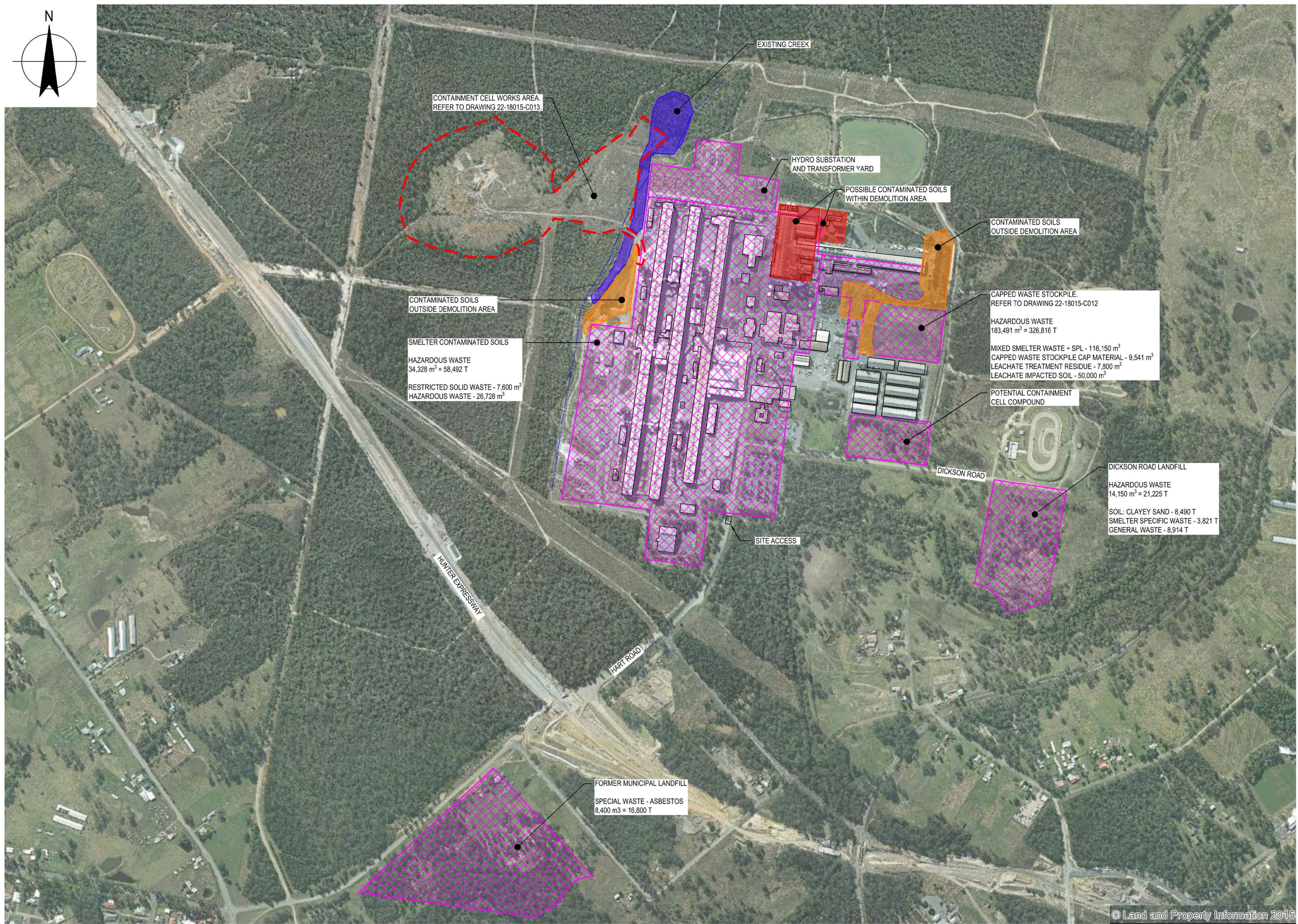
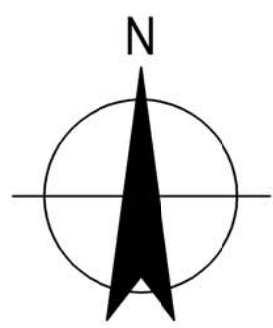
HYDRO



Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

DO NOT SCALE	Drawn J. CASIO	Designer A. ROBERTS
Conditions of Use. This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.	Drafting Check P. ETCHHELLS	Design Check D. BARRETT
	Approved (Project Director) Date	
	Scale NOT TO SCALE	This Drawing must not be used for Construction unless signed as Approved

Client	HYDRO ALUMINIUM KURRI KURRI PTY LTD	
Project	CONTAINMENT CELL DETAILED DESIGN	
Title	COVER SHEET, LOCALITY PLAN AND DRAWING LIST	
Original Size	Drawing No: 22-18015-C001	Rev: E



LEGEND:

- CONTAINMENT CELL WORKS AREA
- WASTE SOURCES
- CONTAMINATED SOIL OUTSIDE DEMOLITION AREA
- EXISTING CREEK
- CONTAMINATED SOIL WITHIN DEMOLITION AREA

NOTE:

- ALL QUOTED VOLUMES WERE PROVIDED BY HYDRO ALUMINIUM KURRI KURRI PTY LTD 01/06/2016.



THIS DRAWING INCLUDES COLOURED INFORMATION. IF YOU HAVE A BLACK AND WHITE COPY YOU DO NOT HAVE ALL THE INFORMATION. THIS NOTE IS COLOURED RED.

EXISTING SITE PLAN
SCALE 1:50,000



DETAIL DESIGN

D	100% DETAILED DESIGN RE-ISSUE	HT	DB	IG	04.05.18		
C	100% DETAILED DESIGN	JSC	DB*	IG*	04.08.17		
B	ISSUE FOR CLIENT REVIEW	EAN	DB*	IG*	13.01.17		
A	ISSUE FOR REVIEW	EAN	DB*	IG*	28.11.16		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing		Drawn	Job Manager	Project Director	Date



Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

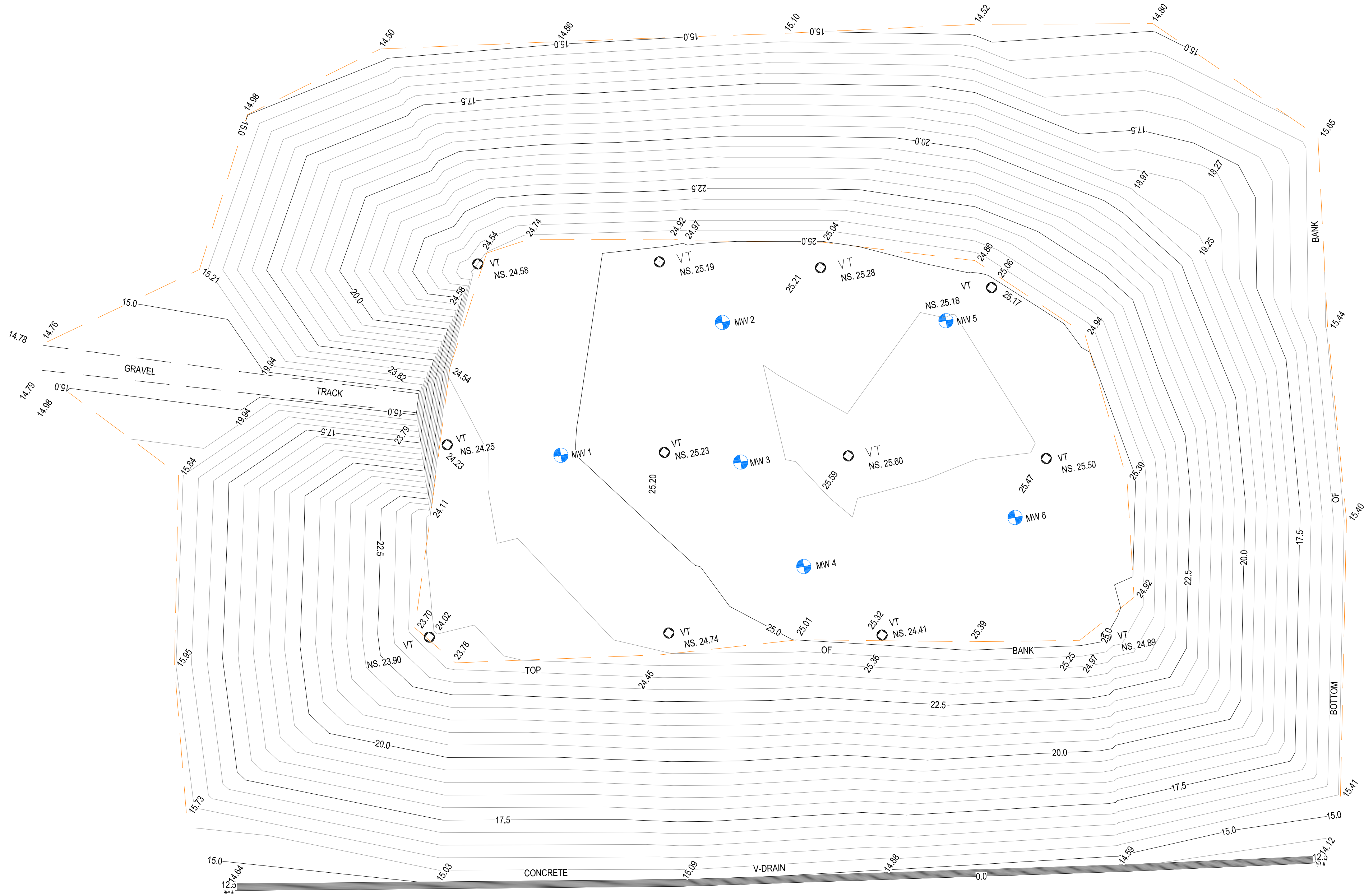
DO NOT SCALE

Conditions of Use.
This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.

Drawn	J. CASIO	Designer	A. ROBERTS
Drafting Check	P. ETCHHELLS	Design Check	D. BARRETT
Approved (Project Director)	Date	Scale	1:50,000

This Drawing must not be used for Construction unless signed as Approved

Client	HYDRO ALUMINIUM KURRI KURRI PTY LTD
Project	CONTAINMENT CELL DETAILED DESIGN
Title	EXISTING SITE PLAN SHEET 1 OF 2
Original Size	A1
Drawing No:	22-18015-C011
Rev:	D



EXISTING CAPPED WASTE STOCKPILE
NTS



EXISTING CAPPED WASTE STOCKPILE



EXISTING CAPPED WASTE STOCKPILE LOOKING WEST



THIS DRAWING INCLUDES COLOURED INFORMATION. IF YOU HAVE A BLACK AND WHITE COPY YOU DO NOT HAVE ALL THE INFORMATION. THIS NOTE IS COLOURED RED

LEGEND

- VENT
- MONITORING WELL



Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

DO NOT SCALE

Conditions of Use.
This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.

Drawn	J. CASIO	Designer	A. ROBERTS
Drafting Check	P. ETCHHELLS	Design Check	D. BARRETT
Approved (Project Director)	Date		
Scale	NOT TO SCALE		

This Drawing must not be used for Construction unless signed as Approved

DETAIL DESIGN

F	100% DETAILED DESIGN RE-ISSUE		HT	DB	IG	04.05.18
E	100% DETAILED DESIGN RE-ISSUE		CG	DB*	IG*	19.10.17
D	100% DETAILED DESIGN REVIEW COMMENTS		CD	DB*	IG*	15.09.17
C	100% DETAILED DESIGN		JSC	DB*	IG*	04.08.17
B	ISSUE FOR CLIENT REVIEW		EAN	DB*	IG*	13.01.17
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

Plot Date: 10 July 2018 - 3:00 PM

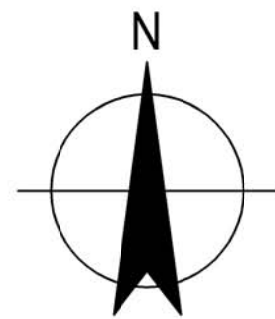
Plotted by: Trish Etchells

Cad File No: N:\AU\Sydney\Projects\22\18015\CADD\Drawings\Drawings\22-18015-C012.dwg

Client **HYDRO ALUMINIUM KURRI KURRI PTY LTD**
Project **CONTAINMENT CELL DETAILED DESIGN**
Title **EXISTING SITE PLAN**
SHEET 2 OF 2

Original Size **A1** Drawing No: **22-18015-C012**

Rev: F

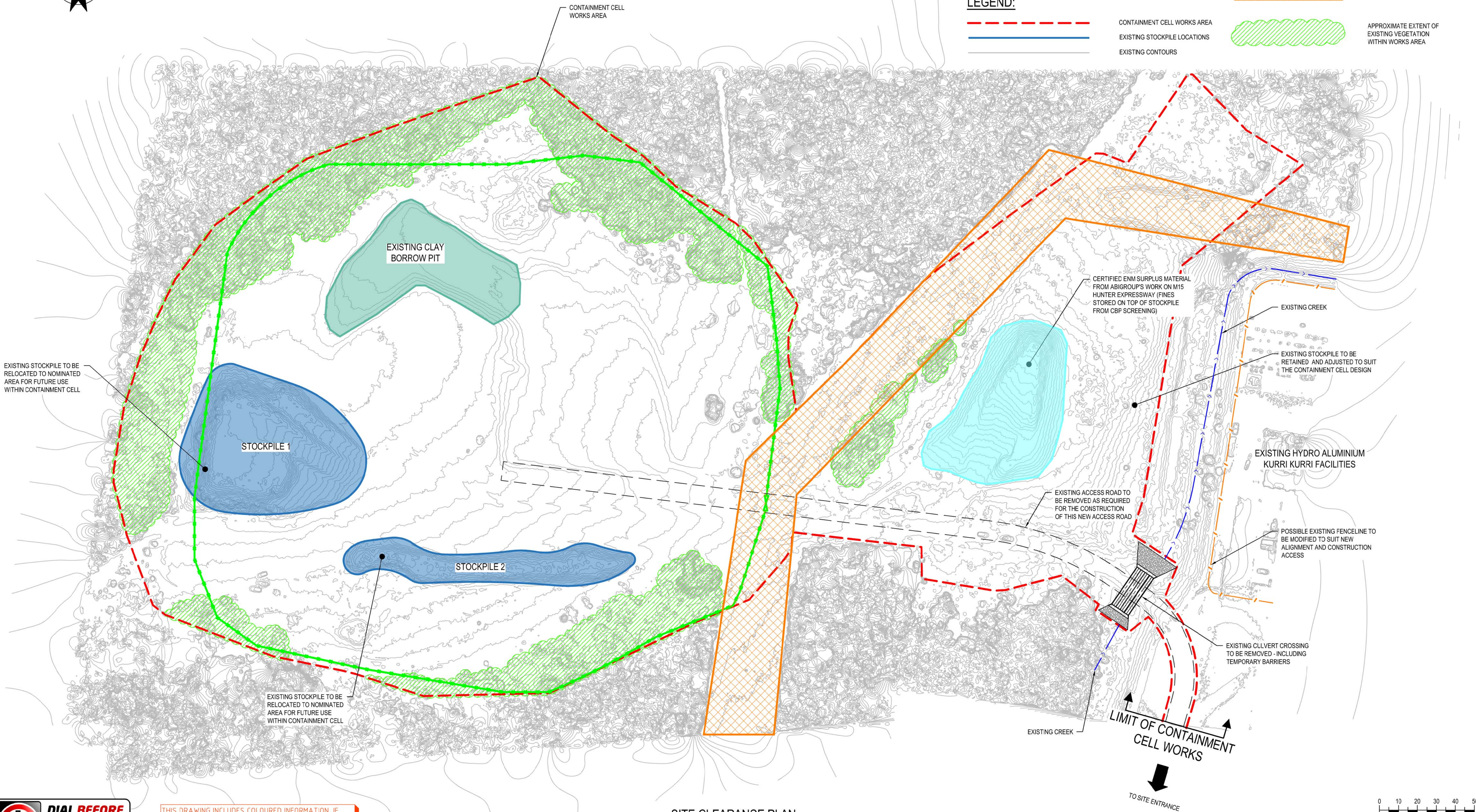


NOTES:

1. A TOPOGRAPHICAL SURVEY OF ALL VEGETATION IN THE WORKS BOUNDARY SHALL BE UNDERTAKEN PRIOR TO ANY DISTURBANCE.
2. ALL TOPSOIL WITHIN FOOTPRINT OF WORKS TO BE RELOCATED TO NOMINATED STORAGE AREA FOR FUTURE USE WITHIN BOUNDARY.
3. ALL EXISTING WELLS TO BE RETAINED WHERE POSSIBLE.

LEGEND:

- CONTAINMENT CELL WORKS AREA
--- EXISTING STOCKPILE LOCATIONS
--- EXISTING CONTOURS
- EXISTING CREEK
--- EXISTING HAKK FACILITY BOUNDARY
--- APPROXIMATE POWER LINE EASEMENT
--- APPROXIMATE EXTENT OF EXISTING VEGETATION WITHIN WORKS AREA



SITE CLEARANCE PLAN
SCALE 1:1000



THIS DRAWING INCLUDES COLOURED INFORMATION. IF YOU HAVE A BLACK AND WHITE COPY YOU DO NOT HAVE ALL THE INFORMATION. THIS NOTE IS COLOURED RED.

E	100% DETAILED DESIGN RE-ISSUE		HT	DB	IG	04.05.18
D	100% DETAILED DESIGN REVIEW COMMENTS		CD	DB*	IG*	15.09.17
C	100% DETAILED DESIGN		JSC	DB*	IG*	04.08.17
B	ISSUE FOR CLIENT REVIEW		EAN	DB*	IG*	13.01.17
A	ISSUE FOR REVIEW		EAN	DB*	IG*	28.11.16
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date



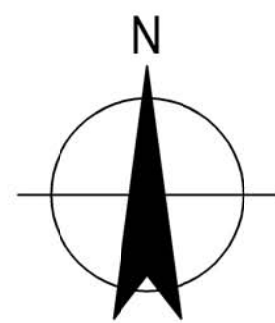
Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

DO NOT SCALE

Conditions of Use.
This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.

Drawn	J. CASIO	Designer	A. ROBERTS
Drafting Check	P. ETCHHELLS	Design Check	D. BARRETT
Approved (Project Director)	Date	This Drawing must not be used for construction unless signed as Approved	
Scale	1:1000		

Client	HYDRO ALUMINIUM KURRI KURRI PTY LTD		
Project	CONTAINMENT CELL DETAILED DESIGN		
Title	SITE CLEARANCE PLAN		
Original Size	A1	Drawing No:	22-18015-C013
Rev:	E		

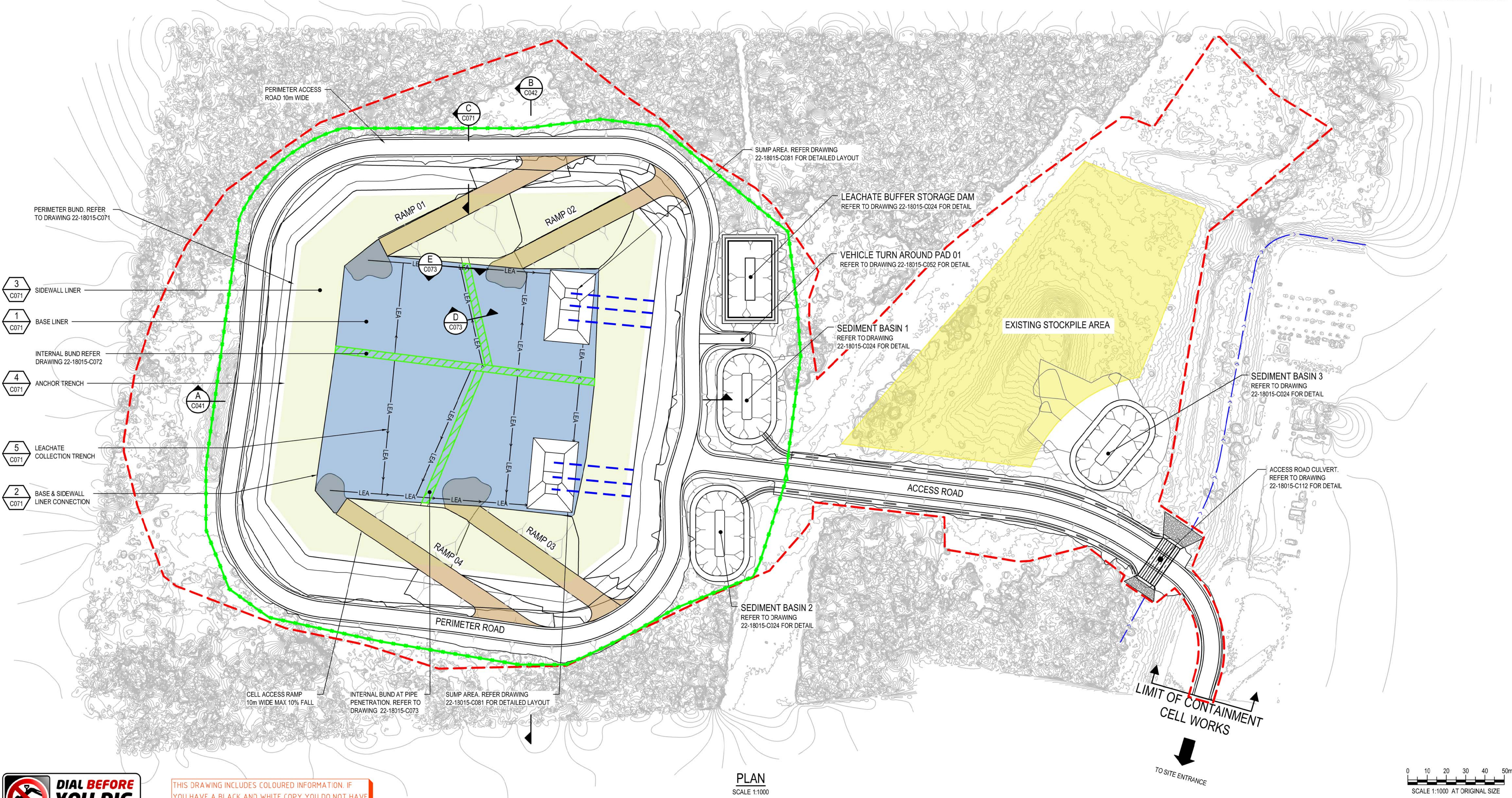


NOTES:

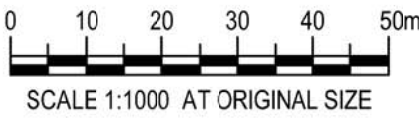
1. REFER TO DRG. 22-18015-C022 FOR ACCESS ROAD ARRANGEMENT.
2. REFER TO DRG. 22-18015-C023 FOR STORMWATER ARRANGEMENT.
3. REFER TO DRG. 22-18015-C024 FOR POND ARRANGEMENT.
4. REFER TO DRG. 22-18015-C025 FOR FINAL CAP ARRANGEMENT.

LEGEND:

	SIDEWALL LINER AREA		EXISTING STOCKPILE AREA		CONTAINMENT CELL WORKS AREA
	BASE LINER AREA		INTERNAL BUND AREA		LEACHATE COLLECTION TRENCH
	CELL ACCESS RAMP		CULVERT WITH HEADWALLS		GROUNDWATER, LEAK DETECTION AND LEACHATE RISER PIPEWORK
					DESIGN CONTOURS
					EXISTING CONTOURS
					FAUNA EXCLUSION FENCE. REFER TO RMS DRAWING R0800-31 FOR DETAILS
					FAUNA EXCLUSION GATE. REFER TO RMS DRAWING R0800-31 FOR DETAILS



PLAN
SCALE 1:1000



DETAIL DESIGN

D	100% DETAILED DESIGN RE-ISSUE	HT	DB	IG 04.05.18		
C	100% DETAILED DESIGN - RE-ISSUE	CG	DB*	IG* 19.10.17		
B	100% DETAILED DESIGN REVIEW COMMENTS	CD	DB*	IG* 15.09.17		
A	100% DETAILED DESIGN	EAN	DB*	IG* 04.08.17		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date



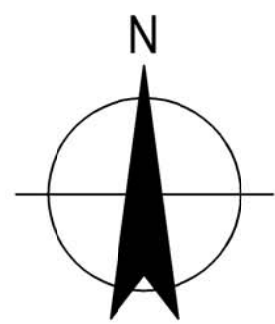
Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

DO NOT SCALE

Conditions of Use.
This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.

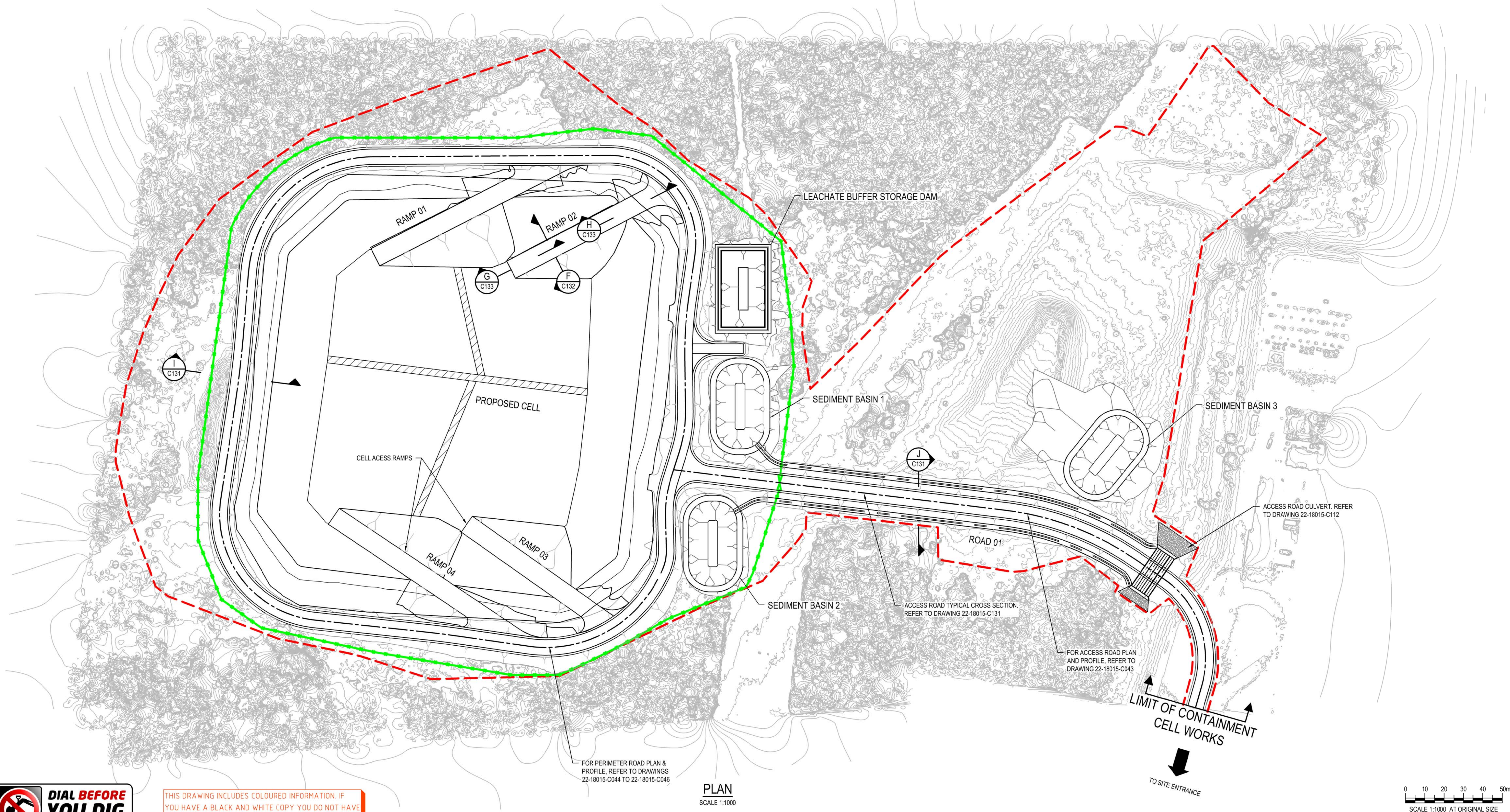
Drawn	J. CASIO	Designer	A. ROBERTS
Drafting Check	P. ETCHHELLS	Design Check	D. BARRETT
Approved (Project Director)		Date	
Scale	1:1000	This Drawing must not be used for Construction unless signed as Approved	

Client	HYDRO ALUMINIUM KURRI KURRI PTY LTD		
Project	CONTAINMENT CELL DETAILED DESIGN		
Title	GENERAL ARRANGEMENT CONTAINMENT CELL		
Original Size	A1	Drawing No:	22-18015-C021
Rev:	D		



LEGEND:

- CONTAINMENT CELL WORKS AREA
- ROAD CONTROL LINE
- EXISTING CONTOURS
- FAUNA EXCLUSION FENCE. FAUNA EXCLUSION FENCE. REFER TO RMS DRAWING R0800-31 FOR DETAILS
- FAUNA EXCLUSION GATE. REFER TO RMS DRAWING R0800-31 FOR DETAILS



THIS DRAWING INCLUDES COLOURED INFORMATION. IF YOU HAVE A BLACK AND WHITE COPY YOU DO NOT HAVE ALL THE INFORMATION. THIS NOTE IS COLOURED RED.

PLAN
SCALE 1:1000

DETAIL DESIGN

F	100& DETAILED DESIGN RE-ISSUE	HT	DB	IG	04.05.17
E	100% DETAILED DESIGN - RE-ISSUE	CG	DB*	IG*	19.10.17
D	100% DETAILED DESIGN REVIEW COMMENTS	CD	DB*	IG*	15.09.17
C	100% DETAILED DESIGN	JSC	DB*	IG*	04.08.17
B	ISSUE FOR CLIENT REVIEW	EAN	DB*	IG*	13.01.17
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing			
		Drawn	Job Manager	Project Director	Date



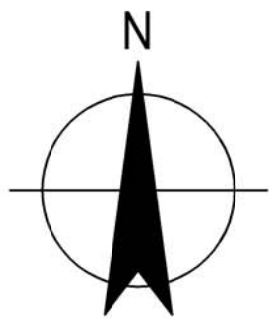
Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

DO NOT SCALE

Conditions of Use.
This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.

Drawn	J. CASIO	Designer	A. ROBERTS
Drafting Check	P. ETCHHELLS	Design Check	D. BARRETT
Approved (Project Director)			
Date			
Scale	1:1000	This Drawing must not be used for construction unless signed as Approved	

Client	HYDRO ALUMINIUM KURRI KURRI PTY LTD		
Project	CONTAINMENT CELL DETAILED DESIGN		
Title	GENERAL ARRANGEMENT ACCESS ROADS		
Original Size	A1	Drawing No:	22-18015-C022
Rev:	F		

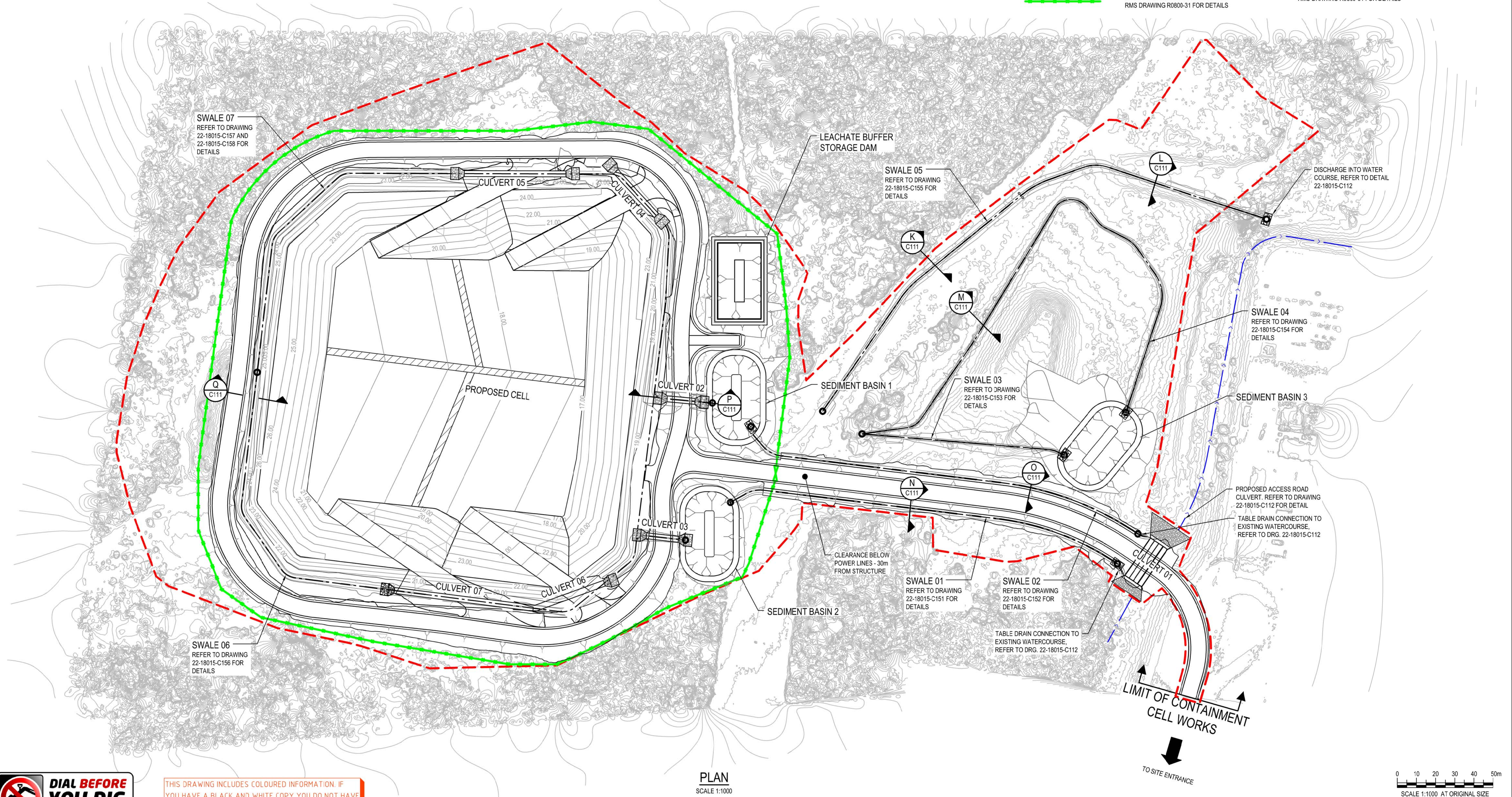


NOTE:

1. REFER TO DRAWING 22-18015-C113 TO 22-18015-C114 FOR CULVERT DETAILS.

LEGEND:

- SWALE CENTRE LINE
--- CONTAINMENT CELL WORKS AREA
--- DESIGN CONTOURS
--- EXISTING CONTOURS
--- DRAINAGE PATH
--- FAUNA EXCLUSION FENCE. REFER TO RMS DRAWING R0800-31 FOR DETAILS
- SWALE CENTRE LINE
--- CONTAINMENT CELL WORKS AREA
--- DESIGN CONTOURS
--- EXISTING CONTOURS
--- DRAINAGE PATH
--- FAUNA EXCLUSION FENCE. REFER TO RMS DRAWING R0800-31 FOR DETAILS
- CULVERT
HEADWALL
EROSION PROTECTION
DISCHARGE POINT
FAUNA EXCLUSION GATE. REFER TO RMS DRAWING R0800-31 FOR DETAILS



PLAN
SCALE 1:1000



THIS DRAWING INCLUDES COLOURED INFORMATION. IF YOU HAVE A BLACK AND WHITE COPY YOU DO NOT HAVE ALL THE INFORMATION. THIS NOTE IS COLOURED RED.

DETAIL DESIGN

F	100% DETAILED DESIGN RE-ISSUE		HT	DB	IG	04.05.18
E	100% DETAILED DESIGN - RE-ISSUE		CG	DB*	IG*	19.10.17
D	100% DETAILED DESIGN REVIEW COMMENTS		CD	DB*	IG*	15.09.17
C	100% DETAILED DESIGN		JSC	DB*	IG*	04.08.17
B	ISSUE FOR CLIENT REVIEW		EAN	DB*	IG*	13.01.17
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

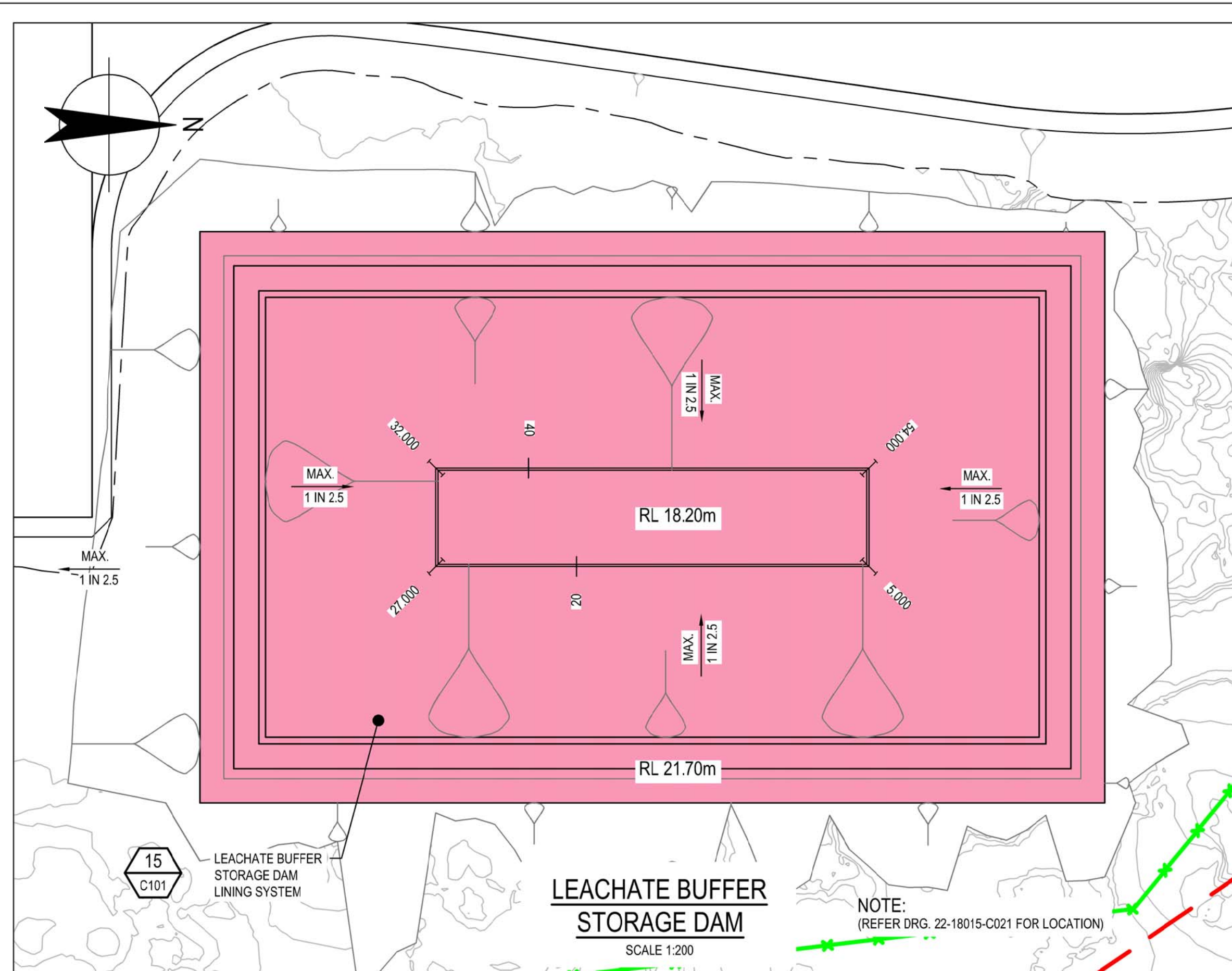
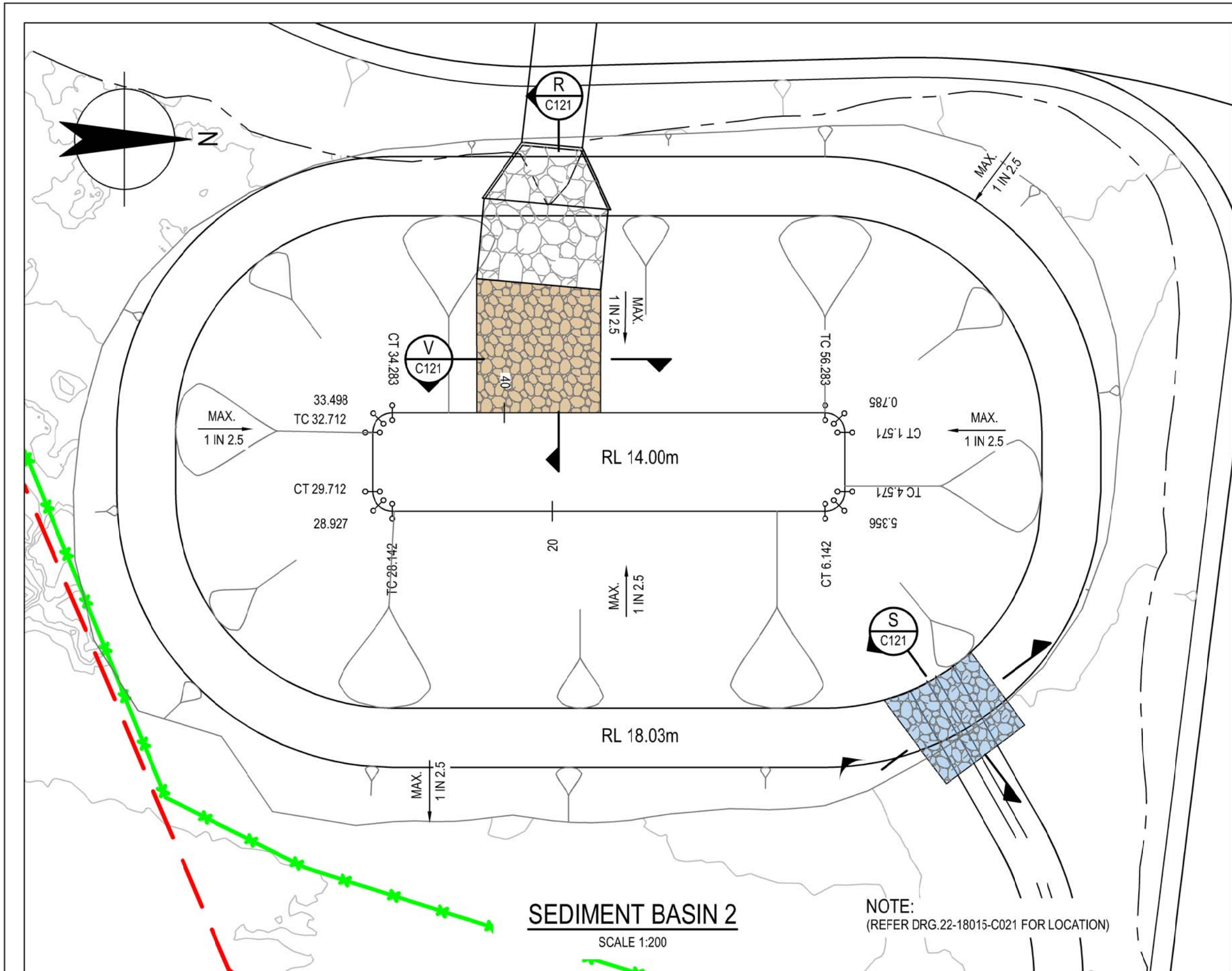


DO NOT SCALE

Conditions of Use.
This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.

Drawn	J. CASIO	Designer	A. ROBERTS
Drafting Check	P. ETCHHELLS	Design Check	D. BARRETT
Approved (Project Director)	Date		
Scale	1:1000	This Drawing must not be used for Construction unless signed as Approved	

Client	HYDRO ALUMINIUM KURRI KURRI PTY LTD		
Project	CONTAINMENT CELL DETAILED DESIGN		
Title	GENERAL ARRANGEMENT STORMWATER		
Original Size	A1	Drawing No:	22-18015-C023
Rev:	F		



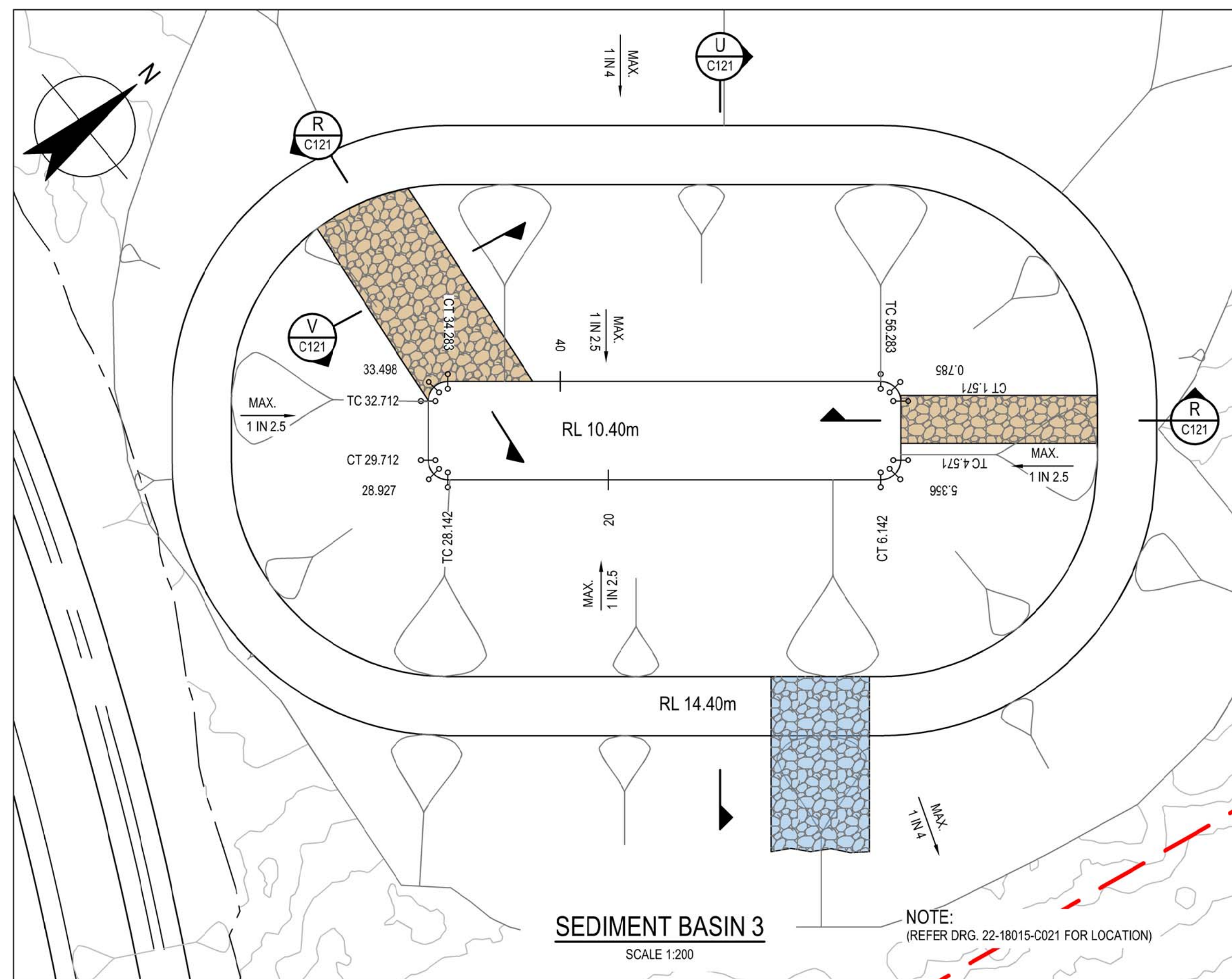
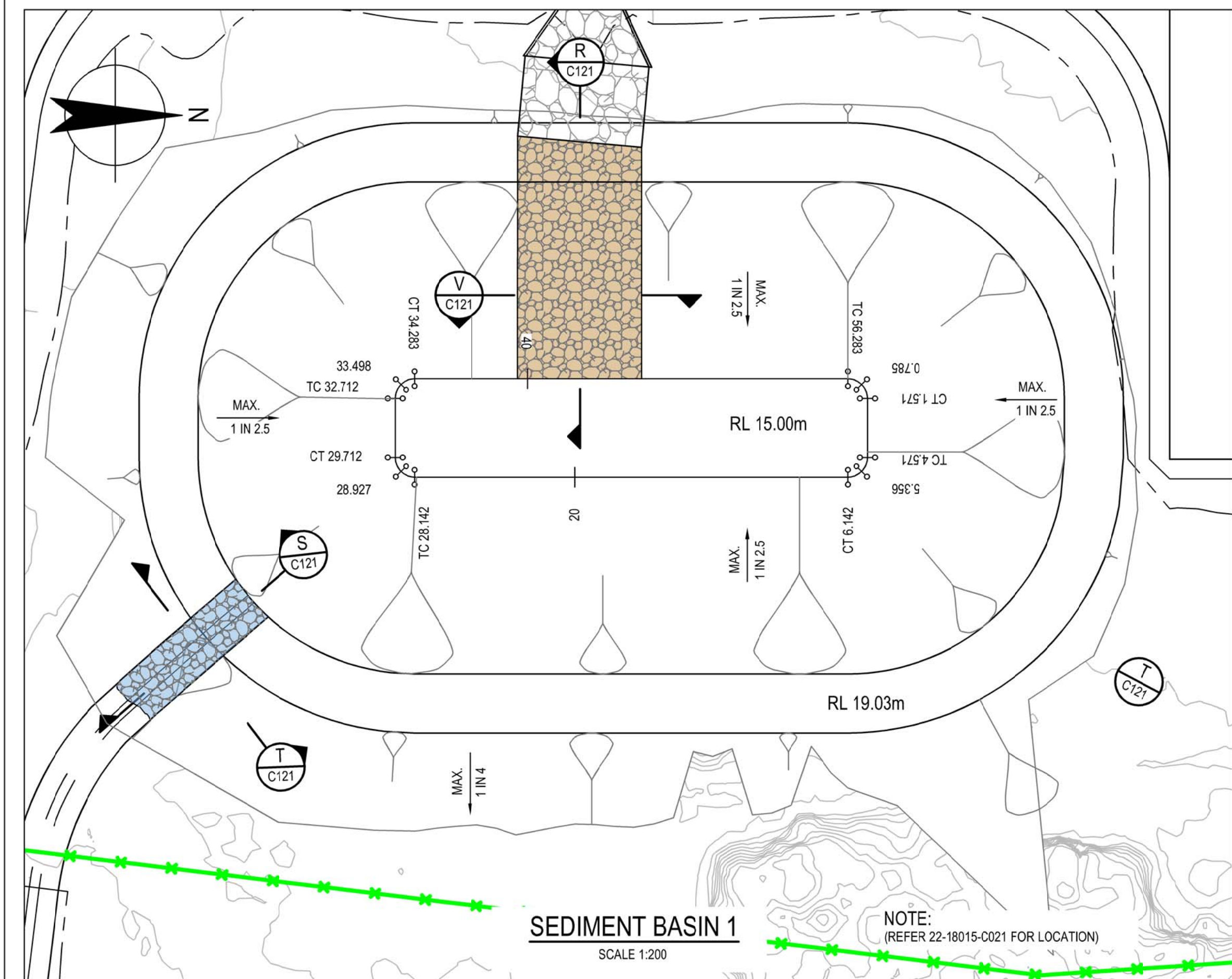
- LEGEND:**
- CONTAINMENT CELL WORKS AREA
 - EXISTING CONTOURS
 - DESIGN CONTOURS
 - FAUNA EXCLUSION FENCE, REFER TO RMS DRAWINGS R0800-31 FOR DETAILS
 - INLET CHANNEL
 - OVERFLOW CHANNEL
 - LEACHATE BUFFER STORAGE DAM LINING
- NOTES:**
- LEACHATE BUFFER STORAGE DAM HAS BEEN SIZED TO CONTAIN ONE MONTH PEAK GENERATION VOLUME.
 - SEDIMENT DETENTION BASIN SIZED TO ACCOMMODATE 5.2ha OF DISTURBED AREA.

SEDIMENT BASIN 01 SETOUT POINTS			
CHAINAGE	EASTING	NORTHING	HEIGHT
0.000	357191.998	6371450.369	15.000
0.785	357191.998	6371451.369	15.000
1.571	357192.998	6371451.369	15.000
4.571	357195.998	6371451.369	15.000
5.356	357196.998	6371451.369	15.000
6.142	357196.998	6371450.369	15.000
28.142	357196.998	6371423.369	15.000
28.927	357196.998	6371427.369	15.000
29.712	357195.998	6371427.369	15.000
32.712	357192.998	6371427.369	15.000
33.498	357191.998	6371427.369	15.000
34.283	357191.998	6371423.369	15.000

SEDIMENT BASIN 02 SETOUT POINTS			
CHAINAGE	EASTING	NORTHING	HEIGHT
0.000	357177.947	6371379.363	14.000
0.785	357177.947	6371380.363	14.000
1.571	357178.947	6371380.363	14.000
4.571	357181.947	6371380.363	14.000
5.356	357182.947	6371380.363	14.000
6.142	357182.947	6371379.363	14.000
28.142	357182.947	6371357.363	14.000
28.927	357182.947	6371355.363	14.000
29.712	357181.947	6371355.363	14.000
32.712	357178.947	6371355.363	14.000
33.498	357177.947	6371355.363	14.000
34.283	357177.947	6371357.363	14.000

LEACHATE BUFFER STORAGE DAM SETOUT POINTS			
CHAINAGE	EASTING	NORTHING	HEIGHT
0.000	357193.586	6371511.164	17.600
5.000	357198.586	6371511.164	17.600
27.000	357198.586	6371489.164	17.600
32.000	357193.586	6371489.164	17.600

SEDIMENT BASIN 03 SETOUT POINTS			
CHAINAGE	EASTING	NORTHING	HEIGHT
0.000	357389.148	6371424.286	10.400
0.785	357389.779	6371425.062	10.400
1.571	357390.555	6371424.432	10.400
4.571	357392.883	6371422.540	10.400
5.356	357393.659	6371421.909	10.400
6.142	357393.029	6371421.133	10.400
28.142	357379.154	6371404.080	10.400
28.927	357378.523	6371403.283	10.400
29.712	357377.747	6371403.914	10.400
32.712	357375.419	6371405.806	10.400
33.498	357374.643	6371405.437	10.400
34.283	357375.274	6371407.213	10.400



0 2 4 6 8 10m
SCALE 1:200 AT ORIGINAL SIZE

DETAIL DESIGN

F	100% DETAILED DESIGN RE-ISSUE		HT	DB	IG	04.05.18
E	100% DETAILED DESIGN - RE-ISSUE		CG	DB*	IG*	19.10.17
D	100% DETAILED DESIGN REVIEW COMMENTS		CD	DB*	IG*	15.09.17
C	100% DETAILED DESIGN		JSC	DB*	IG*	04.08.17
B	ISSUE FOR CLIENT REVIEW		EAN	DB*	IG*	13.01.17
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date



Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

DO NOT SCALE

Conditions of Use.
This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.

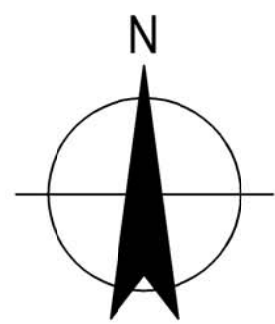
Drawn	J. CASIO	Designer	A. ROBERTS
Drafting Check	P. ETCHHELLS	Design Check	D. BARRETT
Approved (Project Director)			
Date			
Scale	1:200		

This Drawing must not be used for Construction unless signed as Approved

Client **HYDRO ALUMINIUM KURRI KURRI PTY LTD**
Project **CONTAINMENT CELL DETAILED DESIGN**
Title **DETAIL PLAN**
SEDIMENT BASINS & STORAGE DAM

Original Size **A1** Drawing No: **22-18015-C024**

Rev: **F**

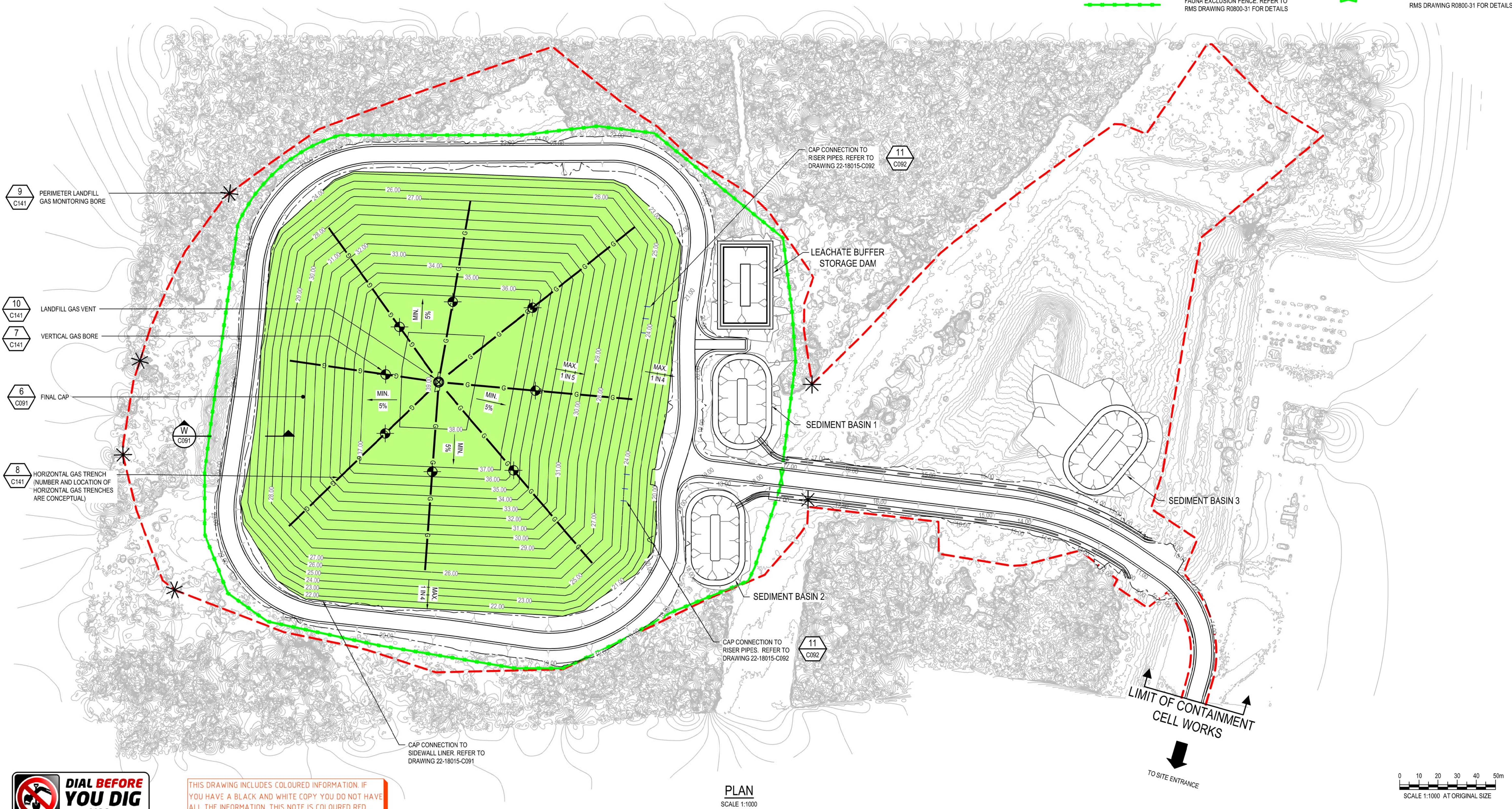


NOTES:

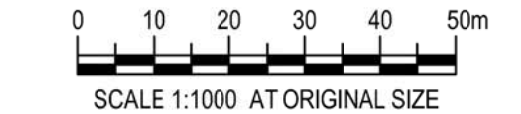
- LANDFILL GAS MANAGEMENT SYSTEM LAYOUT IS CONCEPT ONLY.
- PERIMETER GAS MONITORING BORES TYPICALLY AT 50m SPACINGS ASSUMING UNIFORM LOW PERMEABILITY STRATA AND DEVELOPMENT WITHIN 150M OR 250M (EPA VICTORIA OPEN DOCUMENT 2015).

LEGEND:

- | | | | |
|--|--|--|---|
| | CONTAINMENT CELL WORKS AREA | | HORIZONTAL GAS TRENCH |
| | DESIGN CONTOURS | | VERTICAL GAS BORE |
| | EXISTING CONTOURS | | CENTRAL GAS VENT |
| | GROUNDWATER LEAK DETECTION AND LEACHATE RISER PIPEWORK | | PERIMETER GAS MONITORING BORE |
| | FINAL CAP | | FAUNA EXCLUSION GATE. REFER TO RMS DRAWING R0800-31 FOR DETAILS |
| | FAUNA EXCLUSION FENCE. REFER TO RMS DRAWING R0800-31 FOR DETAILS | | |



PLAN
SCALE 1:1000



DETAIL DESIGN

D	100% DETAILED DESIGN RE-ISSUE	HT	DB	IG	04.05.18	
C	100% DETAILED DESIGN - RE-ISSUE	CG	DB*	IG*	19.10.17	
B	100% DETAILED DESIGN REVIEW COMMENTS	CD	DB*	IG*	15.09.17	
A	100% DETAILED DESIGN	EAN	DB*	IG*	04.08.17	
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date



Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

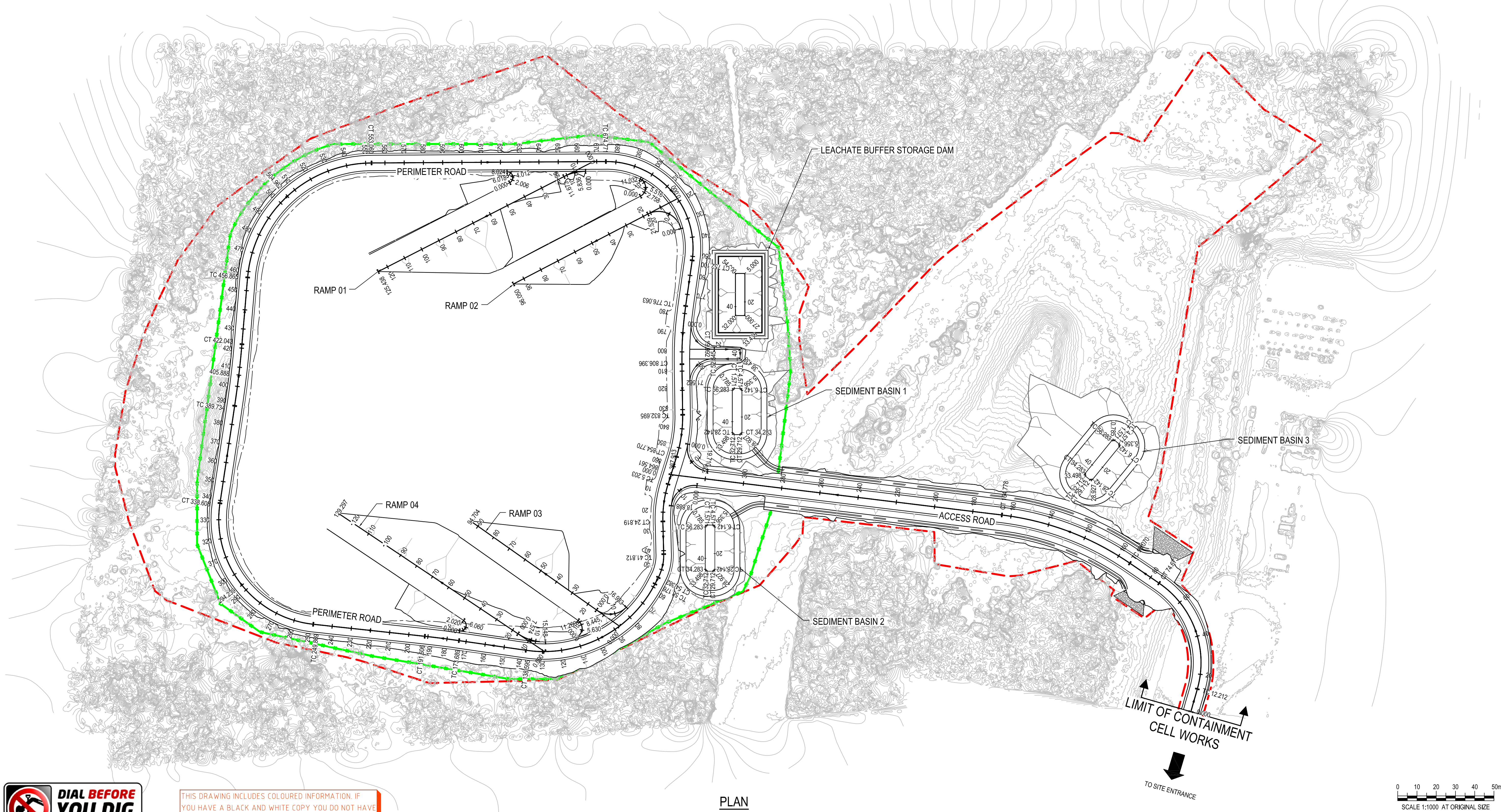
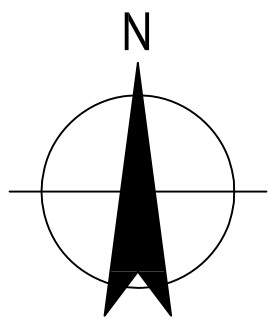
DO NOT SCALE

Conditions of Use.
This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.

Drawn	J. CASIO	Designer	A. ROBERTS
Drafting Check	P. ETCHHELLS	Design Check	D. BARRETT
Approved (Project Director)			
Date			
Scale	1:1000		

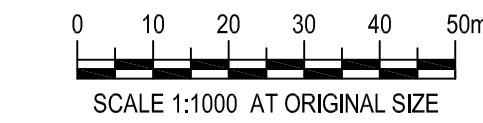
This Drawing must not be used for Construction unless signed as Approved

Client	HYDRO ALUMINIUM KURRI KURRI PTY LTD		
Project	CONTAINMENT CELL DETAILED DESIGN		
Title	GENERAL ARRANGEMENT FINAL CAP		
Original Size	A1	Drawing No:	22-18015-C025
Rev:	D		



THIS DRAWING INCLUDES COLOURED INFORMATION. IF YOU HAVE A BLACK AND WHITE COPY YOU DO NOT HAVE ALL THE INFORMATION. THIS NOTE IS COLOURED RED.

PLAN
SCALE 1:1000



DETAIL DESIGN

C	100% DETAILED DESIGN RE-ISSUE	HT	DB	IG	04.05.18
B	100% DETAILED DESIGN REVIEW COMMENTS	CD	DM	DB	15.09.17
A	100% DETAILED DESIGN	JSC	DB*	IG*	25.07.17
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director
					Date



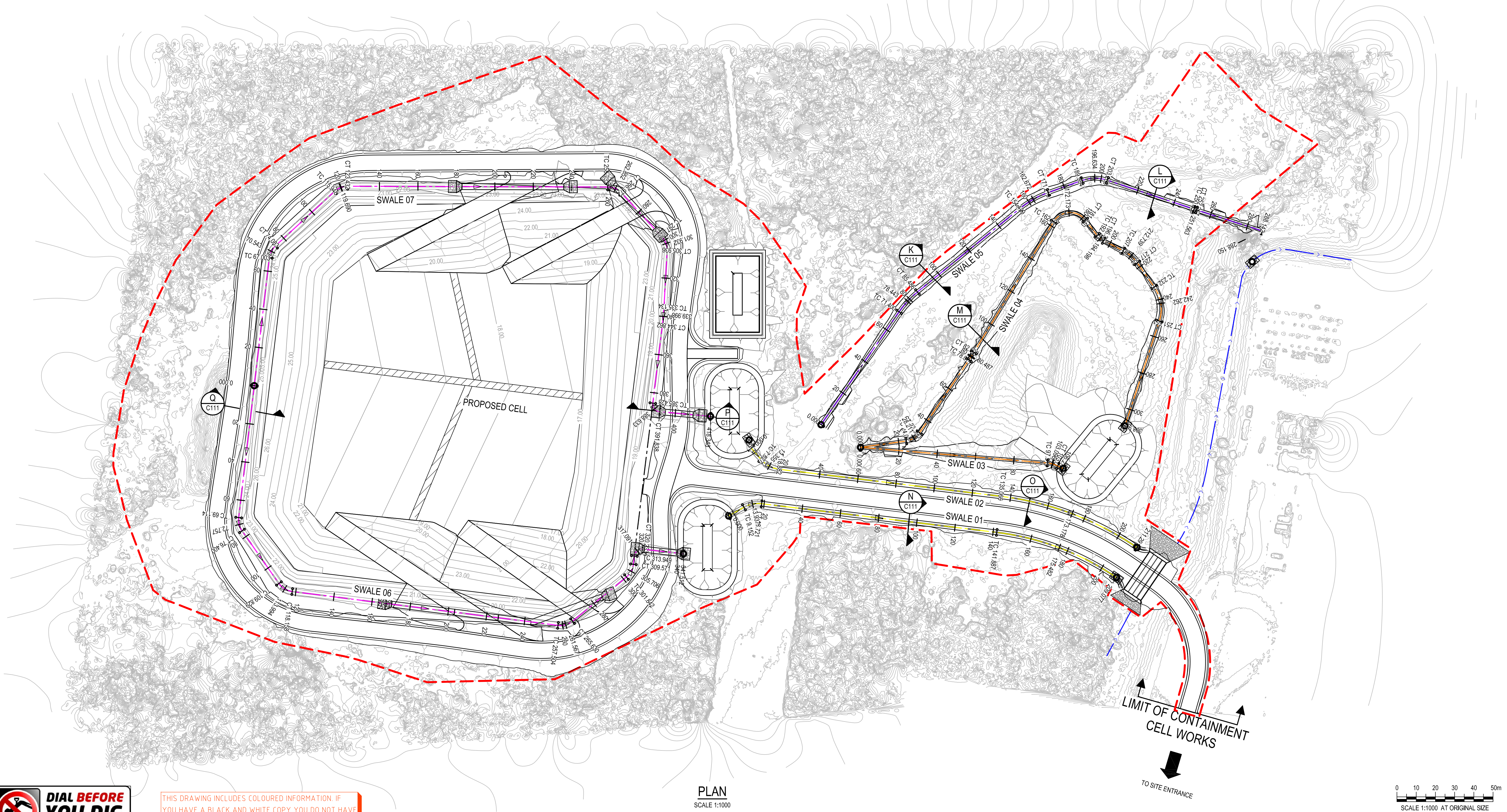
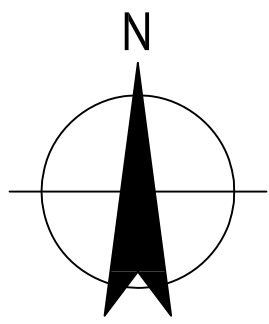
Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

DO NOT SCALE

Conditions of Use.
This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.

Drawn	J. CASIO	Designer	A. ROBERTS
Drafting Check	P. ETCHHELLS	Design Check	D. MORRISON
Approved (Project Director)	Date	Scale	AS SHOWN
This Drawing must not be used for Construction unless signed as Approved			

Client	HYDRO ALUMINIUM KURRI KURRI PTY LTD		
Project	CONTAINMENT CELL DETAILED DESIGN		
Title	SETOUT PLAN CONTAINMENT CELL AND PONDS - SHEET 1 OF 2		
Original Size	A1	Drawing No:	22-18015-C031
Rev:	C		



PLAN
SCALE 1:1000



THIS DRAWING INCLUDES COLOURED INFORMATION. IF YOU HAVE A BLACK AND WHITE COPY YOU DO NOT HAVE ALL THE INFORMATION. THIS NOTE IS COLOURED RED.

DETAIL DESIGN

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
C	100% DETAILED DESIGN RE-ISSUE		HT	DB	IG	04.05.18
B	100% DETAILED DESIGN REVIEW COMMENTS		CD	DB*	IG*	15.09.17
A	100% DETAILED DESIGN		JSC	DB*	IG*	25.07.17



Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

DO NOT SCALE

Conditions of Use.
This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.

Drawn	J. CASIO	Designer	A. ROBERTS
Drafting Check	P. ETCHHELLS	Design Check	D. BARRETT
Approved (Project Director)			
Date			
Scale	1:1000		

This Drawing must not be used for Construction unless signed as Approved

Client	HYDRO ALUMINIUM KURRI KURRI PTY LTD
Project	CONTAINMENT CELL DETAILED DESIGN
Title	SETOUT PLAN CONTAINMENT CELL AND PONDS
Original Size	A1
Drawing No:	22-18015-C032
Rev:	C

ACCESS ROAD (ROAD01) SETOUT POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	357430.199	6371283.416	13.505	15°55'18.49"			
TC	12.212	357433.549	6371295.159	13.828	15°55'18.49"			
IP 2	43.443	357443.437	6371329.822	13.470		R = -50.000	62.462	71°34'34.00"
CT	74.673	357413.676	6371350.158	11.823	304°20'44.49"			
TC	93.070	357398.487	6371360.537	12.053	304°20'44.49"			
IP 3	128.924	357368.307	6371381.160	13.666		R = -150.000	71.708	27°23'24.91"
CT	164.778	357332.024	6371385.586	15.280	276°57'19.58"			
IP 4	337.913	357160.163	6371406.552	19.798	276°57'19.58"			

PERIMETER ROAD (ROAD02) SETOUT POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	357160.163	6371406.552	19.798	197°15'56.61"			
TC	5.203	357158.619	6371401.584	19.783	197°15'56.61"			
IP 2	15.011	357155.682	6371392.134	19.634		R = -60.000	19.616	18°43'53.53"
CT	24.819	357155.935	6371382.241	19.367	178°32'03.08"			
TC	41.812	357156.369	6371365.253	19.361	178°32'03.08"			
IP 3	48.097	357156.534	6371358.834	19.515		R = 25.000	12.570	28°48'29.10"
CT	54.382	357153.585	6371353.131	19.672	207°20'32.18"			
TC	58.176	357151.842	6371349.760	19.767	207°20'32.18"			
IP 4	98.385	357130.591	6371308.662	20.745		R = 65.000	80.419	70°53'13.15"
CT	138.595	357084.800	6371315.284	20.900	278°13'45.33"			
TC	173.689	357050.067	6371320.308	20.900	278°13'45.33"			
IP 5	182.647	357041.200	6371321.590	20.900		R = -495.000	17.917	2°04'25.88"
CT	191.606	357032.292	6371322.551	20.900	276°09'19.45"			
TC	249.869	356974.365	6371328.798	21.188	276°09'19.45"			
IP 6	294.239	356917.300	6371334.952	22.261		R = 55.000	88.738	92°26'32.83"
CT	338.608	356925.880	6371391.703	23.947	8°35'52.27"			
TC	389.734	356933.523	6371442.255	25.238	8°35'52.27"			
IP 7	405.888	356935.939	6371458.234	25.288		R = -495.000	32.309	3°44'22.94"
CT	422.043	356937.308	6371474.336	25.164	4°51'29.33"			
TC	456.865	356940.257	6371509.033	24.530	4°51'29.33"			
IP 8	504.962	356945.283	6371568.166	23.673		R = 65.000	96.195	84°47'35.42"
CT	553.060	357004.628	6371568.527	23.391	89°39'04.76"			
TC	674.771	357126.336	6371569.267	23.191	89°39'04.76"			
IP 9	713.435	357178.523	6371569.585	22.437		R = 45.000	77.329	98°27'31.77"
CT	752.100	357171.160	6371517.920	21.470	188°06'36.53"			
TC	776.063	357167.780	6371494.196	20.930	188°06'36.53"			
IP 10	791.230	357165.636	6371479.151	20.682		R = -195.000	30.333	8°54'45.41"
CT	806.396	357165.848	6371463.955	20.454	179°11'51.12"			
TC	832.695	357166.217	6371437.660	20.060	179°11'51.12"			
IP 11	843.732	357166.373	6371426.531	19.902		R = 70.000	22.075	18°04'07.08"
CT	854.770	357163.069	6371415.902	19.812	197°15'58.19"			
IP 12	864.561	357160.163	6371406.552		197°15'58.19"			

BASIN 01 SETOUT POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	357177.947	6371379.363	14.000				
IP 2	0.785	357177.947	6371380.363	14.000		R = 1.000	1.571	90°00'00.00"
CT	1.571	357178.947	6371380.363	14.000	90°00'00.00"			
TC	4.571	357181.947	6371380.363	14.000	90°00'00.00"			
IP 3	5.356	357182.947	6371380.363	14.000		R = 1.000	1.571	90°00'00.00"
CT	6.142	357182.947	6371379.363	14.000	180°00'00.00"			
TC	28.142	357182.947	6371357.363	14.000	180°00'00.00"			
IP 4	28.927	357182.947	6371356.363	14.000		R = 1.000	1.571	90°00'00.00"
CT	29.712	357181.947	6371356.363	14.000	270°00'00.00"			
TC	32.712	357178.947	6371356.363	14.000	270°00'00.00"			
IP 5	33.498	357177.947	6371356.363	14.000		R = 1.000	1.571	90°00'00.00"
CT	34.283	357177.947	6371357.363	14.000	0°00'00.00"			

BASIN 02 SETOUT POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	357191.998	6371450.369	15.000				
IP 2	0.785	357191.998	6371451.369	15.000		R = 1.000	1.571	90°00'00.00"
CT	1.571	357192.998	6371451.369	15.000	90°00'00.00"			
TC	4.571	357195.998	6371451.369	15.000	90°00'00.00"			
IP 3	5.356	357196.998	6371451.369	15.000		R = 1.000	1.571	90°00'00.00"
CT	6.142	357196.998	6371450.369	15.000	180°00'00.00"			
TC	28.142	357196.998	6371428.369	15.000	180°00'00.00"			
IP 4	28.927	357196.998	6371427.369	15.000		R = 1.000	1.571	90°00'00.00"
CT	29.712	357195.998	6371427.369	15.000	270°00'00.00"			
TC	32.712	357192.998	6371427.369	15.000	270°00'00.00"			
IP 5	33.498	357191.998	6371427.369	15.000		R = 1.000	1.571	90°00'00.00"
CT	34.283	357191.998	6371428.369	15.000	0°00'00.00"			

BASIN 03 SETOUT POINTS				
PT	CHAINAGE	EASTING	NORTHING	HEIGHT
IP 1	0.000	357193.586	6371511.164	17.600
IP 2	5.000	357198.586	6371511.164	17.600
IP 3	27.000	357198.586	6371489.164	17.600
IP 4	32.000	357193.586	6371489.164	17.600

SWALE 01 HORIZONTAL POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	357191.437	6371384.753	17.650	60°24'06.16"			
TC	9.152	357199.395	6371389.274	16.791	60°24'06.16"			
IP 2	13.937	357203.702	6371391.721	16.683		R = 15.000	9.570	36°33'13.42"
CT	18.721	357208.620	6371391.121	16.576	96°57'19.58"			
TC	141.887	357330.880	6371376.206	14.138	96°57'19.58"			
IP 3	175.482	357364.877	6371372.058	11.975		R = 140.550	67.190	27°23'24.91"
IP 4	209.077	357393.155	6371352.735	10.487	124°20'44.49"			

SWALE 02 HORIZONTAL POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	357203.188	6371420.045	18.600	139°11'00.49"			
TC	7.827	357208.304	6371414.121	17.393	139°11'00.49"			
IP 2	13.355	357212.090	6371409.737	16.543		R = -15.000	11.055	42°13'40.92"
CT	18.882	357217.840	6371409.036	16.419	96°57'19.58"			
TC	135.066	357333.168	6371394.966	14.142	96°57'19.58"			
IP 3	173.178	357371.738	6371390.261	11.975		R = 159.450	76.225	27°23'24.91"
IP 4	211.291	357403.819	6371368.340	10.508				
IP 5	211.291	357403.819	6371368.340	10.508	124°20'41.41"			

SWALE 03 HORIZONTAL POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	357260.048	6371420.446	16.200	94°47'24.31"			
TC	97.519	357357.227	6371412.303	14.273	94°47'24.31"			
IP 2	100.307	357360.037	6371412.067	14.218		R = 15.000	5.576	21°17'57.30"
CT	103.096	357362.571	6371410.827	14.163	116°05'21.61"			
IP 3	106.273	357365.425	6371409.429	14.100	116°05'21.61"			

SWALE 04 HORIZONTAL POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	357260.048	6371420.446	16.200	82°02'54.20"			
TC	24.032	357283.849	6371423.771	16.037	82°02'54.20"			
IP 2	28.211	357288.247	6371424.385	16.009		R = -10.000	8.357	47°53'04.87"
CT	32.390	357290.740	6371428.059	15.981	34°09'49.33"			
TC	78.074	357316.395	6371465.860	15.671	34°09'49.33"			
IP 3	80.487	357317.750	6371467.857	15.655		R = -100.000	4.825	2°45'53.30"
CT	82.900	357319.007	6371469.917	15.639	31°23'56.03"			
TC	162.507	357360.482	6371537.866	15.100	31°23'56.03"			
IP 4	172.173	357368.030	6371550.232	15.034		R = 10.000	19.333	110°46'10.50"
CT	181.840	357376.916	6371538.789	14.969	142°10'06.53"			
TC	192.009	357383.153	6371530.758	14.900	142°10'06.53"			
IP 5	194.198	357384.517	6371529.001	14.885		R = -10.000	4.378	25°05'02.21"
CT	196.387	357386.498	6371527.988	14.870	117°05'04.31"			
TC	207.876	357396.727	6371522.757	14.792	117°05'04.31"			
IP 6	212.739	357401.144	6371520.498	14.760		R = 20.000	9.726	27°51'46.01"
CT	217.602	357403.993	6371516.437	14.727	144°56'50.32"			
TC	232.972	357412.821	6371503.854	14.623	144°56'50.32"			
IP 7	242.262	357418.576	6371495.651	14.560		R = 20.000	18.579	53°13'29.89"
CT	251.551	357415.451	6371486.130	14.497	198°10'20.22"			
IP 8	308.918	357397.560	6371431.625	14.098	198°10'20.22"			

BASIN 04 SETOUT POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	357389.148	6371424.286	10.400				
IP 2	0.785	357389.779	6371425.062	10.400		R = 1.000	1.571	90°00'00.00"
CT	1.571	357390.555	6371424.432	10.400	129°05'56.19"			
TC	4.571	357392.883	6371422.540	10.400	129°05'56.19"			
IP 3	5.356	357393.659	6371421.909	10.400		R = 1.000	1.571	90°00'00.00"
CT	6.142	357393.029	6371421.133	10.400	219°05'56.19"			
TC	28.142	357379.154	6371404.060	10.400	219°05'56.19"			
IP 4	28.927	357378.523	6371403.283	10.400		R = 1.000	1.571	90°00'00.00"
CT	29.712	357377.747	6371403.914	10.400	309°05'56.19"			
TC	32.712	357375.419	6371405.806	10.400	309°05'56.19"			
IP 5	33.498	357374.643	6371406.437	10.400		R = 1.000	1.571	90°00'00.00"
CT	34.283	357375.274	6371407.213	10.400	39°05'56.19"			

PAD01 SETOUT POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.00	357261.898	6371398.171	16.745	276°57'19.58"			
IP 2	9.425	357249.986	6371399.624	16.794		R = 12.000	18.850	90°0'00.00"
CT	18.850	357251.439	6371411.536	16.535	6°57'19.58"			
IP 3	21.242	357251.729	6371413.911	16.570				
IP 4	30.242	357242.795	6371415.001	16.702				
TC	32.635	357242.505	6371412.625	16.737	186°57'19.58"			
IP 5	42.060	357241.052	6371400.714	17.156		R = 12.000	18.850	90°0'00.00"
IP 6	51.485	357229.141	6371402.167	17.487	276°57'19.58"			

PAD02 SETOUT POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	3571770.694	6371484.842	20.614	185°27'16.09"			
IP 2	9.996	357169.439	6371471.701	20.326		R = -12.000	19.992	95°27'16.09"
CT	19.992	357182.640	6371471.701	19.931	90°00'00.00"			
IP 3	33.438	357196.086	6371471.701	19.460				
IP 4	38.438	357196.086	6371466.701	19.285				
TC	52.545	357181.980	6371466.701	19.834	270°00'00.00"			
IP 5	62.053	357169.810	6371466.701	20.136		R = -12.000	19.018	90°48'08.89"
IP 6	71.562	357169.981	6371454.533	20.152	179°11'51.12"			

RETENTION - ROAD01 TO ROAD02 S SETOUT POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	357173.675	6371400.874	19.074	276°57'19.58"			
IP 2	9.444	357161.725	6371402.332	19.418		R = -12.000	18.888	90°1'107.38"
IP 3	18.888	357160.306	6371390.377	19.445	186°46'12.20"			

RETENTION - ROAD02 TO ROAD01 N SETOUT POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	357168.848	6371422.478	19.705	191°03'52.25"			
IP 2	9.855	357166.374	6371409.824	19.375		R = -12.000	19.710	94°06'32.68"
IP 3	19.710	357179.172	6371408.263	18.891	96°57'19.58"			

RETENTION - ROAD02 TO RAMP01 E SETOUT POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFLANGLE
IP 1	0.000	357115.793	6371564.203	23.400	269°39'04.76"			
IP 2	5.836	357109.849	6371564.167	23.427		R = -25.000	11.673	26°45'07.09"
IP 3	11.673	357104.557	6371561.458	23.507	242°53'57.67"			

RETENTION - ROAD02 TO RAMP01 W SETOUT POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	357076.402	6371558.285	23.968	62°53'57.77"			
IP 2	2.006	357078.512	6371559.364	23.761		R = -3.000	4.012	76°37'26.51"
CC	4.012	357077.950	6371561.667	23.576	346°1'16"31.26"			
IP 3	6.018	357077.388	6371563.970	23.444		R = -3.000	4.012	76°37'26.51"
IP 4	8.024	357075.017	6371563.955	23.400	269°39'04.76"			

RETENTION - ROAD02 TO RAMP02 E SETOUT POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	357165.308	6371534.393	22.119	345°20'15.53"			
IP 2	10.770	357161.500	6371548.947	22.555	R = -12.000		21.539	102°50'34.58"
IP 3	21.539	357148.157	6371541.999	23.070	242°29'40.95"			

RETENTION - ROAD02 TO RAMP02 W SETOUT POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	357144.307	6371551.269	23.233	62°29'41.10"			
IP 2	2.758	357147.036	6371552.690	23.131		R = -5.000	5.516	63°12'23.78"
CC	5.516	357146.988	6371555.766	23.061	358°17'17.32"			
IP 3	8.274	357146.959	6371558.843	23.040		R = -5.000	5.516	63°12'23.78"
IP 4	11.032	357144.196	6371560.195	23.085	296°04'53.55"			

RETENTION - ROAD02 TO RAMP03 E SETOUT POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	357121.470	6371336.229	21.285	125°15'07.01"			
IP 2	8.466	357129.817	6371330.330	20.709		R = -12.000	16.933	80°50'52.17"
IP 3	16.933	357136.969	6371337.632	20.451	44°24'14.84"			

RETENTION - ROAD02 TO RAMP03 W SETOUT POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	357110.358	6371321.859	21.089	74°16'53.73"			
IP 2	2.815	357113.396	6371322.714	21.144		R = -5.000	5.630	64°30'53.39"
CC	5.630	357113.931	6371325.824	21.335	9°46'00.40"			
IP 3	8.445	357114.467	6371328.934	21.620		R = -5.000	5.630	64°30'53.39"
IP 4	11.260	357111.890	6371330.755	21.954	305°15'07.01"			

RETENTION -ROAD02 TO RAMP04 E SETOUT POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	357080.702	6371323.858	21.235	123°5'12.84"			
IP 2	7.574	357087.191	6371319.505	21.129		R = -25.000	15.148	34°43'01.63"
IP 3	15.148	357095.005	6371319.622	21.100	89°08'21.20"			

RETNETION - ROAD02 TO RAMP04 SETOUT POINTS								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	357050.334	6371325.321	21.100	98°10'38.12"			
IP 2	2.020	357052.703	6371324.981	21.225		R = -3.000	4.040	77°09'37.64"
CC	4.040	357053.561	6371327.215	21.599	21°01'00.48"			
IP 3	6.060	357054.419	6371329.448	22.029		R = -3.000	4.040	77°09'37.64"
IP 4	8.080	357052.432	6371330.782	22.321	303°51'22.84"			

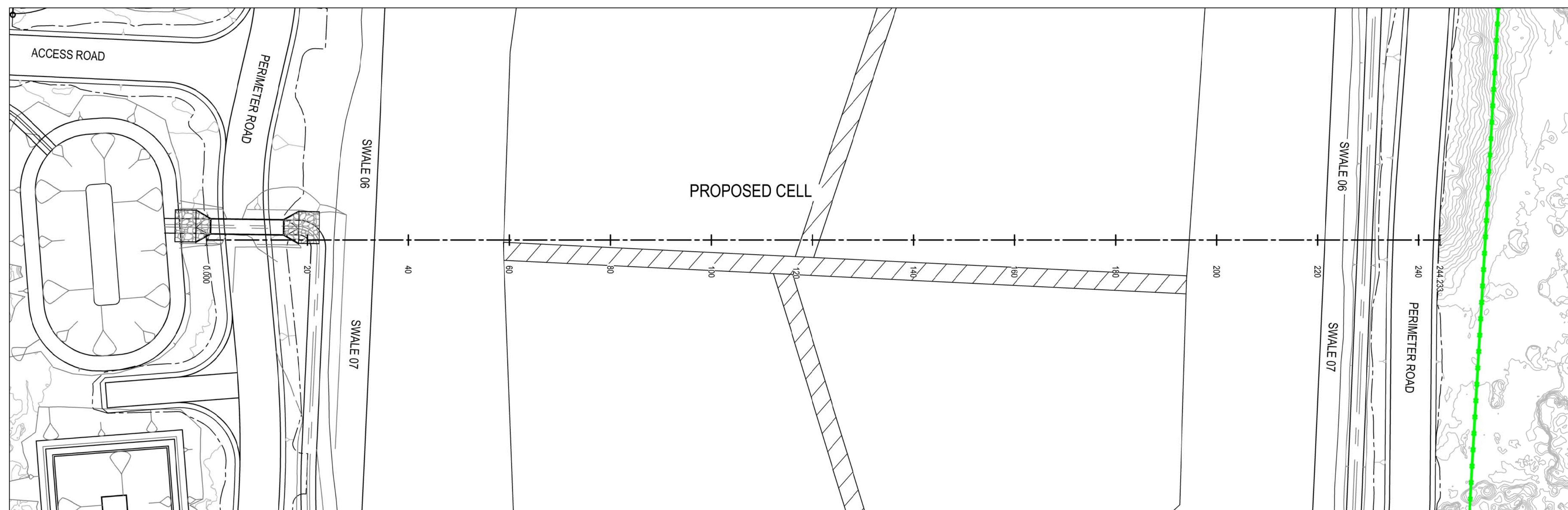
DETAIL DESIGN

[illegible]

Plot Date: 10 July 2018 - 3:09 PM

Plotted by: Trish Etchells

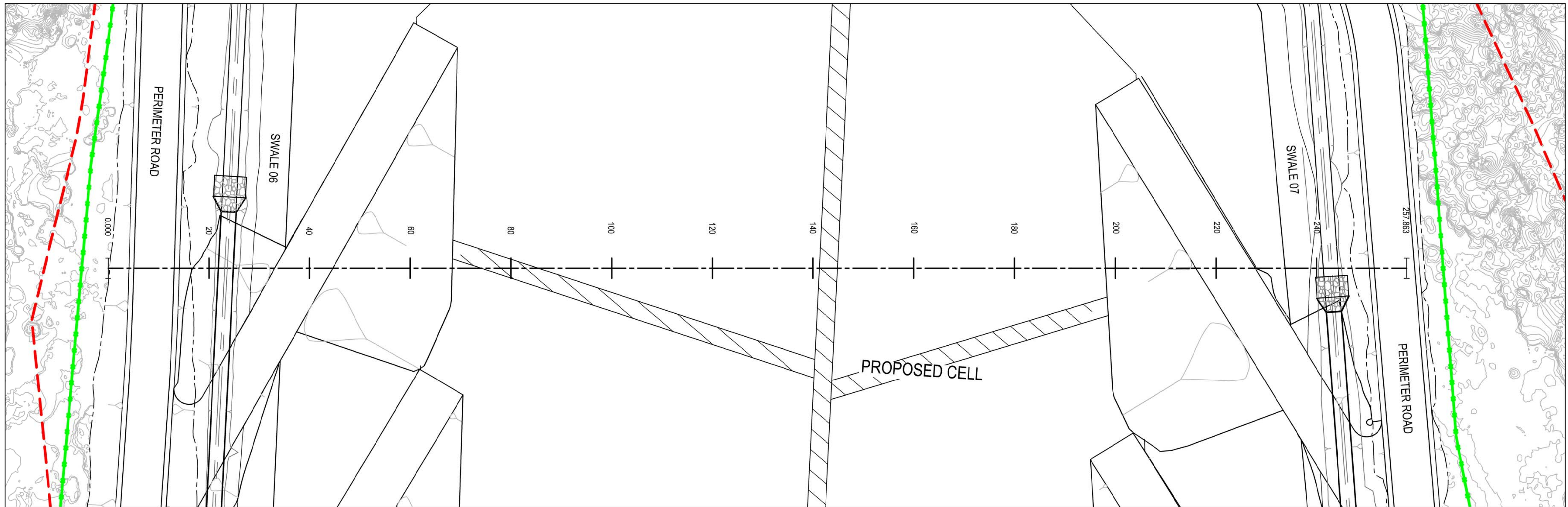
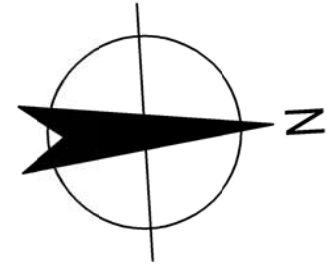
Cad File No: N:\AU\Sydney\Projects\22\18015\CADD\Drawings\Drawings\22-18015-C034.dwg



This diagram illustrates the cross-section of a landfill cell. The top surface is shown in red, labeled 'EXISTING SURFACE'. Below it, a blue line represents the 'DESIGN SURFACE'. The top of the waste material is indicated by a black line labeled 'TOP OF WASTE'. The bottom of the cell is shown in green, labeled 'SWALE 07, REFER DRG: 22-18015-C157 FOR DETAILS'. A 'PERIMETER ROAD' is shown on the left side. The diagram also includes a dashed line representing the 'DESIGN SURFACE' and a solid line representing the 'EXISTING SURFACE'.

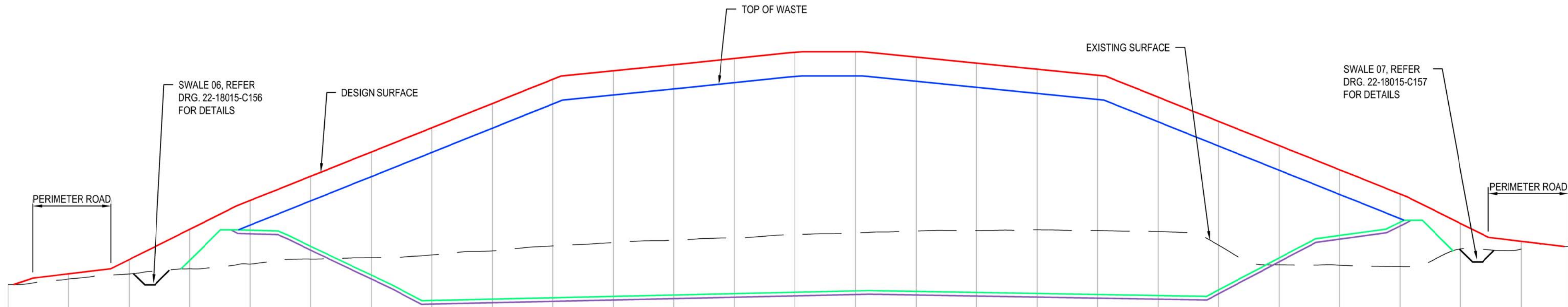
A SECTION
C021 SCALE 1 : H500 - V250

Rev: B



PLAN

SCALE 1:500

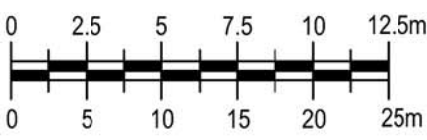


DATUM RL. 10.00

DESIGN FINAL SURFACE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
----------------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

B SECTION
C021 SCALE 1 : H500 - V250

VERTICAL 1:250
AT ORIGINAL SIZE
HORIZONTAL 1:500
AT ORIGINAL SIZE



DETAIL DESIGN

D	100% DETAILED DESIGN RE-ISSUE	HT	DB	IG	04.05.18		
C	100% DETAILED DESIGN	JSC	DB*	IG*	04.08.17		
B	ISSUE FOR CLIENT REVIEW	EAN	DB*	IG*	13.01.17		
A	ISSUE FOR REVIEW	EAN	DB*	IG*	28.11.16		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing		Drawn	Job Manager	Project Director	Date



Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

DO NOT SCALE

Conditions of Use.
This document may only be used by
GHD's client (and any other person who
GHD has agreed can use this document)
for the purpose for which it was prepared
and must not be used by any other
person or for any other purpose.

Drawn J. CASIO

Designer A. ROBERTS

Drafting P. ETCHHELLS

Design Check D. BARRETT

Approved (Project Director)

Date

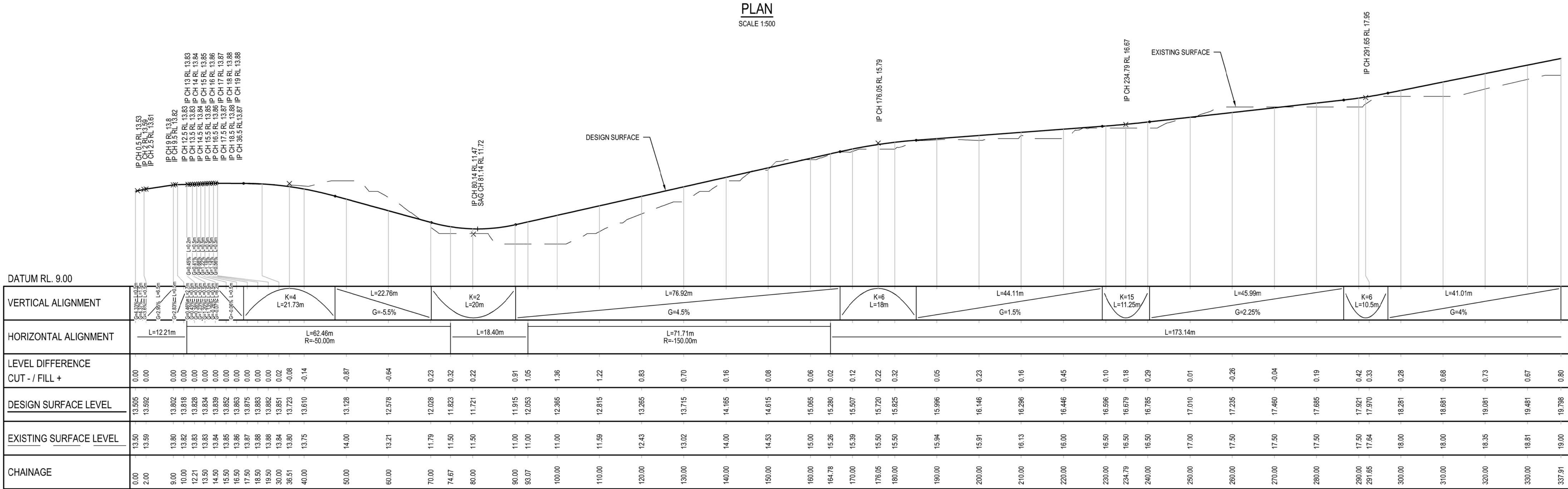
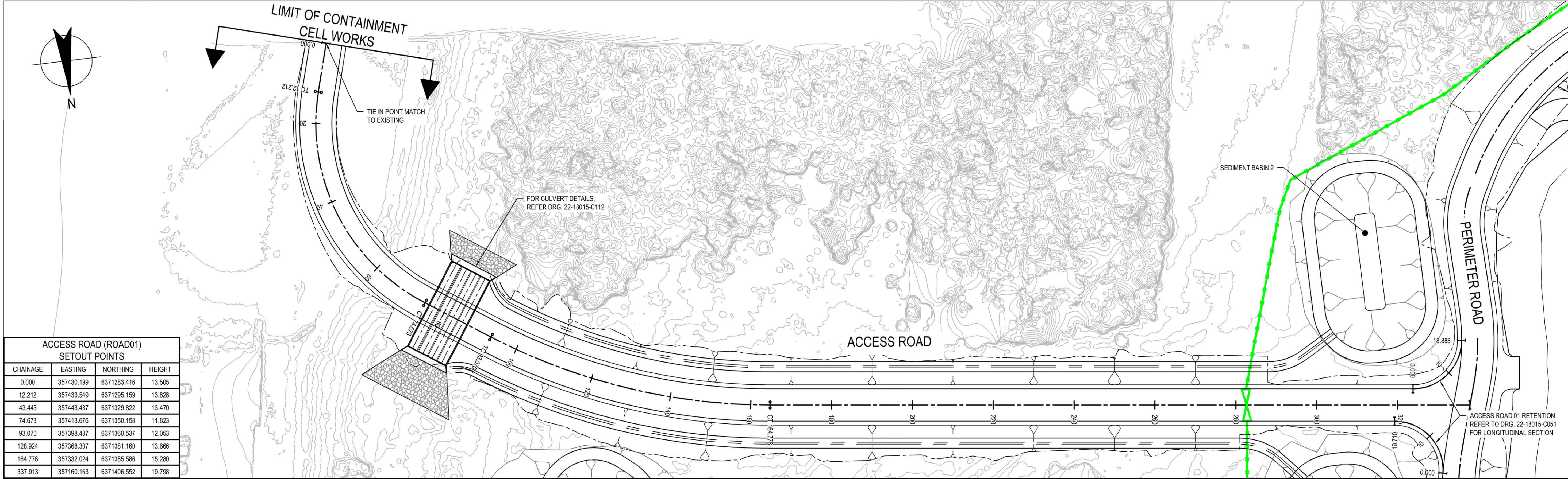
Scale AS SHOWN

This Drawing must not be
used for Construction unless
signed as Approved

Client **HYDRO ALUMINIUM KURRI KURRI PTY LTD**
Project **CONTAINMENT CELL DETAILED DESIGN**
Title **SECTION B
LONGITUDINAL SECTION**

Original Size
A1 Drawing No: **22-18015-C042**

Rev: D



DETAIL DESIGN

D	100% DETAILED DESIGN RE-ISSUE	HT	DB	IG	04.05.18		
C	100% DETAILED DESIGN	JSC	DB*	IG*	04.08.17		
B	ISSUE FOR CLIENT REVIEW	EAN	DB*	IG*	13.01.17		
A	ISSUE FOR REVIEW	EAN	DB*	IG*	28.11.16		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing		Drawn	Job Manager	Project Director	Date



HYDRO



Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

DO NOT SCALE

Conditions of Use.
This document may only be used by
GHD's client (and any other person who
GHD has agreed can use this document)
for the purpose for which it was prepared
and must not be used by any other
person or for any other purpose.

Drawn J. CASIO

Drafting P. ETCHHELLS

Approved (Project Director)

Date

Scale AS SHOWN

Designer A. ROBERTS

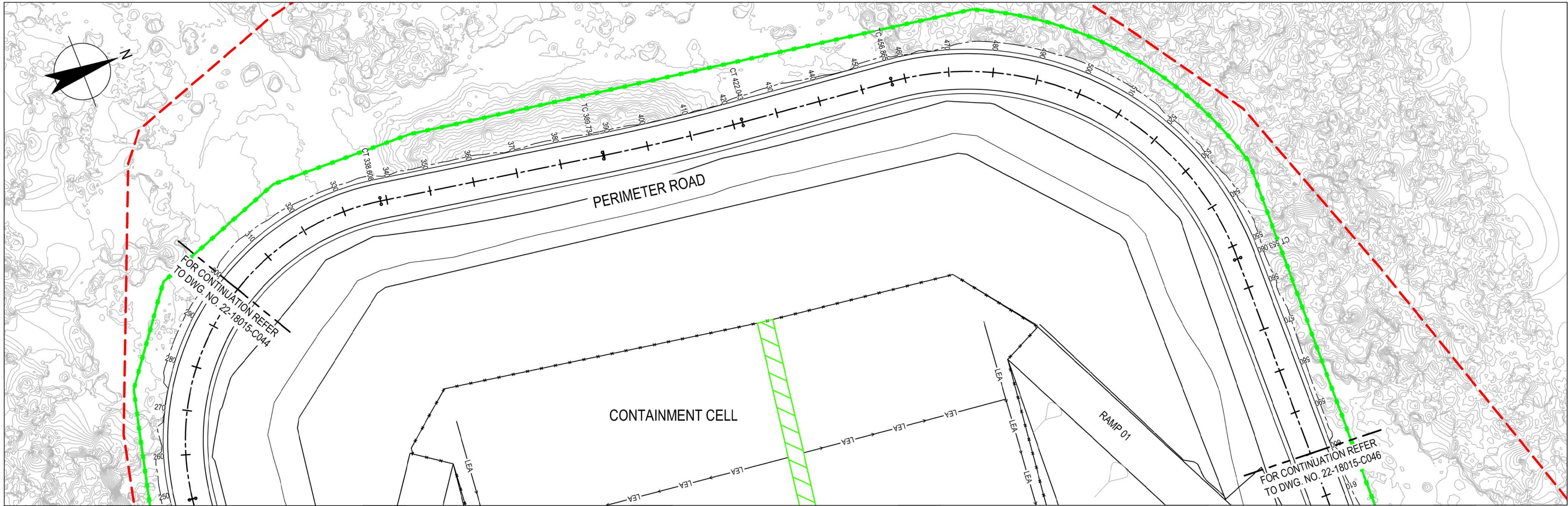
Design Check D. MORRISON

This Drawing must not be used for Construction unless signed as Approved

Client **HYDRO ALUMINIUM KURRI KURRI PTY LTD**
Project **CONTAINMENT CELL DETAILED DESIGN**
Title **ACCESS ROAD LONGITUDINAL SECTION**

Original Size
A1 Drawing No: **22-18015-C043**

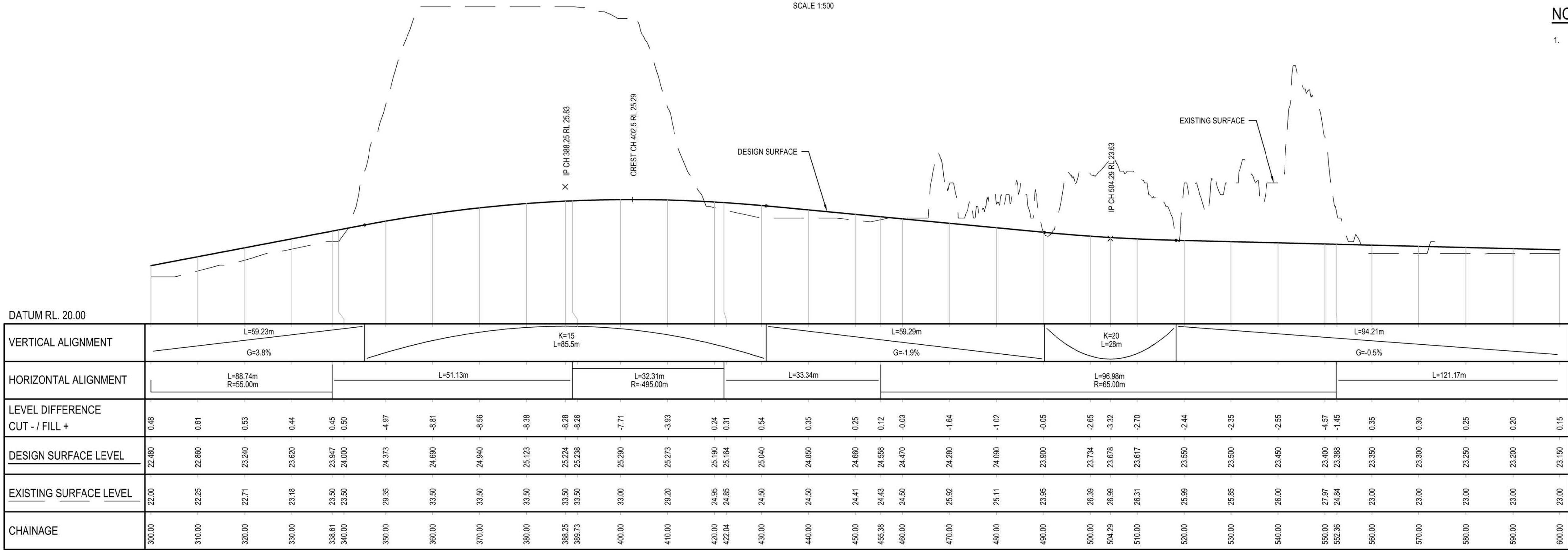
Rev: D



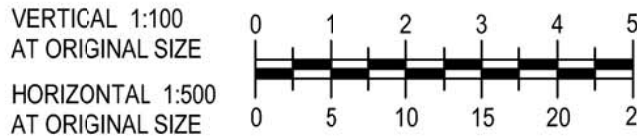
PLAN
SCALE 1:500

NOTE:

1. REFER DRG. 22-18015-C044 FOR SETOUT TABLE.



LONGITUDINAL SECTION
SCALE HOR. 1:500 VERT. 1:100



DETAIL DESIGN

B	100%DETAILED DESIGN RE-ISSUE	HT	DB	IG	04.05.18
A	100% DETAILED DESIGN	JSC	DB*	IG*	04.08.17
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director



Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

DO NOT SCALE

Conditions of Use.
This document may only be used by
GHD's client (and any other person who
GHD has agreed can use this document)
for the purpose for which it was prepared
and must not be used by any other
person or for any other purpose.

Drawn J. CASIO

Drafting P. ETCHHELLS

Approved (Project Director)

Date

Scale AS SHOWN

Designer A. ROBERTS

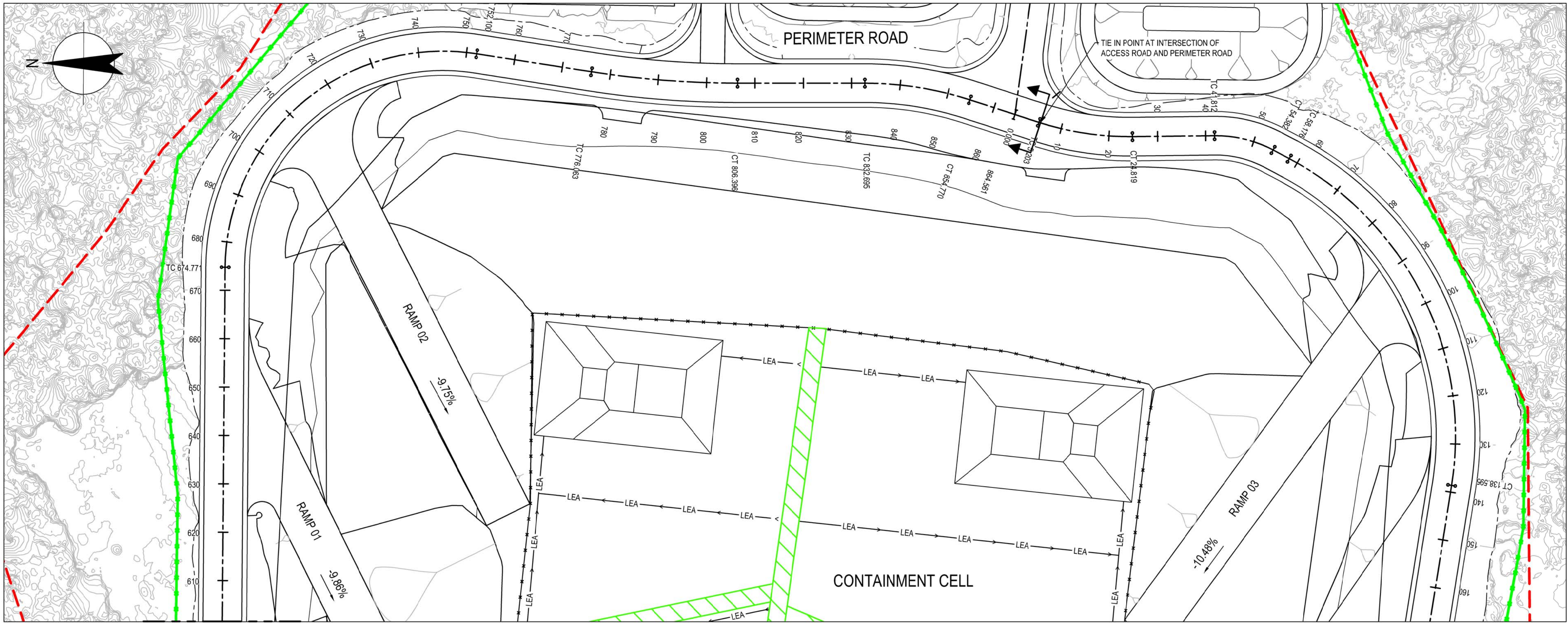
Design Check D. MORRISON

This Drawing must not be used for Construction unless signed as Approved

Client **HYDRO ALUMINIUM KURRI KURRI PTY LTD**
Project **CONTAINMENT CELL DETAILED DESIGN**
Title **PERIMETER ROAD
LONGITUDINAL SECTION - SHEET 2 OF 3**

Original Size
A1 Drawing No: **22-18015-C045**

Rev: B

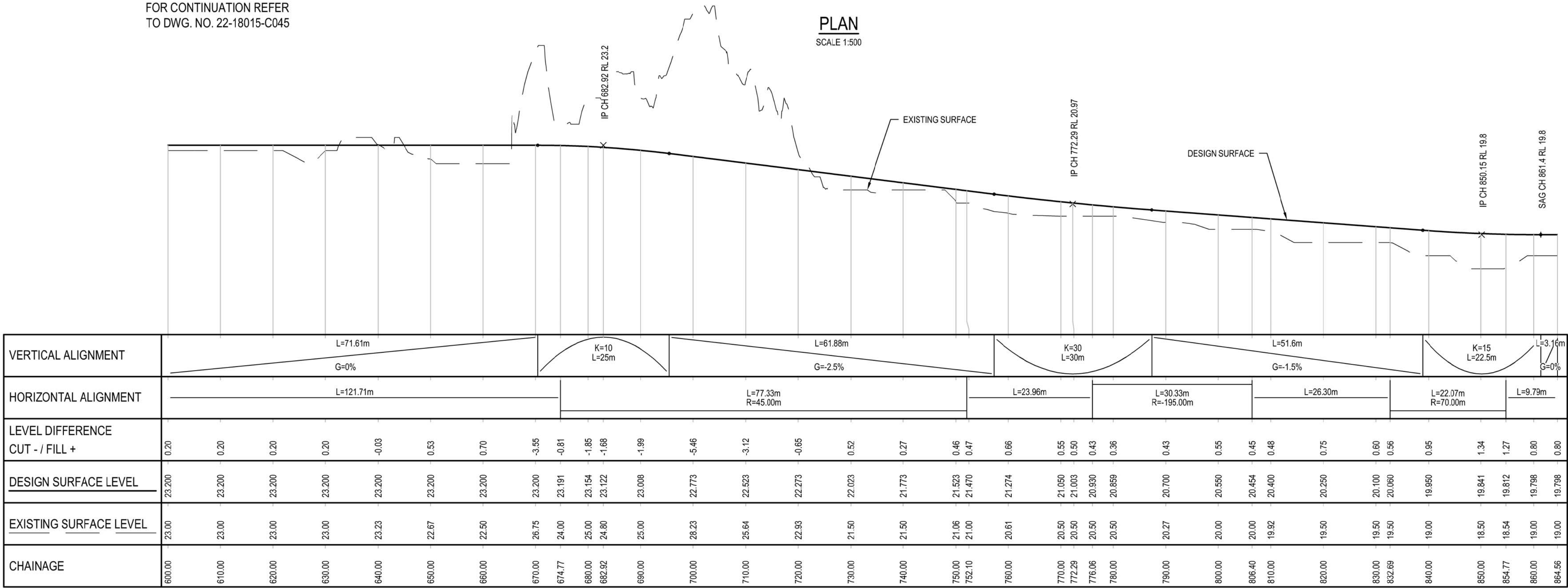


FOR CONTINUATION REFER
TO DWG. NO. 22-18015-C045

PLAN
SCALE 1:500

NOTE:

1. REFER DRG. 22-18015-C044 FOR SETOUT TABLE.



LONGITUDINAL SECTION
SCALE HOR. 1:500 VERT. 1:100

VERTICAL 1:100
AT ORIGINAL SIZE
HORIZONTAL 1:500
AT ORIGINAL SIZE

DETAILED DESIGN

C	100% DETAILED DESIGN RE-ISSUE	HT	DB	IG	04.05.18		
B	100% DETAILED DESIGN	JSC	DB*	IG*	04.08.17		
A	ISSUE FOR CLIENT REVIEW	EAN	DB*	IG*	13.01.17		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing		Drawn	Job Manager	Project Director	Date



Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

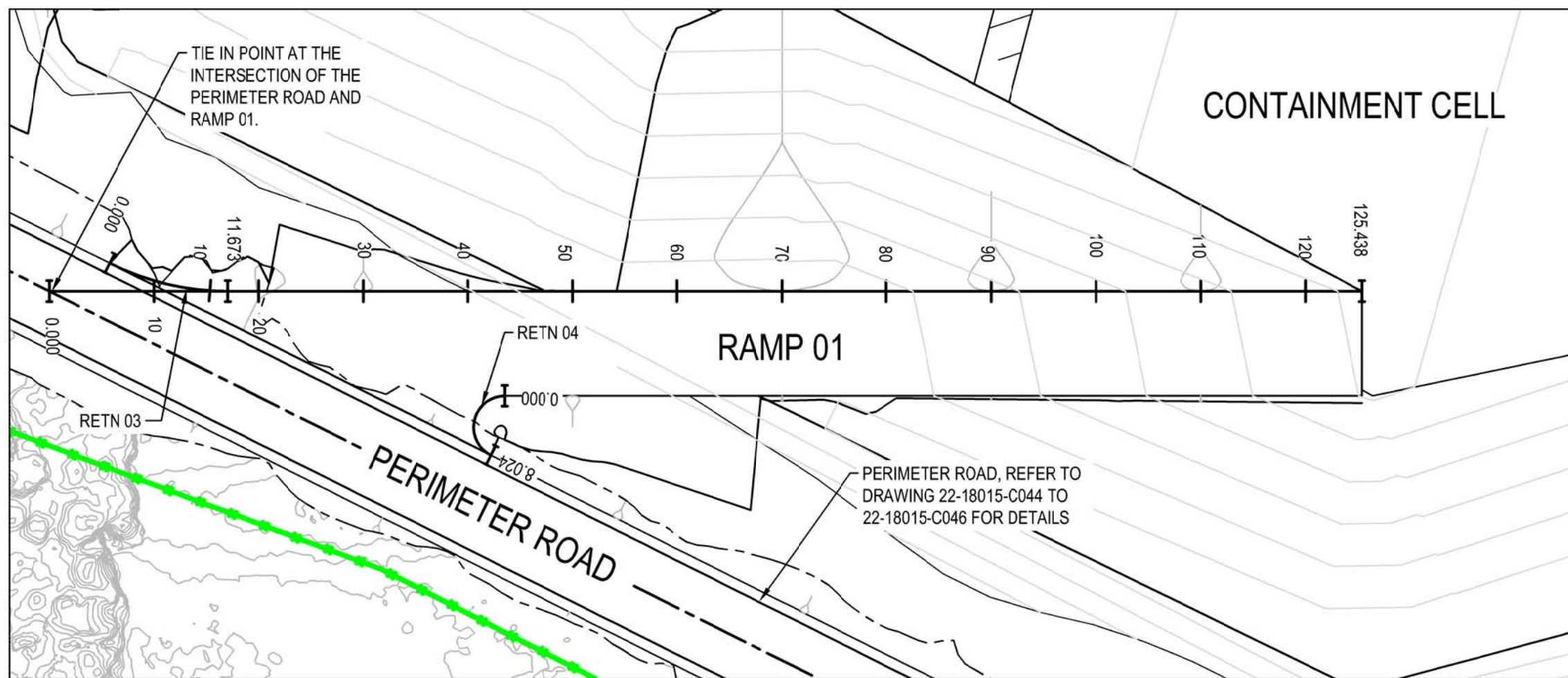
DO NOT SCALE

Conditions of Use.
This document may only be used by
GHD's client (and any other person who
GHD has agreed can use this document)
for the purpose for which it was prepared
and must not be used by any other
person or for any other purpose.

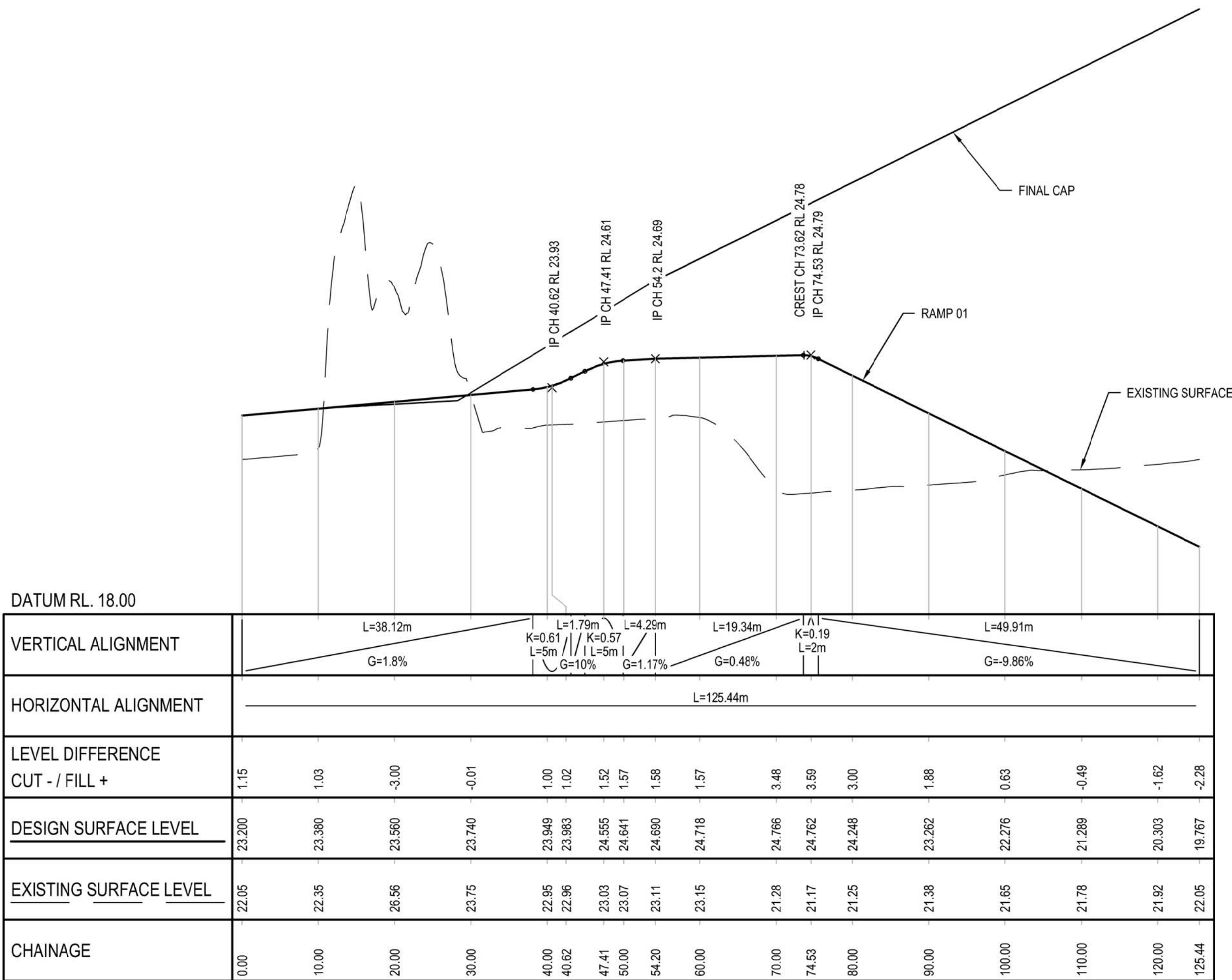
Drawn	J. CASIO	Designer	A. ROBERTS
Drafting Check	P. ETCHHELLS	Design Check	D. MORRISON
Approved (Project Director)	Date	Scale	AS SHOWN

This Drawing must not be
used for Construction unless
signed as Approved

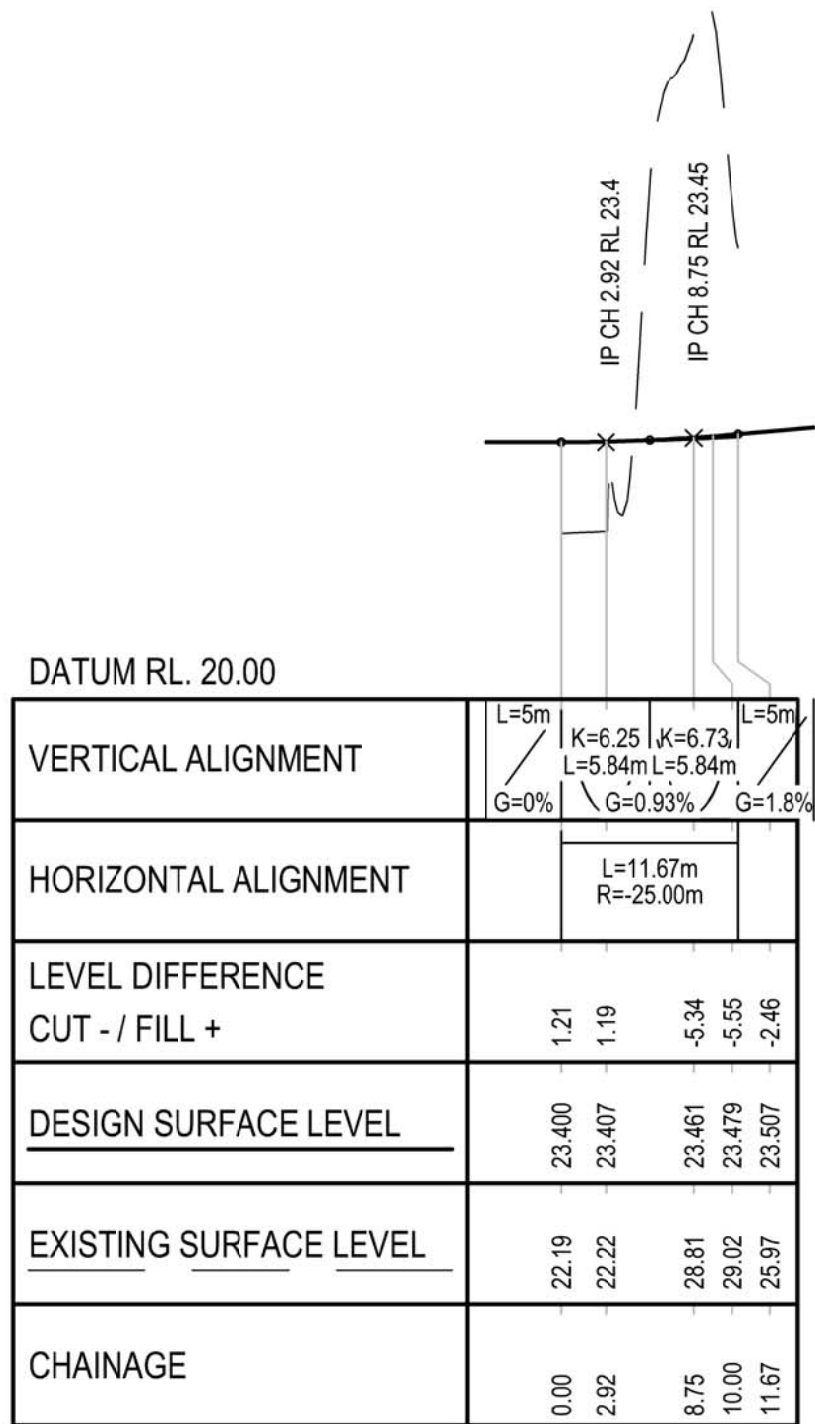
Client	HYDRO ALUMINIUM KURRI KURRI PTY LTD
Project	CONTAINMENT CELL DETAILED DESIGN
Title	PERIMETER ROAD LONGITUDINAL SECTION - SHEET 3 OF 3
Original Size	A1
Drawing No:	22-18015-C046
Rev:	C



PLAN - RAMP 01
SCALE 1:500

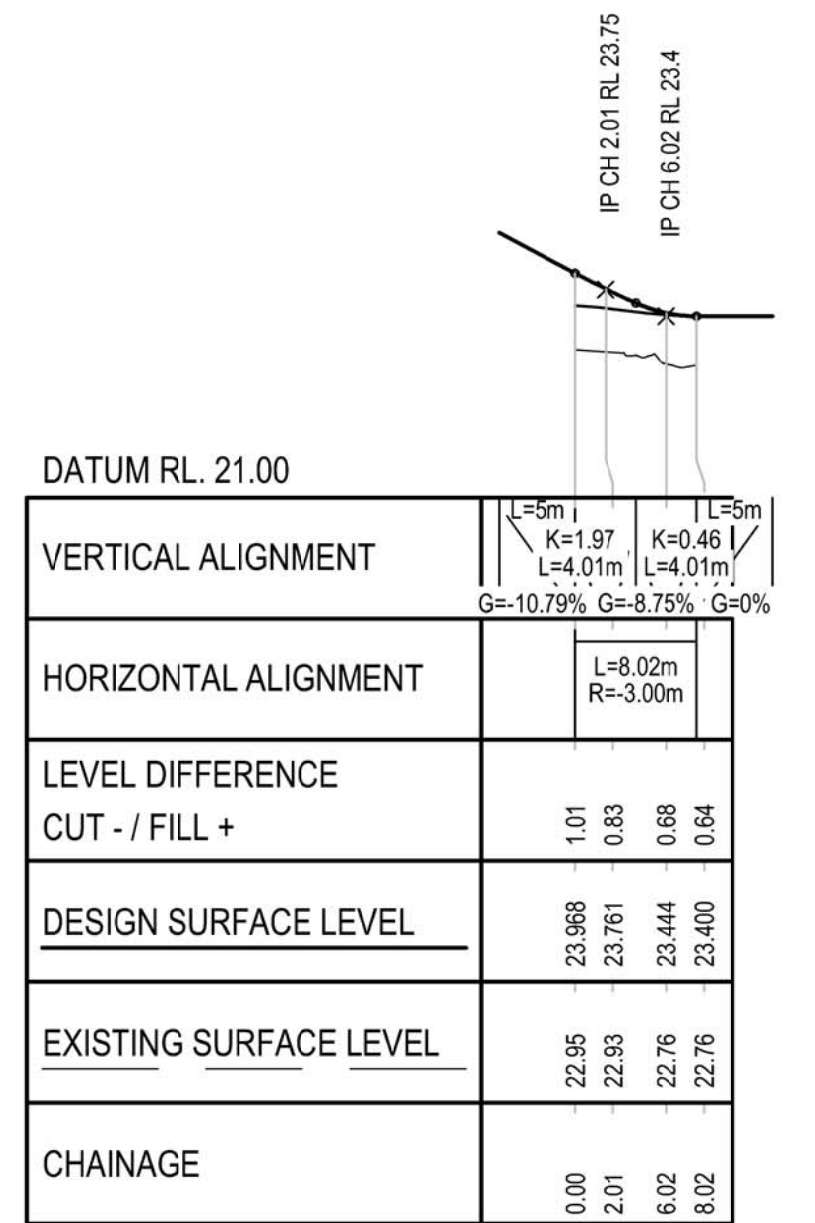


LONGITUDINAL SECTION - RAMP 01
SCALE HOR. 1:500 VERT. 1:100



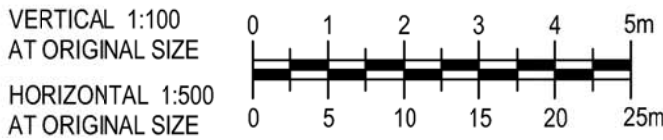
LONGITUDINAL SECTION - RETURN 03
SCALE HOR. 1:500 VERT. 1:100

RETURN 03 SETOUT POINTS			
CHAINAGE	EASTING	NORTHING	HEIGHT
0.000	357115.793	6371564.203	23.400
5.836	357109.849	6371564.167	23.427
11.673	357104.557	6371561.459	23.507



LONGITUDINAL SECTION - RETURN 04
SCALE HOR. 1:500 VERT. 1:100

RETURN 04 SETOUT POINTS			
CHAINAGE	EASTING	NORTHING	HEIGHT
0.000	357076.402	6371558.285	23.968
2.006	357078.512	6371559.364	23.761
4.012	357077.960	6371561.667	23.576
6.018	357077.388	6371563.970	23.444
8.024	357075.017	6371563.955	23.400



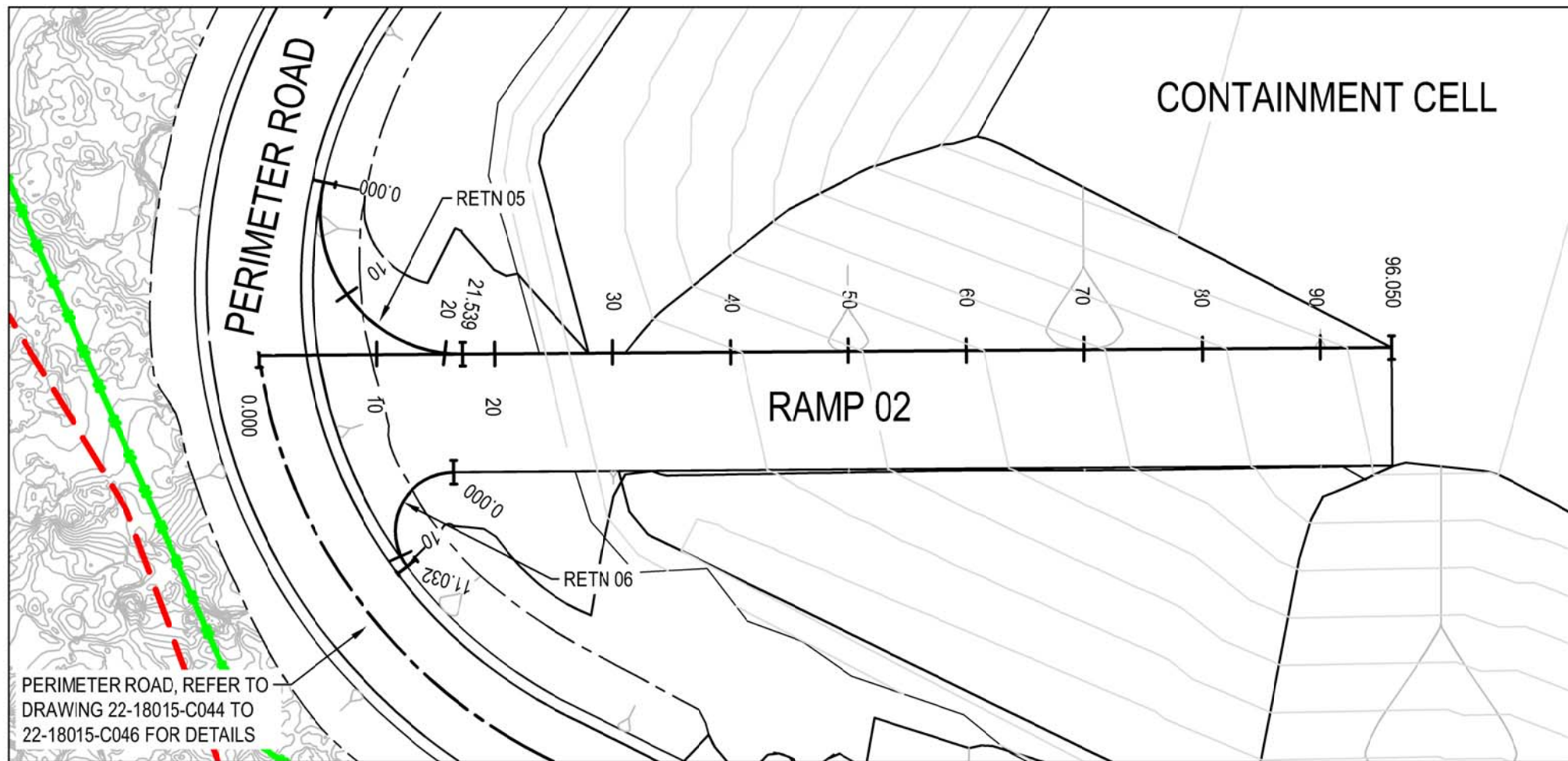
DETAIL DESIGN

B	100% DETAILED DESIGN RE-ISSUE	HT	DB	IG	04.05.18
A	100% DETAILED DESIGN	JSC	DB*	IG*	04.08.17
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director

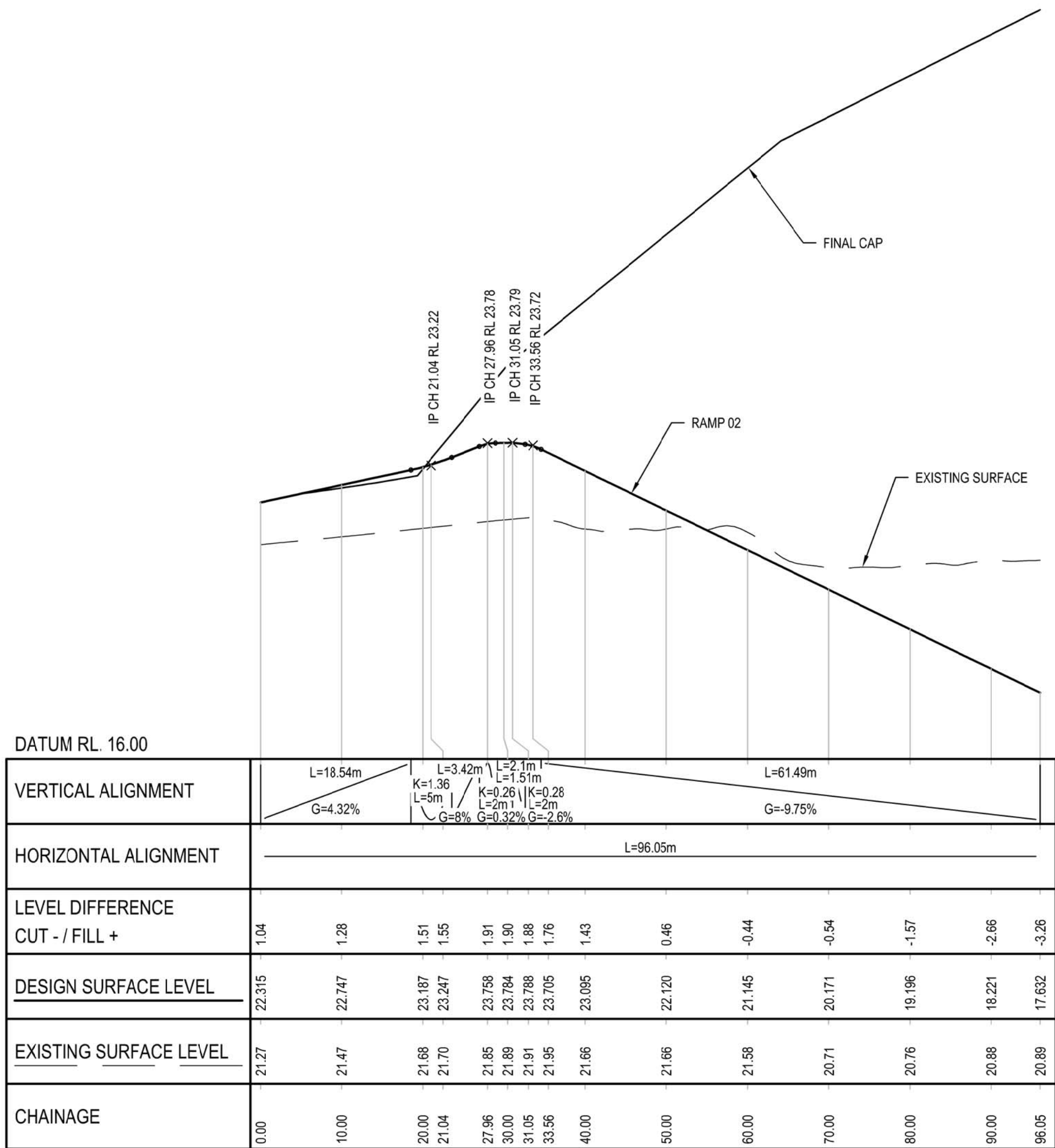


Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

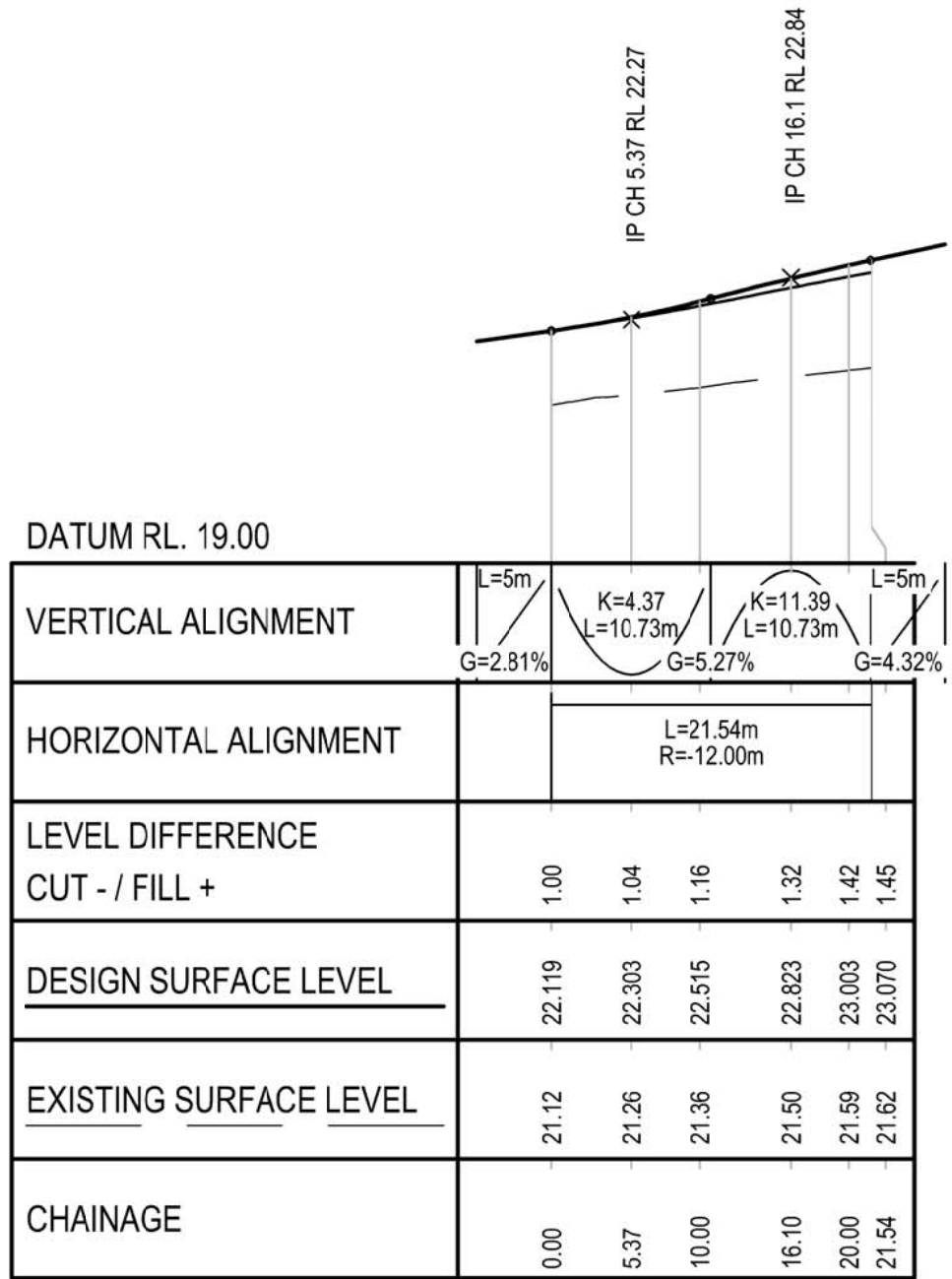
DO NOT SCALE		Drawn J. CASIO	Designer A. ROBERTS	Client	HYDRO ALUMINIUM KURRI KURRI PTY LTD	
Conditions of Use. This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.	Drafting Check P. ETCHHELLS	Design Check D. MORRISON	Project	CONTAINMENT CELL DETAILED DESIGN		
	Approved (Project Director) Date		Title	RAMP01 LONGITUDINAL SECTIONS		
	Scale AS SHOWN	This Drawing must not be used for Construction unless signed as Approved	Original Size A1	Drawing No: 22-18015-C047	Rev: B	



PLAN - RAMP 02
SCALE 1:500

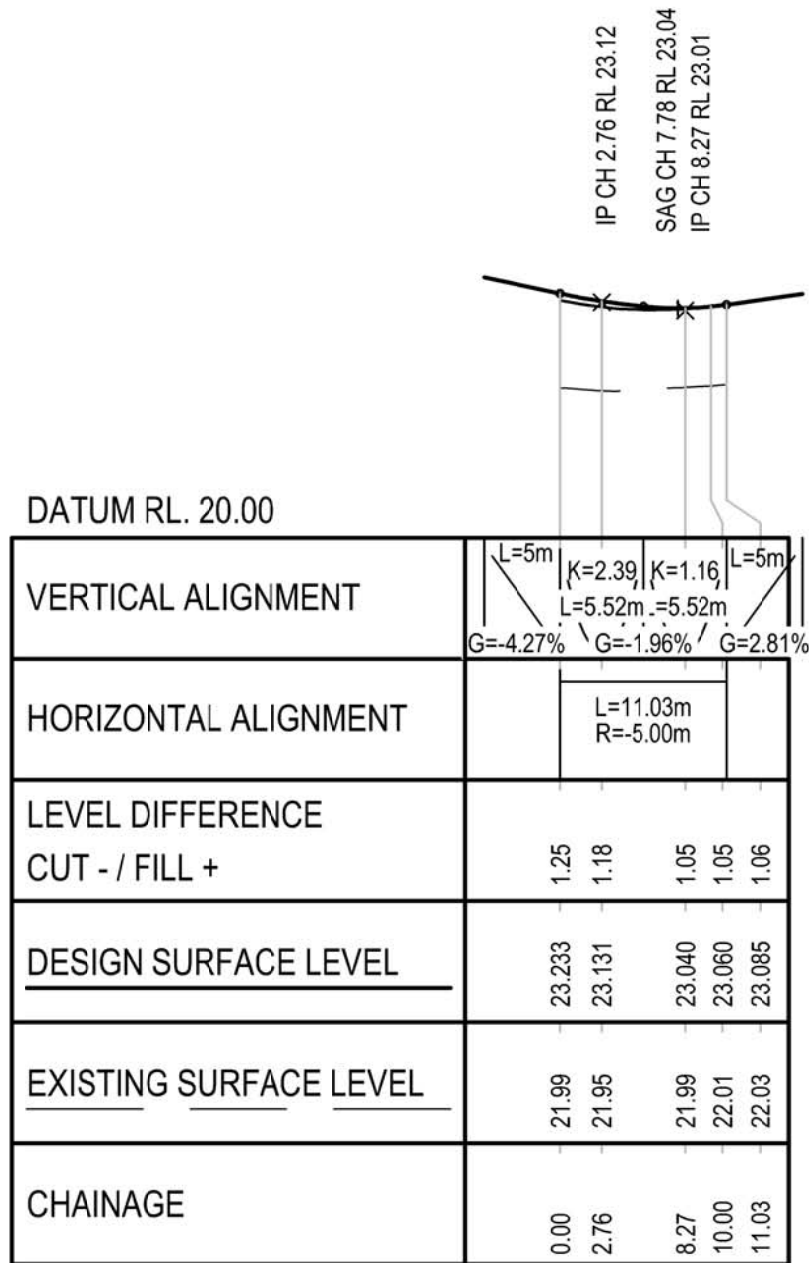


LONGITUDINAL SECTION - RAMP 02
SCALE HOR. 1:300 VERT. 1:100



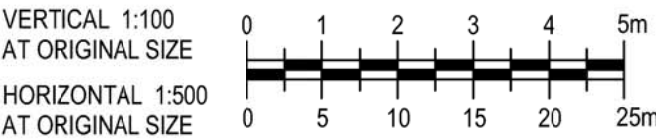
LONGITUDINAL SECTION - RETURN 05
SCALE HOR. 1:500 VERT. 1:100

RETURN 05 SETOUT POINTS			
CHAINAGE	EASTING	NORTHING	HEIGHT
0.000	357165.308	6371534.393	22.119
10.770	357161.500	6371548.947	22.555
21.539	357148.157	6371541.999	23.070



LONGITUDINAL SECTION - RETURN 06
SCALE HOR. 1:500 VERT. 1:100

RETURN 06 SETOUT POINTS			
CHAINAGE	EASTING	NORTHING	HEIGHT
0.000	357144.307	6371551.269	23.233
2.758	357147.036	6371552.690	23.131
5.516	357146.998	6371555.766	23.061
8.274	357146.959	6371558.843	23.040
11.032	357144.196	6371560.195	23.085



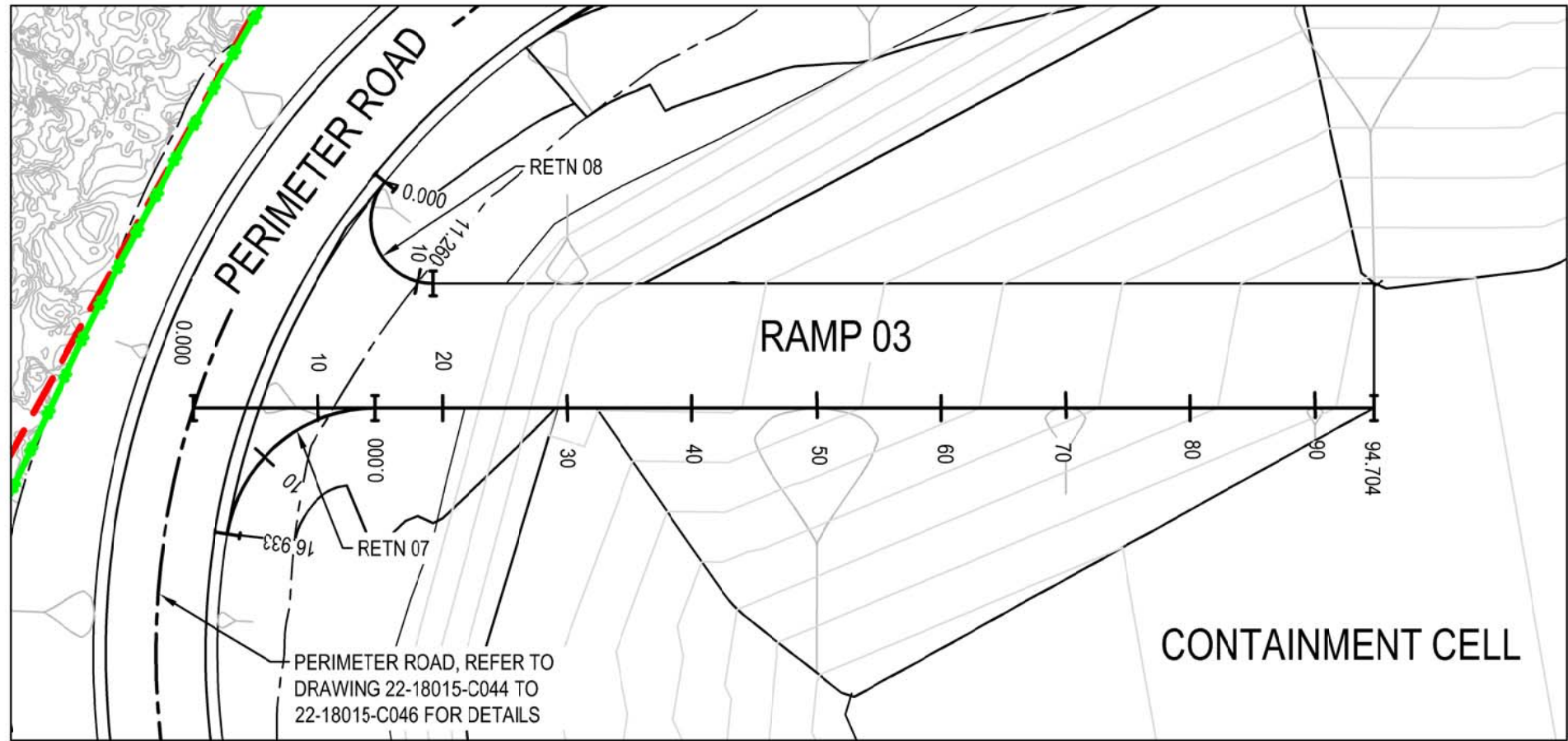
DETAIL DESIGN

B	100% DETAILED DESIGN RE-ISSUE	HT	DB	IG	04.05.18		
A	100% DETAILED DESIGN	JSC	DB*	IG*	04.08.17		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing		Drawn	Job Manager	Project Director	Date

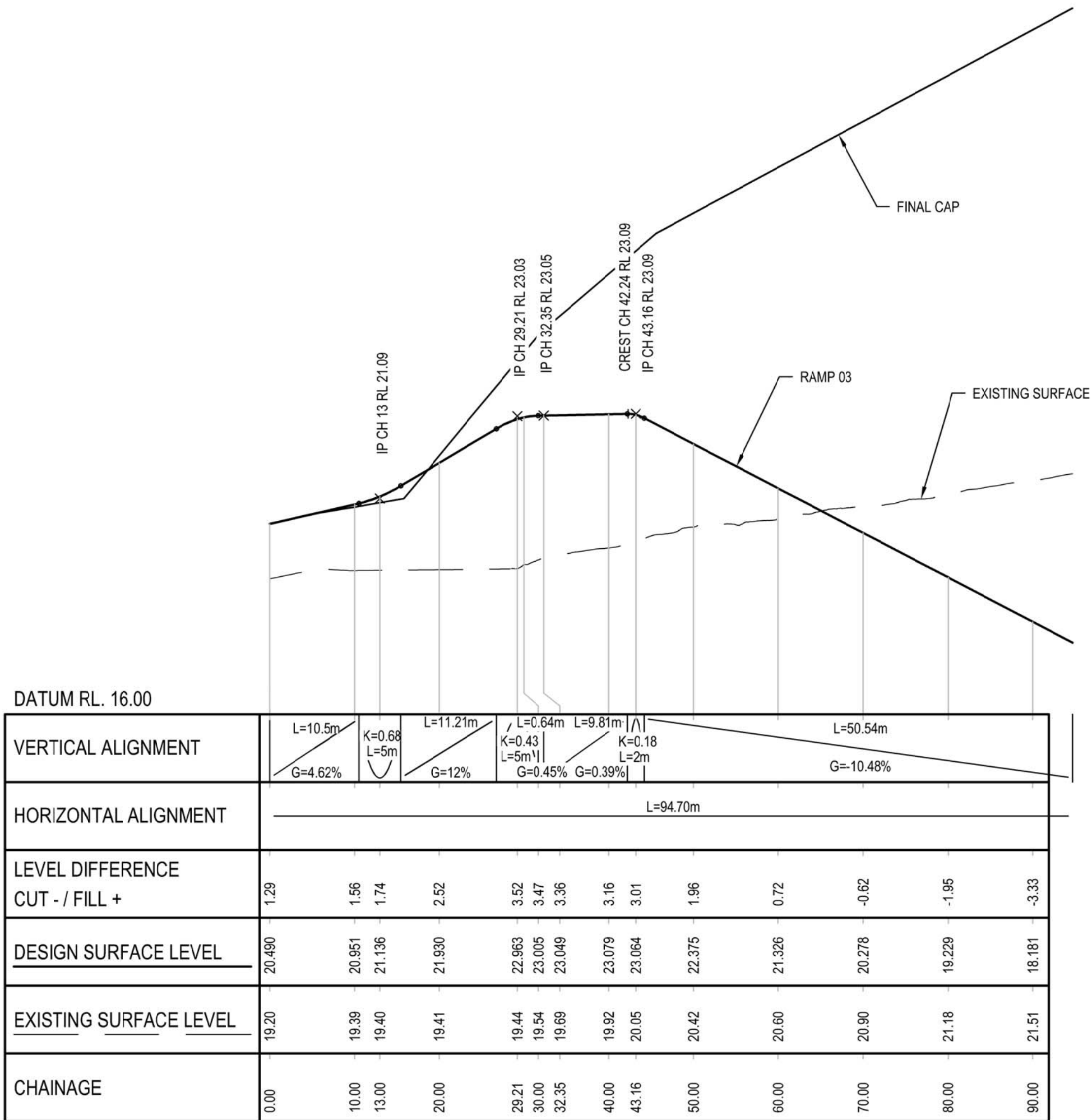


Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

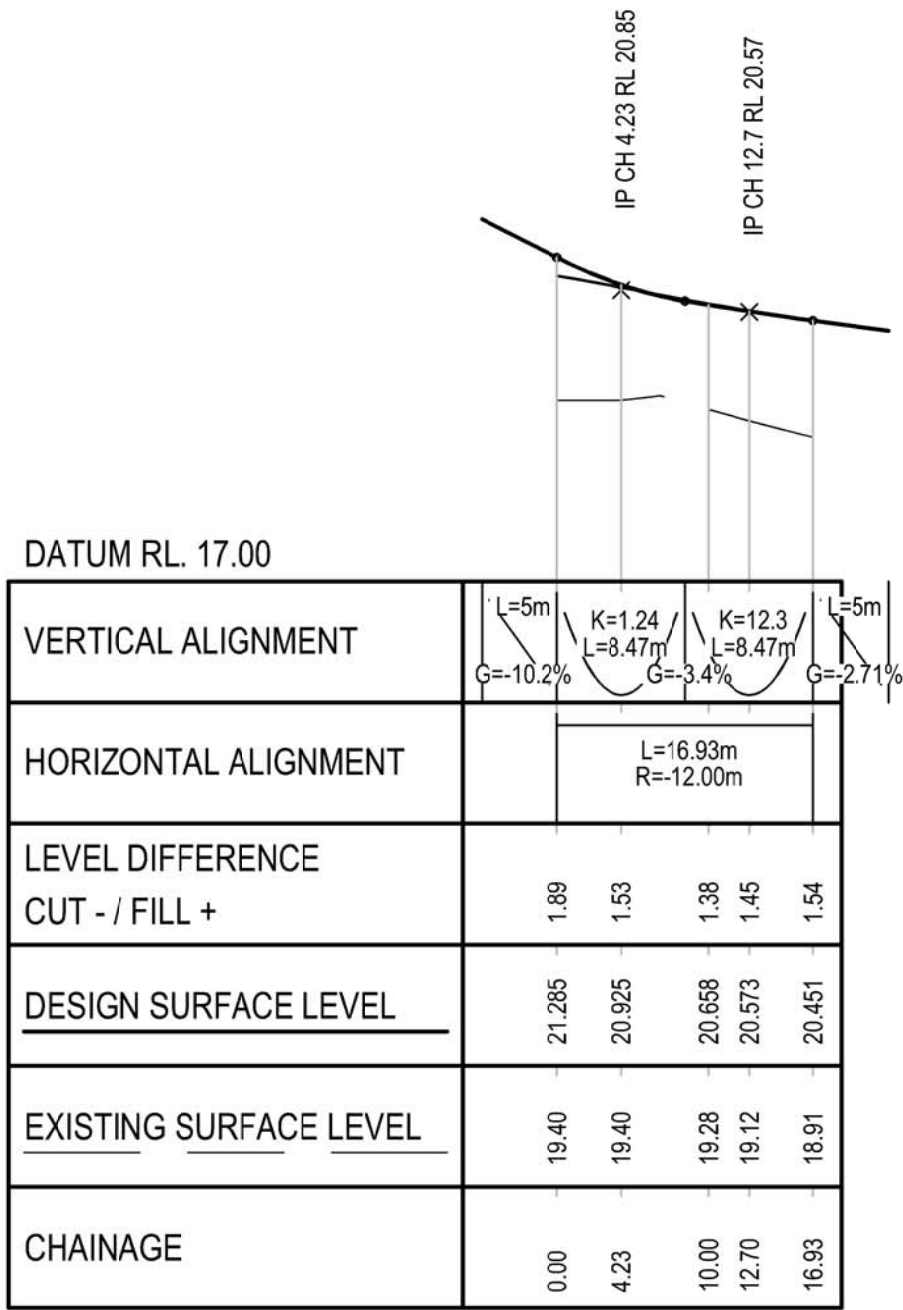
DO NOT SCALE		Drawn J. CASIO	Designer A. ROBERTS	Client HYDRO ALUMINIUM KURRI KURRI PTY LTD
Conditions of Use. This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.		Drafting Check P. ETCHHELLS	Design Check D. MORRISON	Project CONTAINMENT CELL DETAILED DESIGN
		Approved (Project Director) Date		Title RAMP02 LONGITUDINAL SECTIONS SHEET 2 OF 4
Scale AS SHOWN		This Drawing must not be used for Construction unless signed as Approved		Original Size A1 Drawing No: 22-18015-C048 Rev: B



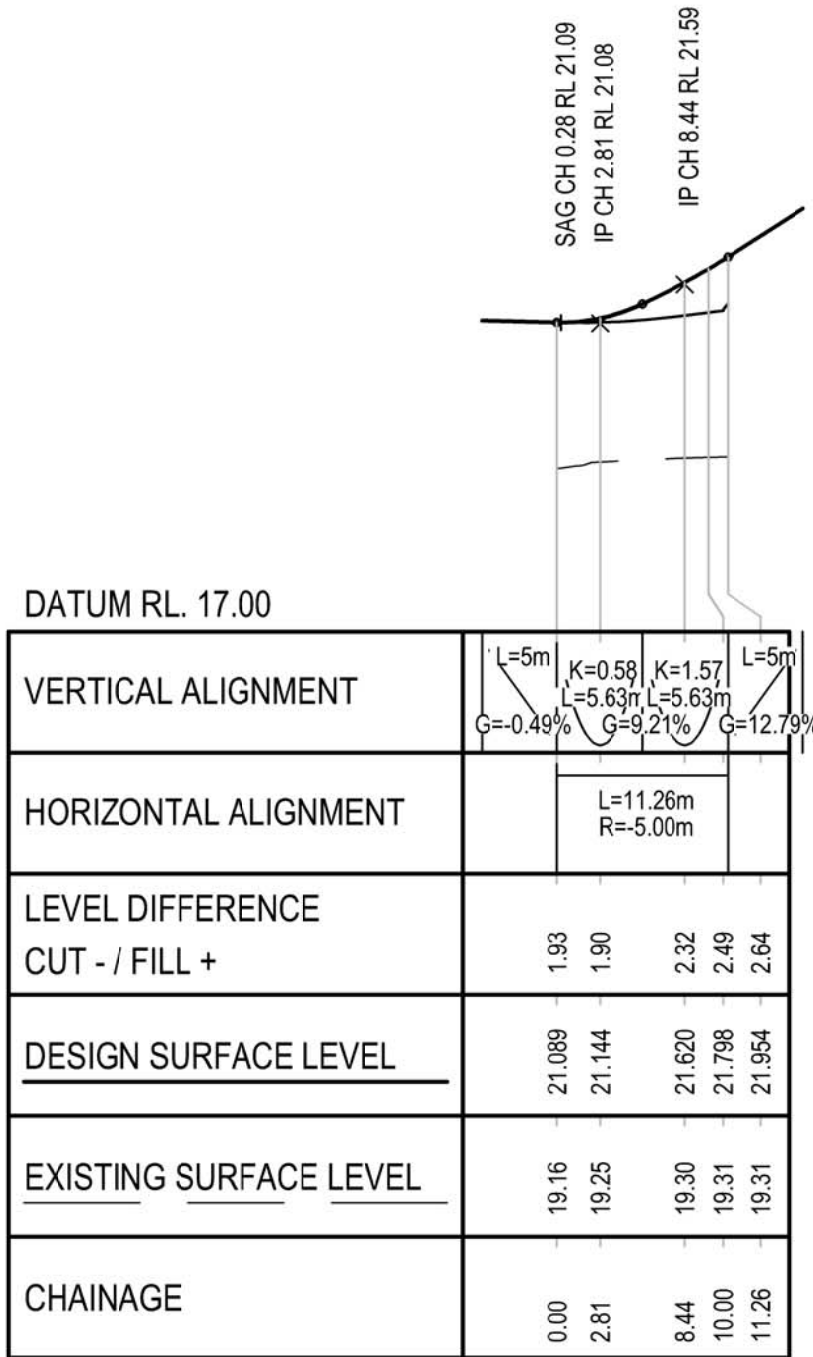
PLAN - RAMP 03
SCALE 1:500



LONGITUDINAL SECTION - RAMP 03
SCALE HOR. 1:500 VERT. 1:100



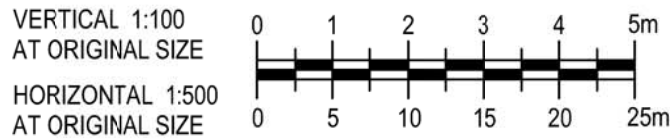
LONGITUDINAL SECTION - RETURN 07
SCALE HOR. 1:500 VERT. 1:100



LONGITUDINAL SECTION - RETURN 08
SCALE HOR. 1:500 VERT. 1:100

RETURN 07 SETOUT POINTS			
CHAINAGE	EASTING	NORTHING	HEIGHT
0.000	357121.470	6371336.229	21.285
8.466	357129.817	6371330.330	20.709
16.933	357136.969	6371337.632	20.451

RETURN 08 SETOUT POINTS			
CHAINAGE	EASTING	NORTHING	HEIGHT
0.000	357110.358	6371321.859	21.089
2.815	357113.396	6371322.714	21.144
5.630	357113.931	6371325.824	21.335
8.445	357114.467	6371328.934	21.620
11.260	357111.890	6371330.755	21.954



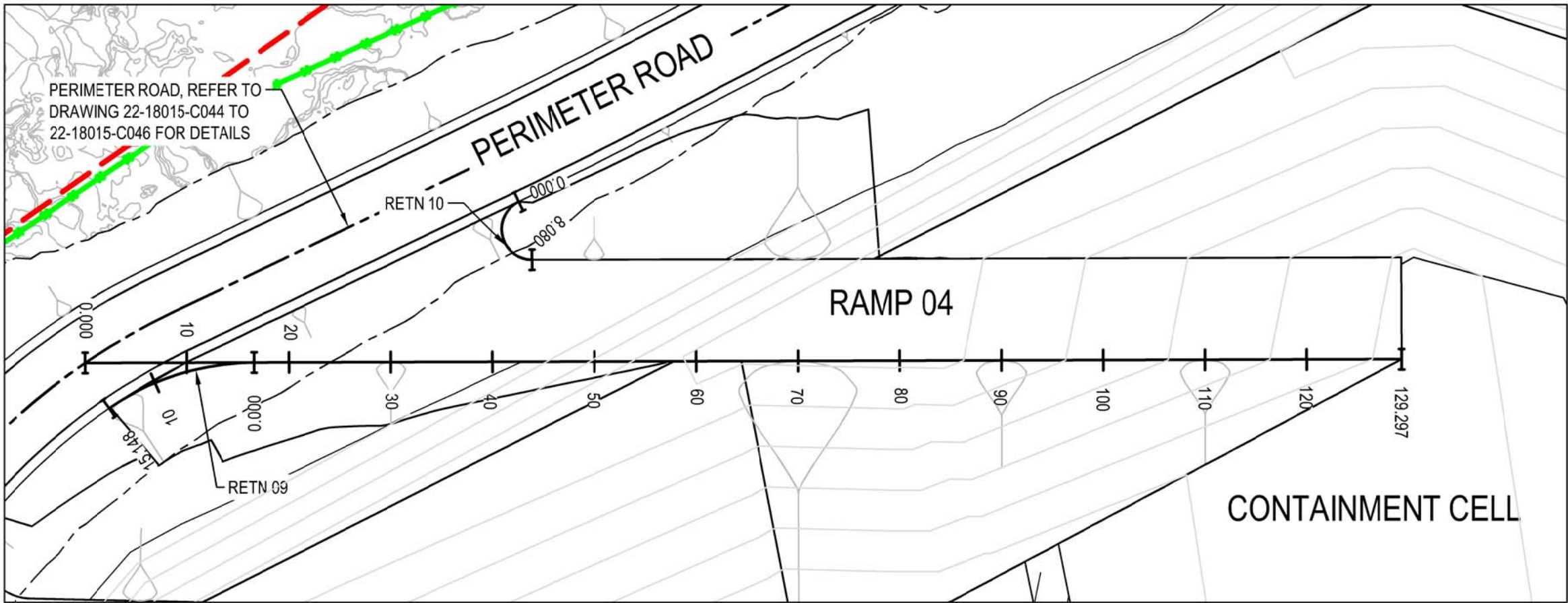
DETAIL DESIGN

B	100% DETAILED DESIGN RE-ISSUE	HT	DB	IG	04.05.18
A	100% DETAILED DESIGN	JSC	DB*	IG*	04.08.17
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director

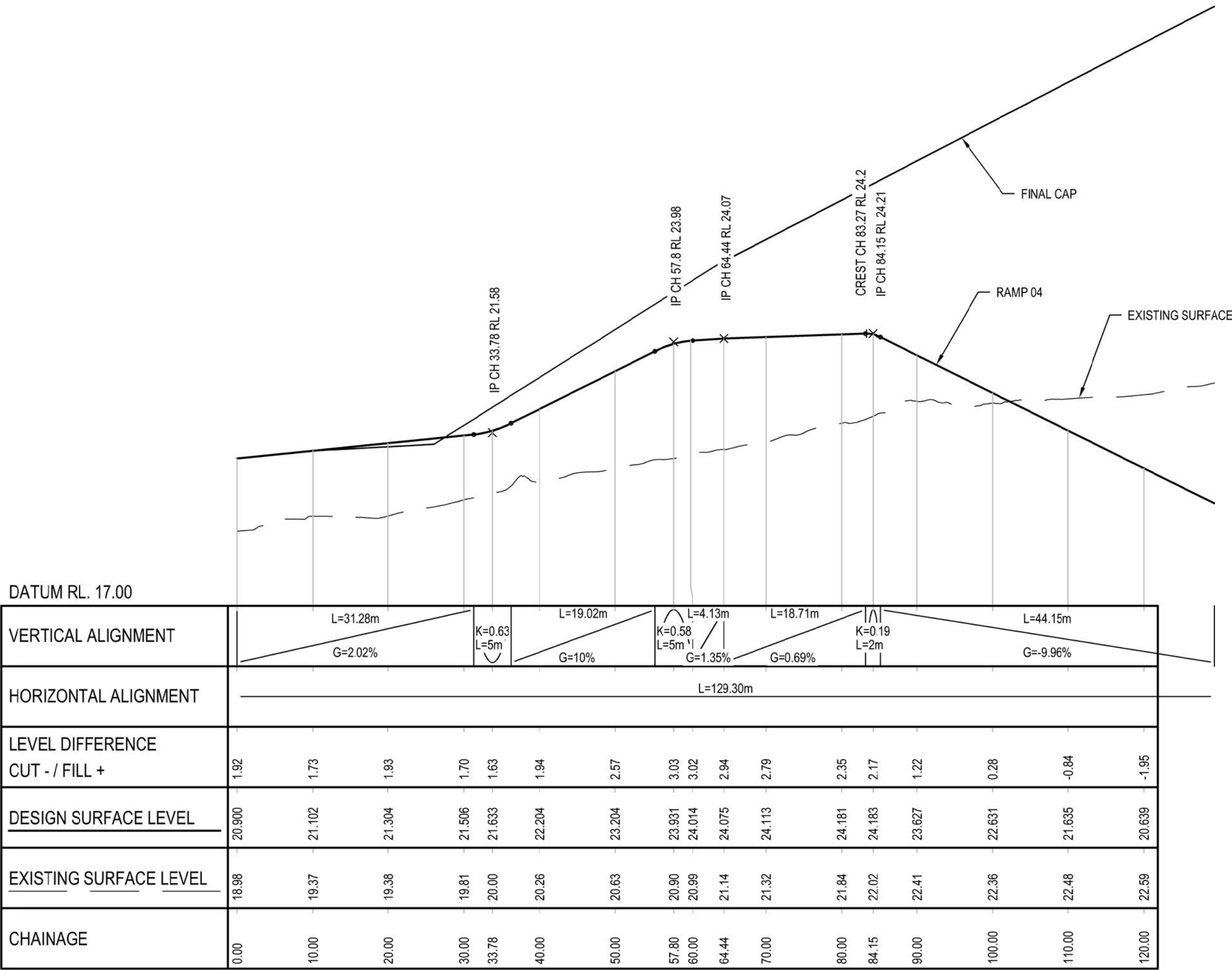


Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

DO NOT SCALE		Drawn J. CASIO	Designer A. ROBERTS	Client	HYDRO ALUMINIUM KURRI KURRI PTY LTD	
<div>Conditions of Use.</div> <div>This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.</div>	Drafting Check P. ETCHHELLS	Design Check D. MORRISON	Project	CONTAINMENT CELL DETAILED DESIGN		
	Approved (Project Director)		Title	RAMP03 LONGITUDINAL SECTIONS		
	Date				SHEET 3 OF 4	
	Scale AS SHOWN	This Drawing must not be used for Construction unless signed as Approved		Original Size		
				A1	Drawing No: 22-18015-C049	Rev: B



PLAN - RAMP 04
SCALE 1:500



LONGITUDINAL SECTION - RAMP 04
SCALE HOR. 1:500 VERT. 1:100

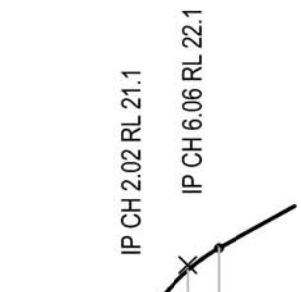


DATUM RL. 17.00

VERTICAL ALIGNMENT	L=5m K=6.08 / L=7.57m K=9.77 / L=7.57m G=-2.02% G=-0.77% G=0%
HORIZONTAL ALIGNMENT	L=15.15m R=25.00m
LEVEL DIFFERENCE CUT - / FILL +	1.90 1.80 1.88 1.93 2.04
DESIGN SURFACE LEVEL	21.235 21.170 21.114 21.107 21.100
EXISTING SURFACE LEVEL	19.34 19.37 19.23 19.18 19.06
CHAINAGE	0.00 3.79 10.00 11.38 15.15

RETURN 09 SETOUT POINTS			
CHAINAGE	EASTING	NORTHING	HEIGHT
0.000	357080.702	6371323.858	21.235
7.574	357087.191	6371319.505	21.129
15.148	357095.005	6371319.522	21.100

LONGITUDINAL SECTION - RETURN 09
SCALE HOR. 1:500 VERT. 1:100

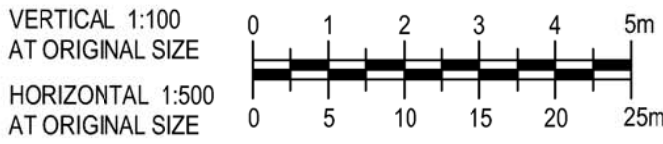


DATUM RL. 18.00

VERTICAL ALIGNMENT	L=5m K=0.16 / L=4.04m K=0.3 / L=4.04m G=0% G=24.68% G=11.11%
HORIZONTAL ALIGNMENT	L=8.08m R=3.00m
LEVEL DIFFERENCE CUT - / FILL +	1.19 1.31 1.99 2.22
DESIGN SURFACE LEVEL	21.100 21.225 22.029 22.321
EXISTING SURFACE LEVEL	19.91 19.92 20.04 20.10
CHAINAGE	0.00 2.02 6.06 8.08

RETURN 10 SETOUT POINTS			
CHAINAGE	EASTING	NORTHING	HEIGHT
0.000	357050.334	6371325.321	21.100
2.020	357052.703	6371324.981	21.225
4.040	357053.561	6371327.215	21.599
6.060	357054.419	6371329.448	22.029
8.080	357052.432	6371330.782	22.321

LONGITUDINAL SECTION - RETURN 10
SCALE HOR. 1:500 VERT. 1:100



DETAIL DESIGN

B	100% DETAILED DESIGN RE-ISSUE	HT	DB	IG	04.05.18
A	100% DETAILED DESIGN	JSC	DB*	IG*	04.08.17
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director



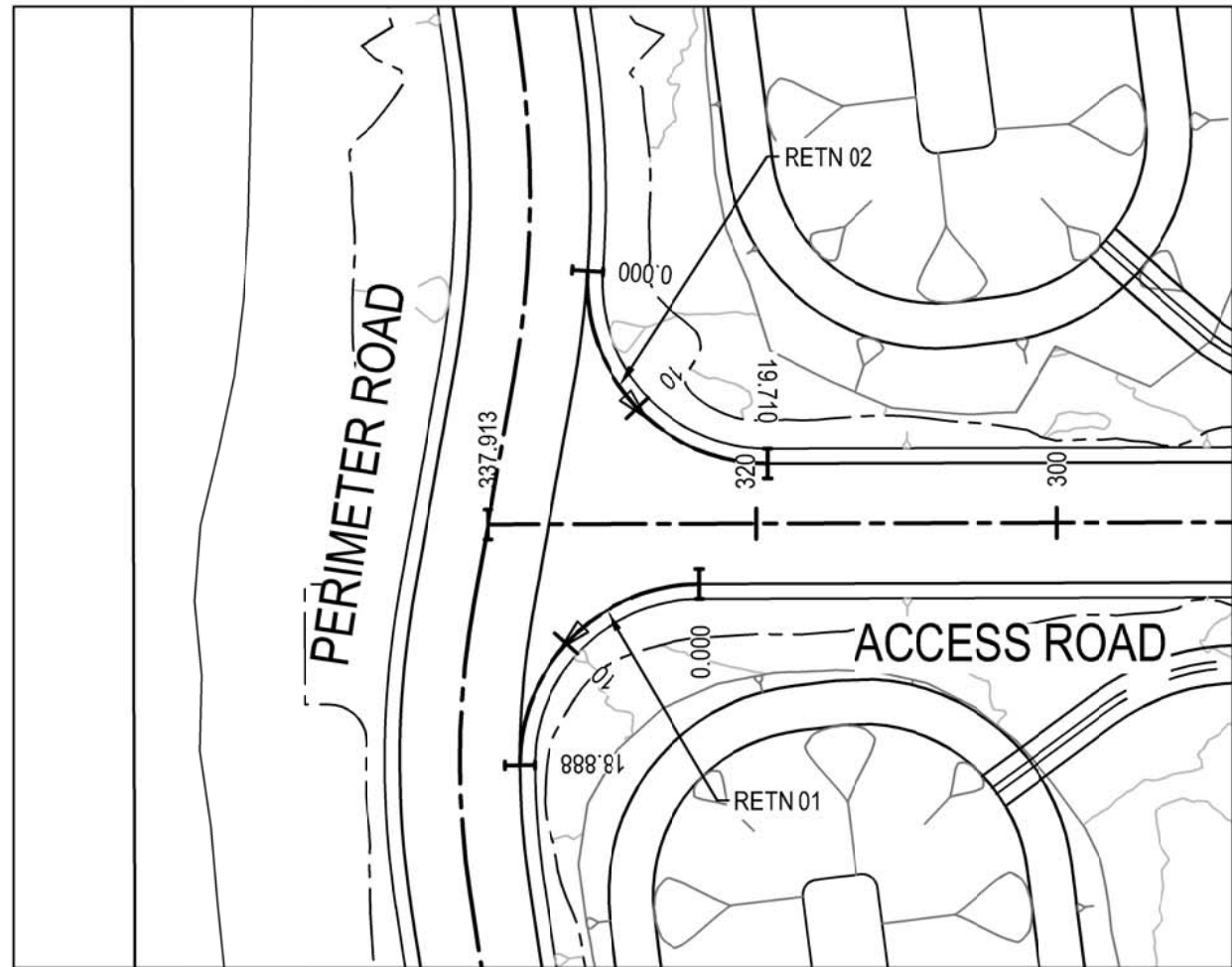
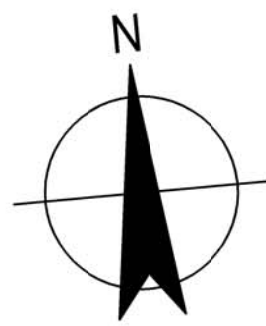
HYDRO



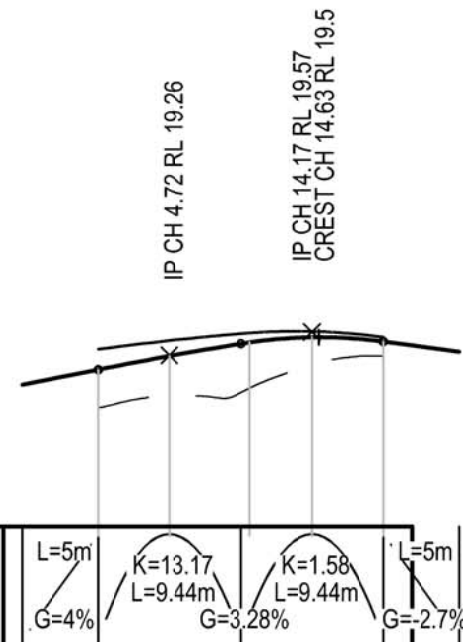
Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

DO NOT SCALE	Drawn	J. CASIO	Designer	A. ROBERTS
	Drafting Check	P. ETCHHELLS	Design Check	D. MORRISON
	Approved (Project Director)	Date		
	Scale	AS SHOWN	This Drawing must not be used for Construction unless signed as Approved	

Client	HYDRO ALUMINIUM KURRI KURRI PTY LTD			
Project	CONTAINMENT CELL DETAILED DESIGN			
Title	RAMP04 LONGITUDINAL SECTIONS			
	SHEET 4 OF 4			
Original Size	A1	Drawing No:	22-18015-C050	
				Rev: B



PLAN
SCALE 1:500



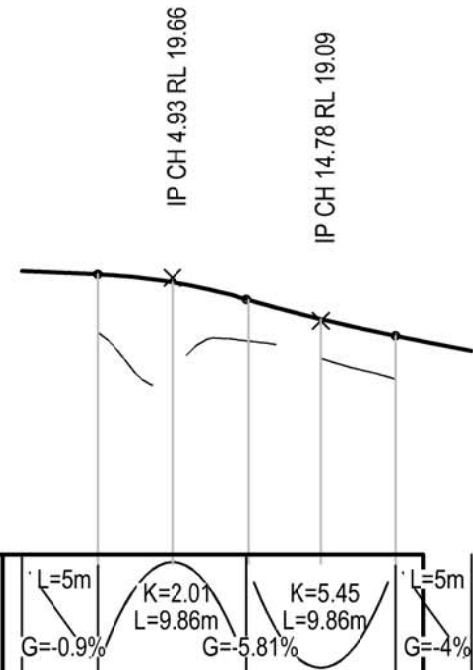
DATUM RL. 17.00

VERTICAL ALIGNMENT	L=5m G=4%	K=13.17 L=9.44m G=2.8%	K=1.58 L=9.44m G=2.7%	L=5m
HORIZONTAL ALIGNMENT	L=18.88m R=12.00m			
LEVEL DIFFERENCE CUT - / FILL +	0.50	0.52	0.61	0.35
DESIGN SURFACE LEVEL	19.074	19.254	19.435	19.502
EXISTING SURFACE LEVEL	18.57	18.74	18.83	19.15
CHAINAGE	0.00	4.72	10.00	14.17

LONGITUDINAL SECTION - RETURN 01
SCALE HOR. 1:500 VERT. 1:100

RETURN 01 SETOUT POINTS			
CHAINAGE	EASTING	NORTHING	HEIGHT
0.000	357173.675	6371400.874	19.074
9.444	357161.725	6371402.332	19.418
18.888	357160.306	6371390.377	19.445

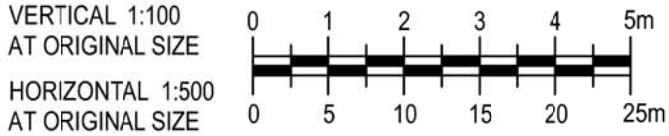
RETURN 02 SETOUT POINTS			
CHAINAGE	EASTING	NORTHING	HEIGHT
0.000	357168.848	6371422.478	19.705
9.855	357166.374	6371409.824	19.375
19.710	357179.172	6371408.263	18.891



DATUM RL. 16.00

VERTICAL ALIGNMENT	L=5m G=0.9%	K=2.0 L=9.86m G=5.81%	K=5.45 L=9.86m G=4%	L=5m
HORIZONTAL ALIGNMENT	L=19.71m R=12.00m			
LEVEL DIFFERENCE CUT - / FILL +	0.77	1.20	0.54	0.52
DESIGN SURFACE LEVEL	19.705	19.600	19.366	19.111
EXISTING SURFACE LEVEL	18.93	18.40	18.82	18.59
CHAINAGE	0.00	4.93	10.00	14.78

LONGITUDINAL SECTION - RETURN 02
SCALE HOR. 1:500 VERT. 1:100



DETAIL DESIGN

B	100% DETAILED DESIGN RE-ISSUE	HT	DB	IG	04.05.18
A	100% DETAILED DESIGN	JSC	DB*	IG*	04.08.17
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director



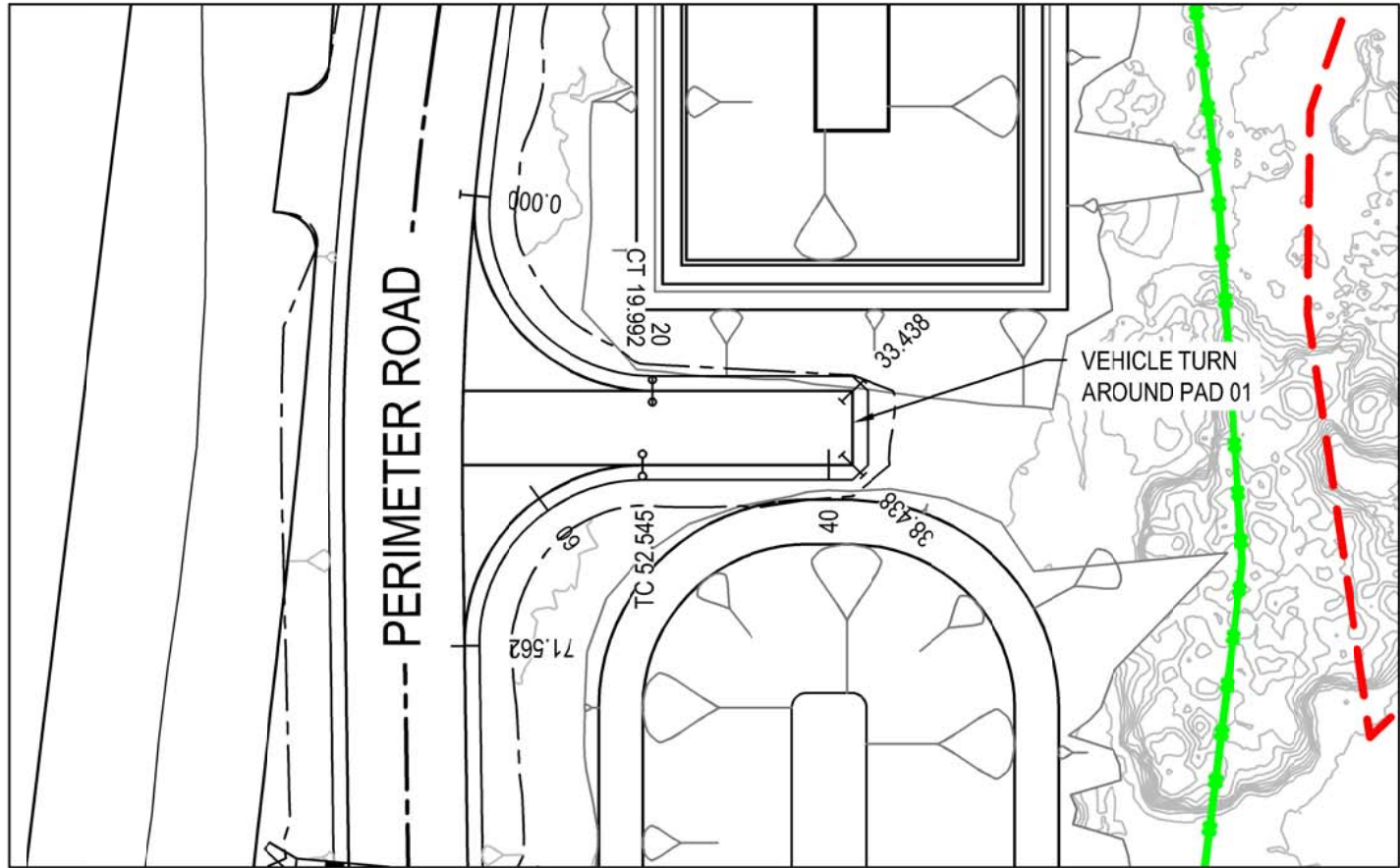
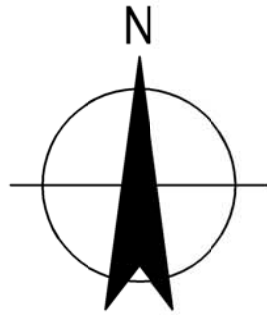
Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

DO NOT SCALE

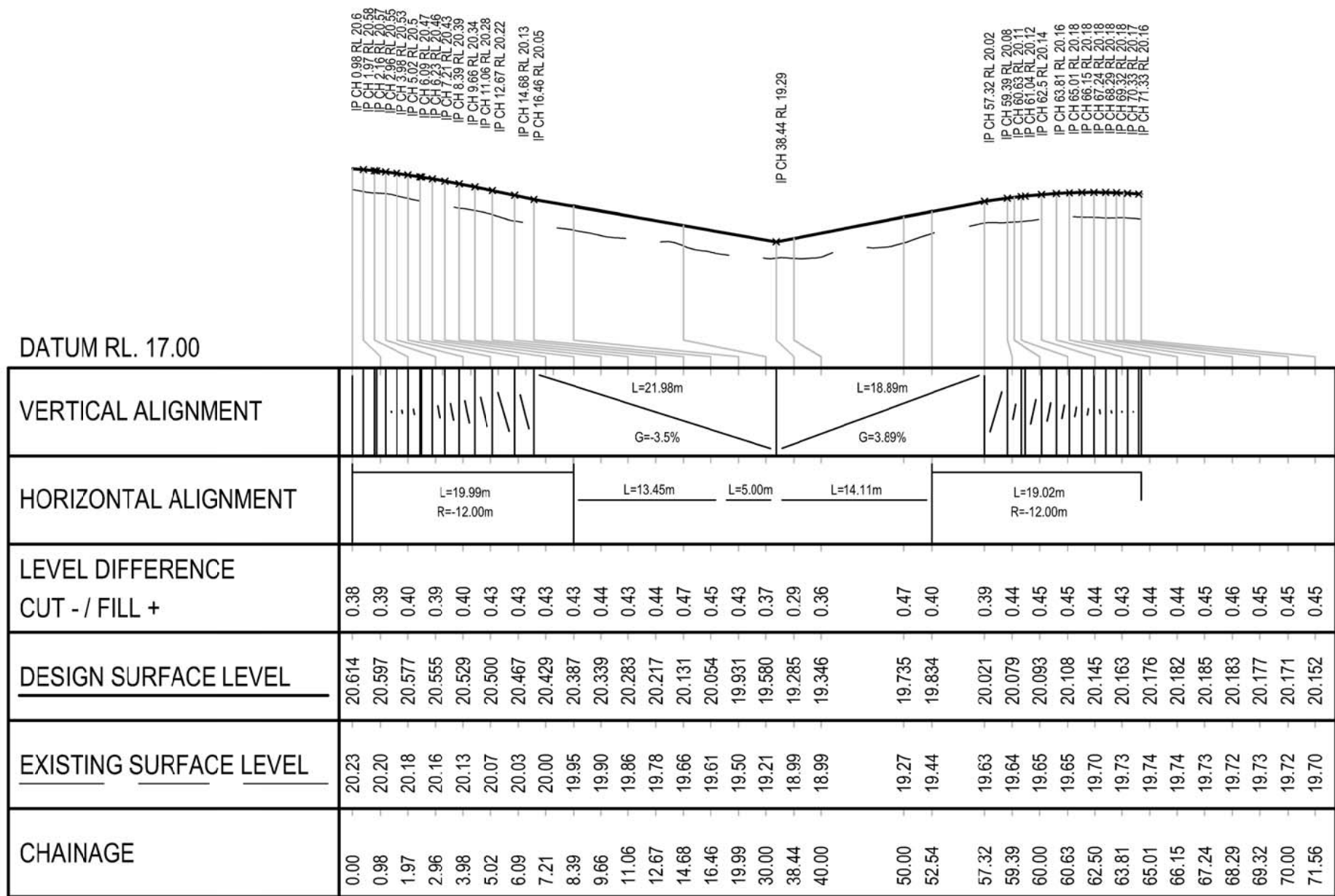
Conditions of Use.
This document may only be used by
GHD's client (and any other person who
GHD has agreed can use this document)
for the purpose for which it was prepared
and must not be used by any other
person or for any other purpose.

Drawn	J. CASIO	Designer	A. ROBERTS
Drafting Check	P. ETCHHELLS	Design Check	D. MORRISON
Approved (Project Director)			
Date			
Scale	AS SHOWN		

Client	HYDRO ALUMINIUM KURRI KURRI PTY LTD		
Project	CONTAINMENT CELL DETAILED DESIGN		
Title	ACCESS ROAD RETURN LONGITUDINAL SECTION		
<hr/>			
Original Size	Drawing No: 22-18015-C051		Rev: B

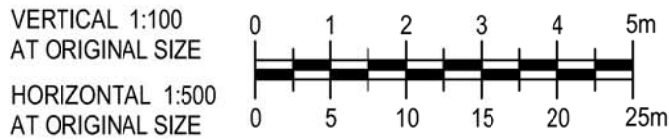


PLAN - PAD 01
SCALE 1:500



LONGITUDINAL SECTION - PAD 01
SCALE HOR. 1:500 VERT. 1:100

PAD01 SETOUT POINTS			
CHAINAGE	EASTING	NORTHING	HEIGHT
0.000	357170.694	6371484.842	20.614
9.996	357169.439	6371471.701	20.326
19.992	357182.640	6371471.701	19.931
33.438	357196.086	6371471.701	19.460
38.438	357196.086	6371466.701	19.285
52.545	357181.980	6371466.701	19.834
62.053	357169.810	6371466.701	20.136
71.562	357169.981	6371454.533	20.152



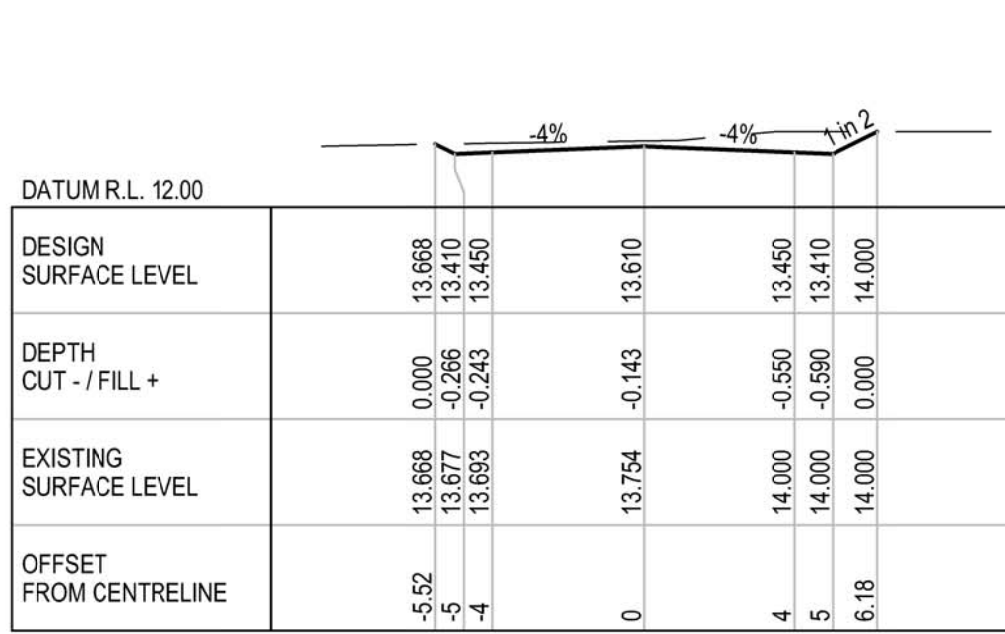
DETAIL DESIGN

B	100% DETAILED DESIGN RE-ISSUE	HT	DB	IG	04.05.18
A	100% DETAILED DESIGN	JSC	DB*	IG*	04.08.17
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director

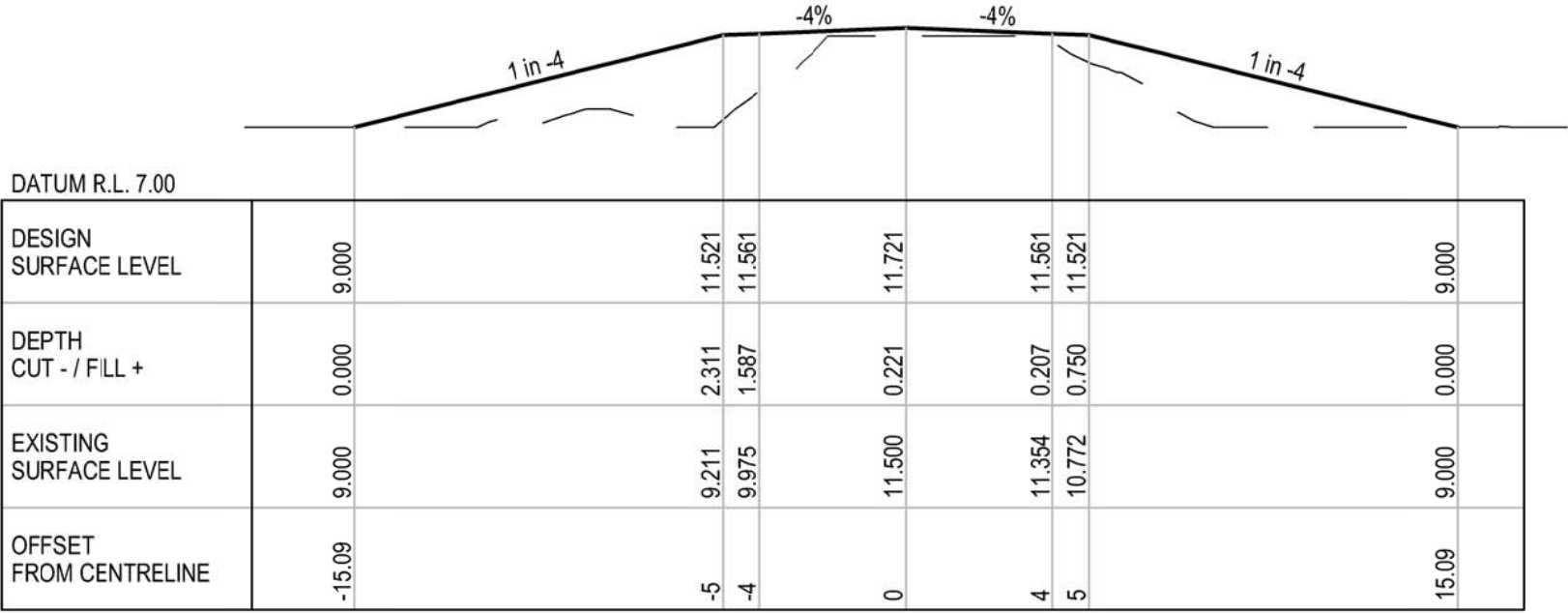


Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

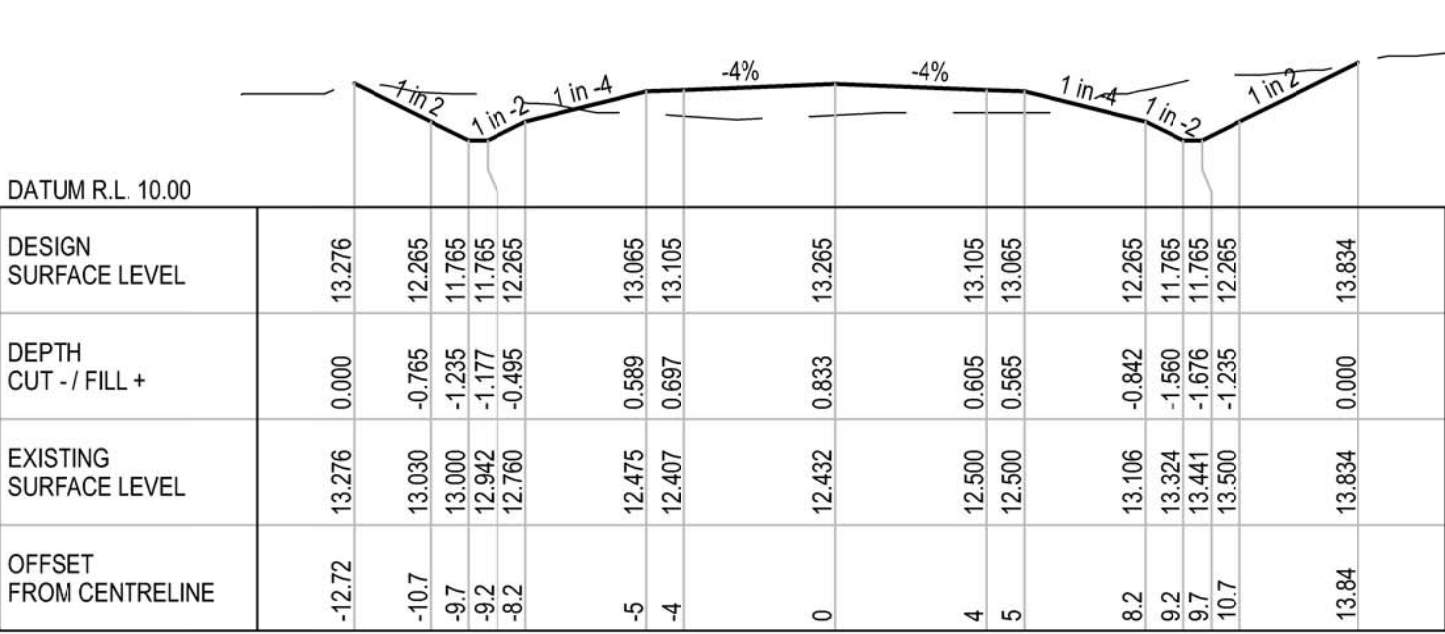
DO NOT SCALE		Drawn J. CASIO	Designer A. ROBERTS	Client	HYDRO ALUMINIUM KURRI KURRI PTY LTD	
Conditions of Use. This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.	Drafting Check P. ETCHHELLS	Design Check D. MORRISON	Project	CONTAINMENT CELL DETAILED DESIGN		
	Approved (Project Director) Date		Title	VEHICLE TURN AROUND - PAD01 PLAN AND PROFILE		
	Scale AS SHOWN	This Drawing must not be used for Construction unless signed as Approved	Original Size	Drawing No: 22-18015-C052		Rev: B
			A1			



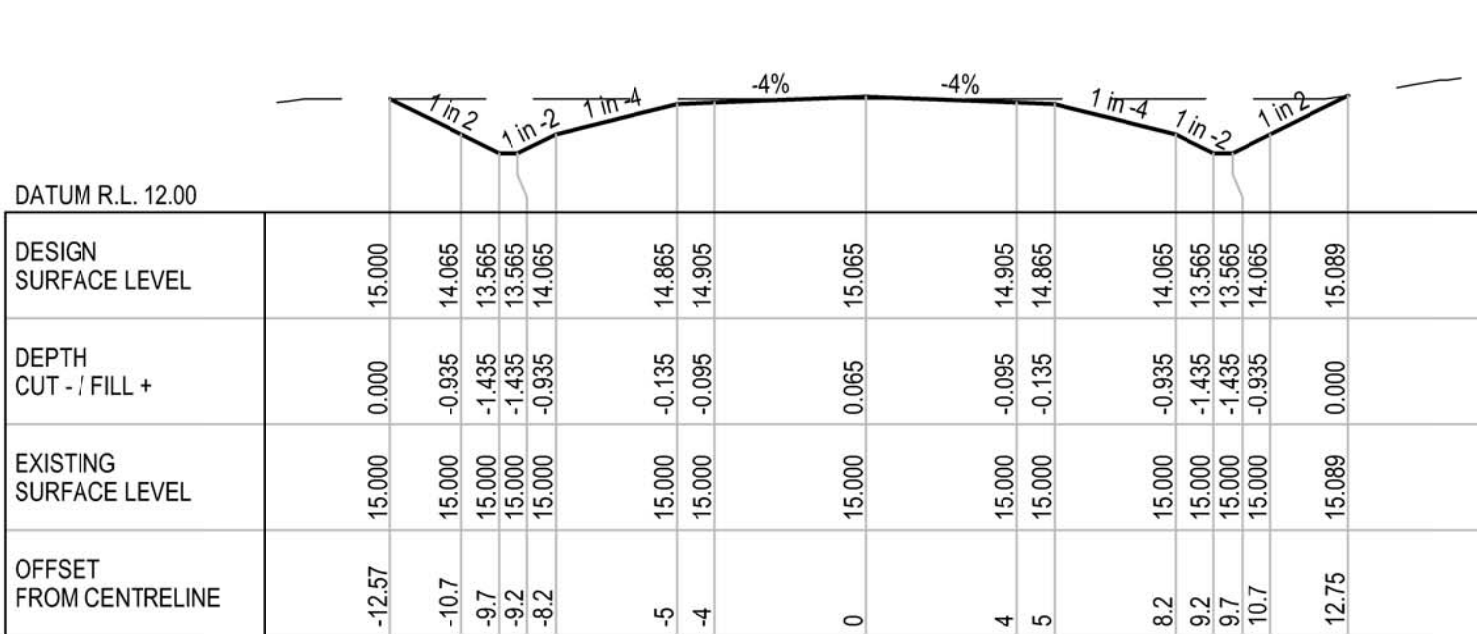
CH 40



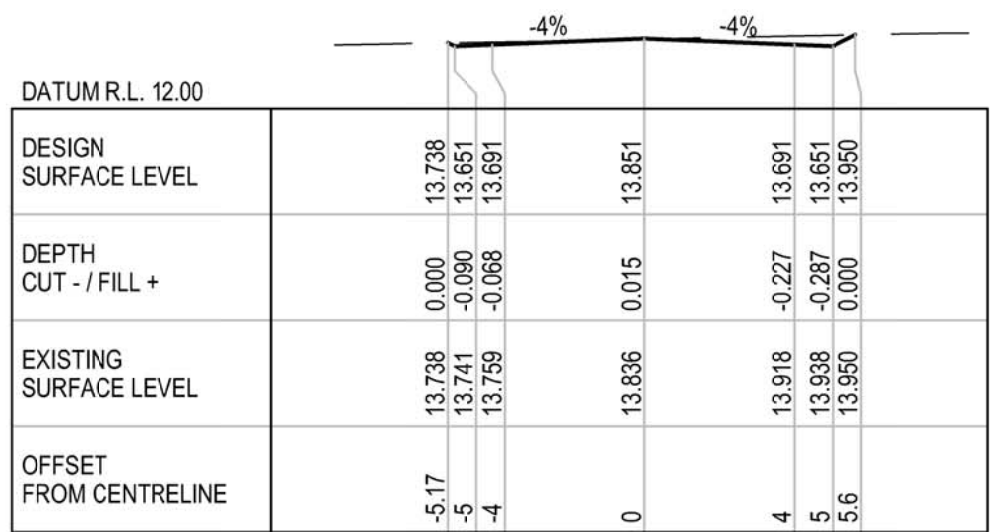
CH 80



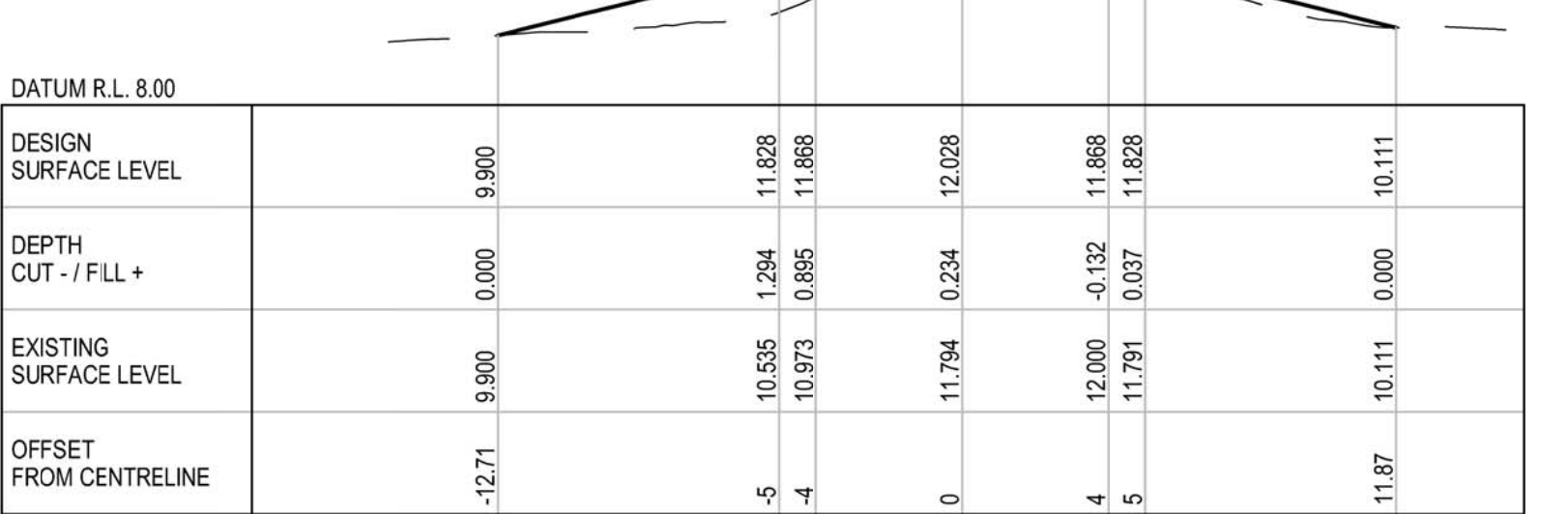
CH 120



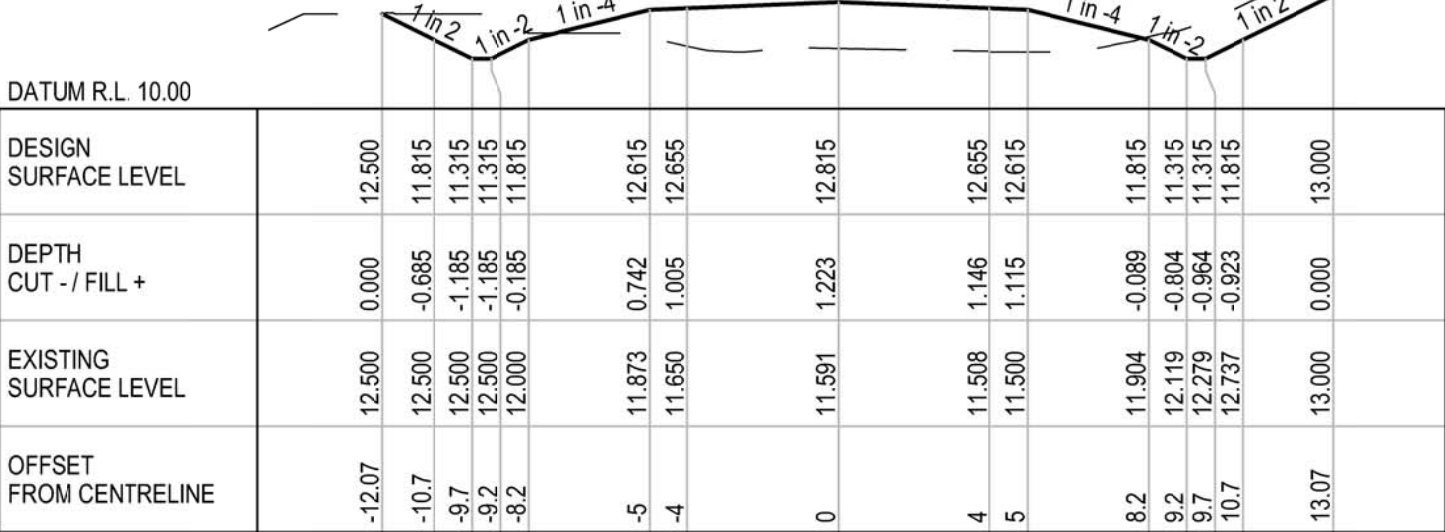
CH 160



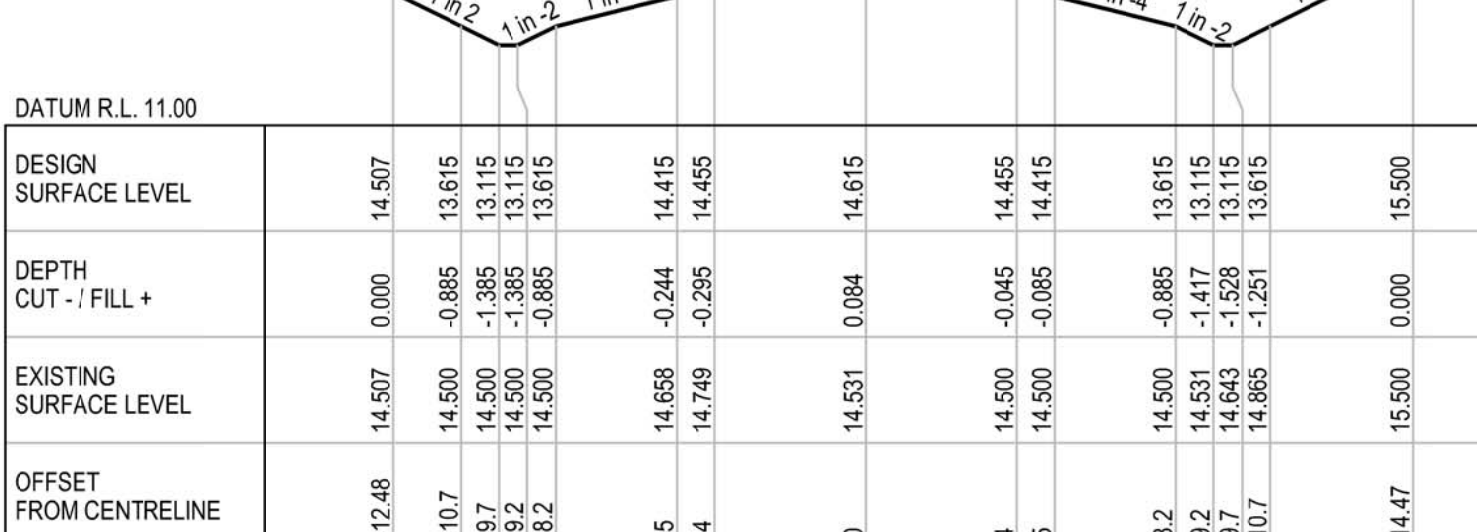
CH 30



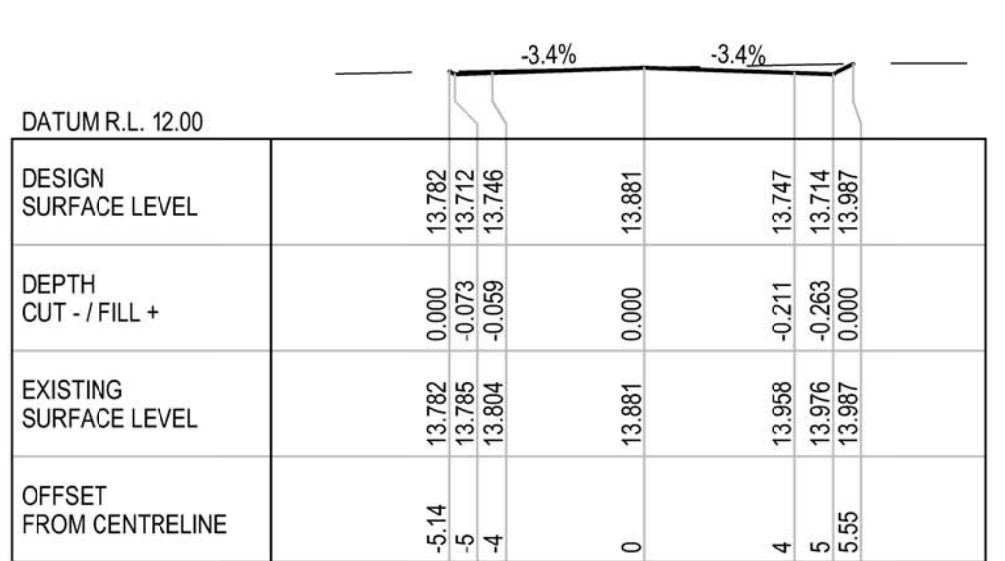
CH 70



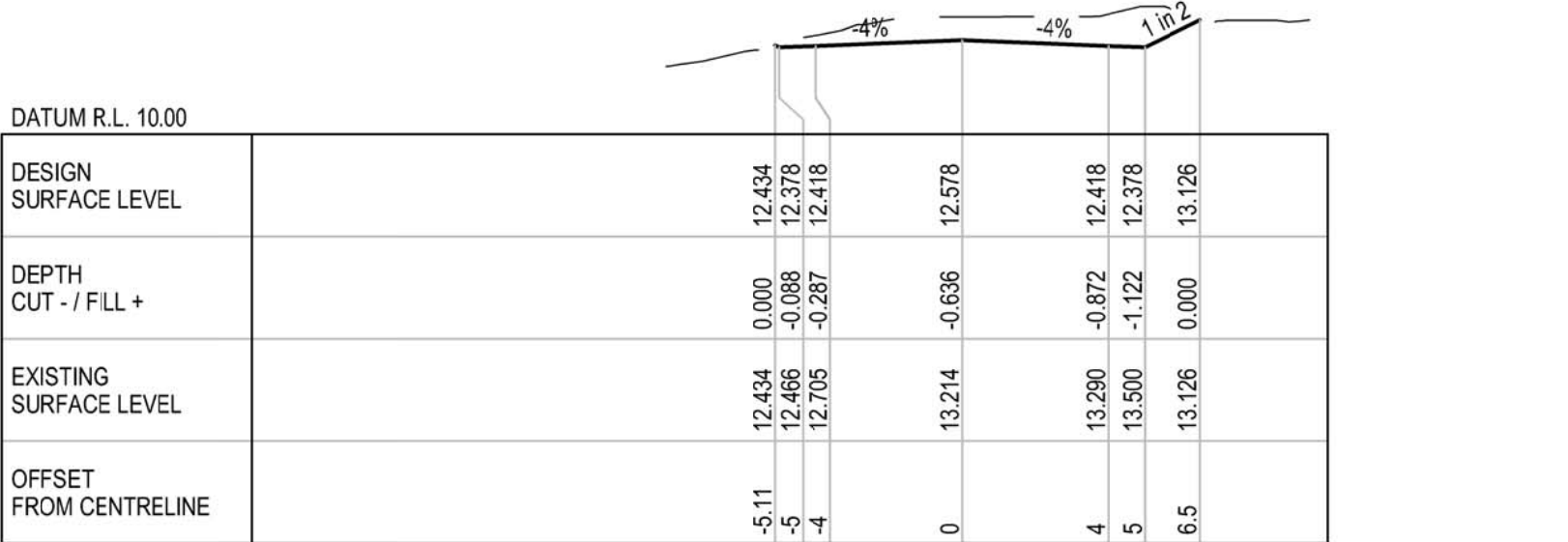
CH 110



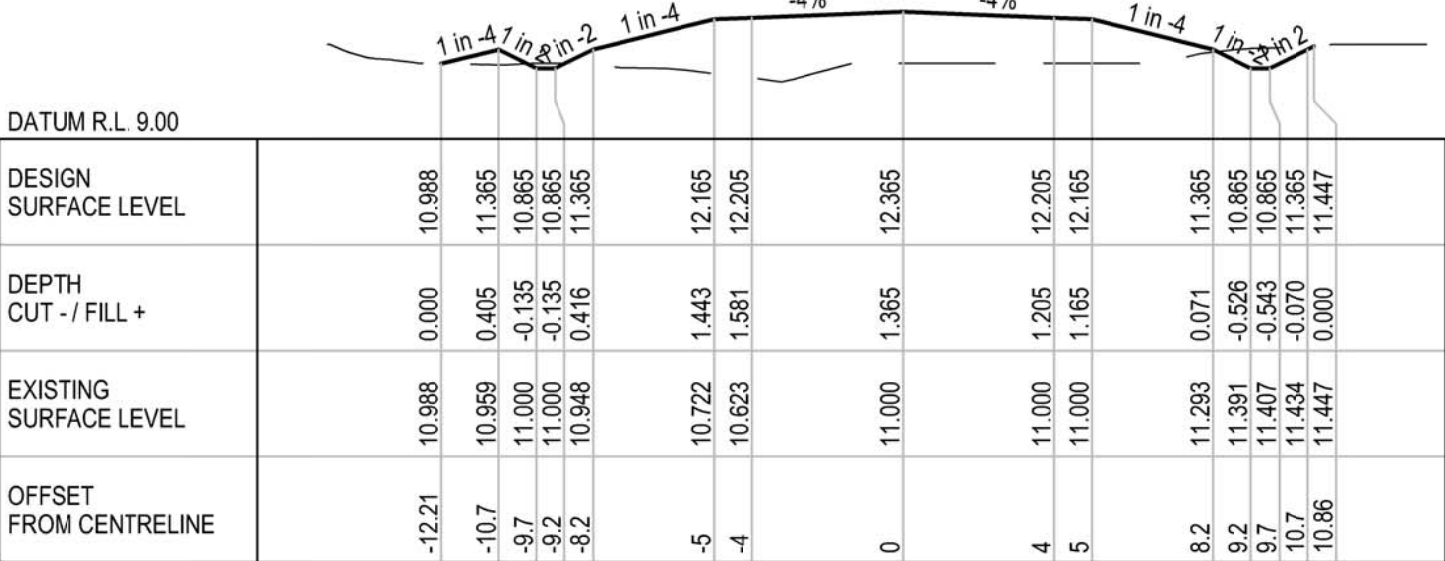
CH 150



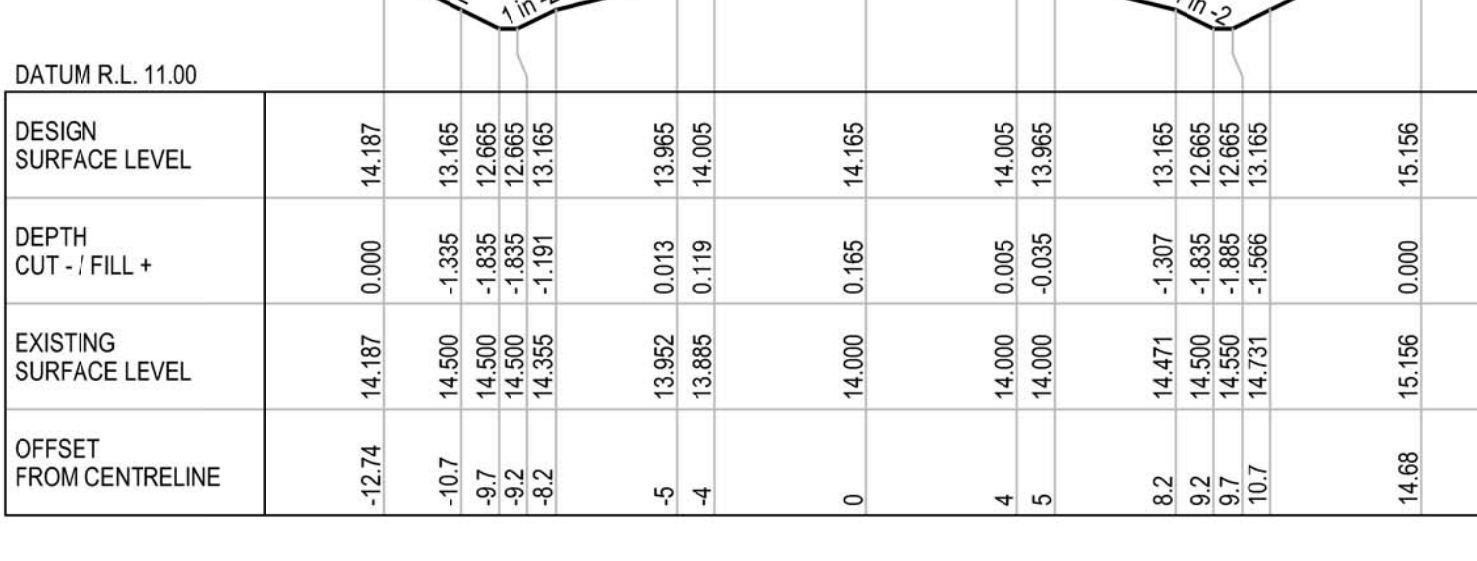
CH 20



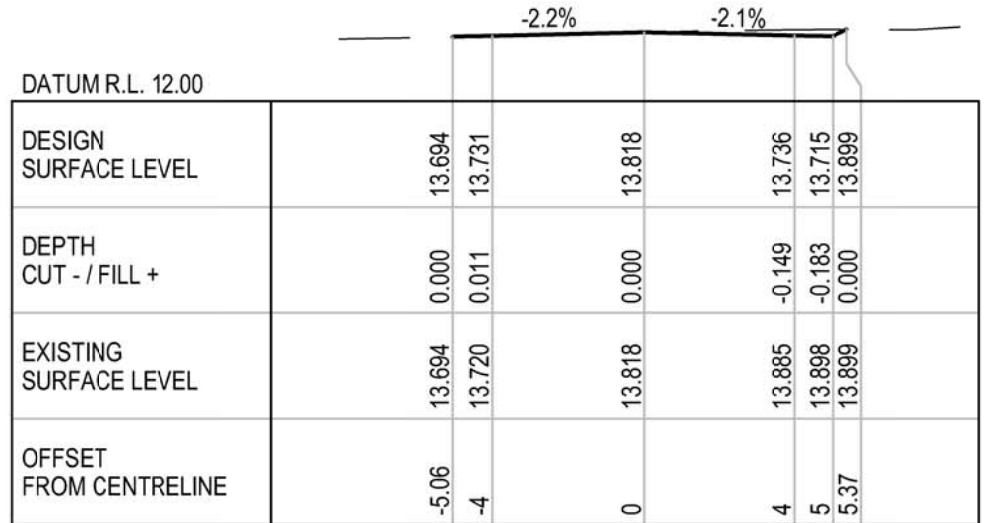
CH 60



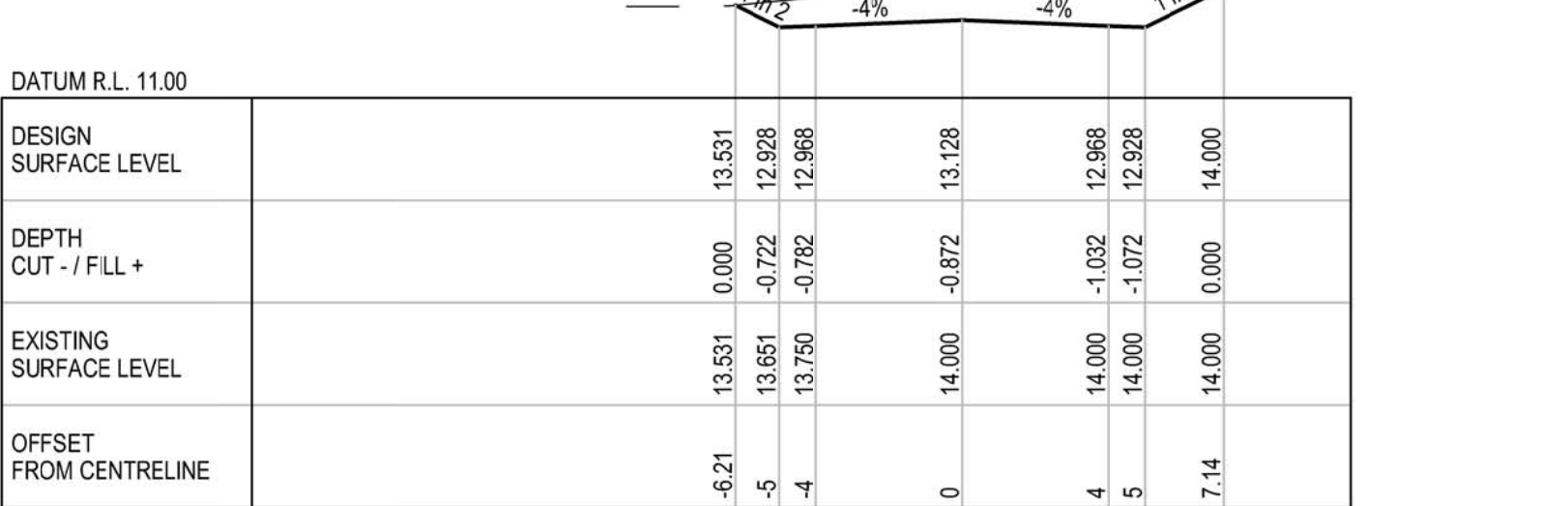
CH 100



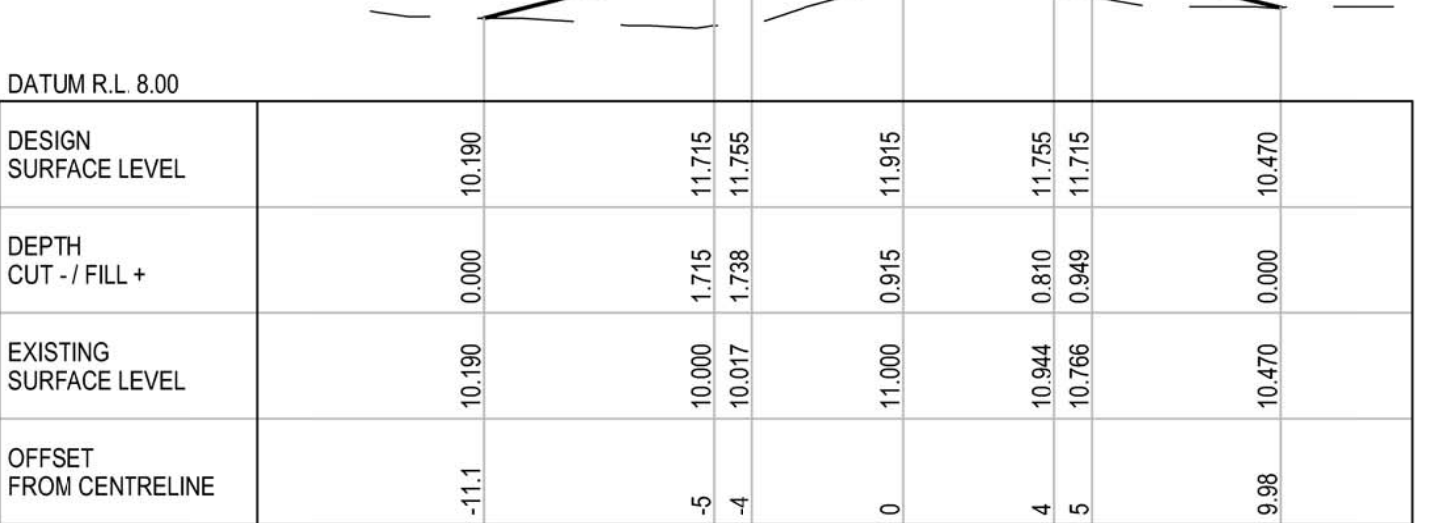
CH 140



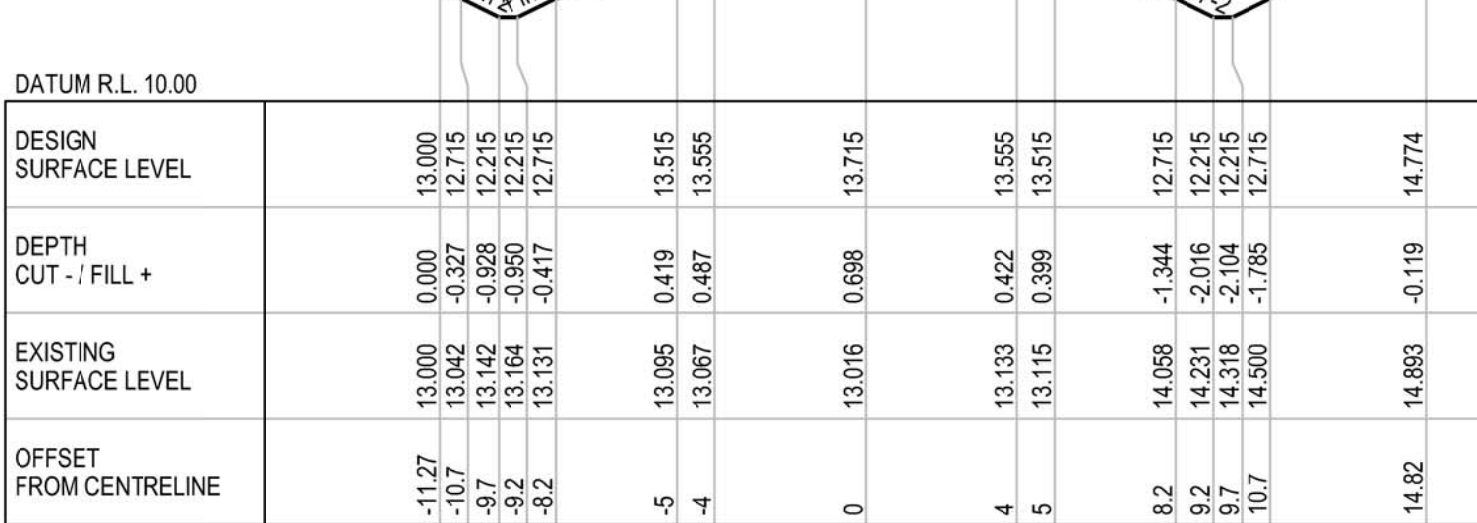
CH 10



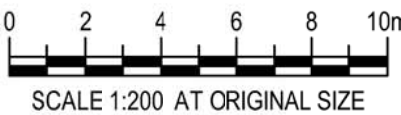
CH 50



CH 90



CH 130



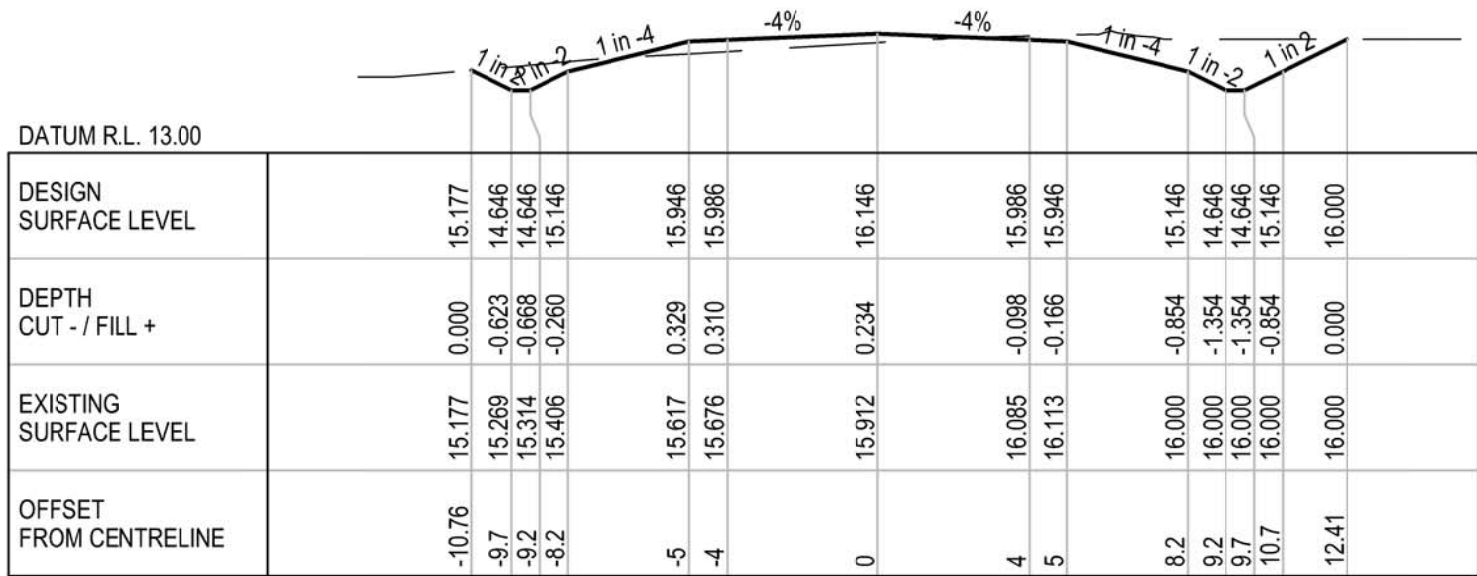
DETAIL DESIGN

B	100% DETAILED DESIGN RE-ISSUE	HT	DB	IG	04.05.18
A	100% DETAILED DESIGN	JSC	DB*	IG*	04.08.17
No	Revision	Note:	* Indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager

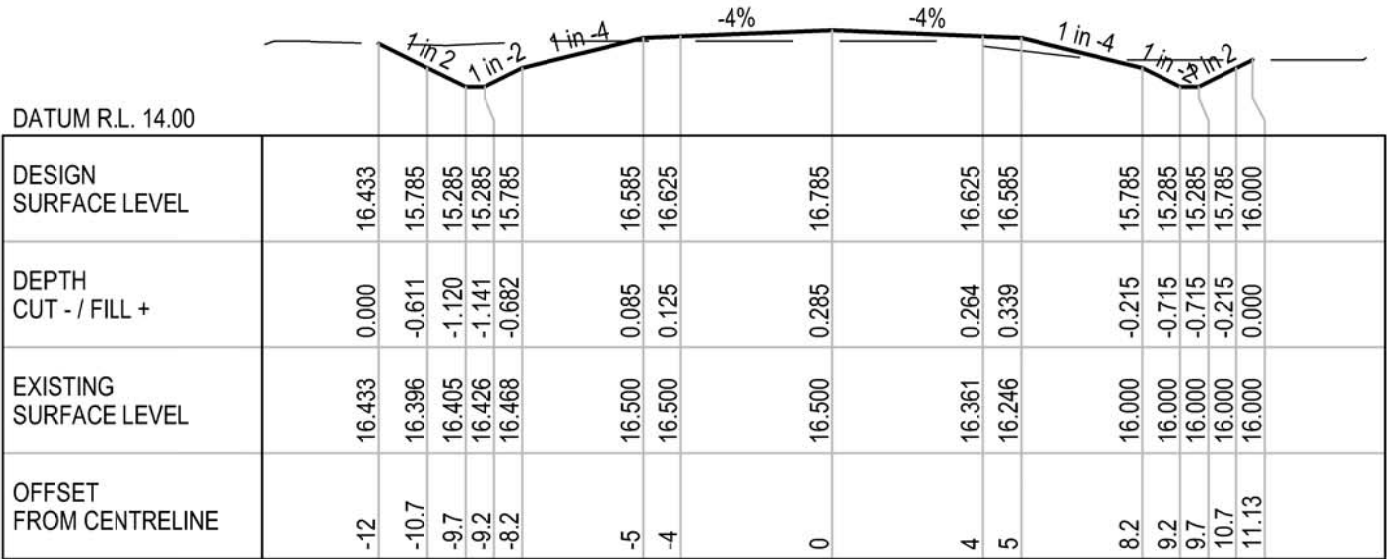


Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

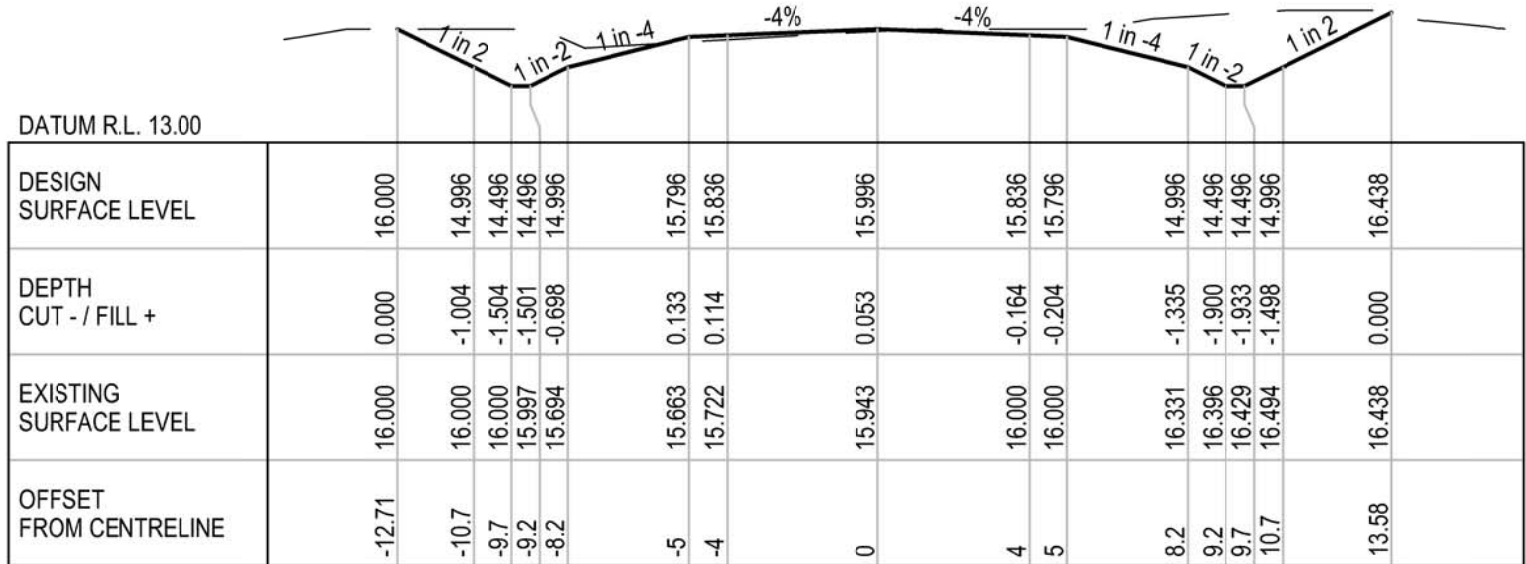
DO NOT SCALE		Drawn J. CASIO	Designer A. ROBERTS	Client HYDRO ALUMINIUM KURRI KURRI PTY LTD
Conditions of Use. This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.		Drafting Check P. ETCHHELLS	Design Check D. MORRISON	Project CONTAINMENT CELL DETAILED DESIGN
		Approved (Project Director) Date		Title ACCESS ROAD CROSS SECTIONS SHEET 1 OF 2
Scale 1:200		This Drawing must not be used for Construction unless signed as Approved		Original Size A1 Drawing No: 22-18015-C061
				Rev: B



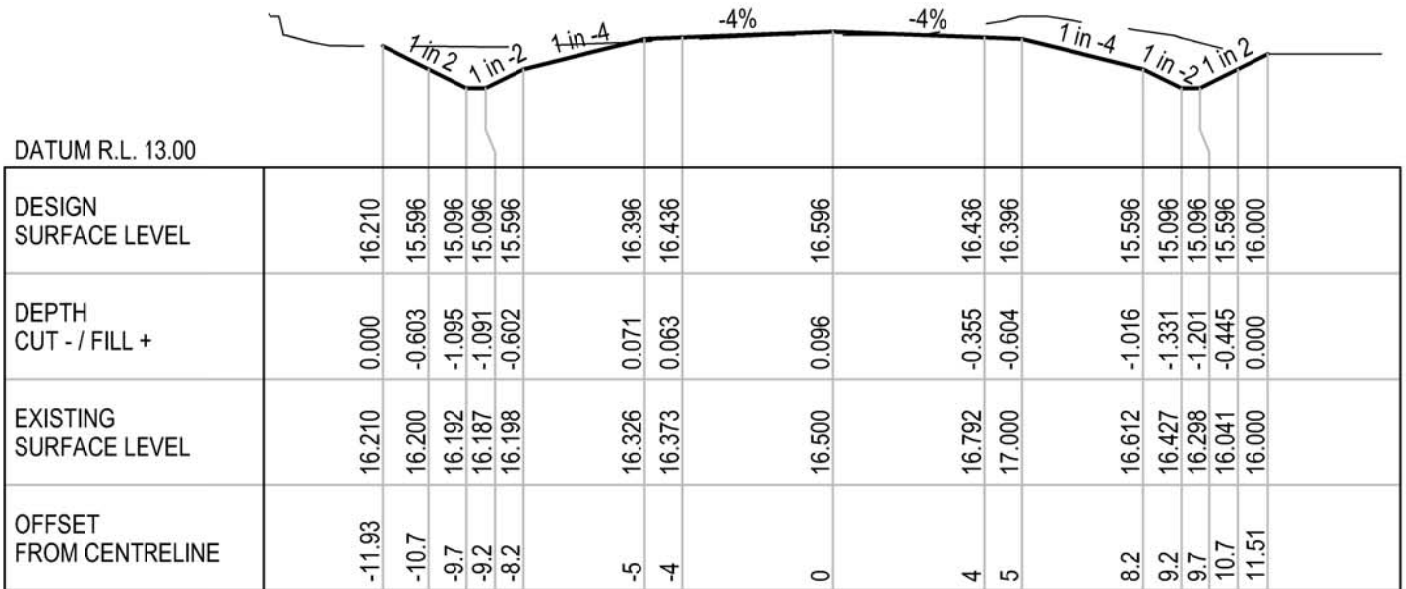
CH 200



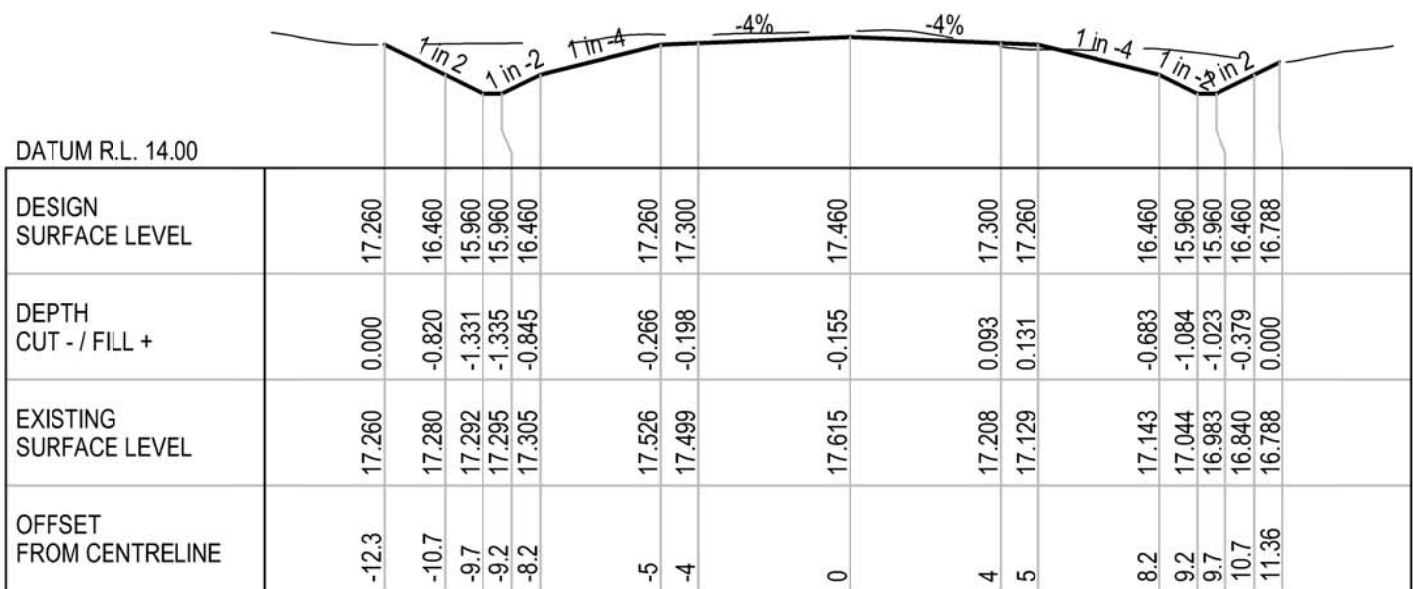
CH 240



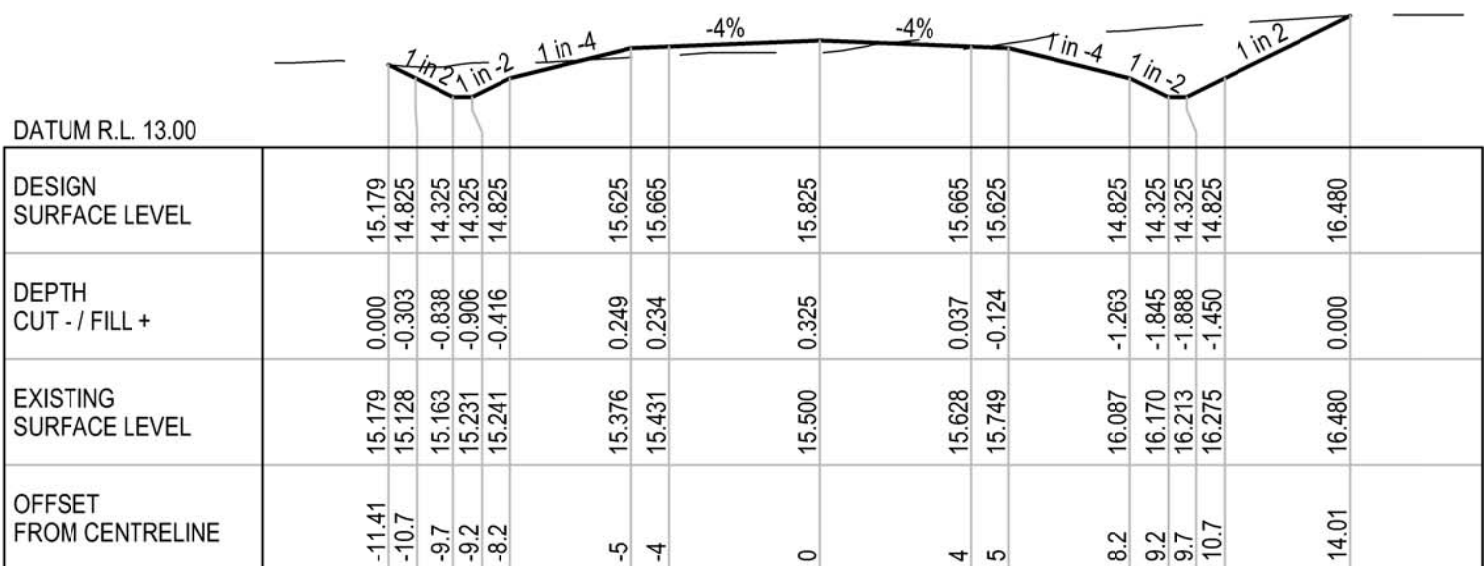
CH 190



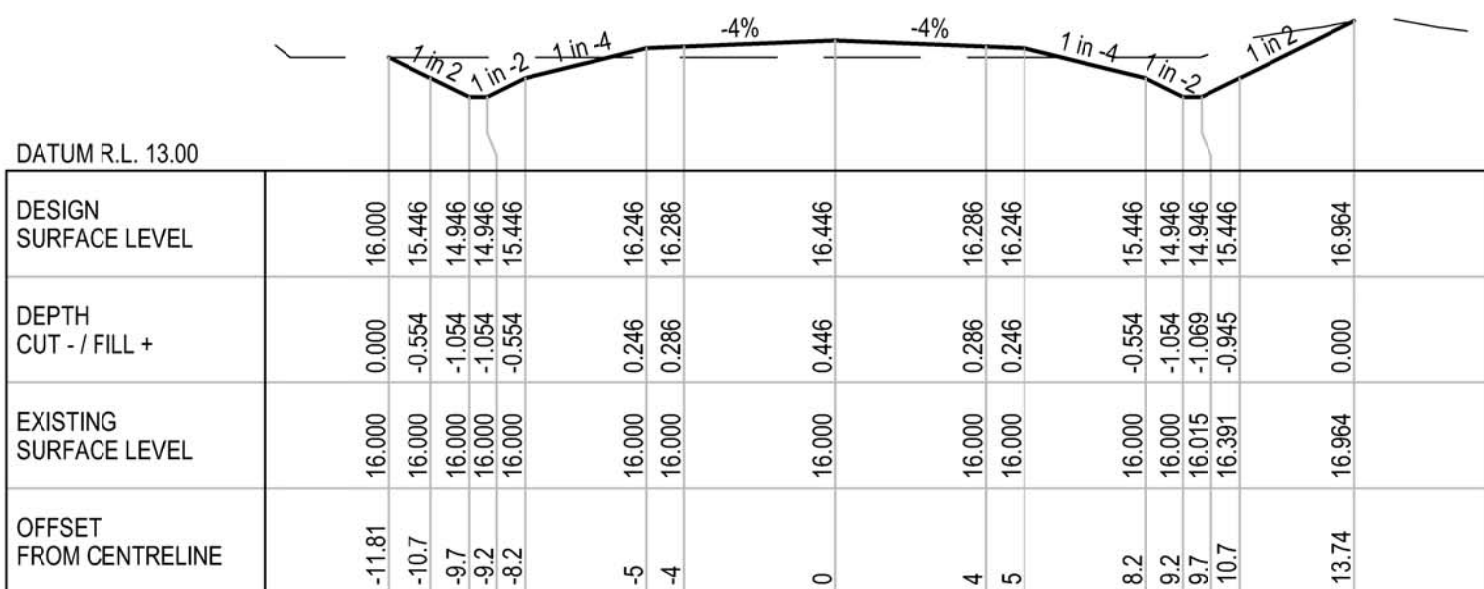
CH 230



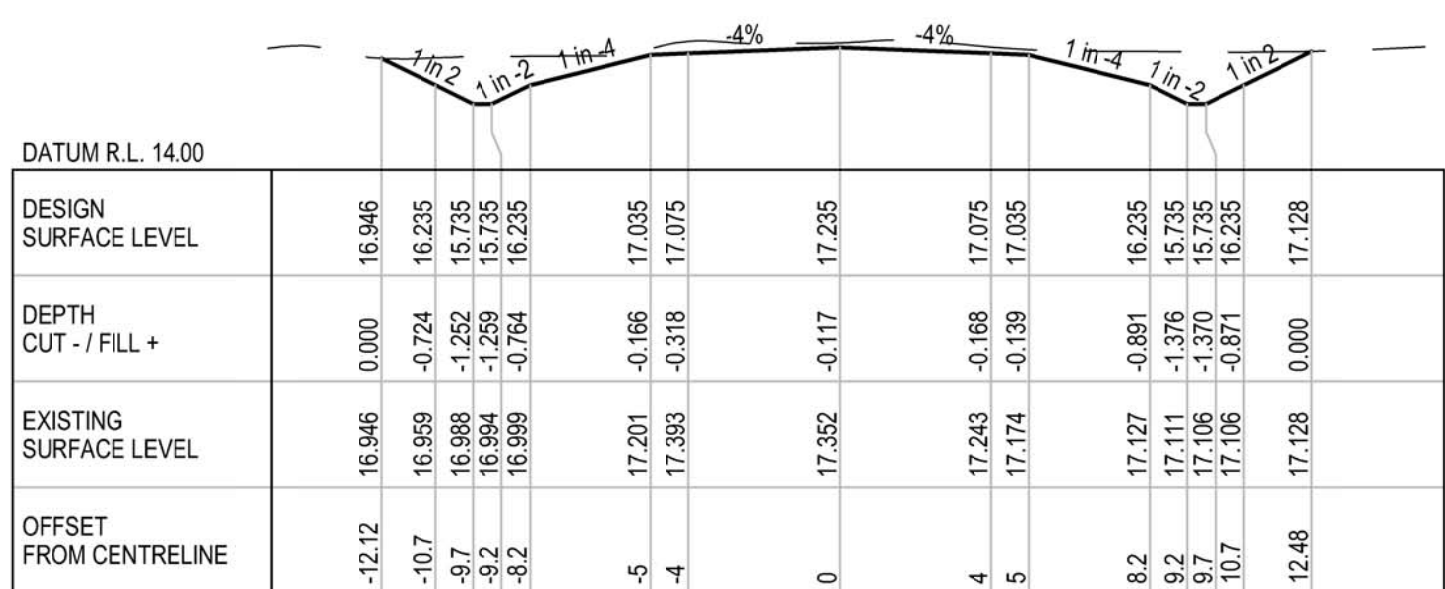
CH 270



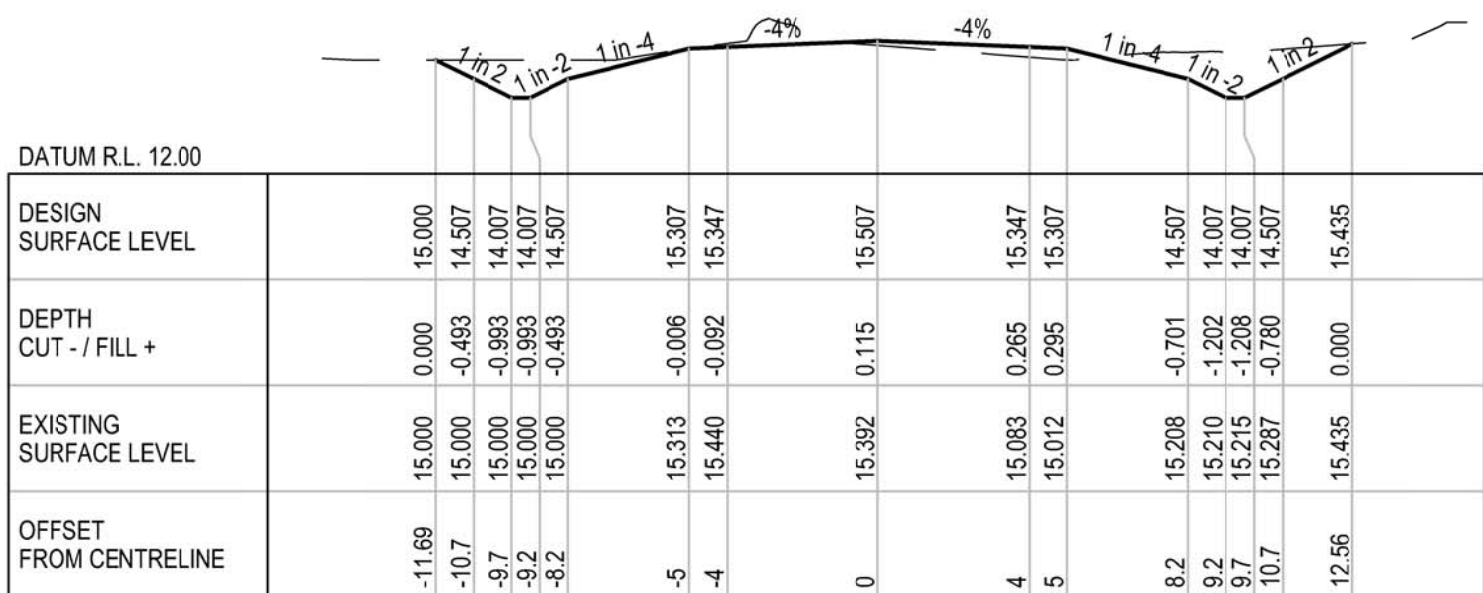
CH 180



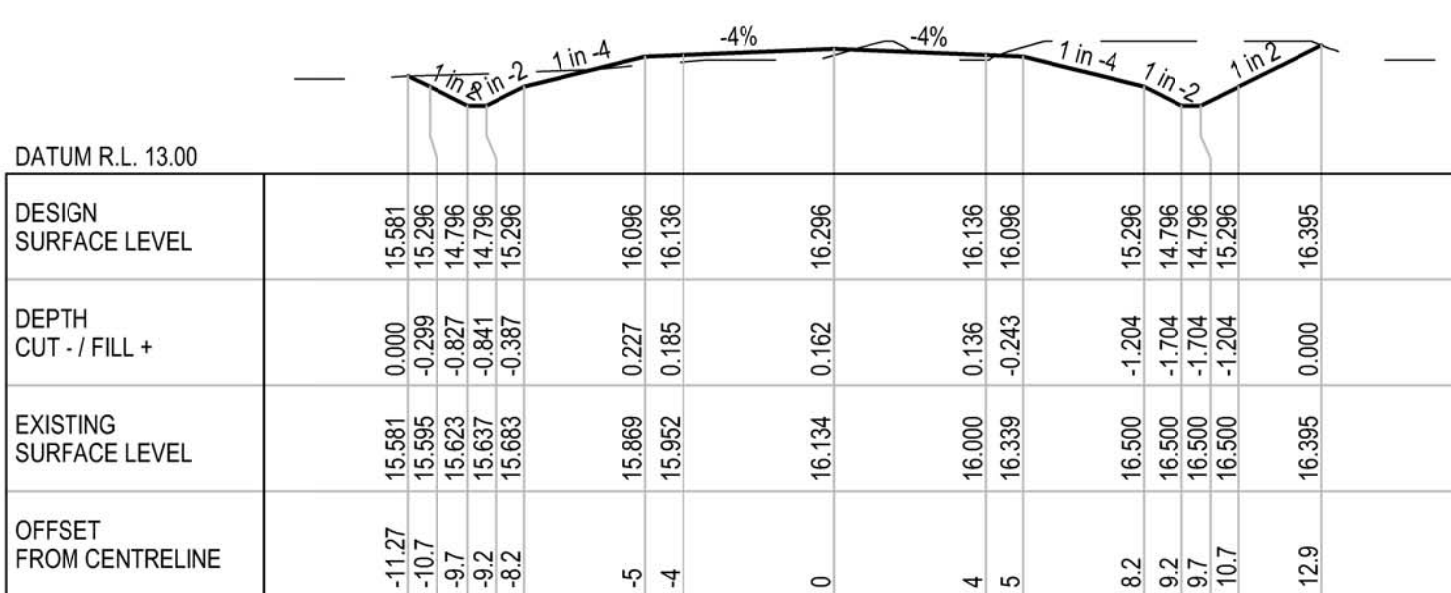
CH 220



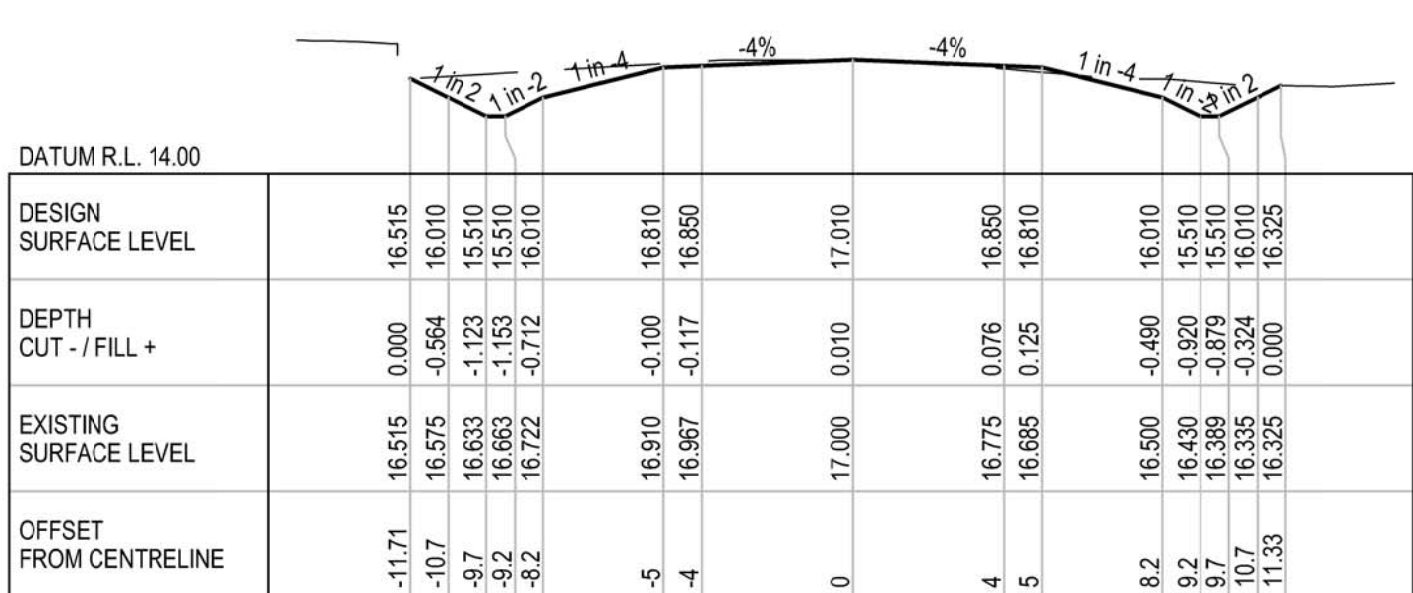
CH 260



CH 170



CH 210



CH 250



DETAIL DESIGN

B	100% DETAILED DESIGN RE-ISSUE	HT	DB	IG	04.05.18
A	100% DETAILED DESIGN	JSC	DB*	IG*	04.08.17
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director



Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

DO NOT SCALE

Conditions of Use.
This document may only be used by
GHD's client (and any other person who
GHD has agreed can use this document)
for the purpose for which it was prepared
and must not be used by any other
person or for any other purpose.

Drawn J. CASIO

Designer A. ROBERTS

Drafting Check P. ETCHHELLS

Design Check D. MORRISON

Approved (Project Director)
Date

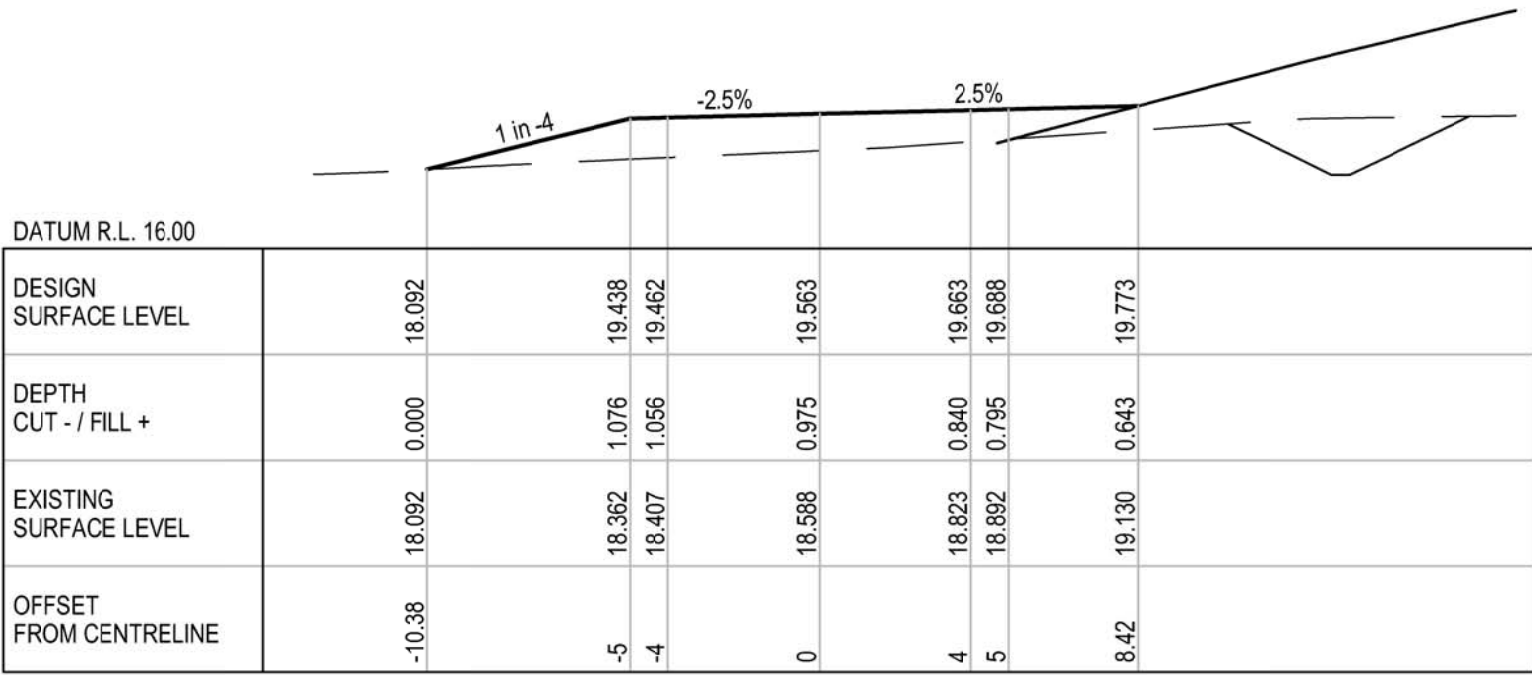
Scale 1:200

This Drawing must not be
used for Construction unless
signed as Approved

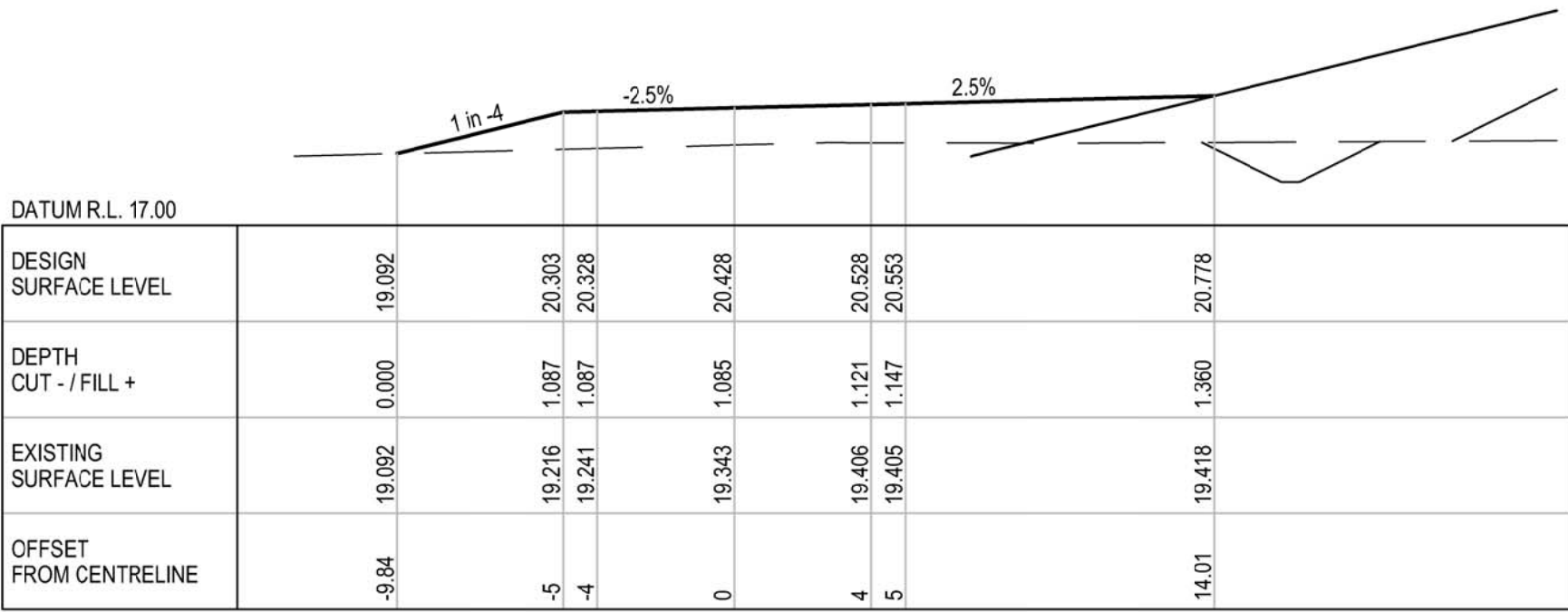
Client **HYDRO ALUMINIUM KURRI KURRI PTY LTD**
Project **CONTAINMENT CELL DETAILED DESIGN**
Title **ACCESS ROAD CROSS SECTIONS**
SHEET 2 OF 2

Original Size
A1 Drawing No: **22-18015-C062**

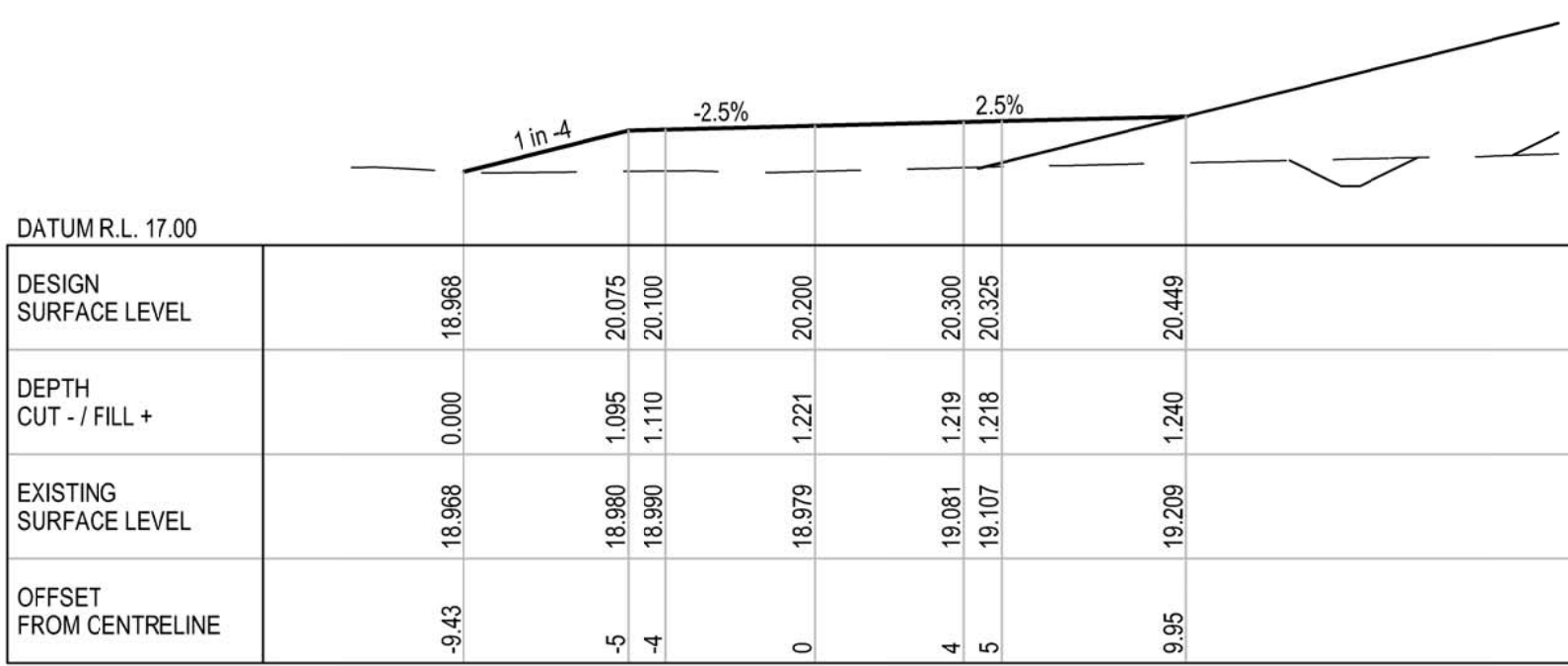
Rev: B



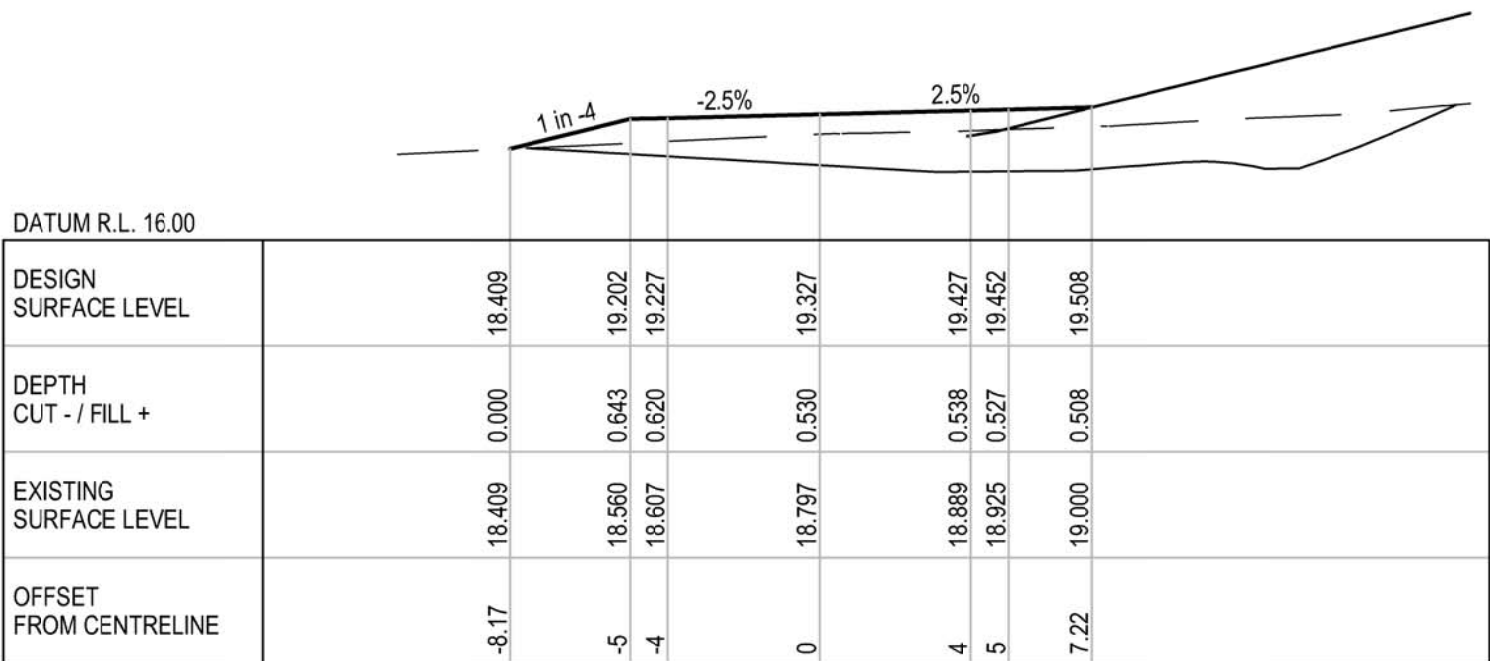
CH 50



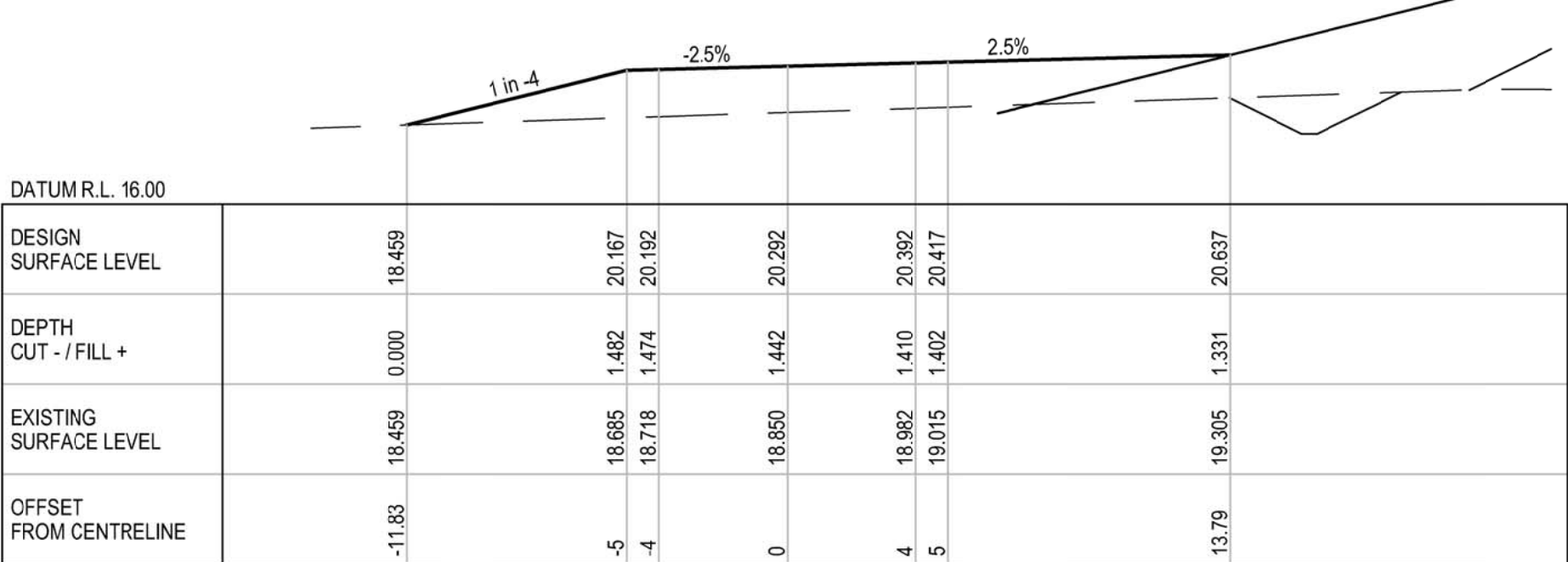
CH 90



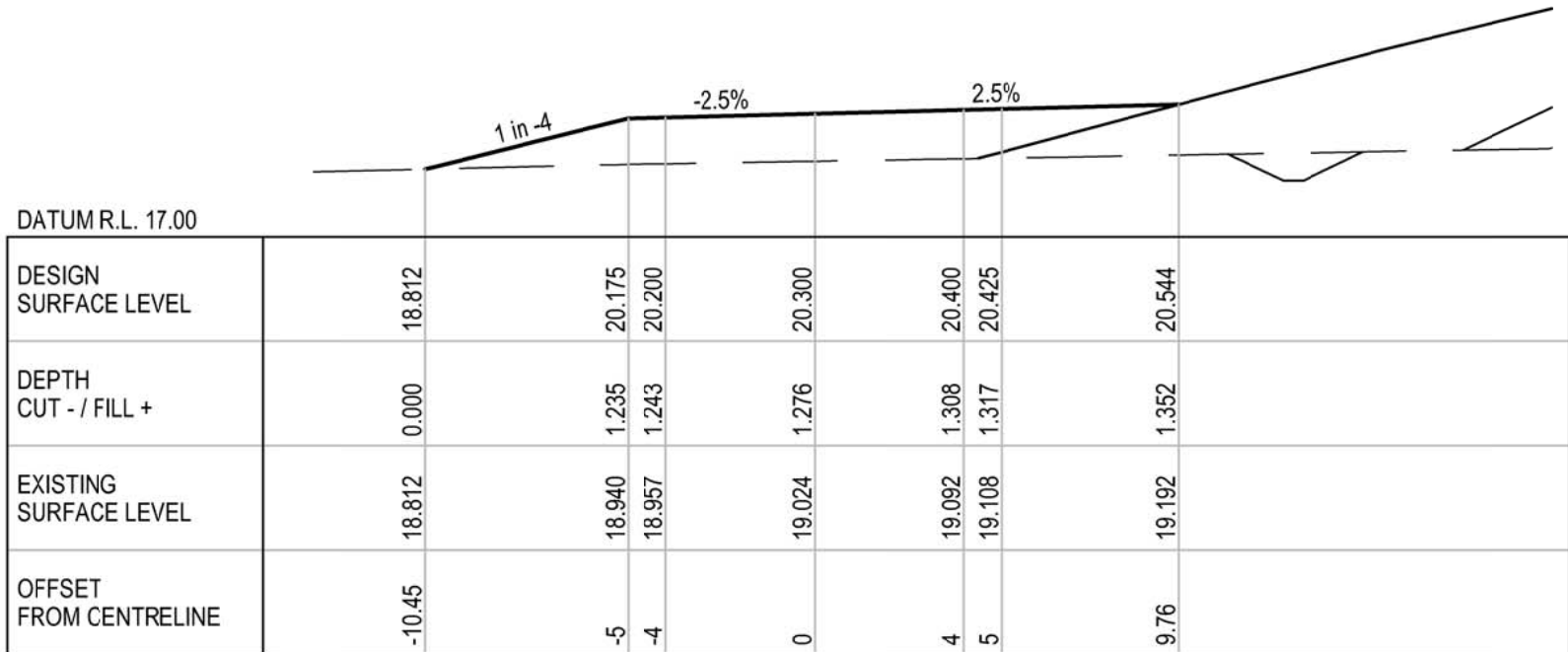
CH 130



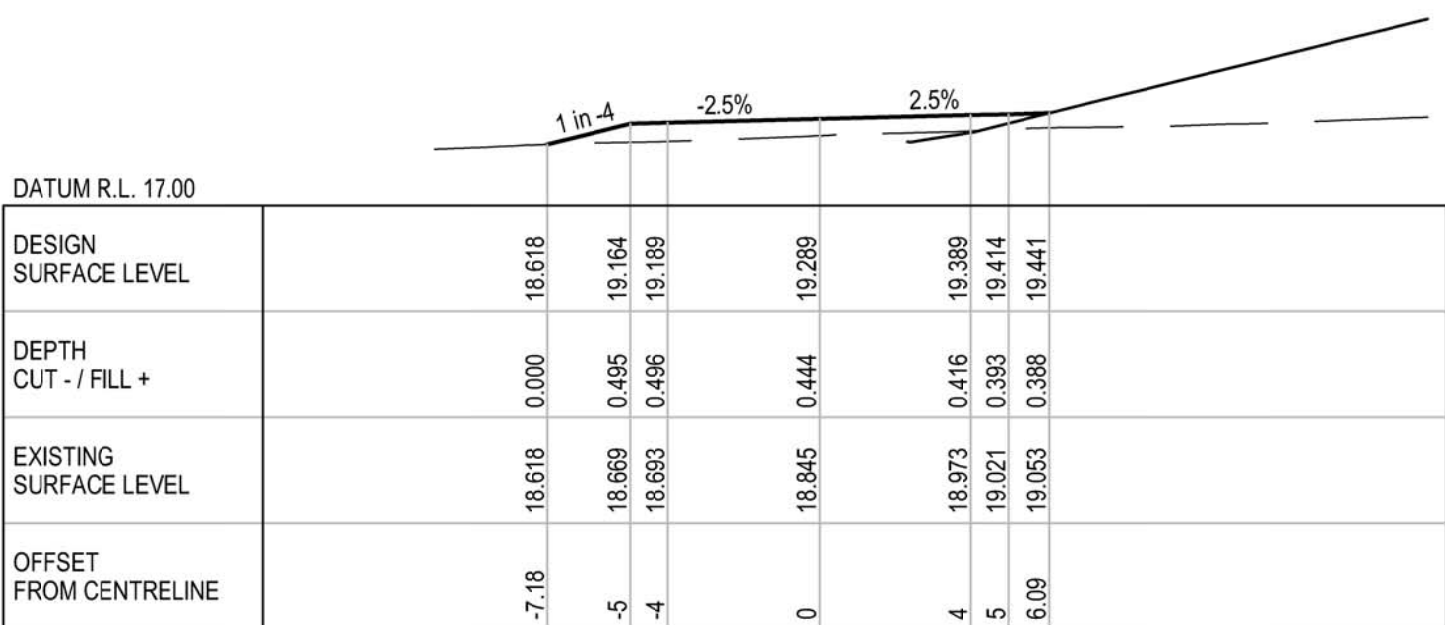
CH 40



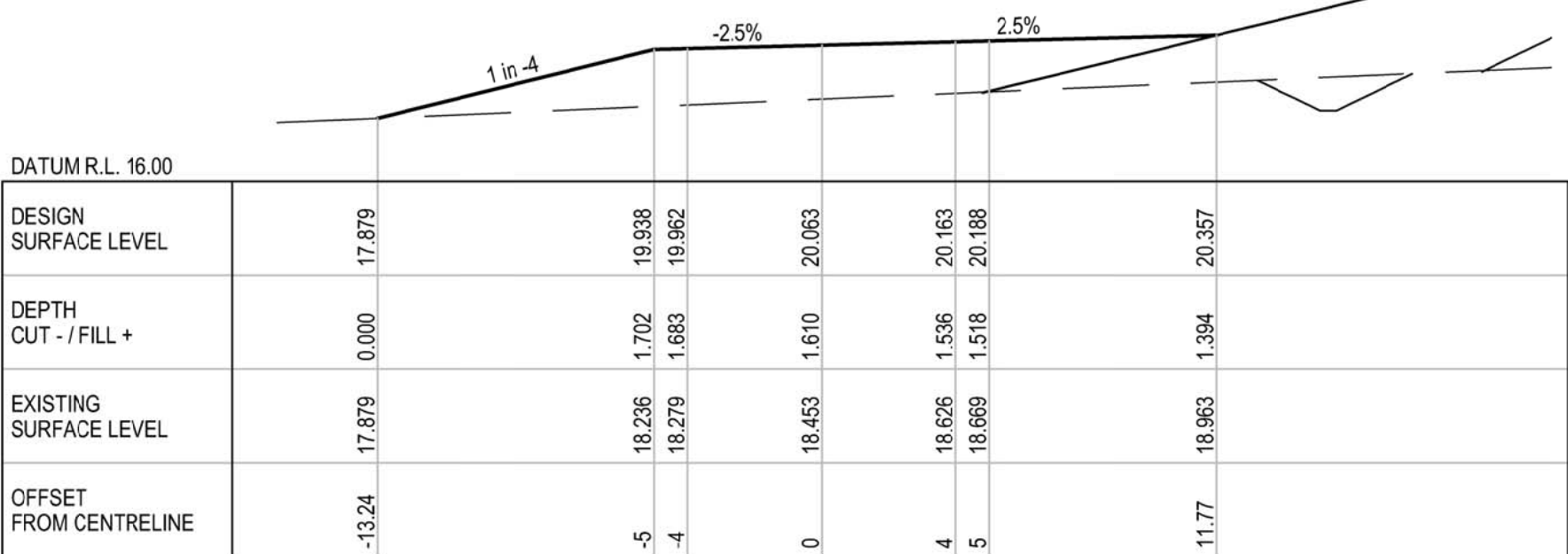
CH 80



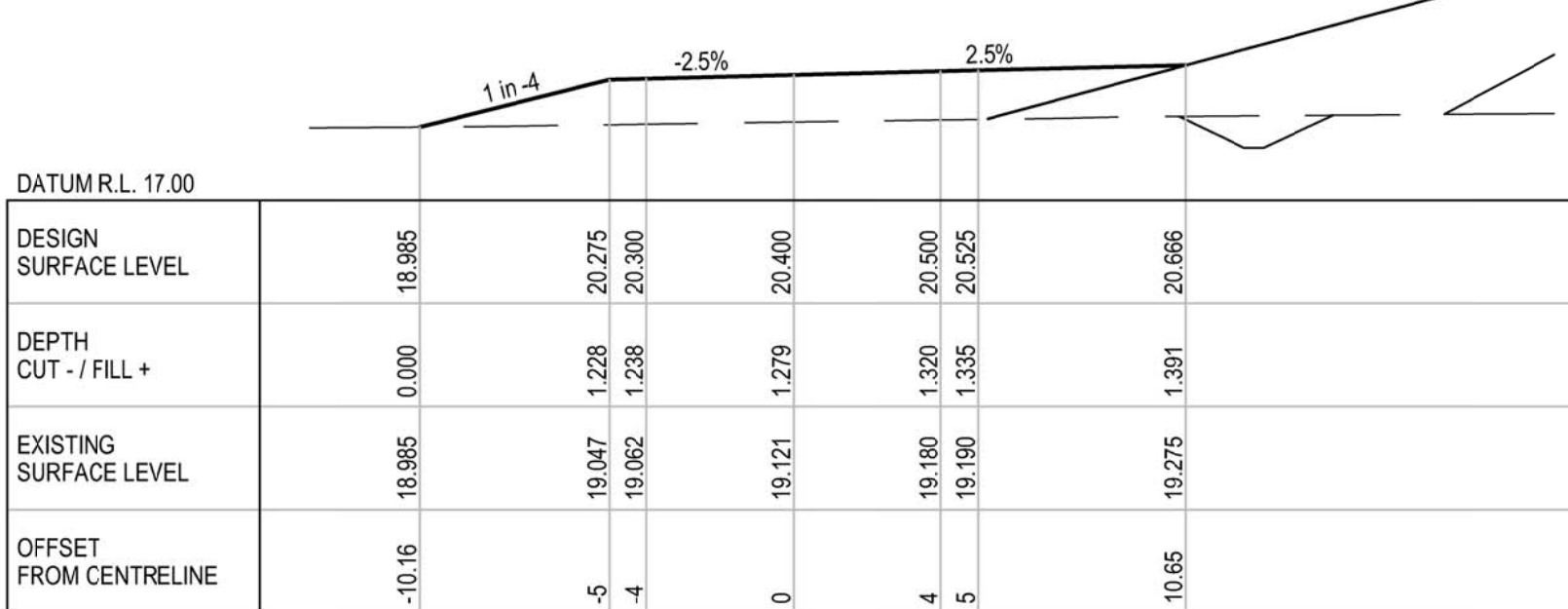
CH 120



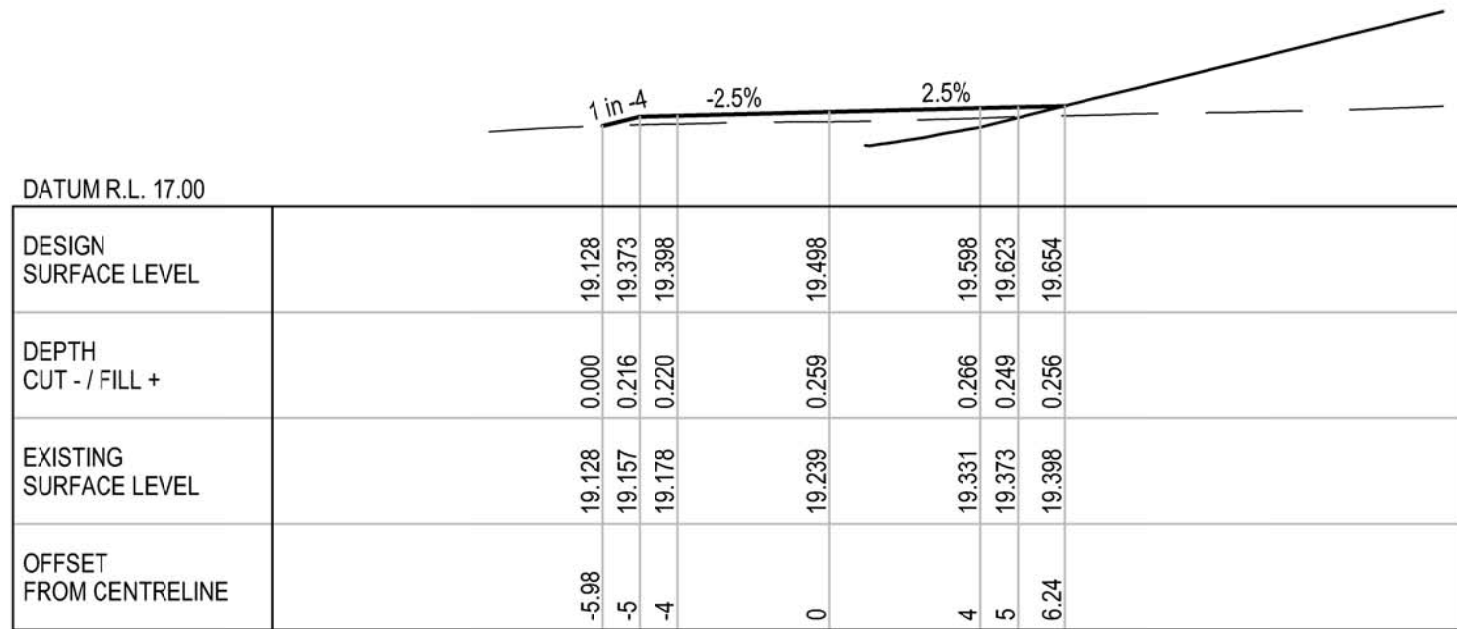
CH 30



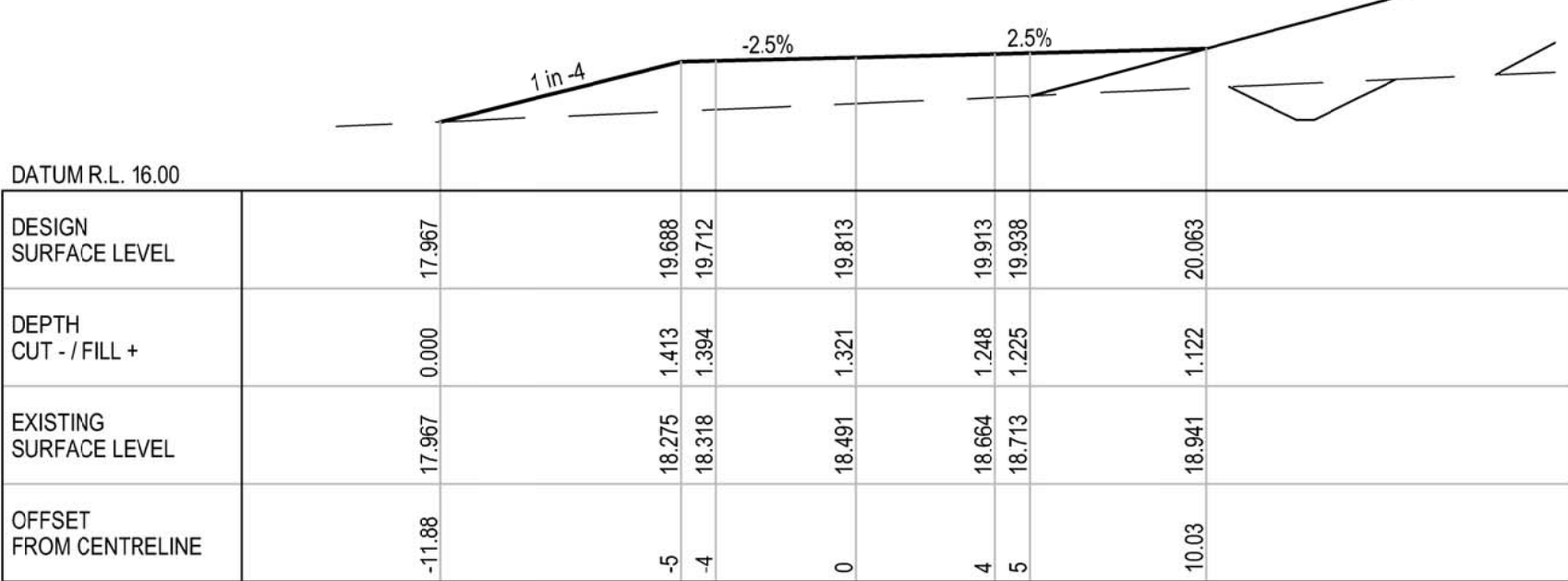
CH 70



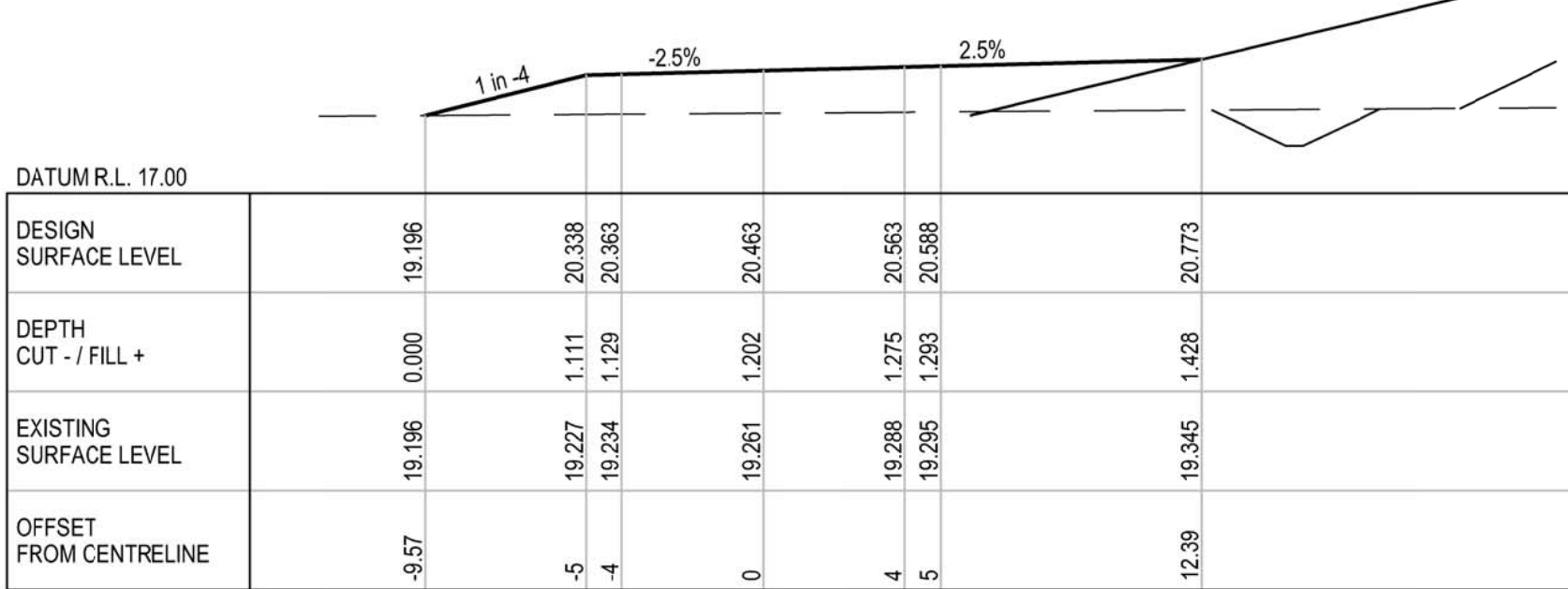
CH 110



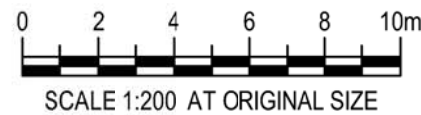
CH 20



CH 60



CH 100



DETAIL DESIGN

B	100% DETAILED DESIGN RE-ISSUE	HT	DB	IG	04.05.18
A	100% DETAILED DESIGN	JSC	DB*	IG*	04.08.18
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director



Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

DO NOT SCALE

Conditions of Use.
This document may only be used by
GHD's client (and any other person who
GHD has agreed can use this document)
for the purpose for which it was prepared
and must not be used by any other
person or for any other purpose.

Drawn J.CASIO

Drafting Check P.ETCHELLS

Approved (Project Director)
Date

Scale 1:200

Designer A.ROBERTS

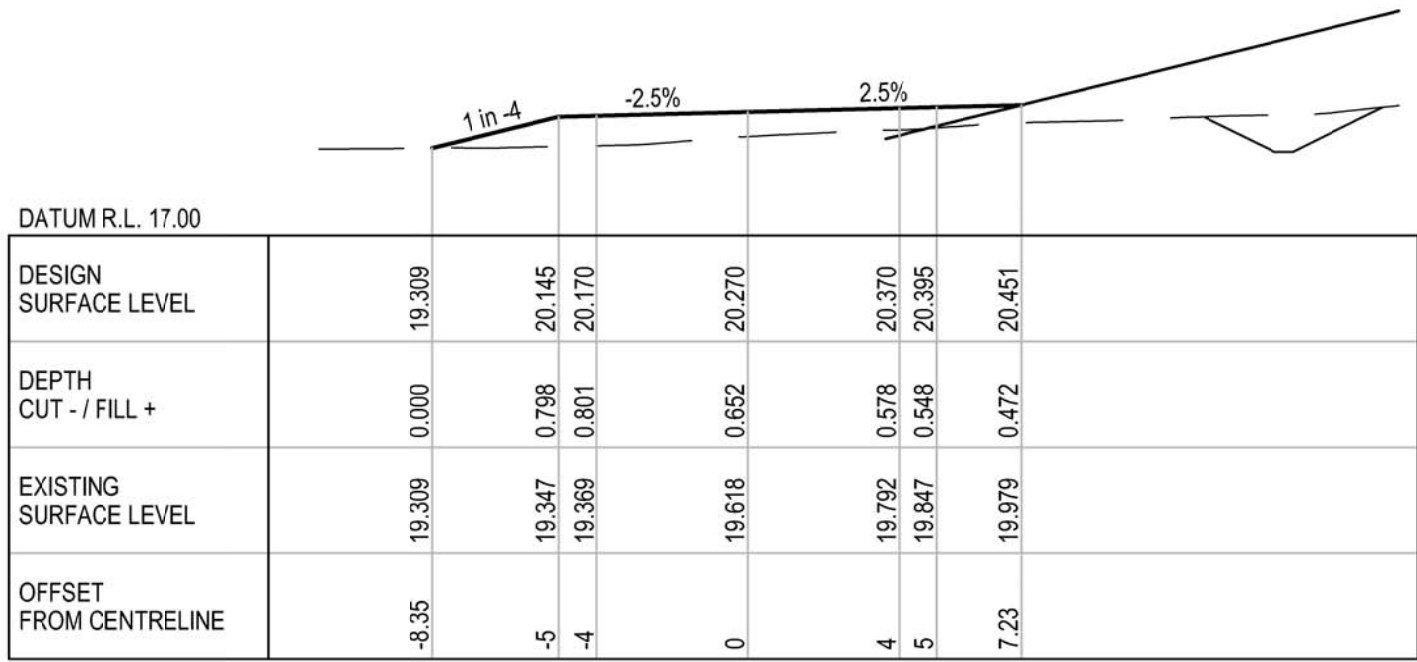
Design Check D.MORRISON

This Drawing must not be
used for Construction unless
signed as Approved

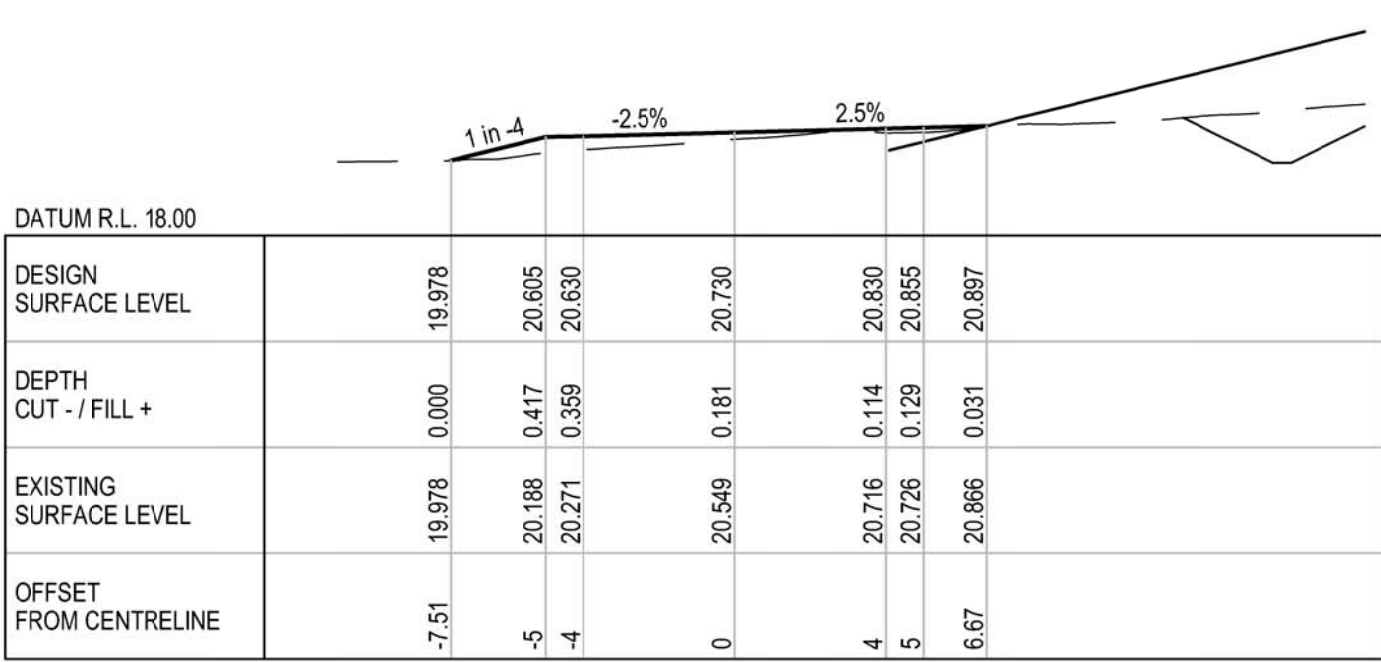
Client **HYDRO ALUMINIUM KURRI KURRI PTY LTD**
Project **CONTAINMENT CELL DETAILED DESIGN**
Title **PERIMETER ROAD CROSS SECTIONS**
SHEET 1 OF 7

Original Size
A1 Drawing No: **22-18015-C063**

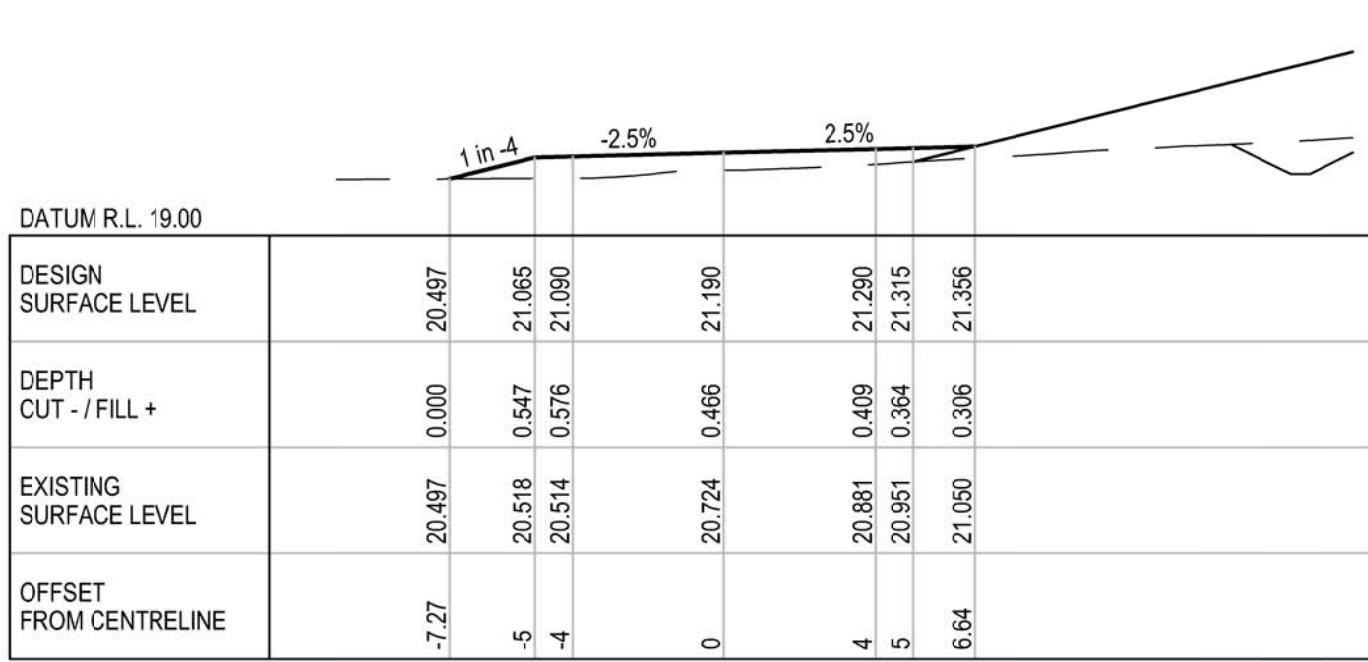
Rev: B



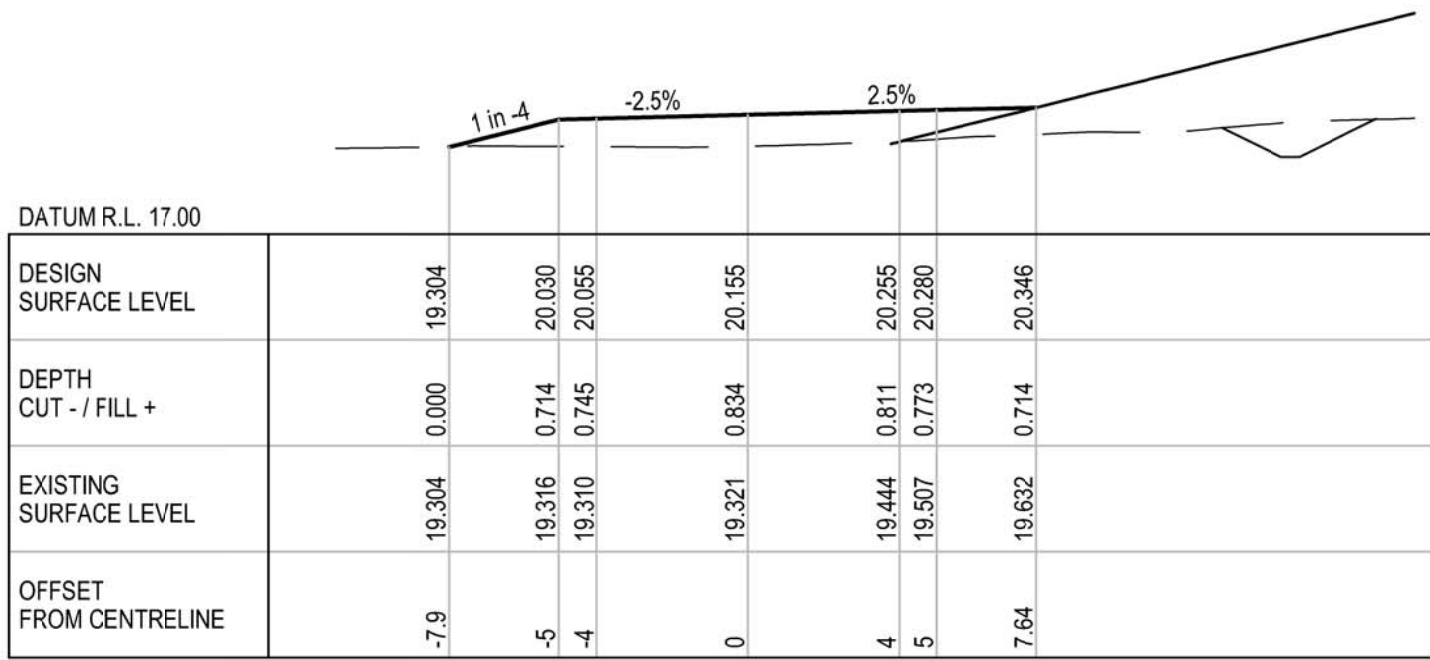
CH 170



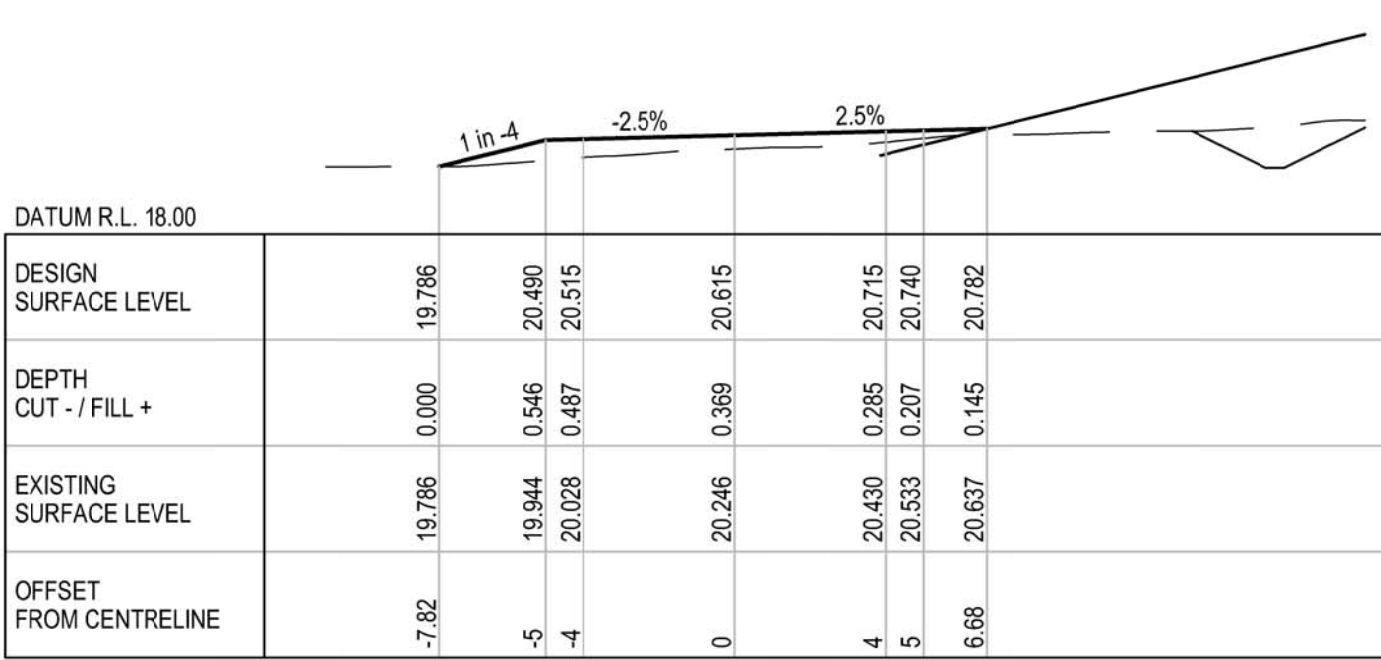
CH 210



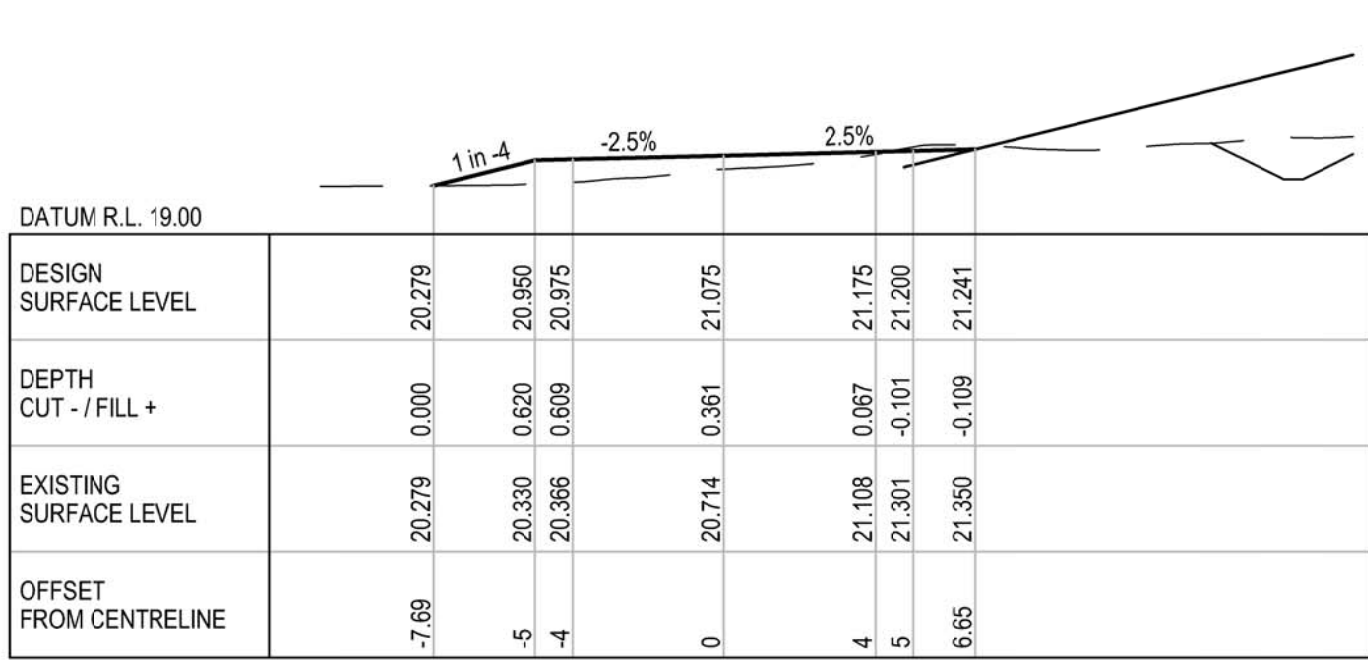
CH 250



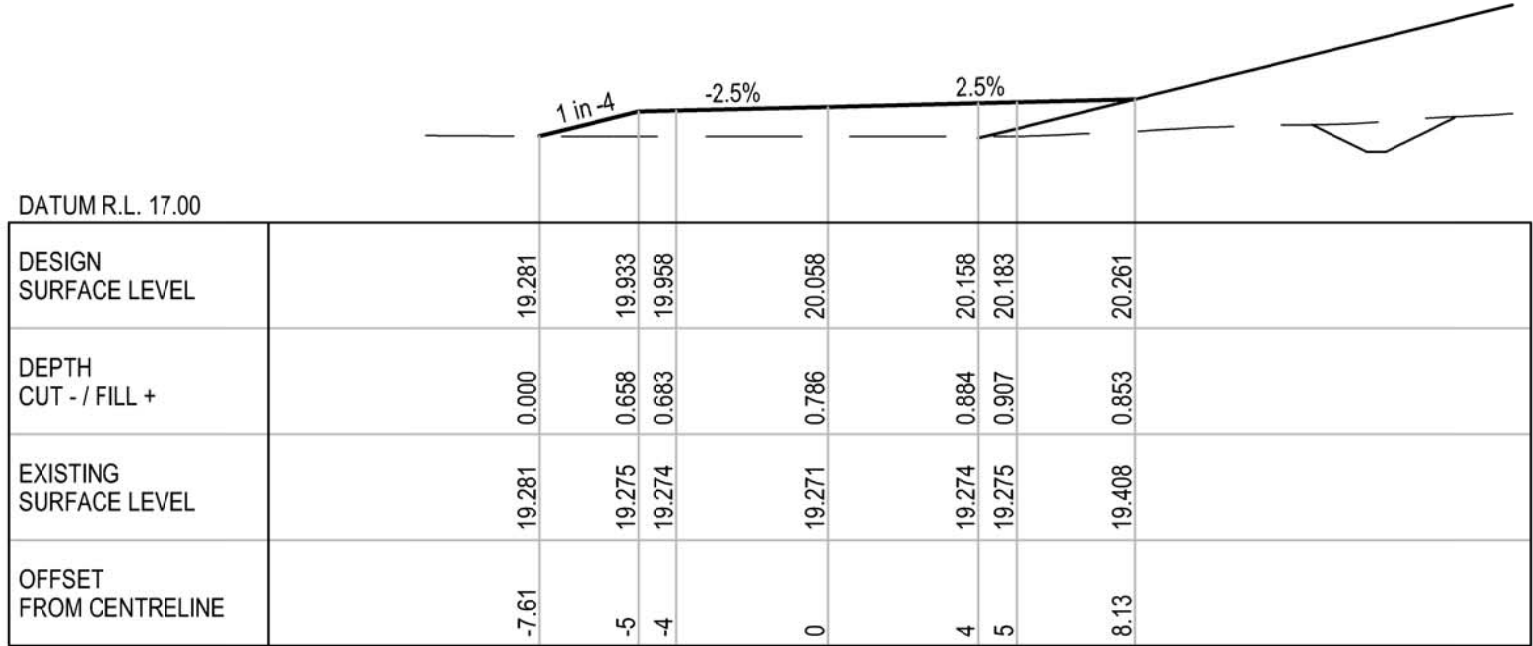
CH 160



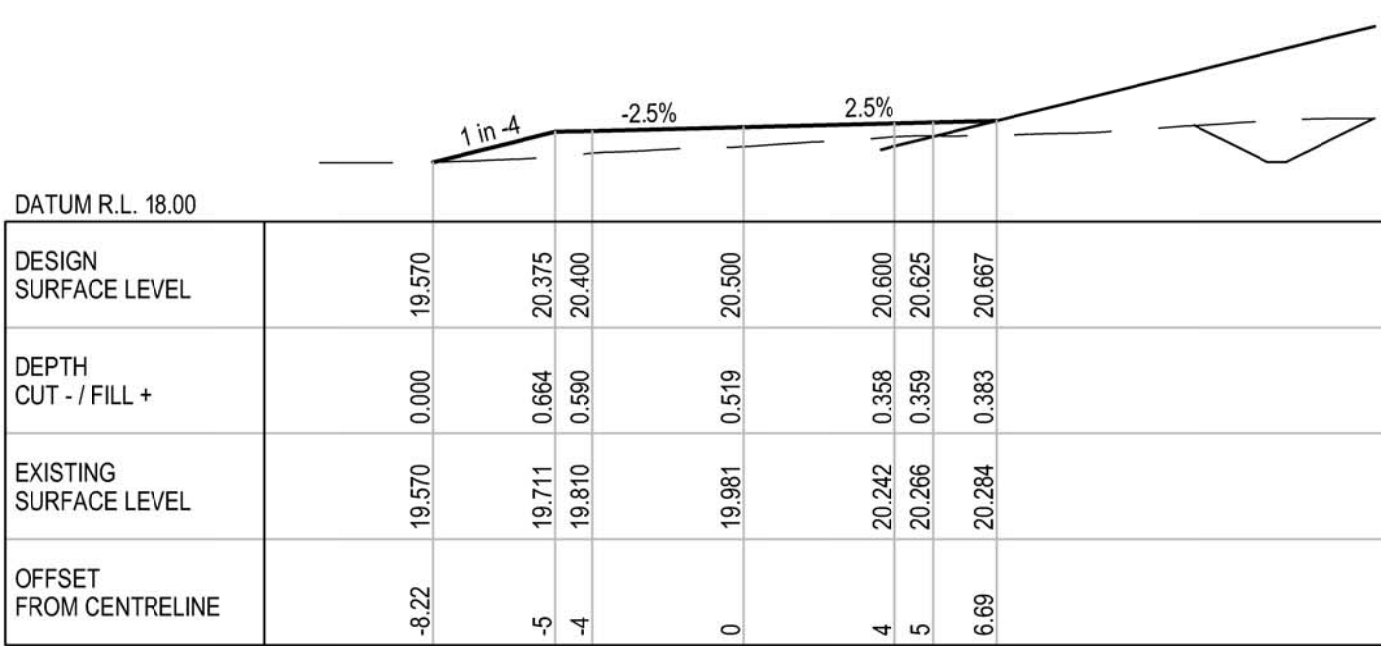
CH 200



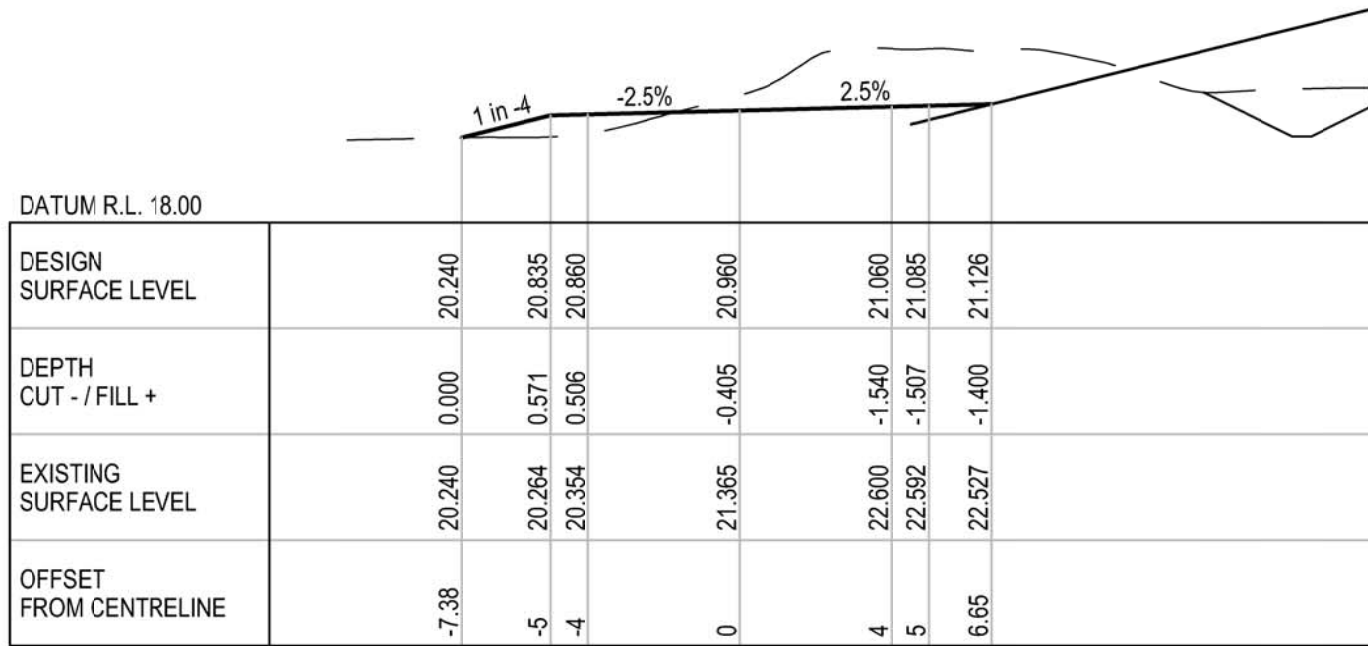
CH 240



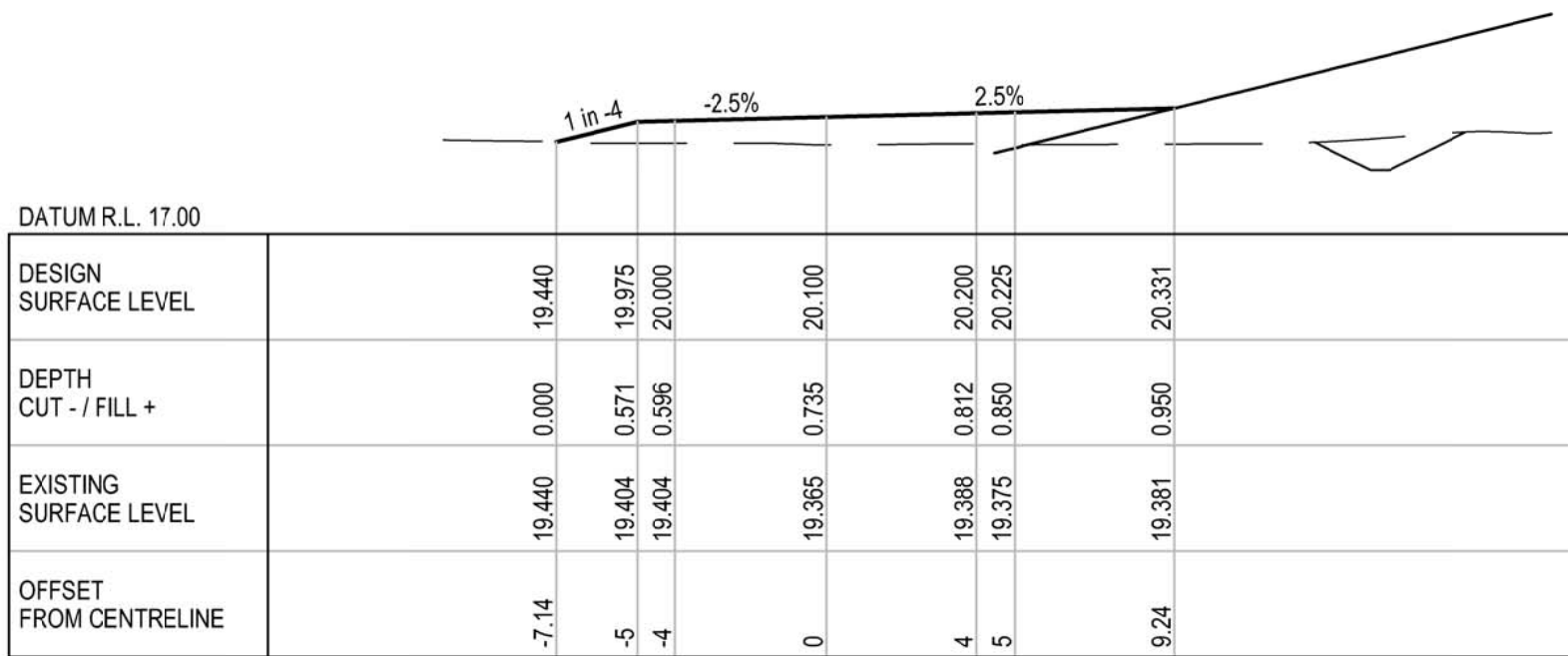
CH 150



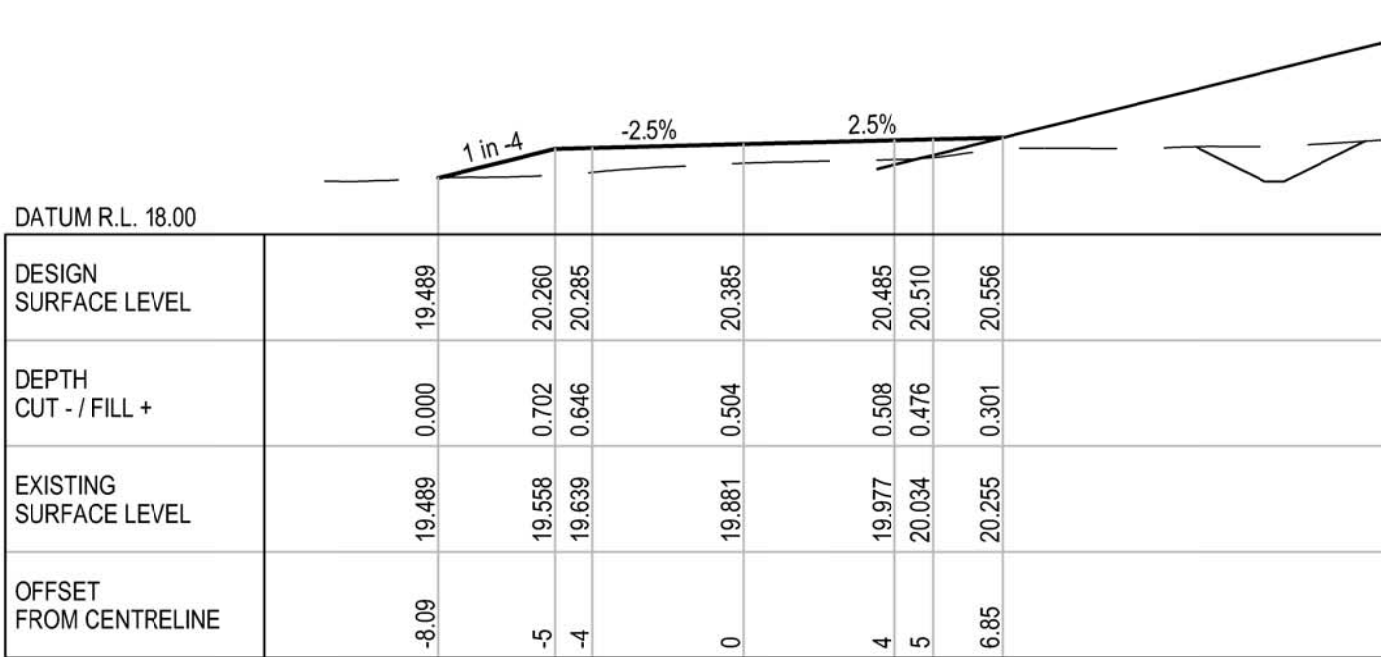
CH 190



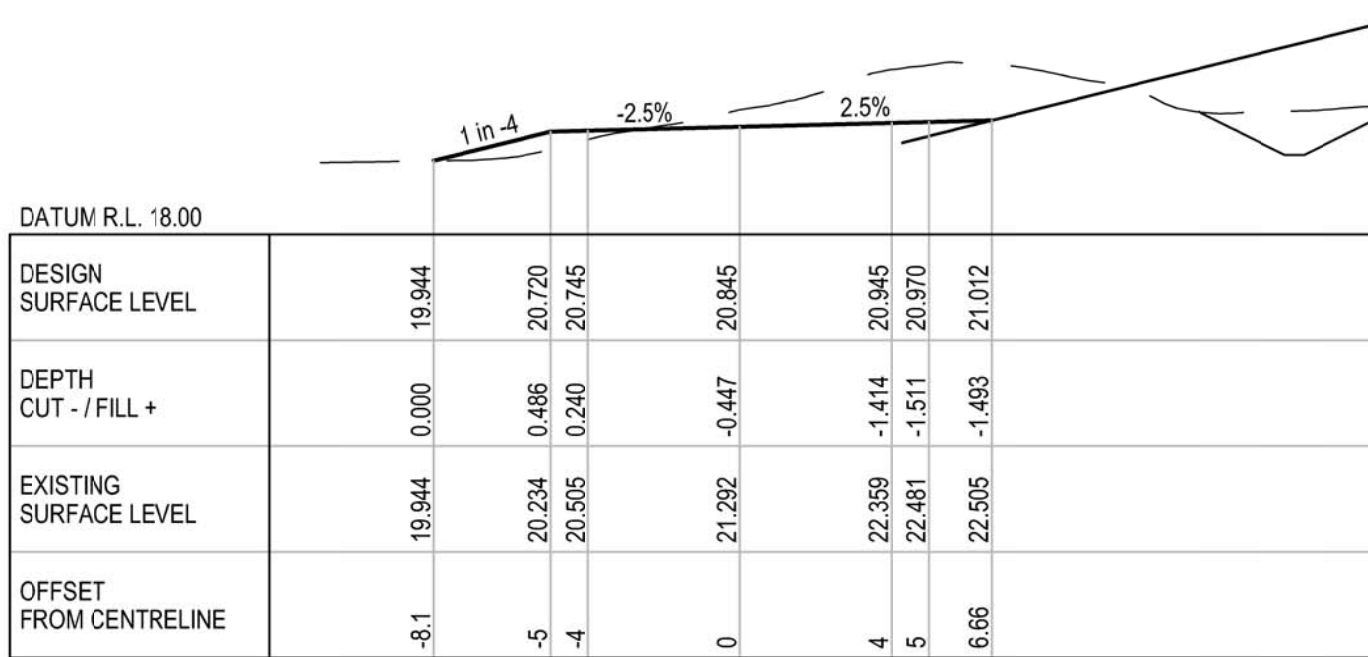
CH 230



CH 140



CH 180



CH 220



DETAIL DESIGN

B	100% DETAILED DESIGN RE-ISSUE	HT	DB	IG	04.05.18
A	100% DETAILED DESIGN	JSC	DB*	IG*	04.08.18
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director



HYDRO



Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

DO NOT SCALE

Conditions of Use.
This document may only be used by
GHD's client (and any other person who
GHD has agreed can use this document)
for the purpose for which it was prepared
and must not be used by any other
person or for any other purpose.

Drawn J.CASIO

Drafting Check P.ETCHELLS

Approved (Project Director)
Date

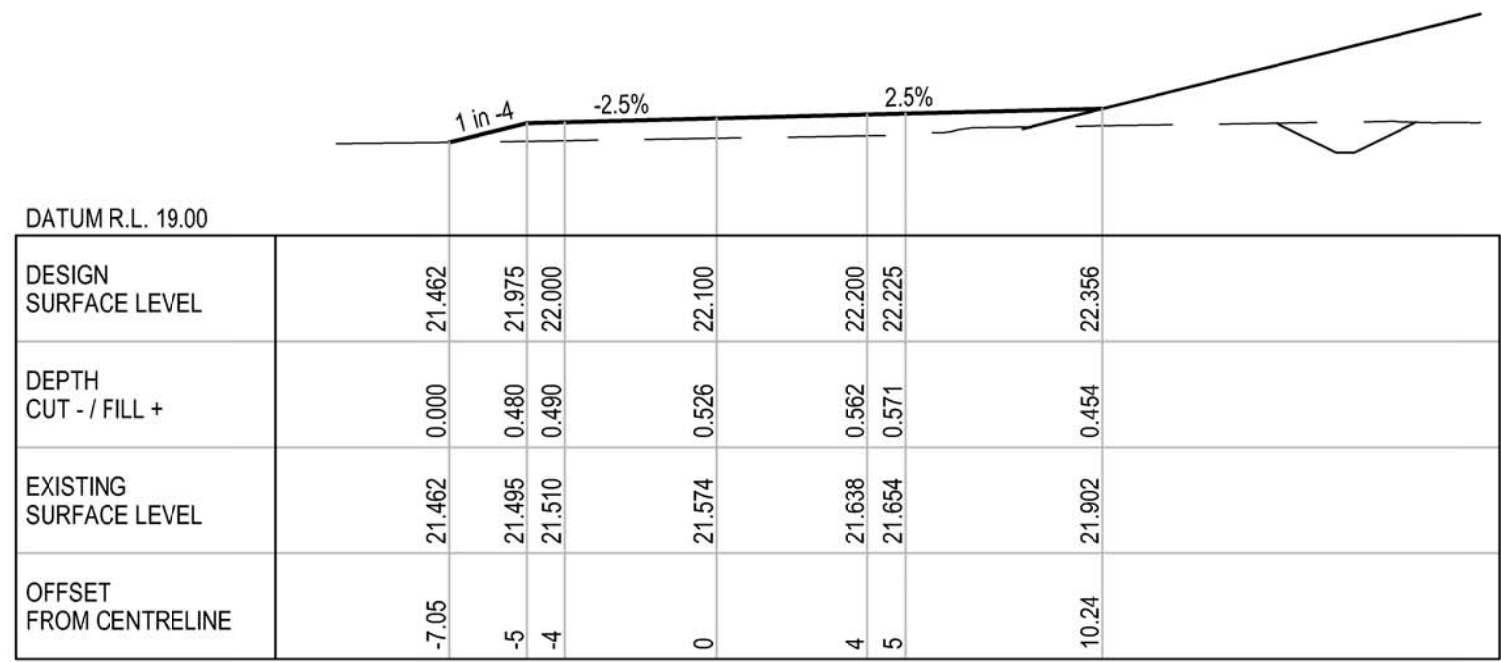
Scale 1:200

Designer A.ROBERTS

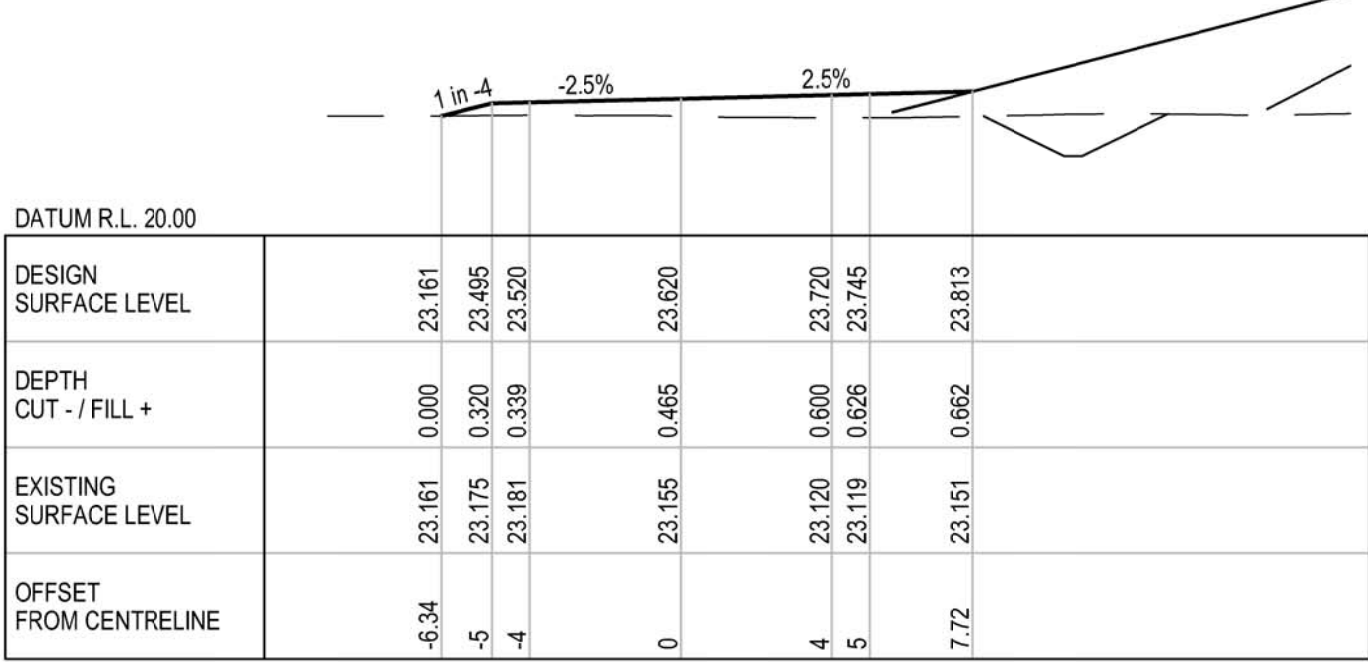
Design Check D.MORRISON

This Drawing must not be
used for Construction unless
signed as Approved

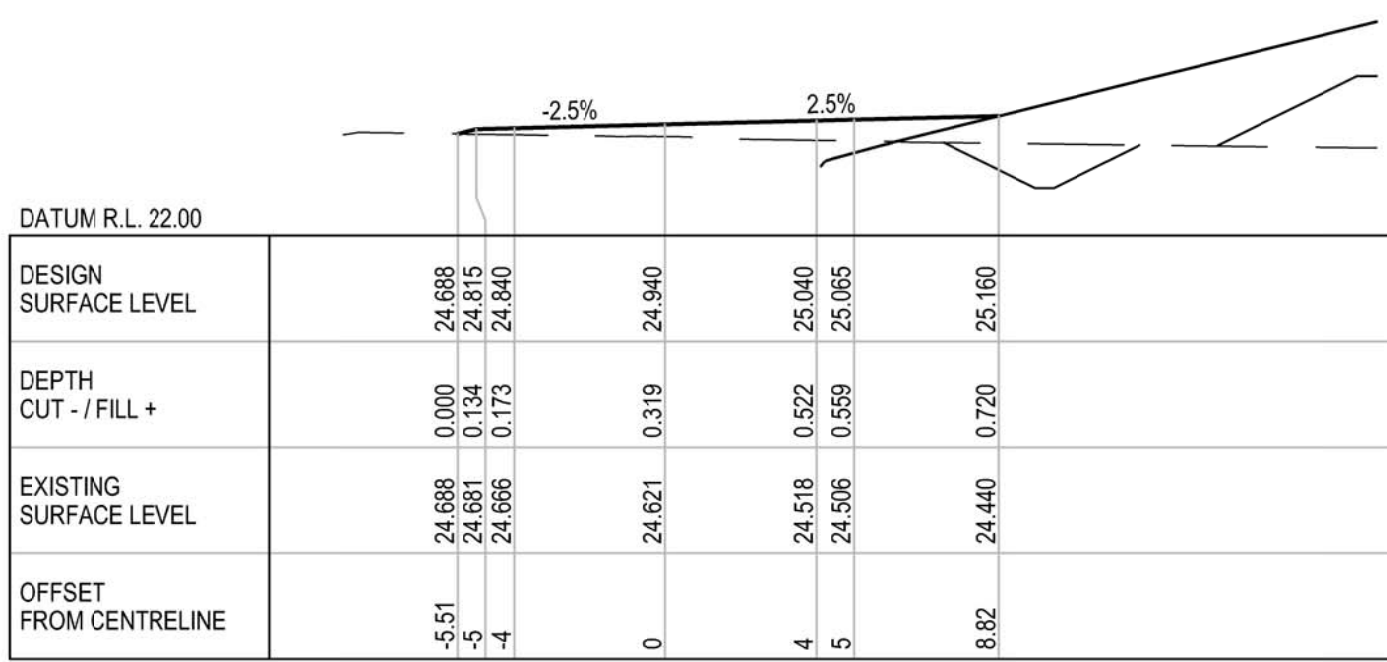
Client	HYDRO ALUMINIUM KURRI KURRI PTY LTD		
Project	CONTAINMENT CELL DETAILED DESIGN		
Title	PERIMETER ROAD CROSS SECTION		
	SHEET 2 OF 7		
Original Size	A1	Drawing No: 22-18015-C064	Rev: B



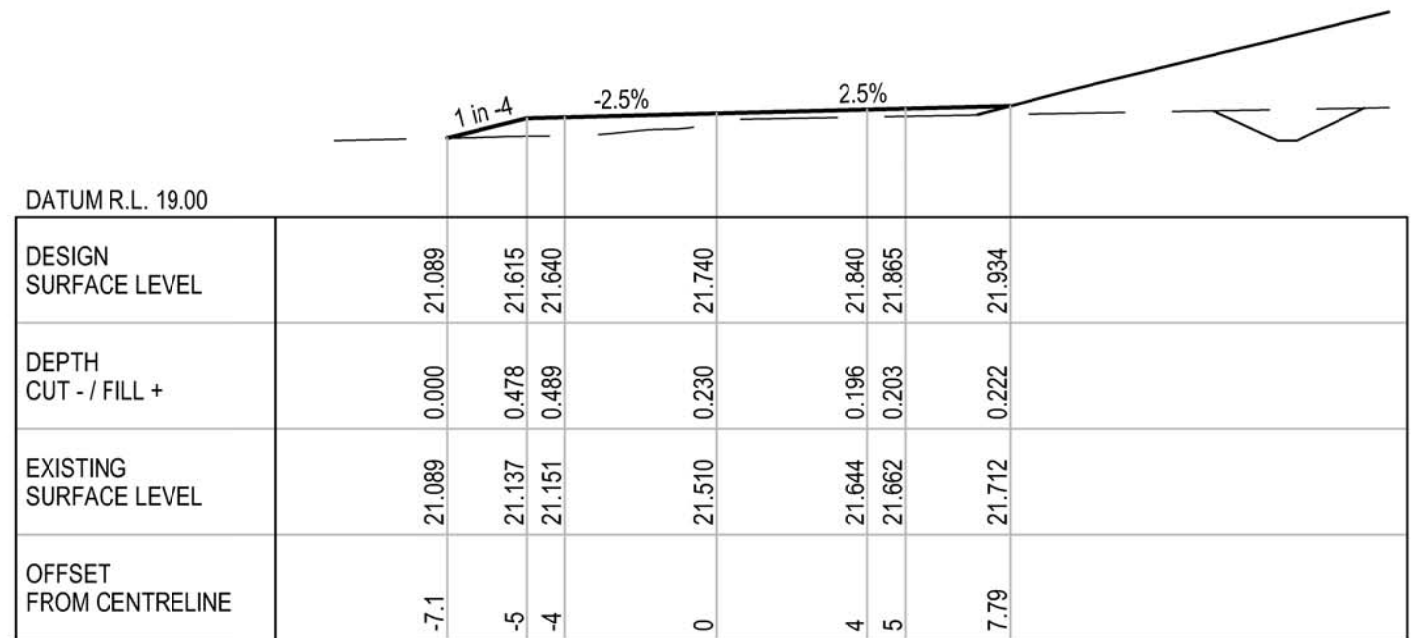
CH 290



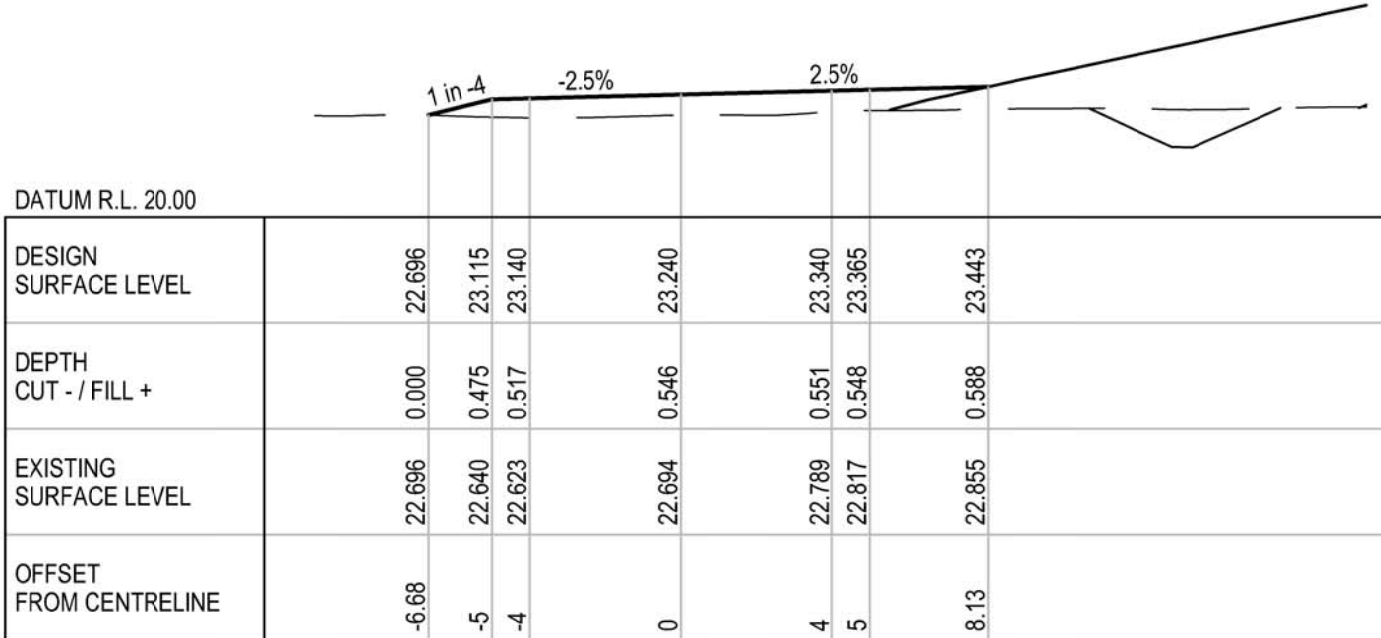
CH 330



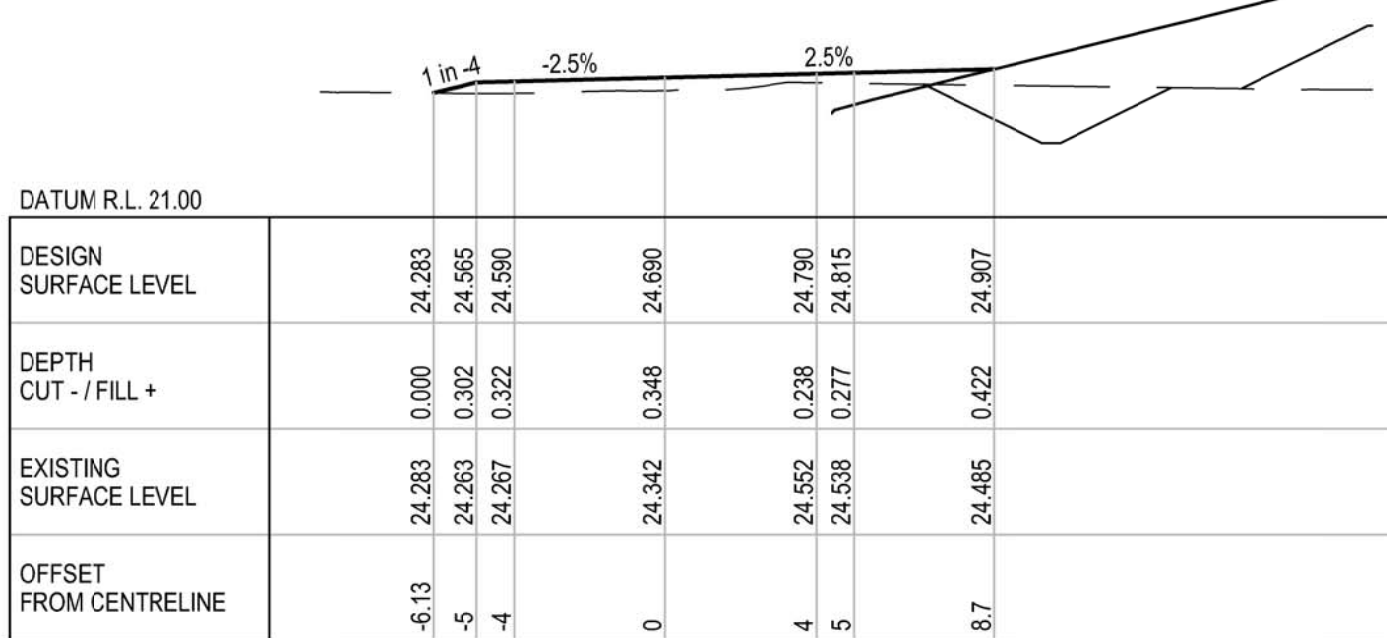
CH 370



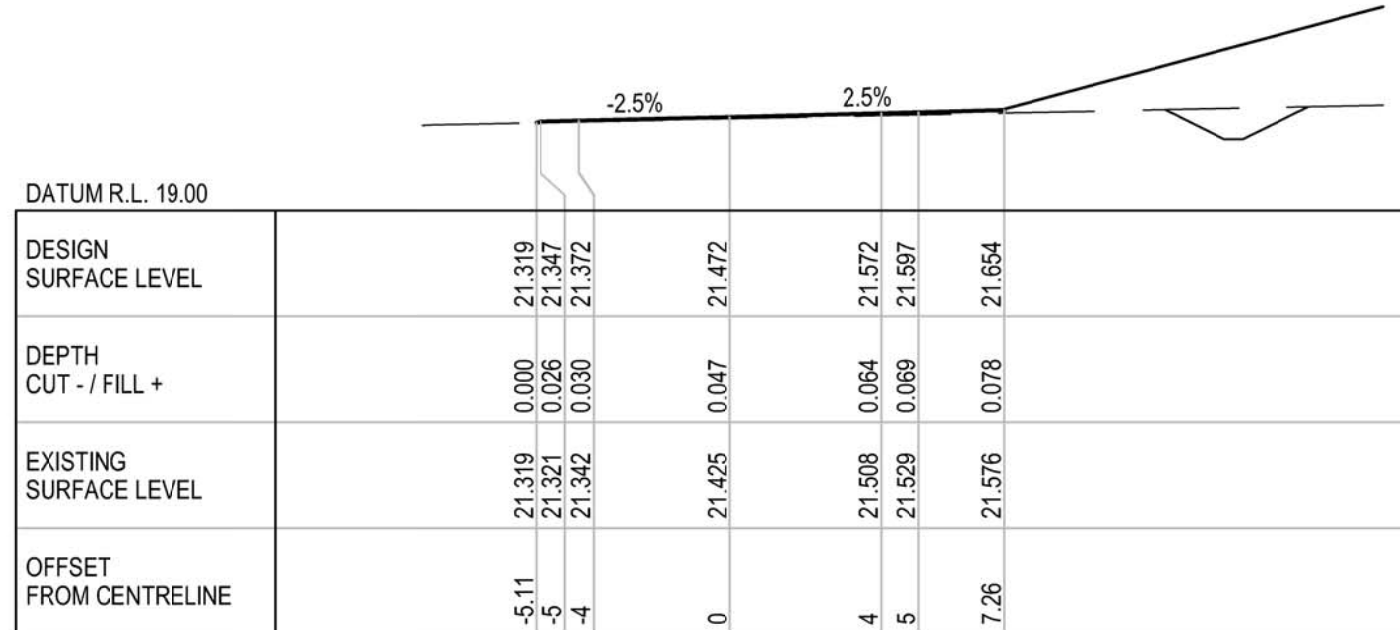
CH 280



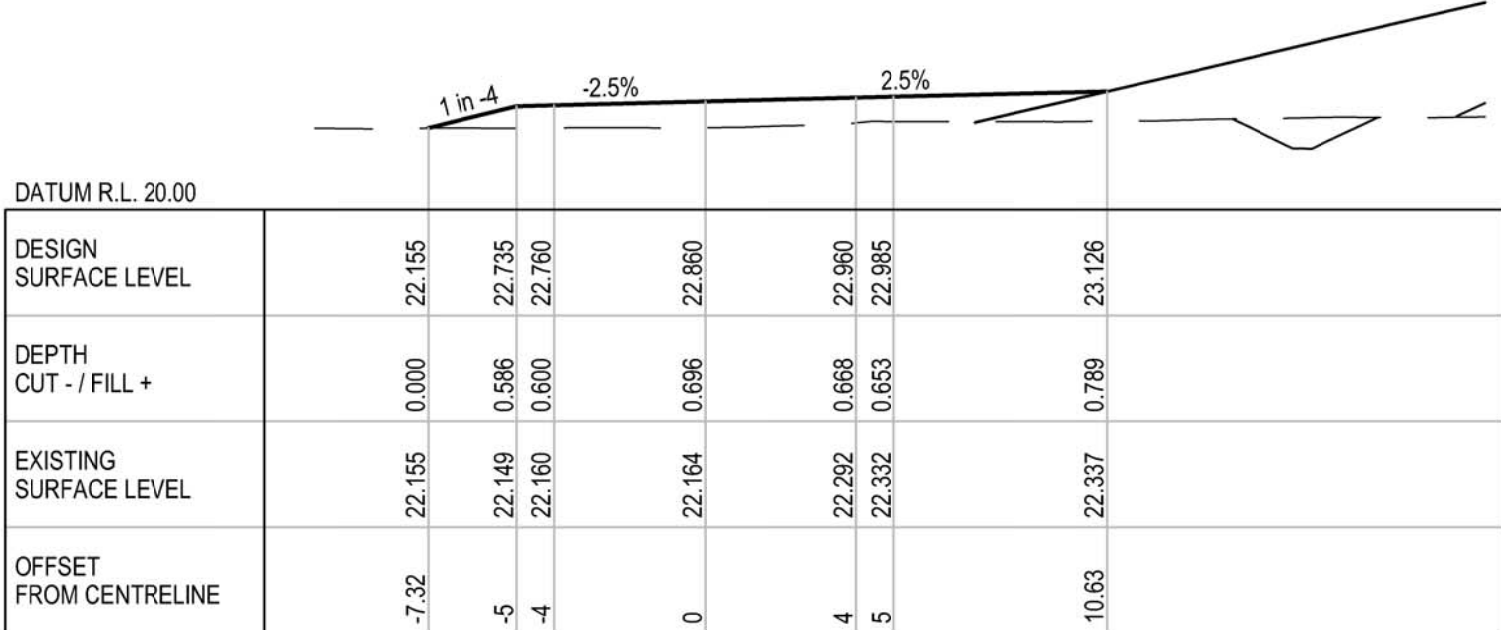
CH 320



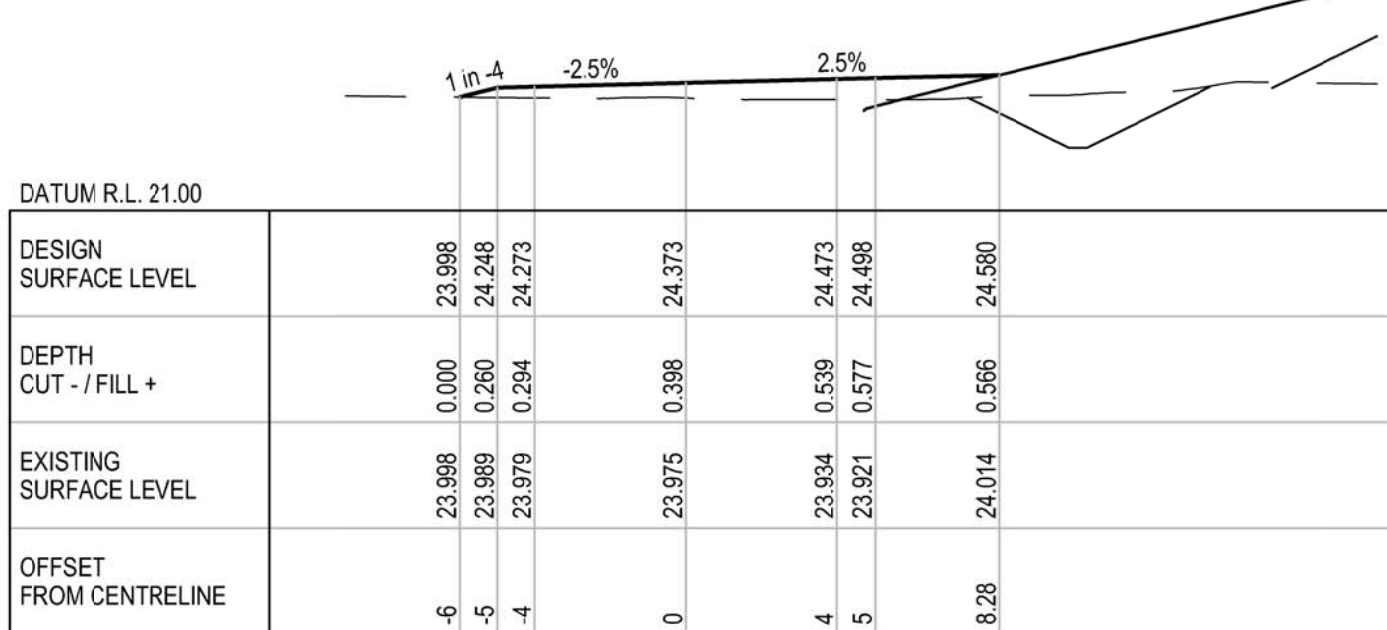
CH 360



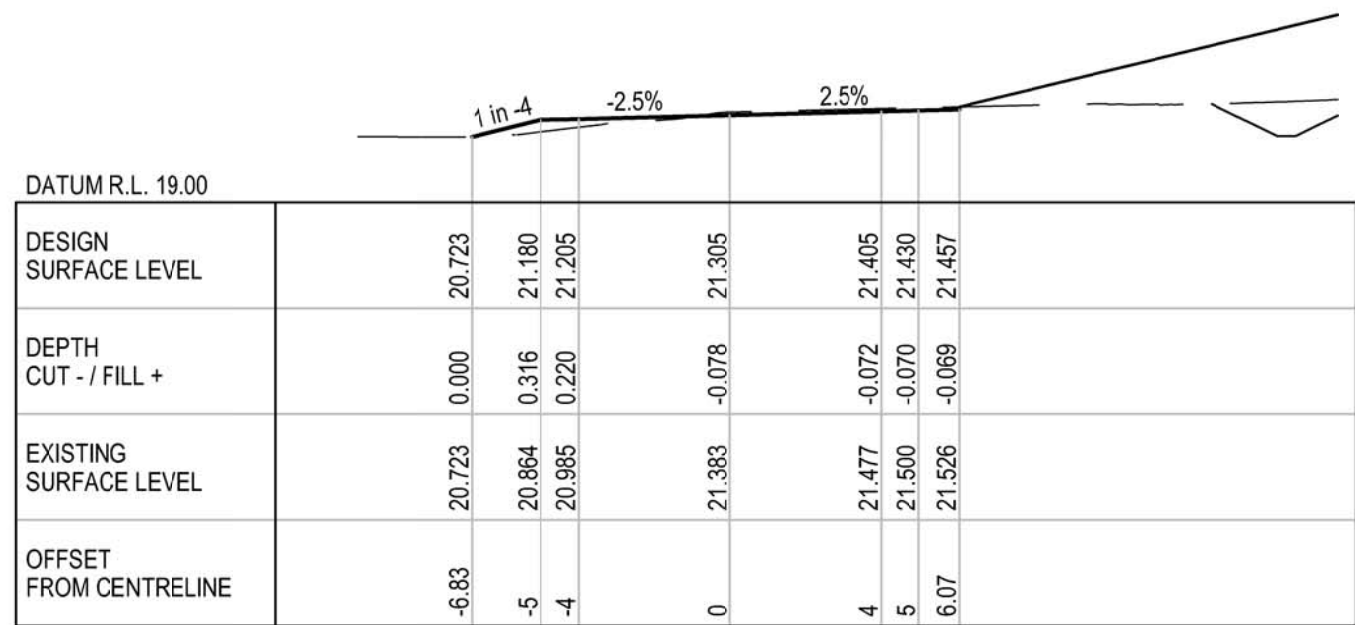
CH 270



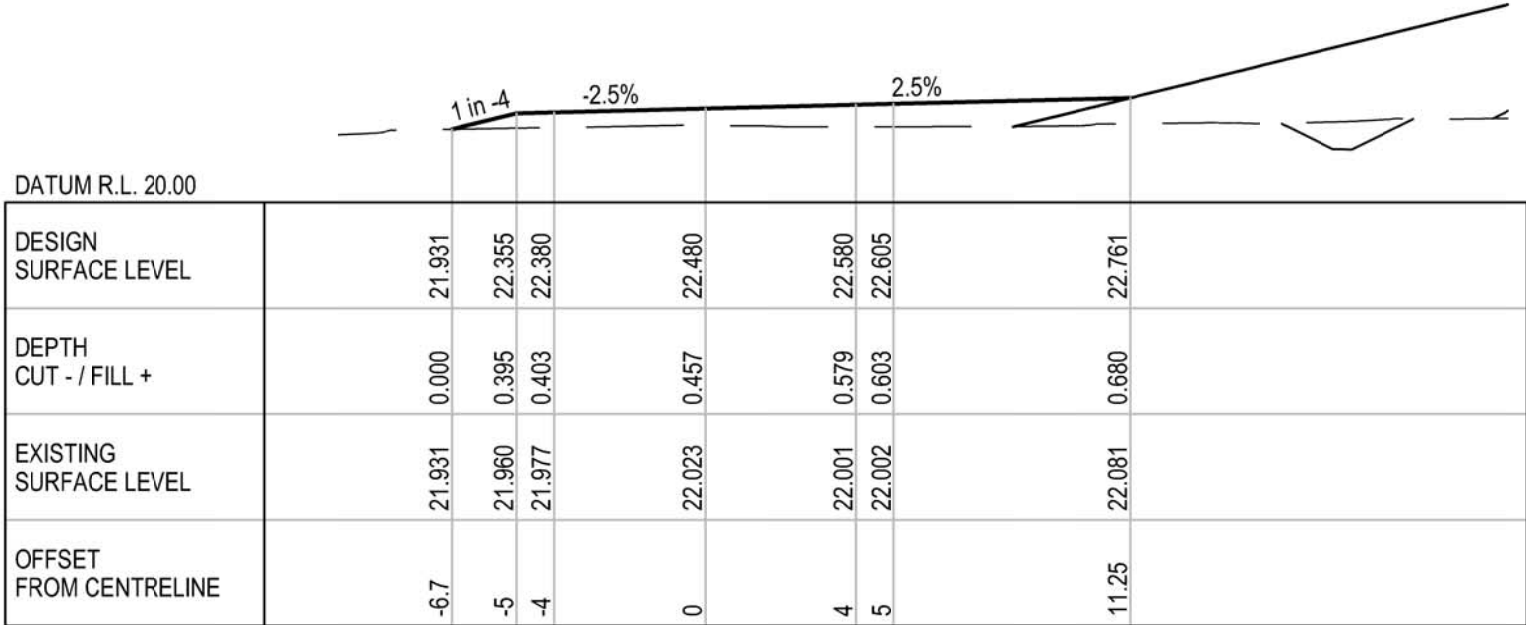
CH 310



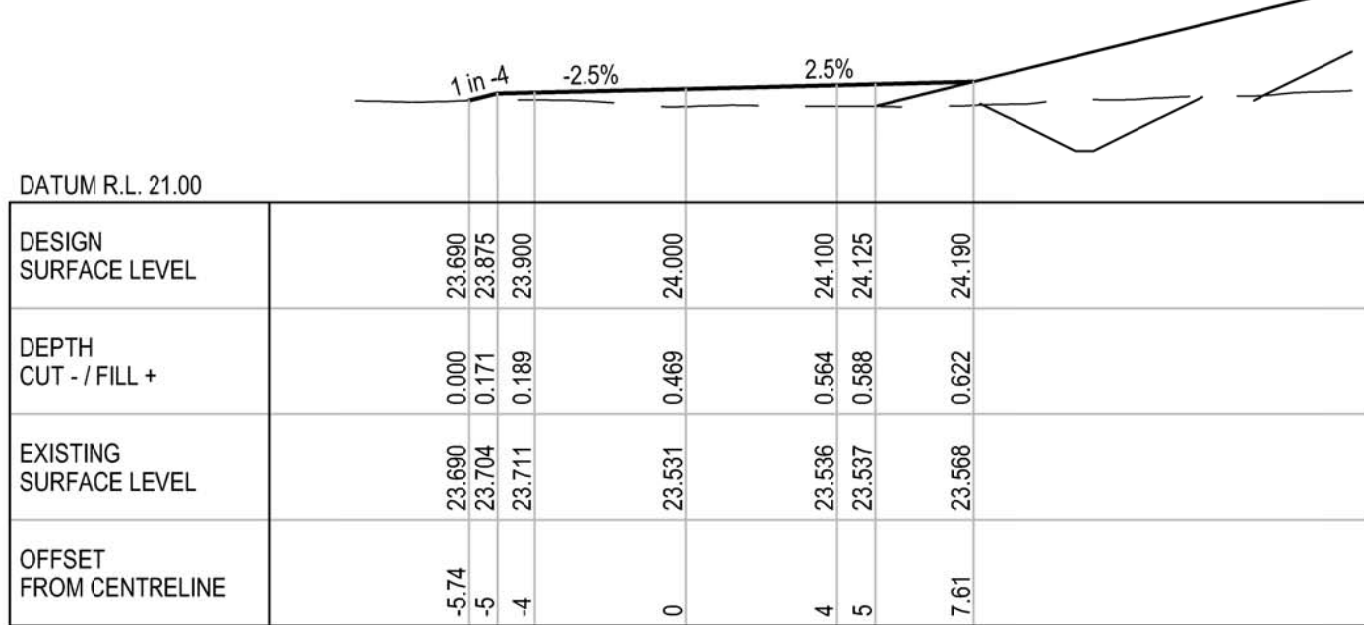
CH 350



CH 260



CH 300



CH 340



DETAIL DESIGN

B	100% DETAILED DESIGN RE-ISSUE	HT	DB	IG	04.05.18
A	100% DETAILED DESIGN	JSC	DB*	IG*	04.08.17
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director



Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

DO NOT SCALE

Conditions of Use.
This document may only be used by
GHD's client (and any other person who
GHD has agreed can use this document)
for the purpose for which it was prepared
and must not be used by any other
person or for any other purpose.

Drawn J.CASIO

Drafting Check P.ETCHELLS

Approved (Project Director)
Date

Scale 1:200

Designer A.ROBERTS

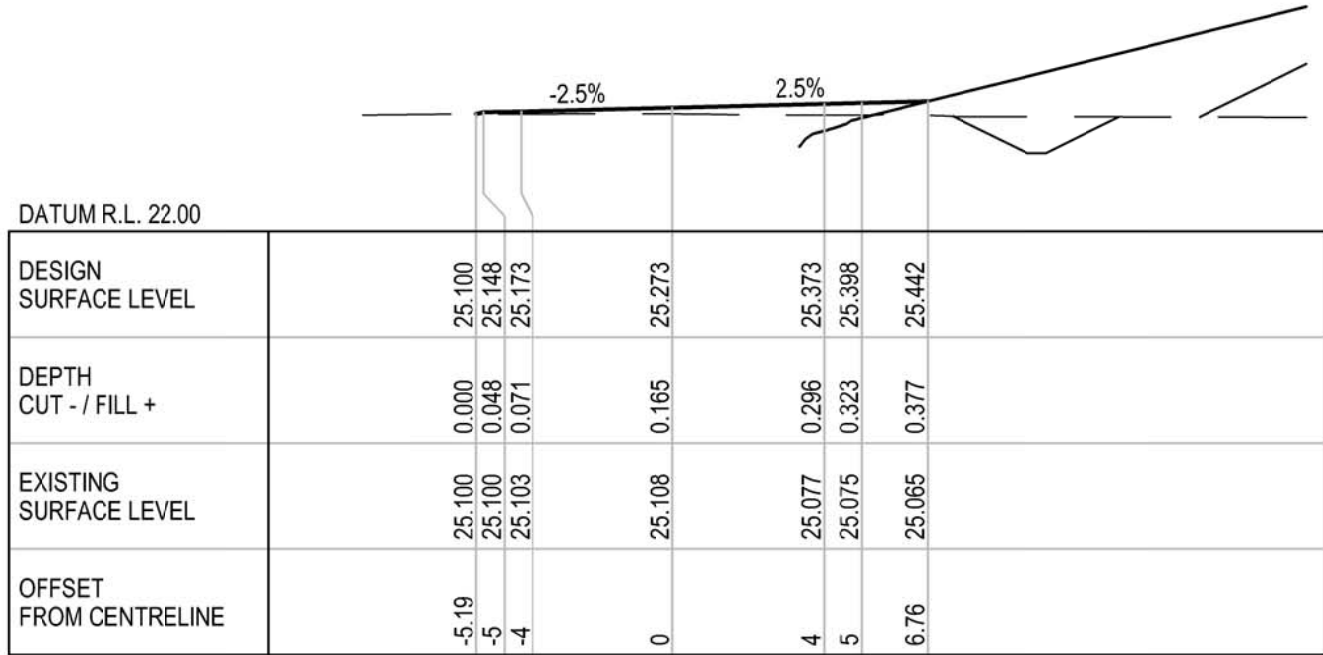
Design Check D.MORRISON

This Drawing must not be
used for Construction unless
signed as Approved

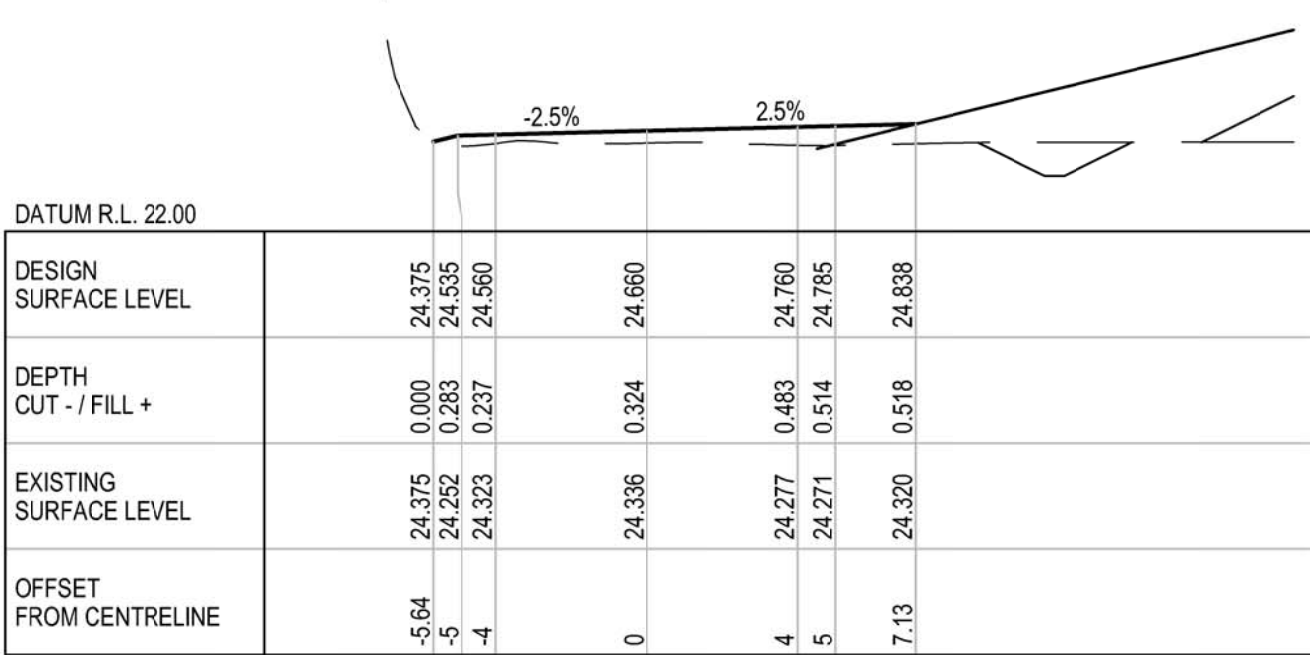
Client **HYDRO ALUMINIUM KURRI KURRI PTY LTD**
Project **CONTAINMENT CELL DETAILED DESIGN**
Title **PERIMETER ROAD CROSS SECTION**
SHEET 3 OF 7

Original Size
A1 Drawing No: **22-18015-C065**

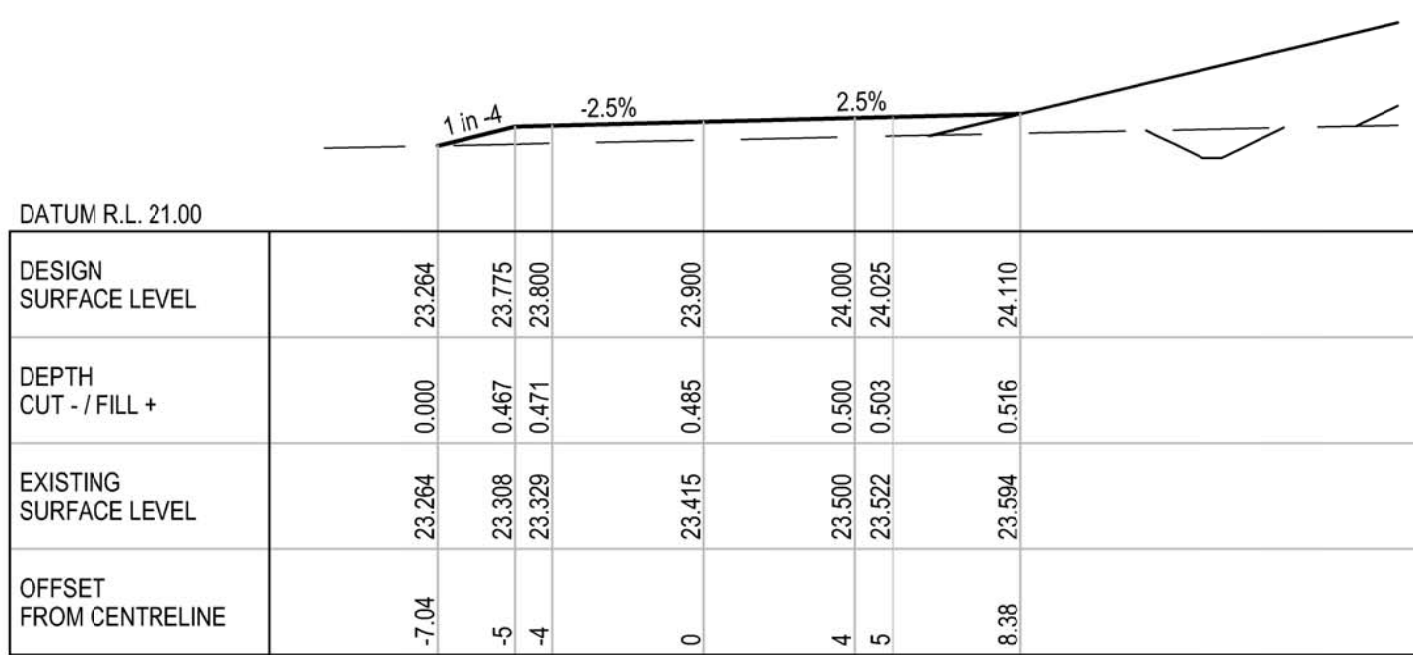
Rev: **B**



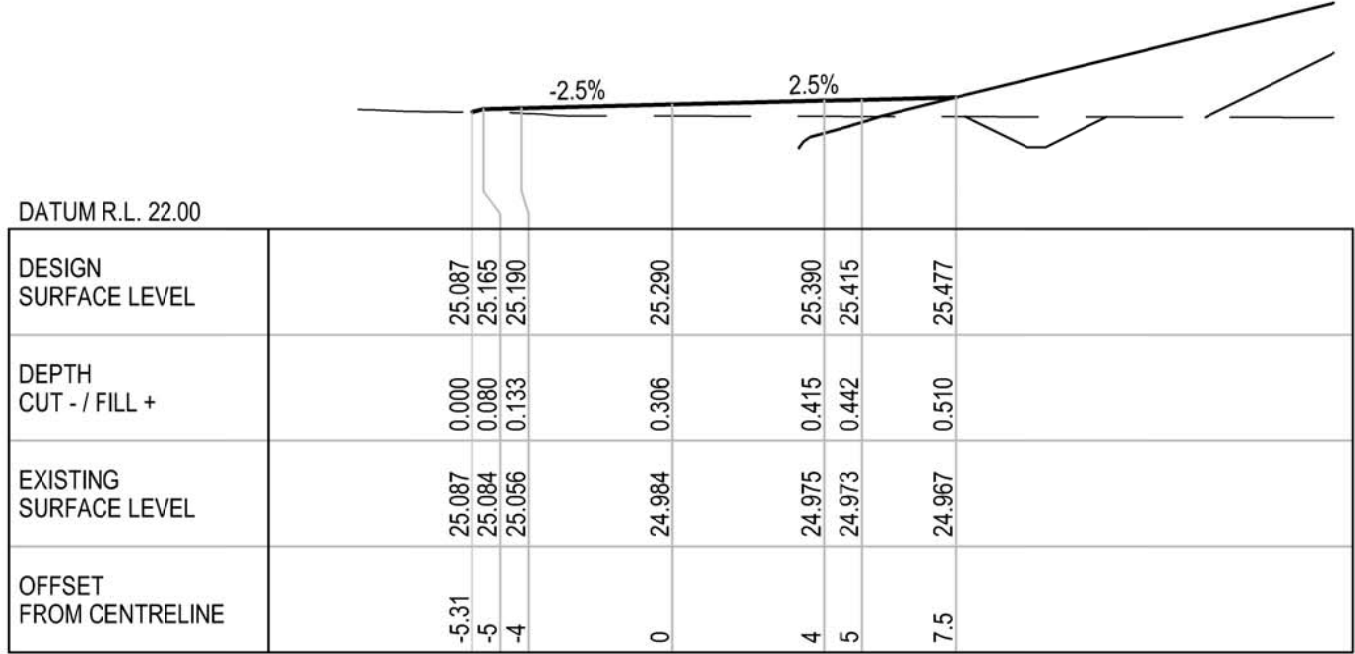
CH 410



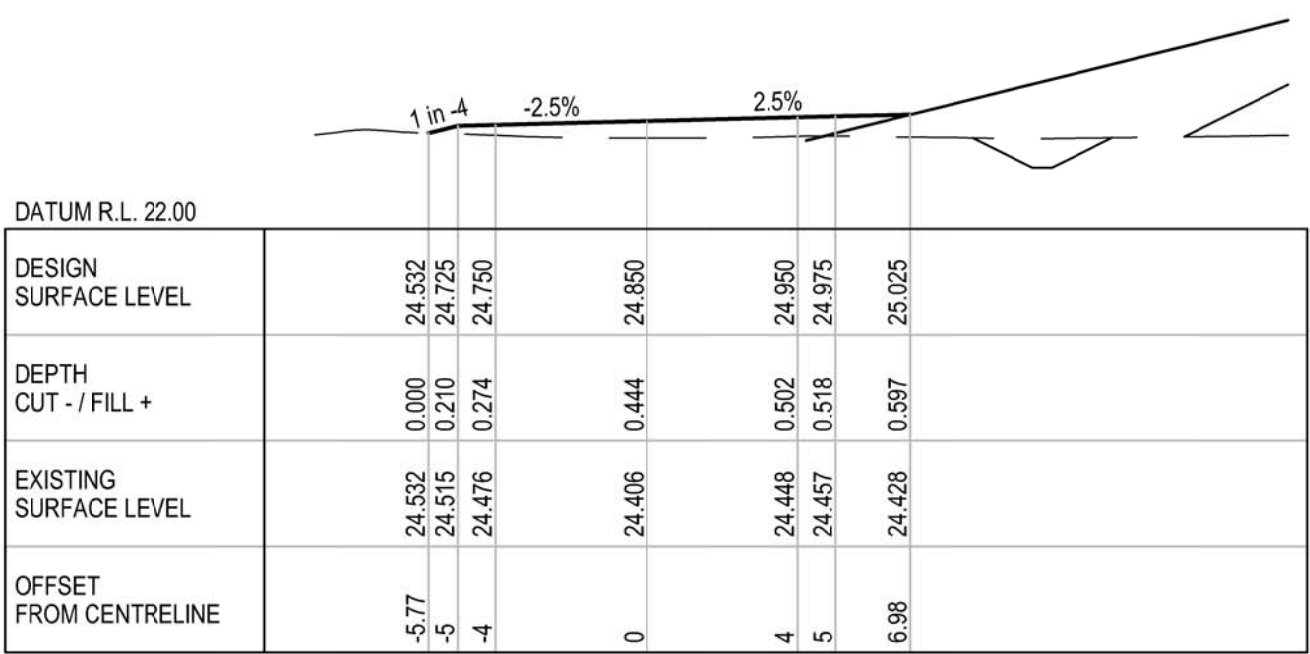
CH 450



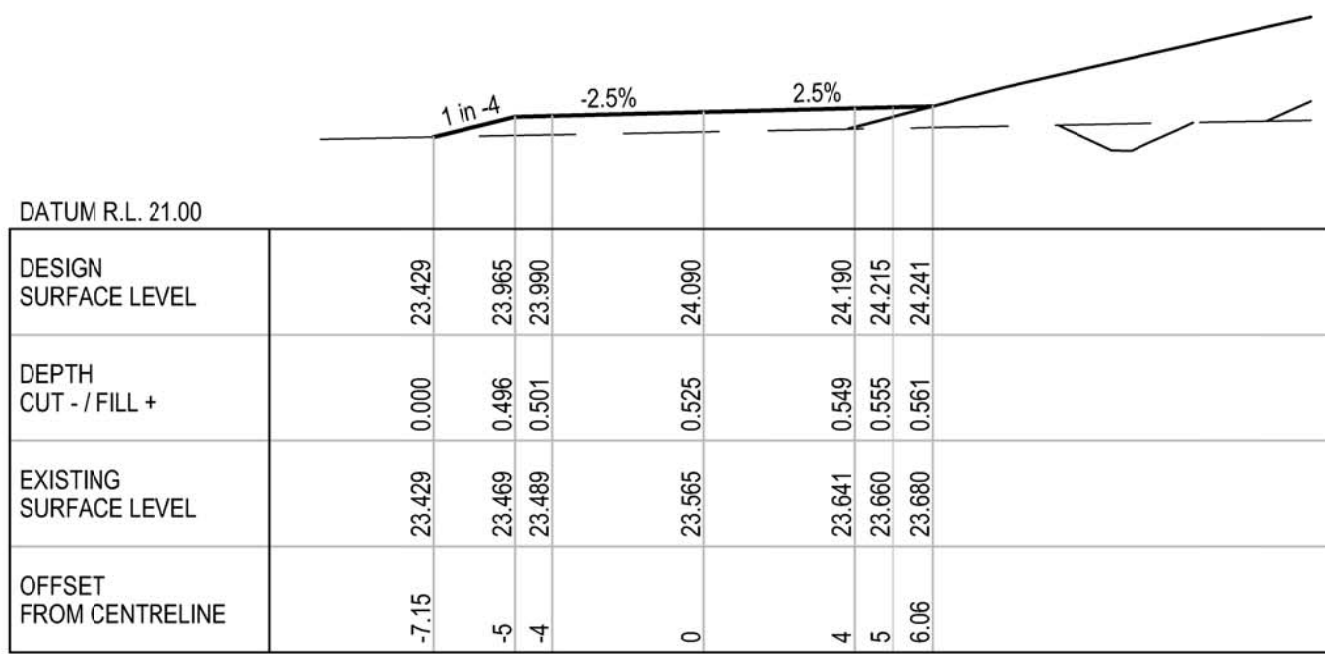
CH 490



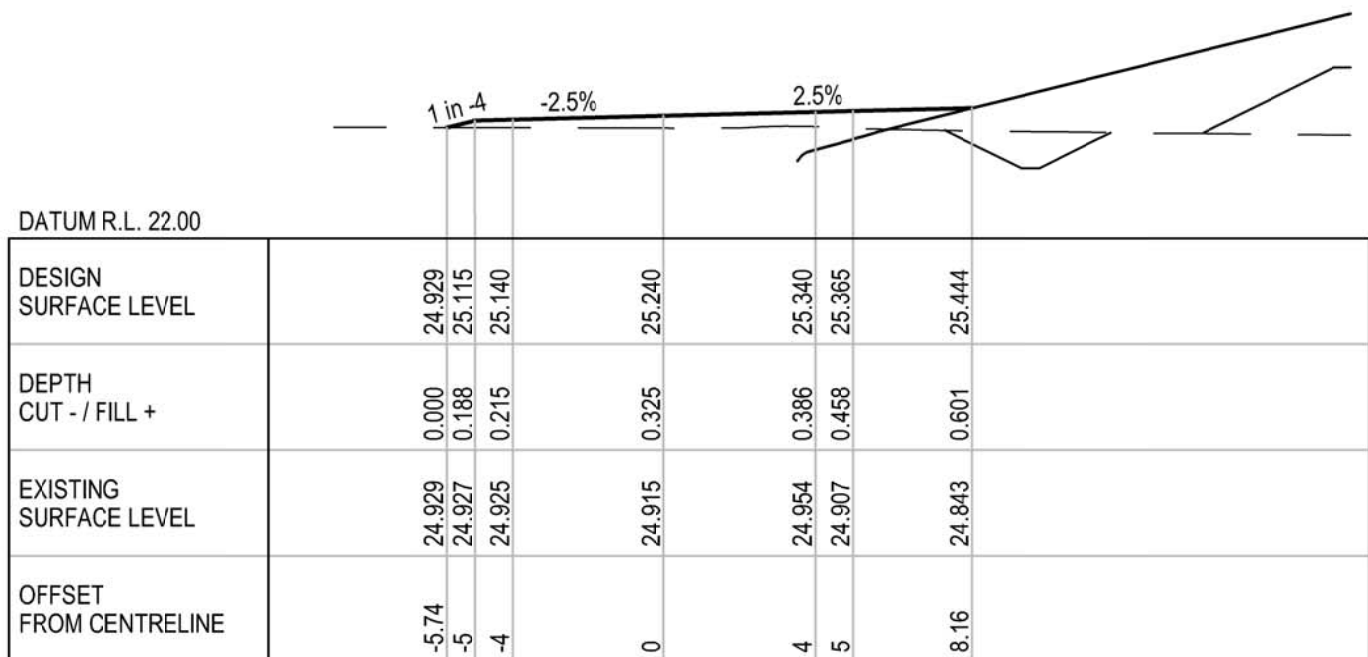
CH 400



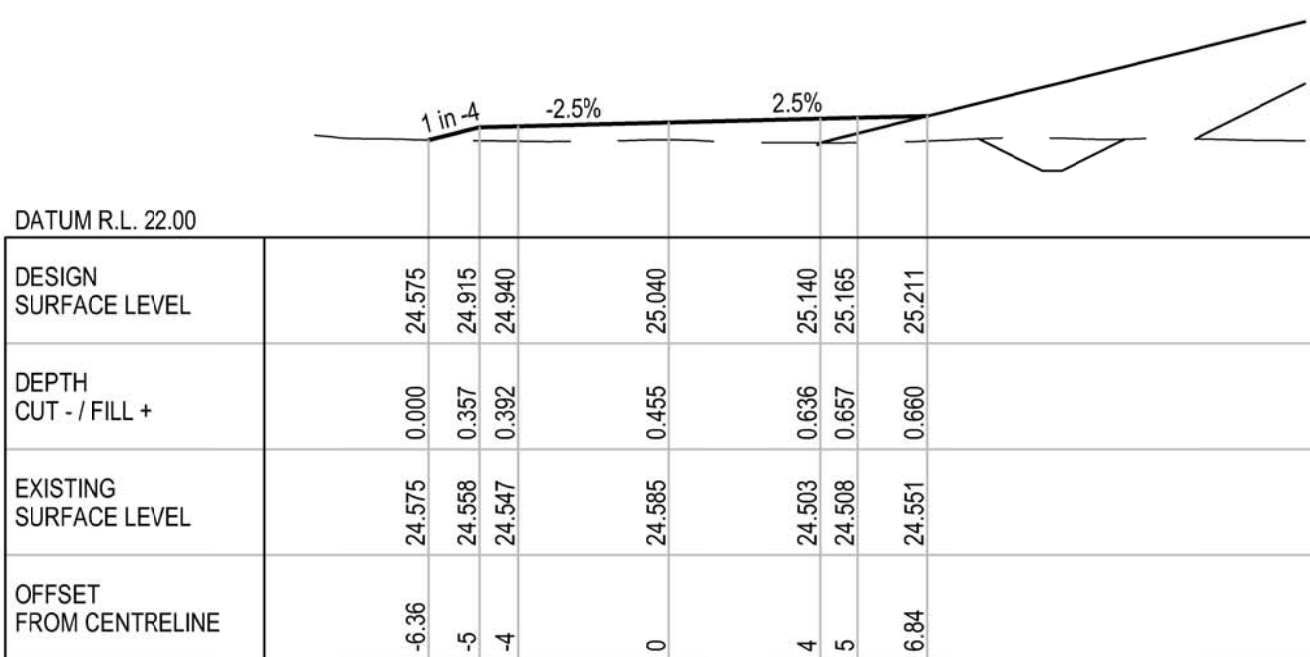
CH 440



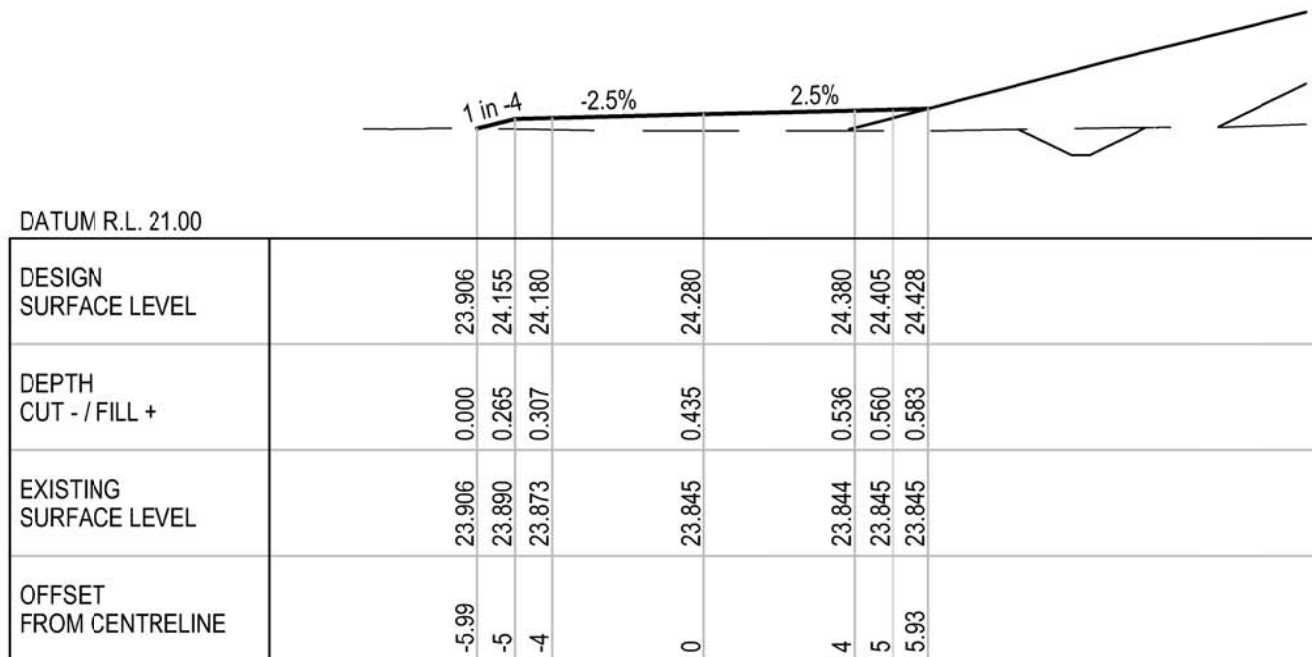
CH 480



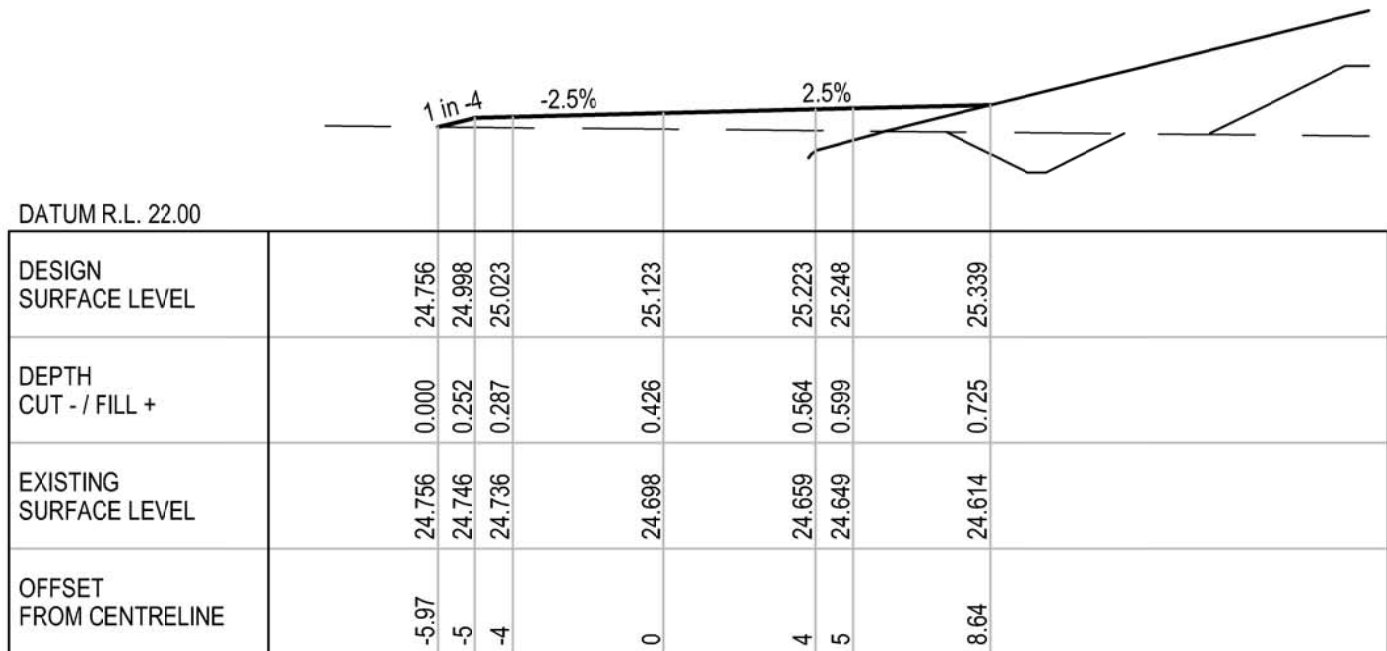
CH 390



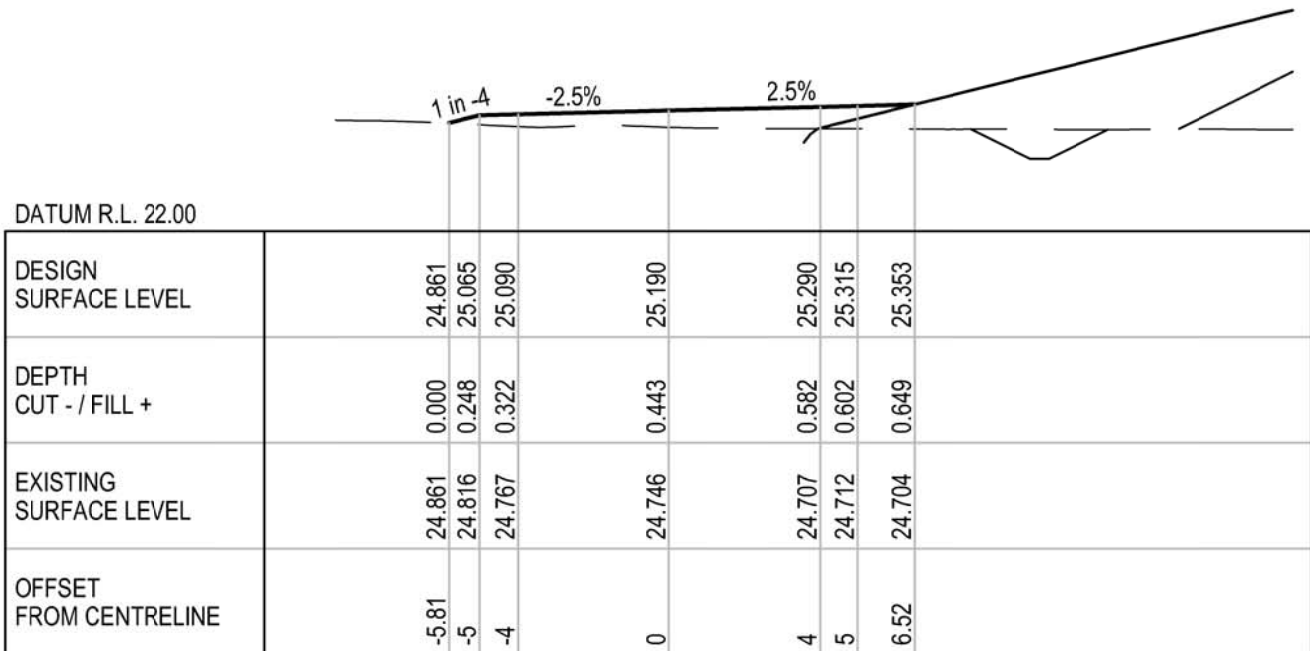
CH 430



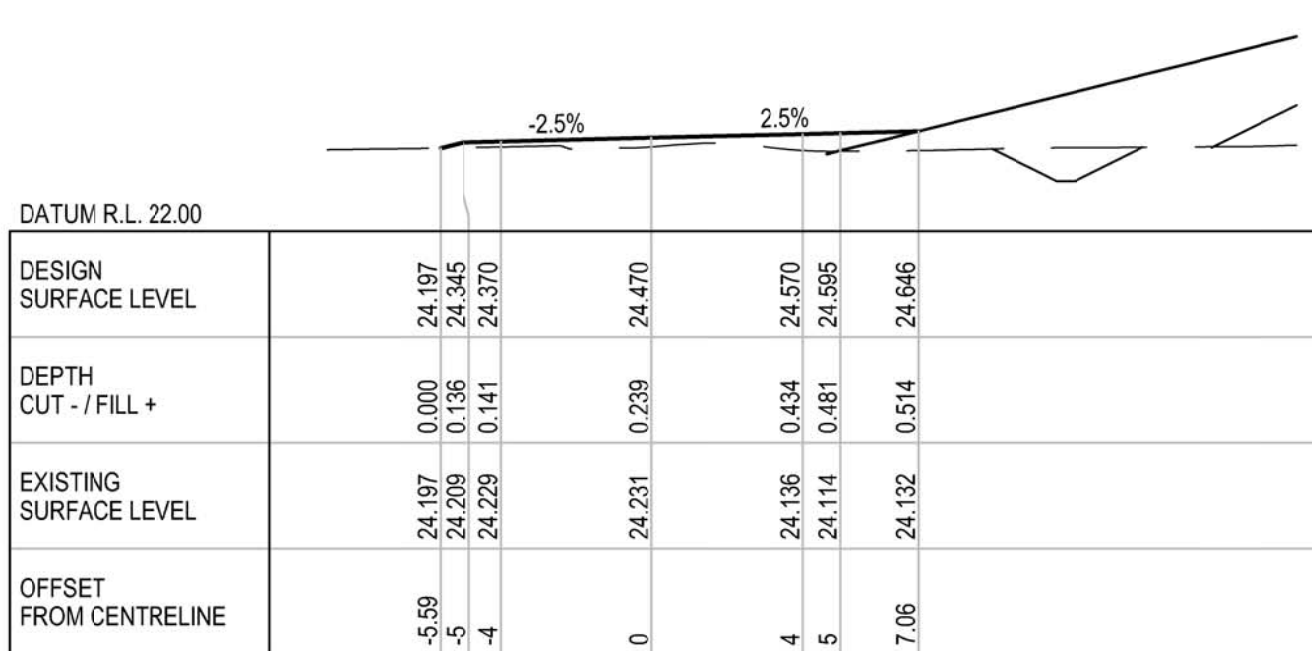
CH 470



CH 380



CH 420



CH 460



DETAIL DESIGN

B	100% DETAILED DESIGN RE-ISSUE	HT	DB	IG	04.05.18
A	100% DETAILED DESIGN	JSC	DB*	IG*	04.08.17
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director



Suite 10, 6 Reliance Drive Tuggerah Business Park
PO Box 3220 Tuggerah NSW 2259
T 61 2 4350 4100 F 61 2 4350 4101
E centralcoastmail@ghd.com W www.ghd.com

DO NOT SCALE

Conditions of Use.
This document may only be used by
GHD's client (and any other person who
GHD has agreed can use this document)
for the purpose for which it was prepared
and must not be used by any other
person or for any other purpose.

Drawn J.CASIO
Drafting Check P.ETCHELLS
Approved (Project Director)
Date

Designer A.ROBERTS
Design Check D.MORRISON

Client
Project
Title

HYDRO ALUMINIUM KURRI KURRI PTY LTD
CONTAINMENT CELL DETAILED DESIGN
PERIMETER ROAD CROSS SECTION
SHEET 4 OF 7

Original Size

A1 Drawing No: **22-18015-C066**

Rev: **B**