

DATE PLOTTED: 31 January 2018 7:05 PM BY: PATRICK KING
XREFs: CAD File: N:\Projects\89913035\Kurnell Landfill Site Stormwater Strategy\01 - KURNELL LANDFILL SITE\011 - STORMWATER STRATEGY\Landfill Cell B11\Drawings\NA89913035-CI-1001.dwg



Cardno (NSW/ACT) Pty Ltd | ABN 95 001 145 035
Level 9, The Forum, 203 Pacific Highway
St. Leonards, NSW 2065
Tel: 02 9496 7700 Fax: 02 9439 5170
Web: www.cardno.com.au

BREEN RESOUCES PTY LTD

KURNELL LANDFILL FACILITY

LANDFILL CELL B11

STAGE B



LOCATION PLAN
NOT TO SCALE

SCHEDULE OF DRAWINGS

DRAWING No.	DESCRIPTION
NA89913035-CI-1001	COVER SHEET
NA89913035-CI-1011	NOTES SHEET
NA89913035-CI-1051	TYPICAL SECTIONS AND DETAILS SHEET SHEET 1
NA89913035-CI-1052	TYPICAL SECTIONS AND DETAILS SHEET SHEET 2
NA89913035-CI-1101	GENERAL ARRANGEMENT PLAN
NA89913035-CI-1201	SUBGRADE LEVEL AND GRADING PLAN SHEET 1
NA89913035-CI-1202	SUBGRADE LEVEL AND GRADING PLAN SHEET 2
NA89913035-CI-1301	DRAINAGE PLAN SHEET 1
NA89913035-CI-1302	DRAINAGE PLAN SHEET 2
NA89913035-CI-1401	LONGITUDINAL SECTIONS SHEET 1
NA89913035-CI-1501	NORTH CELL BOUNDARY CROSS SECTIONS SHEET 1
NA89913035-CI-1502	NORTH CELL BOUNDARY CROSS SECTIONS SHEET 2
NA89913035-CI-1511	EAST TEMPORARY BUND CELL BOUNDARY CROSS SECTIONS SHEET 1
NA89913035-CI-1512	EAST TEMPORARY BUND CELL BOUNDARY CROSS SECTIONS SHEET 2
NA89913035-CI-1513	EAST TEMPORARY BUND CELL BOUNDARY CROSS SECTIONS SHEET 3
NA89913035-CI-1521	SOUTH PROPERTY BOUNDARY CROSS SECTIONS SHEET 1
NA89913035-CI-1531	WEST CELL BOUNDARY CROSS SECTIONS SHEET 1
NA89913035-CI-1532	WEST CELL BOUNDARY CROSS SECTIONS SHEET 2
NA89913035-CI-1601	SETOUT PLAN AND SCHEDULES

4	31/01/2018	ISSUED FOR CONSTRUCTION	PDK	GJN	
3	20/12/2017	ISSUED FOR FINAL REVIEW	PDK	GJN	
2	21/11/2017	ISSUED FOR CLIENT REVIEW	PDK	GJN	
1	29/05/2017	ISSUED FOR CLIENT REVIEW	PDK	GJN	
Rev.	Date	Description	Des.	Verif.	Appd.

© Cardno Limited All Rights Reserved. This document is produced by Cardno Limited solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Limited does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.	Drawn	Date	FOR CONSTRUCTION			
	PDK	29/05/2017				
	Checked	Date				
	GJN	29/05/2017				
	Designed	Date				
	PDK	17/05/2017				
	Verified	Date	DATE	Scale	Size	A1
	GJN	29/05/2017	May-17	-		
Approved		Drawing Number			Revision	
		NA89913035-CI-1001			4	

GENERAL NOTES

1. THIS SET OF DRAWINGS IS TO BE READ IN CONJUNCTION WITH THE TECHNICAL SPECIFICATION 'CES070607-KLF-133' AND THE ADDENDUM TO THE LEACHATE MANAGEMENT PLAN 'CES070607-KLF-151216-REV'D'.
2. WHERE DIFFERENCES EXIST BETWEEN THIS DRAWING PACKAGE THE TECHNICAL SPECIFICATION AND THE ADDENDUM TO THE LEACHATE MANAGEMENT PLAN, THE DISCREPANCY IS TO BE BROUGHT TO THE ATTENTION OF BREEN REPRESENTATIVE FOR RESOLUTION PRIOR TO CONSTRUCTION. WHERE IN DOUBT, AND A TIMELY RESOLUTION CANNOT BE ACHIEVED, THE HIGHER SPECIFICATION SHALL APPLY.

REFERENCE DOCUMENTS

1. ADDENDUM TO LANDFILL CELL B11 LEACHATE MANAGEMENT PLAN - 'CES070607-KLF-151216', REFERRED TO IN THIS DRAWING SET AS 'CES LMP Add'.
2. TECHNICAL SPECIFICATION FOR THE CONSTRUCTION OF THE LEACHATE BARRIER, LEACHATE COLLECTION AND CONVEYANCE SYSTEM AND LEACHATE HOLDING POND FOR LANDFILL CELL B11 STAGES B & C KURNELL LANDFILL FACILITY - 'CES070607-KLF-133' REFERRED TO IN THIS DRAWING PACKAGE AS KLF-133.

STORMWATER DRAINAGE NOTES

1. STORMWATER DESIGN CRITERIA:
(A) AVERAGE RECURRENCE INTERVAL: 50 YEAR ARI
(B) RAINFALL INTENSITIES: TIME OF CONCENTRATION: 5 MINUTES
10 YEAR ARI= 180 mm/hr
50 YEAR ARI= 241 mm/hr
2. PIPES TO BE REINFORCED CONCRETE CLASS '4' APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS. U.N.O.
3. ALL PIPES ARE TO BE UNIFORMLY SUPPORTED ALONG THE LENGTH OF THE BARREL BY SUITABLE FILL MATERIAL. REFER TO BEDDING SUPPORT TYPE.
4. PIPES WITH SOCKETS SHALL BE LAID IN BEDDING WHERE SUITABLE RECESSES HAVE BEEN PROVIDED TO ENSURE PIPES DO NOT BEAR ON THEIR SOCKETS.
5. PIPES TO BE INSTALLED TO TYPE HSI SUPPORT IN ACCORDANCE WITH AS 3725 (2007) IN ALL CASES BACKFILL TRENCH WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75).
6. REFER TO AS/NRS 3725:2007 TABLE B1 FOR REQUIRED FILL DEPTHS ABOVE PIPE BARREL PRIOR TO USE OF COMPACTION MACHINERY OR TRAVERSING OF PIPES BY GENERAL SITE EQUIPMENT.
7. ALL INTERNAL WORKS WITHIN PROPERTY BOUNDARIES ARE TO COMPLY WITH THE REQUIREMENTS OF AS 3500 3.1 (2003) AND AS/NZS 3500 3.2 (2003).
8. AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.

SURVEY NOTES

THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS ARE BASED OFF CURRENT AVAILABLE RECORDS, WITH THE INFORMATION SHOWN TO PROVIDE A BASIS FOR THE DESIGN. DISCREPANCIES MAY EXIST IN THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS. SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND THE ACTUAL FIELD DATA, CONTACT REPRESENTATIVE FROM BREEN.

CONTRACTOR IS TO PEG OUT SITE BOUNDARIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY. SETOUT INFORMATION PROVIDED IS TO BE CONFIRMED BASED ON BOUNDARY COORDINATES OBSERVED ON SITE.

SITEWORKS NOTES

1. VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK. ANY DISCREPANCIES TO BE REPORTED TO BREEN.
2. MAKE SMOOTH CONNECTION WITH EXISTING WORKS.

INSTALLATION TOLERANCES

1. SUBGRADE FINISHED SURFACE LEVELS SHALL BE WITHIN THE FOLLOWING TOLERANCES:
A. FLOOR
 - ELEVATION: - 25MM + 0M
 - LATERAL: +50MM
B. WALLS
 - ELEVATION: AT TOE OF BATTER 0 TO -75MM
 - LATERAL: +50MM
 - SLOPE ANGLE (FULL LENGTH OF BATTER): +3 DEGREES
2. ANCHOR TRENCH EXCAVATION (CENTRE LINE OF TRENCH) SHALL BE WITHIN THE FOLLOWING TOLERANCES
A. ELEVATION: +50MM
B. HORIZONTAL: +50MM

EXISTING SERVICES NOTES

THE LOCATIONS OF UNDERGROUND SERVICES HAVE NOT BEEN SHOWN ON THIS SET OF DRAWINGS. IT HAS BEEN ASSUMED THAT THERE ARE NO UNDERGROUND SERVICES ON THE SITE BASED OF SERVICE AUTHORITY INFORMATION RECEIVED (FROM A DIAL BEFORE YOU DIG APPLICATION). THE SERVICE INFORMATION RECEIVED ONLY SHOWS THE APPROXIMATE POSITIONS OF ANY KNOWN SERVICES AND MAY NOT BE AS CONSTRUCTED OR ACCURATE. THERE IS NO GUARANTEE THAT THE SERVICES INFORMATION ACCURATELY INDICATES THE PRESENCE OR ABSENCE OF SERVICES OR THEIR LOCATION AND CARDNO WILL NOT ACCEPT ANY LIABILITY FOR INACCURACIES IN THE SERVICES INFORMATION SHOWN FROM ANY CAUSE WHATSOEVER.

CONTRACTORS SHALL TAKE DUE CARE WHEN EXCAVATING ONSITE INCLUDING HAND EXCAVATION WHERE NECESSARY. CONTRACTORS ARE TO CONTACT THE RELEVANT SERVICE AUTHORITY PRIOR TO COMMENCEMENT OF EXCAVATION WORKS. CONTRACTORS ARE TO UNDERTAKE A SERVICES SEARCH, PRIOR TO COMMENCEMENT OF WORKS ON SITE. SEARCH RESULTS ARE TO BE KEPT ON SITE AT ALL TIMES.

ALL WORKS WITHIN THE AUSGRID POWERLINE EASEMENT ARE TO BE COMPLETED IN ACCORDANCE WITH WORK COVERS NSW WORKING NEAR OVERHEAD POWERLINES CODE OF PRACTICE. CONTRACTOR TO ENSURE THAT ALL APPROVALS ARE RECEIVED PRIOR TO ANY CONSTRUCTION WORK COMMENCING.

EROSION AND SEDIMENT CONTROL NOTES

GENERAL INSTRUCTIONS

1. EROSION AND SEDIMENTATION CONTROL TO BE COMPLETED THE SATISFACTION OF COUNCIL, NSW OFFICE OF WATER, OFFICE OF ENVIRONMENT, HERITAGE AND REPRESENTATIVE FROM BREEN.
2. A CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN IS TO BE PREPARED AND RECEIVE APPROVAL BY REPRESENTATIVE FROM BREEN. THE PLAN AND WORKS ARE TO ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE LOCATED AS DOCUMENTED OR AS OTHERWISE DIRECTED BY REPRESENTATIVE FROM BREEN.
a. LOCAL AUTHORITY REQUIREMENTS
b. EPA REQUIREMENTS
c. NSW DEPARTMENT OF HOUSING MANUAL "MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION", 4th EDITION, MARCH 2004.
3. MAINTAIN THE EROSION CONTROL DEVICES. ENSURE ALL EROSION & SEDIMENT CONTROL DEVICES ARE NOT DAMAGED DURING THE WORKS. REPAIRS AND OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED, IF DAMAGE OCCURS DURING THE WORKS.

LAND DISTURBANCE

4. WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE WILL BE KEPT AS LOW AS POSSIBLE. TO THIS END, WORKS SHOULD BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:
a. INSTALL A SEDIMENT FENCE ALONG THE BOUNDARIES
b. MAINTAIN AND MODIFY (WHERE REQUIRED) THE EXISTING SEDIMENT BASIN AND STORMWATER CHANNELS THAT DIVERT RUNOFF TO THE BASIN.
c. UNDERTAKE SITE WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. PHASE SITE WORKS SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF WORKABLE SIZE.

EROSION CONTROL

6. DURING WINDY WEATHER, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.

SEDIMENT CONTROL

7. STOCKPILES WILL NOT BE LOCATED WITHIN 2 METRES OF HAZARD AREAS, INCLUDING LIKELY AREAS OF CONCENTRATED OR HIGH VELOCITY FLOWS SUCH AS WATERWAYS. WHERE THEY ARE BETWEEN 2 AND 5 METRES FROM SUCH AREAS, SPECIAL SEDIMENT CONTROL MEASURES SHOULD BE TAKEN TO MINIMISE POSSIBLE POLLUTION TO DOWNSLOPE WATERS, E.G. THROUGH INSTALLATION OF SEDIMENT FENCING.
8. WATER WILL BE PREVENTED FROM LEAVING SITE AND FROM ENTERING COUNCIL'S DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE, I.E. THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED THROUGH A SUITABLE STRUCTURE.
9. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.

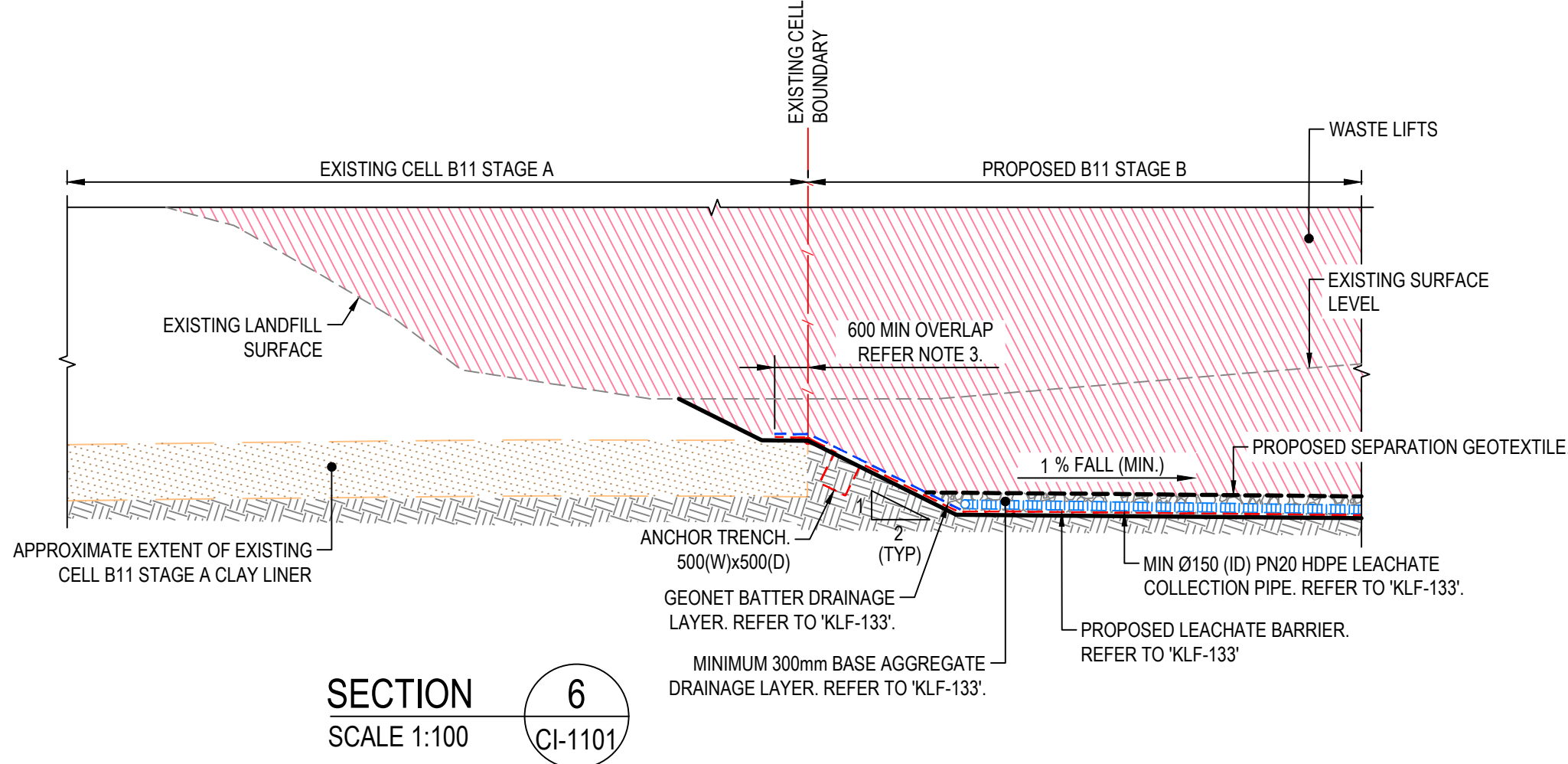
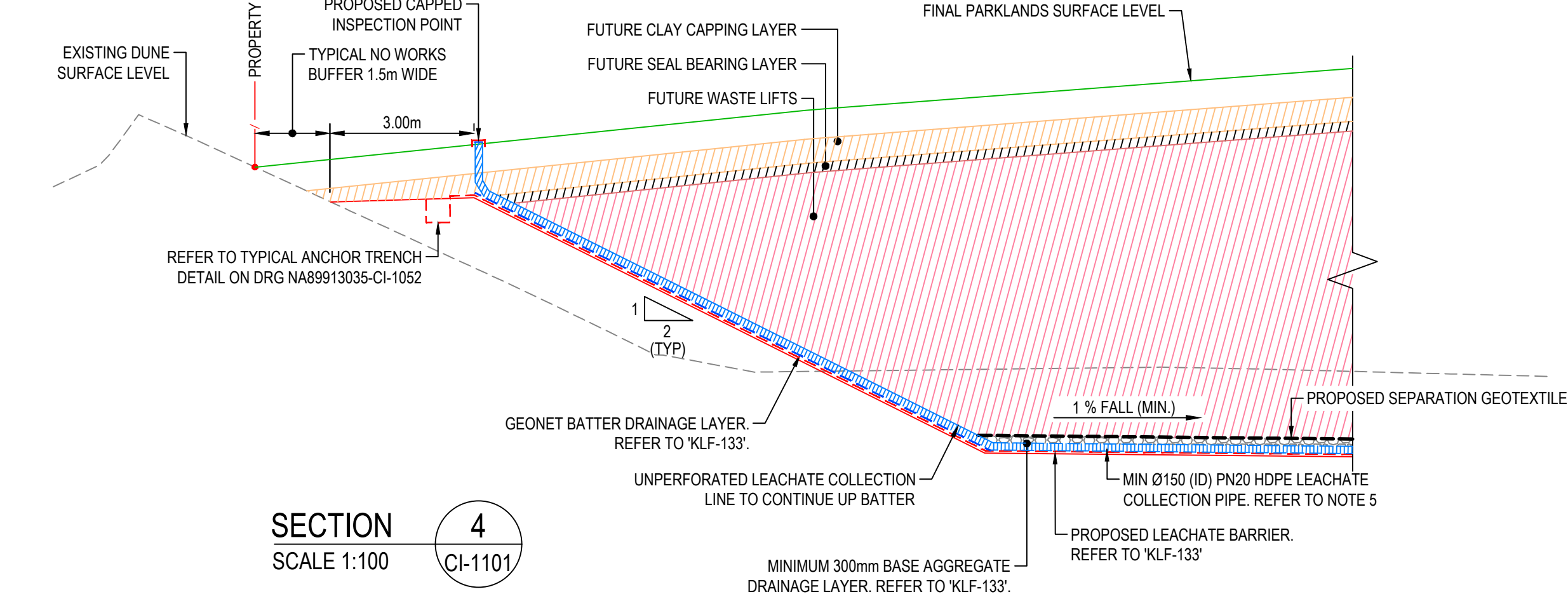
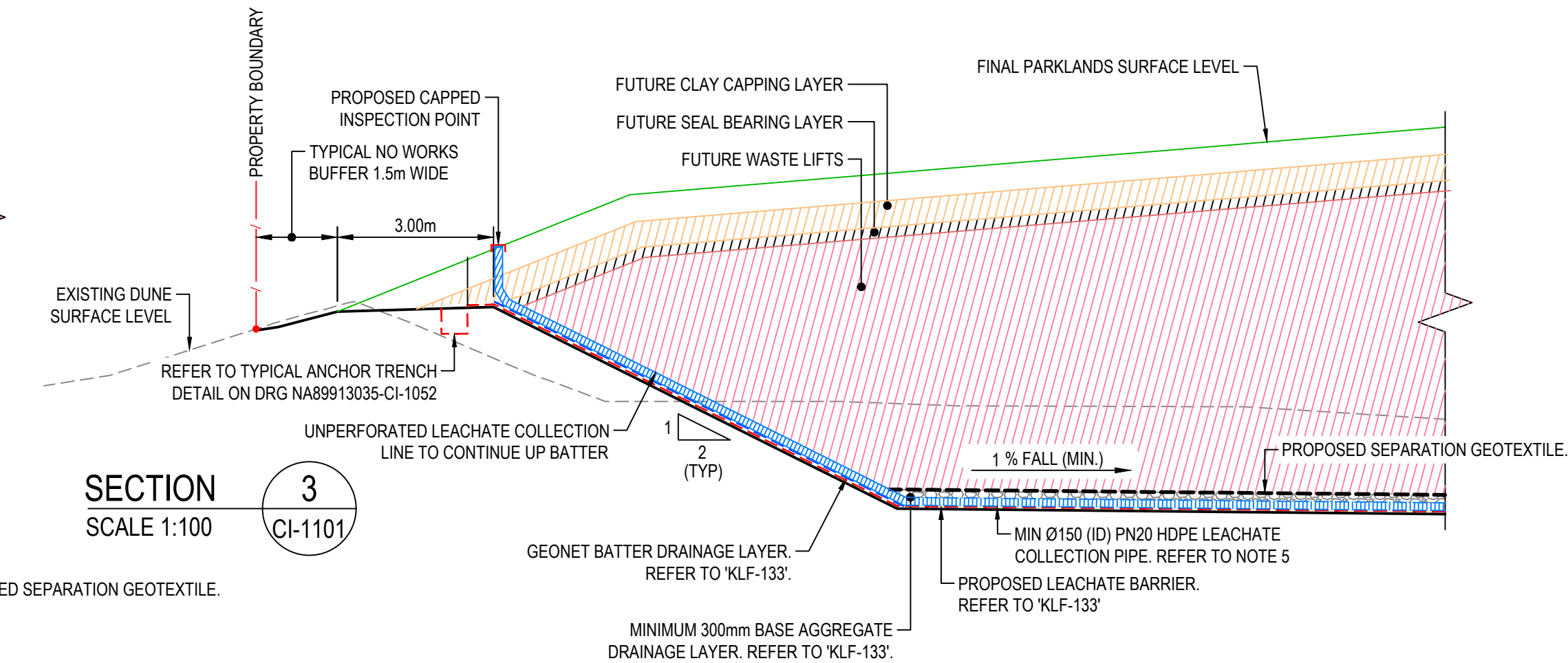
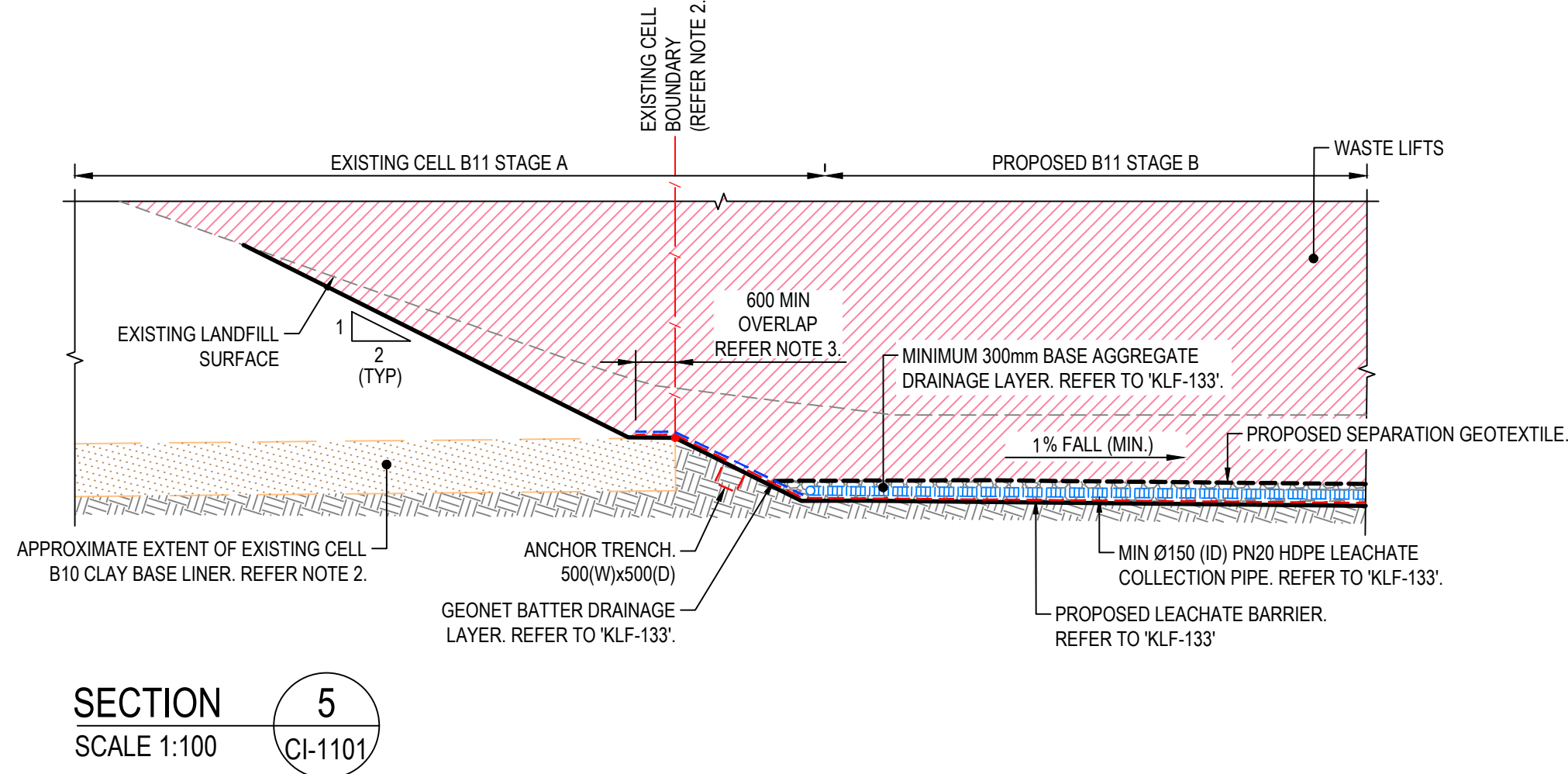
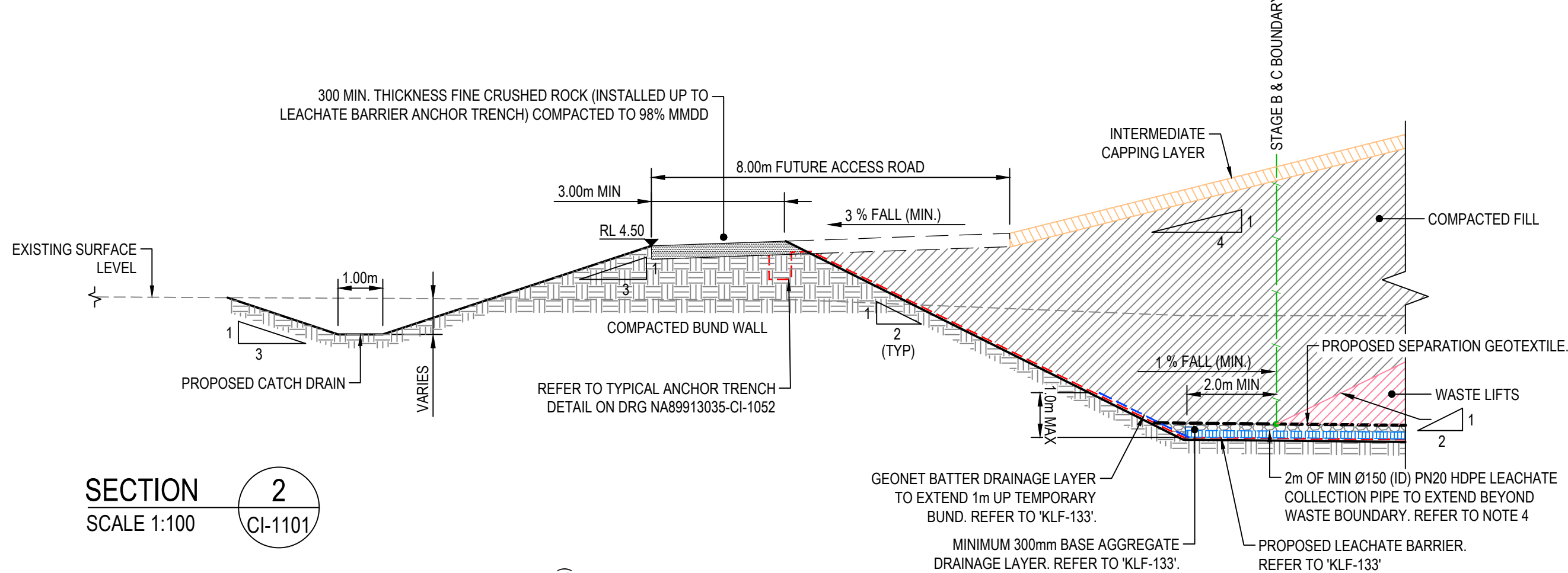
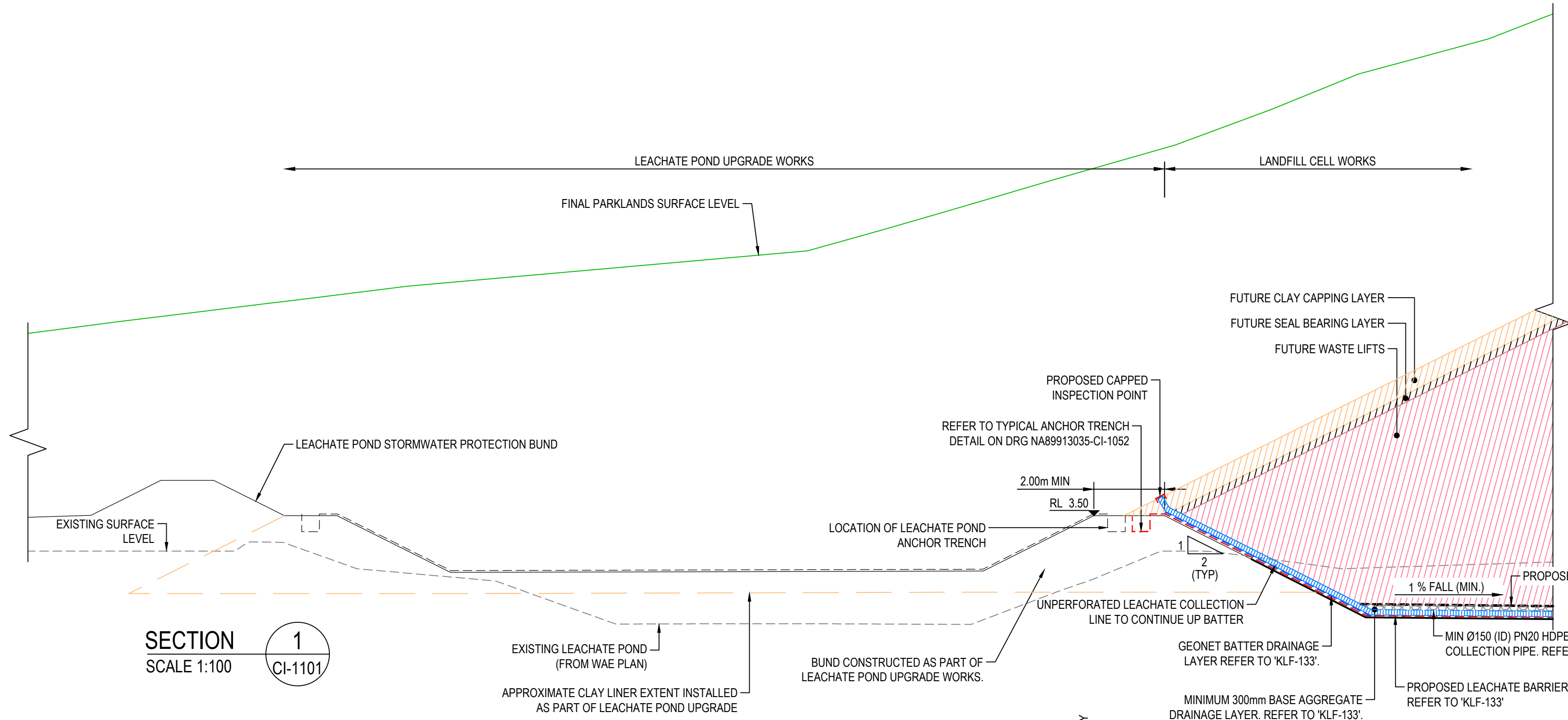
EARTHWORKS NOTES

SUBGRADE EXCAVATION AND PLACEMENT OF FILL

1. PRIOR TO INSTALLING ANY COMPONENTS ABOVE THE SUBGRADE, THE FLOOR MUST BE SMOOTHED WITH A ROLLER SUCH THAT ANY SOFT AREAS, ASPERITIES, PROTRUSIONS, OBJECTS OR DEBRIS ARE REMOVED AND INSPECTED BY THE GEOTECHNICAL PRACTITIONER.
2. A MINIMUM OF 1 X FIELD DENSITY TEST SHALL BE PERFORMED FOR EACH PORTION OF THE WORKS OF THE SUBGRADE. AS PER ASS3798 95% STANDARD COMPACTION SHALL BE ACHIEVED.
3. PROOF ROLL THE EXPOSED SUBGRADE IN ACCORDANCE WITH ASS3798-2007. EACH PROOF ROLL SHALL COMPRISE A MIN 6 TO 8 PASSES OF A SMOOTH DRUM STATIC ROLLER MINIMUM 12 TONNE OR OTHER SUITABLE PLANT APPROVED BY THE GEOTECHNICAL PRACTITIONER.
4. SHOULD A PROTRACTED PERIOD OF TIME ELAPSE BETWEEN PROOF ROLL TESTING AND LINER DEPLOYMENT, THE SUBGRAE IS TO BE FURTHER ASSESSED BY THE GEOTECHNICAL PRACTITIONER.
5. WHERE FILL IS TO BE PLACED TO ACHIEVE FSL THE FOLLOWING APPLIES:
A. FOR FILL LESS THAN 500MM THICK, FILL IS TO BE PLACED IN NO MORE THAN 250MM LIFTS
B. FOR FILL GREATER THAN 500MM THICK, FILL IS TO BE PLACED IN NO MORE THAN 250MM LIFTS AND COMPACTED TO ACHIEVE A MINIMUM 95% STANDARD MAXIMUM DRY DENSITY RATIO (SMDDR). THE MOISTURE CONTENT OF THE FILL SHOULD BE + - 5% OF STANDARD OPTIMUM MOISTURE CONTENT (OMC).
a. FIELD DENSITY TESTS SHALL BE CARRIED OUT AS FOLLOWS:
 - 1 TEST PER LAYER PER MATERIAL TYPE PER 2,500M2 OR;
 - 1 TEST PER 500M3 DISTRIBUTED EVENLY THROUGH THE FULL DEPTH AND AREA
6. LOCALISED DEEPENING OF THE SUBGRADE IS REQUIRED AT THE LOCATION OF THE FLUID PRESSURE VENTING TRENCHES TO MAINTAIN A MINIMUM CCL THICKNESS OF 600MM.

5	2/02/2018	REISSUED FOR CONSTRUCTION (NOTE CHANGES)	AGL	GJN	
4	31/01/2018	ISSUED FOR CONSTRUCTION	PKD	GJN	
3	20/12/2017	ISSUED FOR FINAL REVIEW	PKD	GJN	
2	21/11/2017	ISSUED FOR CLIENT REVIEW	PKD	GJN	
1	29/05/2017	ISSUED FOR CLIENT REVIEW	PKD	GJN	
Rev.	Date	Description	Des.	Verif.	Appd.

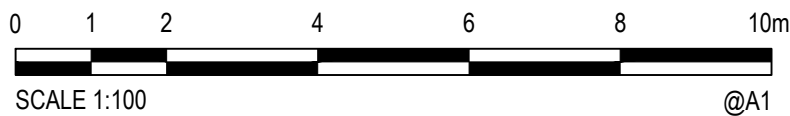
© Cardno Limited All Rights Reserved. This document is produced by Cardno Limited solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Limited does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.			 Cardno (NSW/ACT) Pty Ltd ABN 95 001 145 035 Level 9, The Forum, 203 Pacific Highway St Leonards, NSW 2055 Tel: 02 9496 7700 Fax: 02 9439 5170 Web: www.cardno.com.au			Drawn PKD 29/05/2017 Checked GJN 29/05/2017 Designed PKD 17/05/2017 Verified GJN 29/05/2017 Approved			Client BREEN RESOUCES PTY LTD Project KURNELL LANDFILL FACILITY LANDFILL CELL B11 STAGE B Title NOTES SHEET			Status FOR CONSTRUCTION		
												DATE May-17 Scale - Size A1		
												Drawing Number N489913035-CI-1011 Revision 5		



LEGEND	
	TRIPLANAR GEOCOMPOSITE
	SEPARATION GEOTEXTILE
	LEACHATE BARRIER

- NOTES**
- THE EXISTING CELL B10 CLAY LINER HAS BEEN POT-HOLED IN ISOLATED AREAS AND THE DEPTH IS KNOWN. THE LATERAL EXTENTS OF THE LINER ARE RELATIVELY UNKNOWN AND ARE TO BE DETERMINED ON SITE.
 - THERE IS TO BE A 600mm MIN OVERLAP OF THE GCL, HDPE AND GEONET OVER THE EXISTING CLAY BASE OF CELL B10 AND B11 STAGE A.
 - ALL LEACHATE COLLECTION PIPES TO BE CAPPED AT UPSTREAM END.
 - THE UPSTREAM END OF THE LEACHATE COLLECTION LINES ON THE EASTERN BOUNDARY ARE TO BE WRAPPED IN GEOTEXTILE AND MARKED AS A UTILITY FOR FUTURE REFERENCE. A 2m x 2m PLATE OF MARINE GRADE PLY WOOD OR SIMILAR IS TO BE PROVIDED OVER THE END AS THE MARKER.
 - HDPE COLLECTION PIPES ARE TO EXTEND UP THE SOUTHERN AND NORTHERN BUND WALLS TO THE CREST. THESE PIPES FROM THE TOE TO THE CREST ARE TO BE UNPERFORATED AND CAPS REMOVABLE.

Rev.	Date	Description	Des.	Verif.	Appd.
5	2/02/2018	REISSUED FOR CONSTRUCTION (AMENDED GEONET)	AGL	GJN	
4	31/01/2018	ISSUED FOR CONSTRUCTION	PDK	GJN	
3	20/12/2017	ISSUED FOR FINAL REVIEW	PDK	GJN	
2	21/11/2017	ISSUED FOR CLIENT REVIEW	PDK	GJN	
1	29/05/2017	ISSUED FOR CLIENT REVIEW	PDK	GJN	



© Cardno Limited All Rights Reserved.
This document is produced by Cardno Limited solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Limited does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

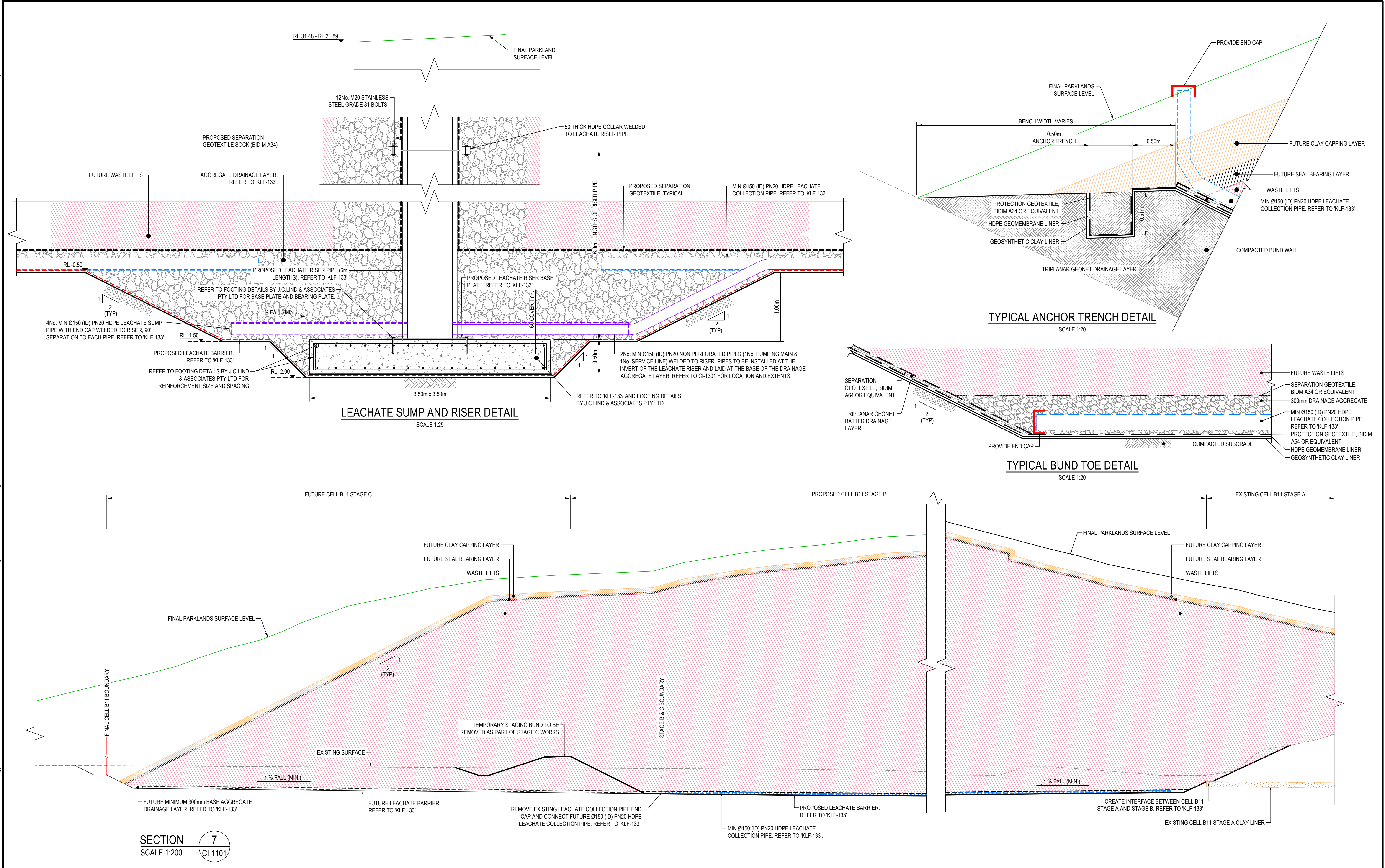
Cardno
Shaping the Future
Cardno (NSW/ACT) Pty Ltd | ABN 95 001 145 035
Level 9, The Forum, 203 Pacific Highway
St. Leonards, NSW 2055
Tel: 02 9496 7700 Fax: 02 9439 5170
Web: www.cardno.com.au

Drawn PDK	Date 29/05/2017	Client BREEN RESOURCES PTY LTD
Checked GJN	Date 29/05/2017	Project KURNELL LANDFILL FACILITY
Designed PDK	Date 17/05/2017	LANDFILL CELL B11
Verified GJN	Date 29/05/2017	STAGE B
Approved		Title TYPICAL SECTIONS AND DETAILS SHEET SHEET 1

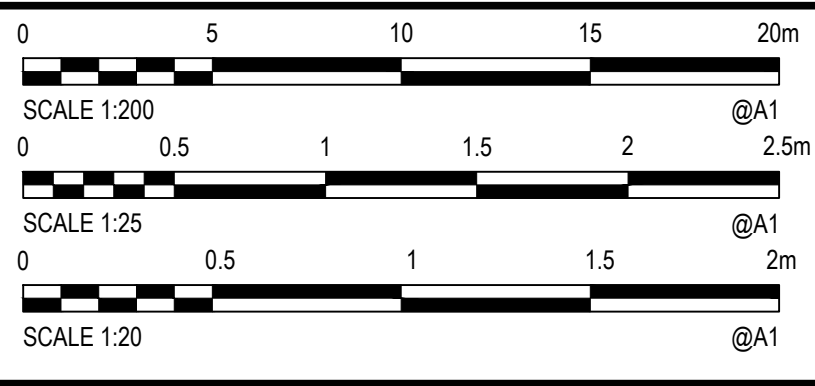
Status			
FOR CONSTRUCTION			
DATUM	DATE	Scale	Size
AHD	May-17	AS SHOWN	A1
Drawing Number			Revision
NA89913035-CI-1051			5

DATE PLOTTED: 2 February 2018 11:24 AM BY: ADRIAN LU

XREFs: CAD File: N:\Projects\8991000\N89913035-Kurnell Landfill Site\Stormwater Strategy\01 - KURNELL LANDFILL SITE\01 - STORMWATER STRATEGY_Landfill Cell B11\Drawings\N89913035-CI-1051-1052.dwg



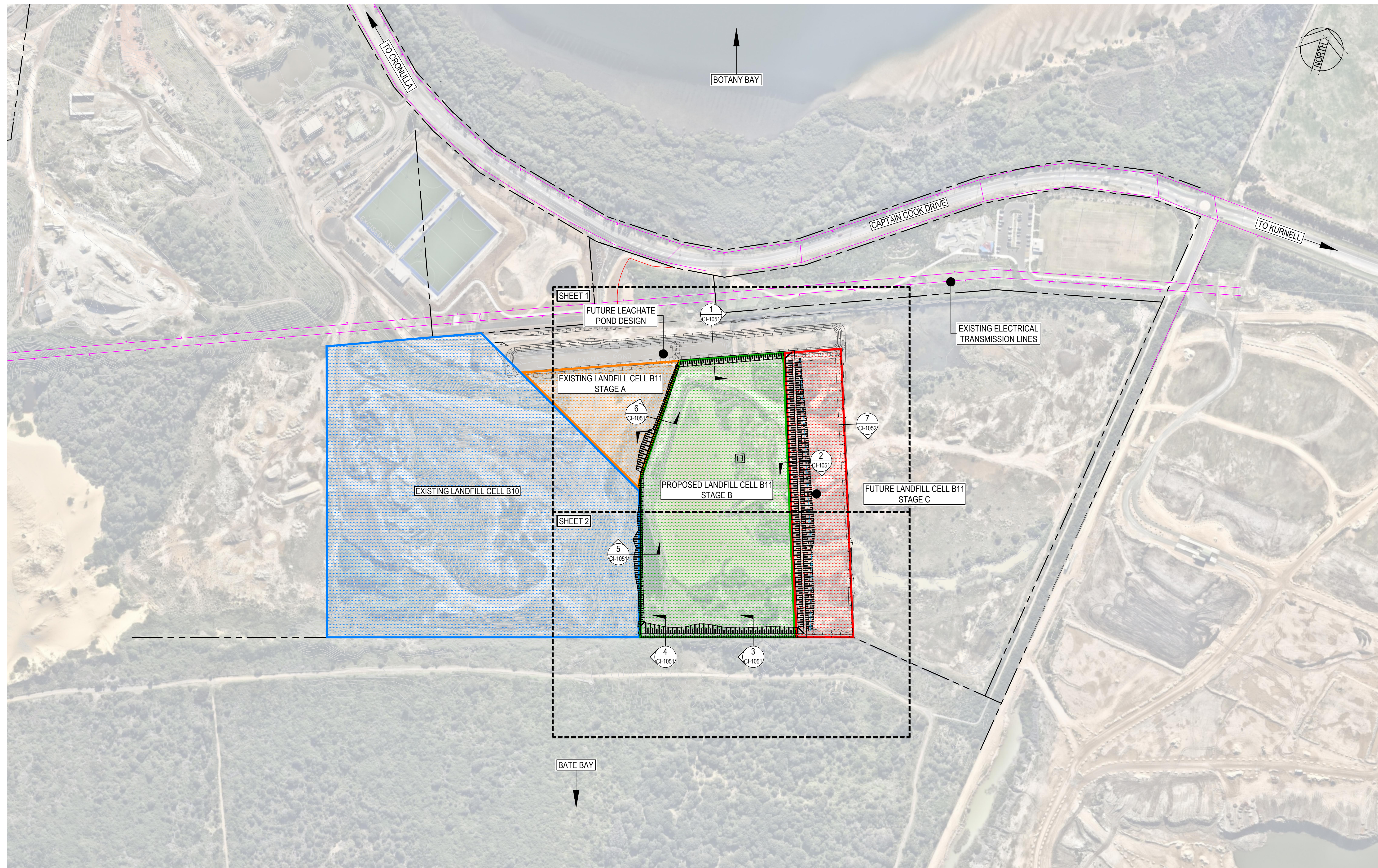
Rev.	Date	Description	Des.	Verif.	Appd.
5	2/02/2018	REISSUED FOR CONSTRUCTION (NEW PROTECTION GEOTEXTILE)	AGL	GJN	
4	31/01/2018	ISSUED FOR CONSTRUCTION	PKD	GJN	
3	20/12/2017	ISSUED FOR FINAL REVIEW	PKD	GJN	
2	21/11/2017	ISSUED FOR CLIENT REVIEW	PKD	GJN	
1	29/05/2017	ISSUED FOR CLIENT REVIEW	PKD	GJN	



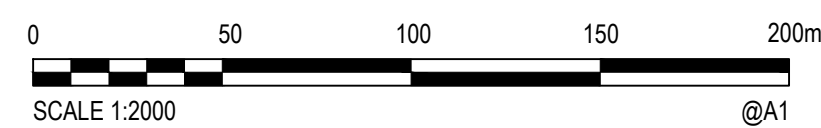
© Cardno Limited All Rights Reserved.
This document is produced by Cardno Limited solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Limited does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Drawn PKD	Date 29/05/2017	Client BREEN RESOURCES PTY LTD
Checked GJN	Date 29/05/2017	Project KURNELL LANDFILL FACILITY
Designed PKD	Date 17/05/2017	LANDFILL CELL B11
Verified GJN	Date 29/05/2017	STAGE B
Approved		Title TYPICAL SECTIONS AND DETAILS SHEET SHEET 2
Status FOR CONSTRUCTION		
DATUM AHD	DATE May-17	Scale AS SHOWN
Drawing Number N89913035-CI-1052	Size A1	Revision 5



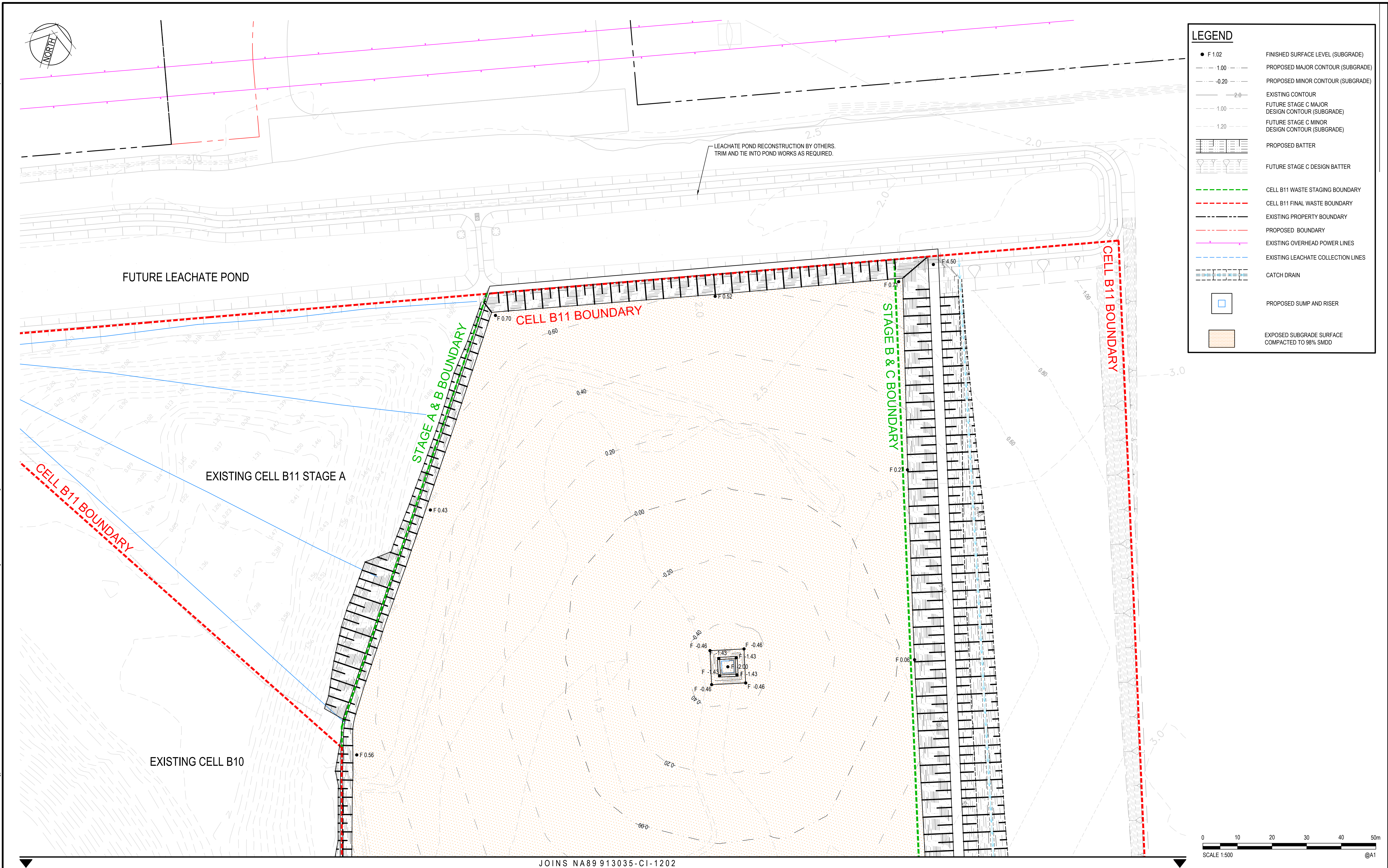
4	31/01/2018	ISSUED FOR CONSTRUCTION	PDK		GJN	
3	20/12/2017	ISSUED FOR FINAL REVIEW	PDK		GJN	
2	21/11/2017	ISSUED FOR CLIENT REVIEW	PDK	GJN		
1	29/05/2017	ISSUED FOR CLIENT REVIEW	PDK	GJN		
Rev.	Date	Description	Des.	Verif.	Appd.	



© Cardno Limited All Rights Reserved.
This document is produced by Cardno Limited solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Limited does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Drawn PDK	Date 29/05/2017	Client BREEN RESOURCES PTY LTD				
Checked GJN	Date 29/05/2017	Project KURNELL LANDFILL FACILITY LANDFILL CELL B11 STAGE B	Status FOR CONSTRUCTION			
Designed PDK	Date 17/05/2017					
Verified GJN	Date 29/05/2017					
Approved						
		Title GENERAL ARRANGEMENT PLAN				
			DATING AHD May-17		Scale 1:2000	Size A1
			Drawing Number NA89913035-CI-1101			Revision 4



4	31/01/2018	ISSUED FOR CONSTRUCTION	PDK		GJN
3	20/12/2017	ISSUED FOR FINAL REVIEW	PDK		GJN
2	21/11/2017	ISSUED FOR CLIENT REVIEW	PDK	GJN	
1	29/05/2017	ISSUED FOR CLIENT REVIEW	PDK	GJN	
Rev.	Date	Description	Des.	Verif.	Appd.

© Cardno Limited All Rights Reserved.
This document is produced by Cardno Limited solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Limited does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

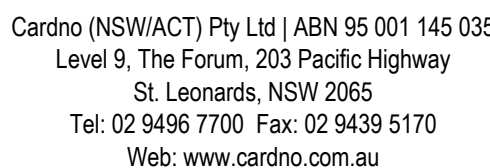


Drawn PDK	Date 29/05/2017	Client BREEN RESOURCES PTY LTD				
Checked GJN	Date 29/05/2017	Project KURNELL LANDFILL FACILITY LANDFILL CELL B11 STAGE B	Status FOR CONSTRUCTION			
Designed PDK	Date 17/05/2017					
Verified GJN	Date 29/05/2017		DATUM AHD	DATE May-17	Scale 1:500	Size A1
Approved		Title SUBGRADE LEVEL AND GRADING PLAN SHEET 1	Drawing Number NA89913035-CI-1201			
			Revision 4			



4	31/01/2018	ISSUED FOR CONSTRUCTION		PDK		GJN	
3	20/12/2017	ISSUED FOR FINAL REVIEW		PDK		GJN	
2	21/11/2017	ISSUED FOR CLIENT REVIEW		PDK	GJN		
1	29/05/2017	ISSUED FOR CLIENT REVIEW		PDK	GJN		
Rev.	Date	Description		Des.	Verif.	Appd.	

This document is produced by Cardno Limited solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Limited does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Drawn PDK	Date 29/05/2017	Client	BREEN RESOURCES PTY LTD					
Checked GJN	Date 29/05/2017	Project	KURNELL LANDFILL FACILITY LANDFILL CELL B11 STAGE B		Status FOR CONSTRUCTION			
Designed PDK	Date 17/05/2017							
Verified GJN	Date 29/05/2017							
Approved		Title	SUBGRADE LEVEL AND GRADING PLAN SHEET 2		Datum AHD			
					Date May-17		Scale 1:500	Size A1
			Drawing Number NA89913035-CI-1202					Revision 4



4	31/01/2018	ISSUED FOR CONSTRUCTION	PDK		G/JN	
3	20/12/2017	ISSUED FOR FINAL REVIEW	PDK		G/JN	
2	21/11/2017	ISSUED FOR CLIENT REVIEW	PDK	G/JN		
1	29/05/2017	ISSUED FOR CLIENT REVIEW	PDK	G/JN		
Rev.	Date	Description	Des.	Verif.	Appd.	

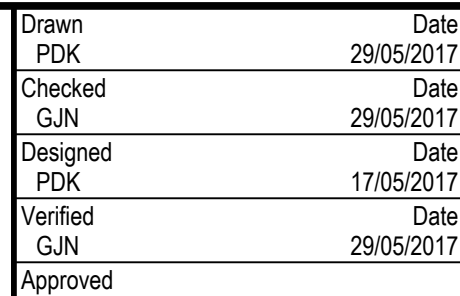
© Cardno Limited All Rights Reserved.
This document is produced by Cardno Limited solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Limited does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Drawn PDK	Date 29/05/2017	Client BREEN RESOURCES PTY LTD					
Checked GJN	Date 29/05/2017	Project KURNELL LANDFILL FACILITY LANDFILL CELL B11 STAGE B	Status FOR CONSTRUCTION				
Designed PDK	Date 17/05/2017		DATUM AHD		DATE May-17	Scale 1:500	Size A1
Verified GJN	Date 29/05/2017		Drawing Number NA89913035-CI-1301		Revision 4		
Approved		Title DRAINAGE PLAN SHEET 1					



© Cardno Limited All Rights Reserved.
This document is produced by Cardno Limited solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Limited does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Client BREEN RESOURCES PTY LTD					
Project KURNELL LANDFILL FACILITY LANDFILL CELL B11 STAGE B		Status FOR CONSTRUCTION			
		DATUM AHD	DATE May-17	Scale 1:500	Size A1
Title DRAINAGE PLAN SHEET 2		Drawing Number NA89913035-CI-1302			Revision 6

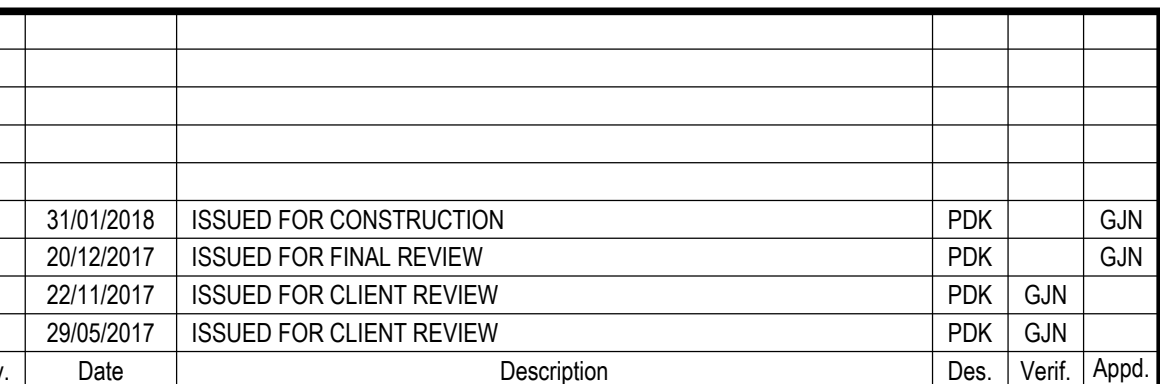
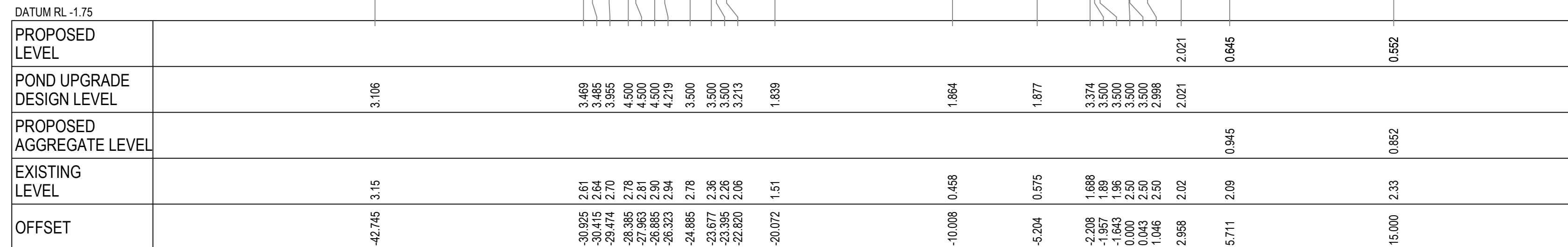


6	13/04/2018	ISSUED FOR CONSTRUCTION (AMEND SOUTH STORMWATER LINE)	PDK	GJN	
5	26/03/2018	ISSUED FOR CONSTRUCTION (AMEND SOUTH STORMWATER LINE)	PDK	GJN	
4	31/01/2018	ISSUED FOR CONSTRUCTION	PDK	GJN	
3	20/12/2017	ISSUED FOR FINAL REVIEW	PDK	GJN	
2	21/11/2017	ISSUED FOR CLIENT REVIEW	PDK	GJN	
1	29/05/2017	ISSUED FOR CLIENT REVIEW	PDK	GJN	
Rev.	Date	Description	Des.	Verif.	Appd.

 **Cardno®**
Shaping the Future

Cardno (NSW/ACT) Pty Ltd | ABN 95 001 145 035
Level 9, The Forum, 203 Pacific Highway
St. Leonards, NSW 2065
Tel: 02 9496 7700 Fax: 02 9439 5170
Web: www.cardno.com.au

Drawn PDK	Date 29/05/2017	Client BREEN RESOURCES PTY LTD				
Checked GJN	Date 29/05/2017	Project KURNELL LANDFILL FACILITY LANDFILL CELL B11 STAGE B	Status FOR CONSTRUCTION			
Designed PDK	Date 17/05/2017					
Verified GJN	Date 29/05/2017					
Title						
Approved		LONGITUDINAL SECTIONS SHEET 1	DATUM AHD DATE May-17 Scale AS SHOWN Size A1			
			Drawing Number NA89913035-CI-1401 Revision 6			



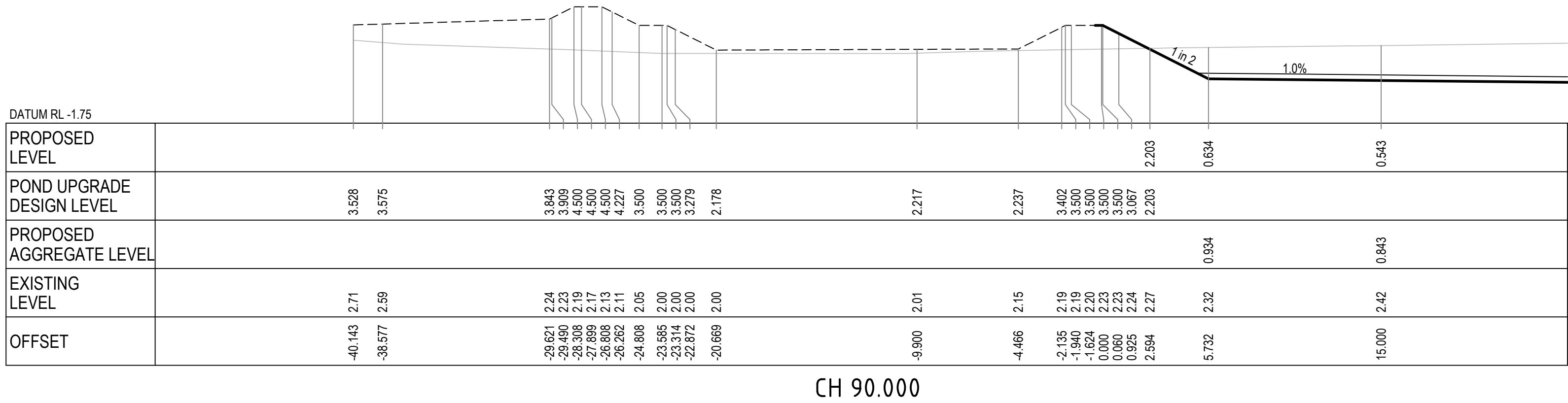
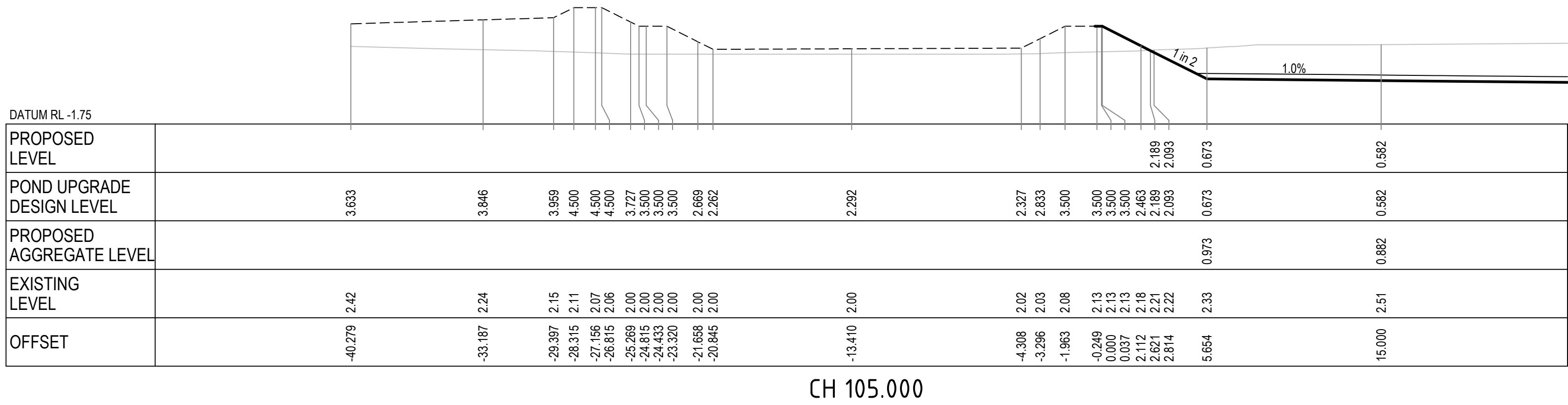
© Cardno Limited All Rights Reserved.
This document is produced by Cardno Limited solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Limited does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Drawn PDK	Date 29/05/2017	Client BREEN RESOURCES PTY LTD				
Checked GJN	Date 29/05/2017	Project KURNELL LANDFILL FACILITY LANDFILL CELL B11 STAGE B	Status FOR CONSTRUCTION			
Designed PDK	Date 17/05/2017					
Verified GJN	Date 29/05/2017					
Approved		Title NORTH CELL BOUNDARY CROSS SECTIONS SHEET 1	Drawing Number NA89913035-CI-1501			
			DATUM AHD	DATE May-17	Scale 1:200	Size A1
			Revision 4			

DATE PLOTTED: 31 January 2018 7:06 PM BY: PATRICK KING

XREFs:
CAD File: N:\Projects\989000\00\NA88913035-Kurnell Landfill Site Stormwater Strategy\01 - KURNELL LANDFILL SITE\011 - STORMWATER STRATEGY_Landfill Cell B11\Drawings\NA88913035-CI-1501-1502.dwg



4	31/01/2018	ISSUED FOR CONSTRUCTION	PDK	GJN	
3	20/12/2017	ISSUED FOR FINAL REVIEW	PDK	GJN	
2	22/11/2017	ISSUED FOR CLIENT REVIEW	PDK	GJN	
1	29/05/2017	ISSUED FOR CLIENT REVIEW	PDK	GJN	
Rev.	Date	Description	Des.	Verif.	Appd.

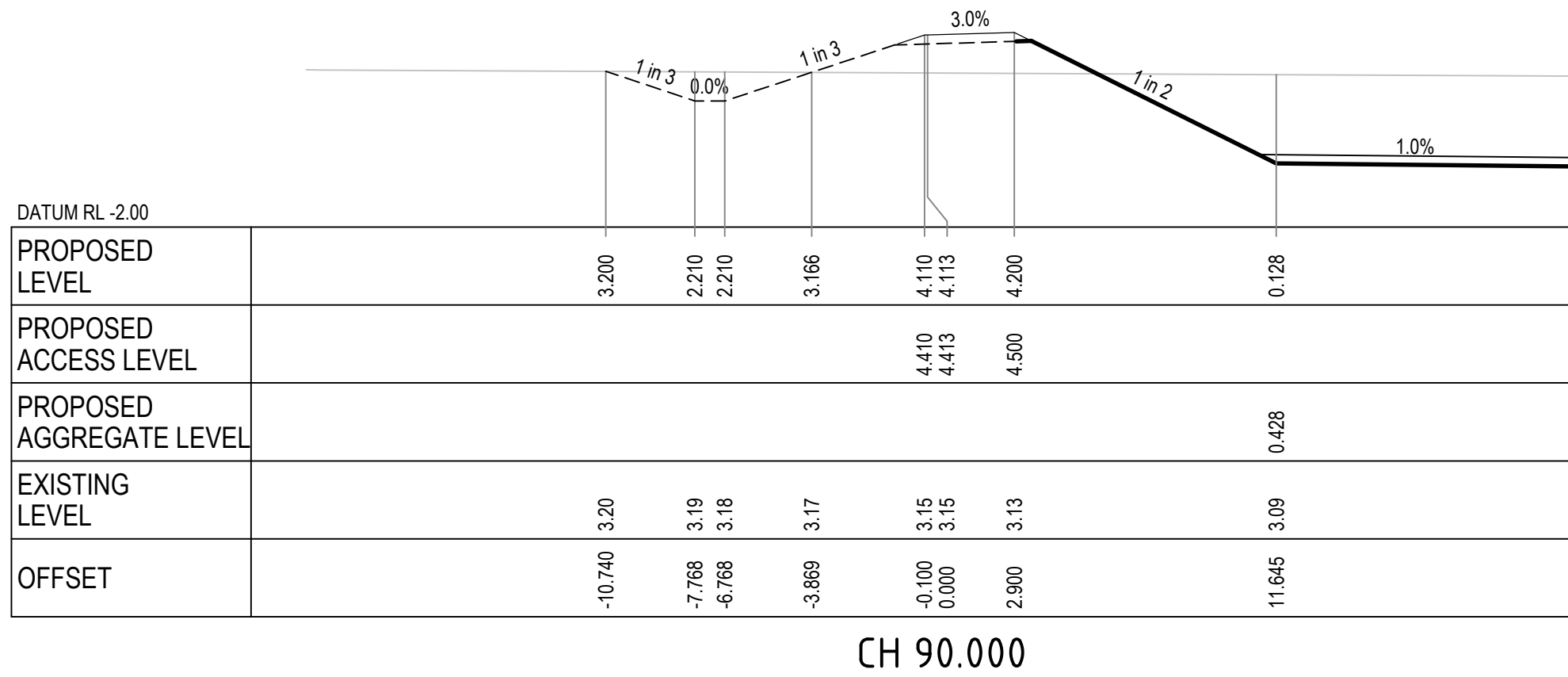
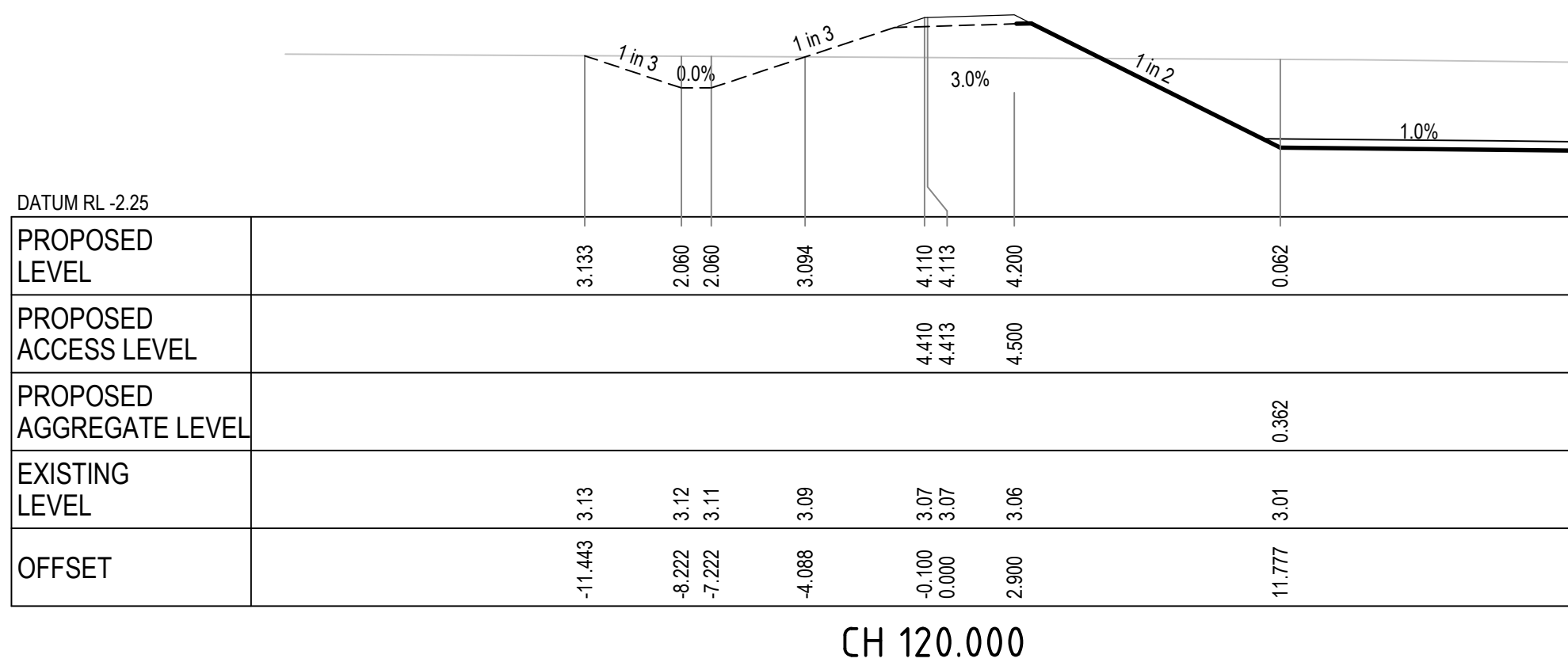
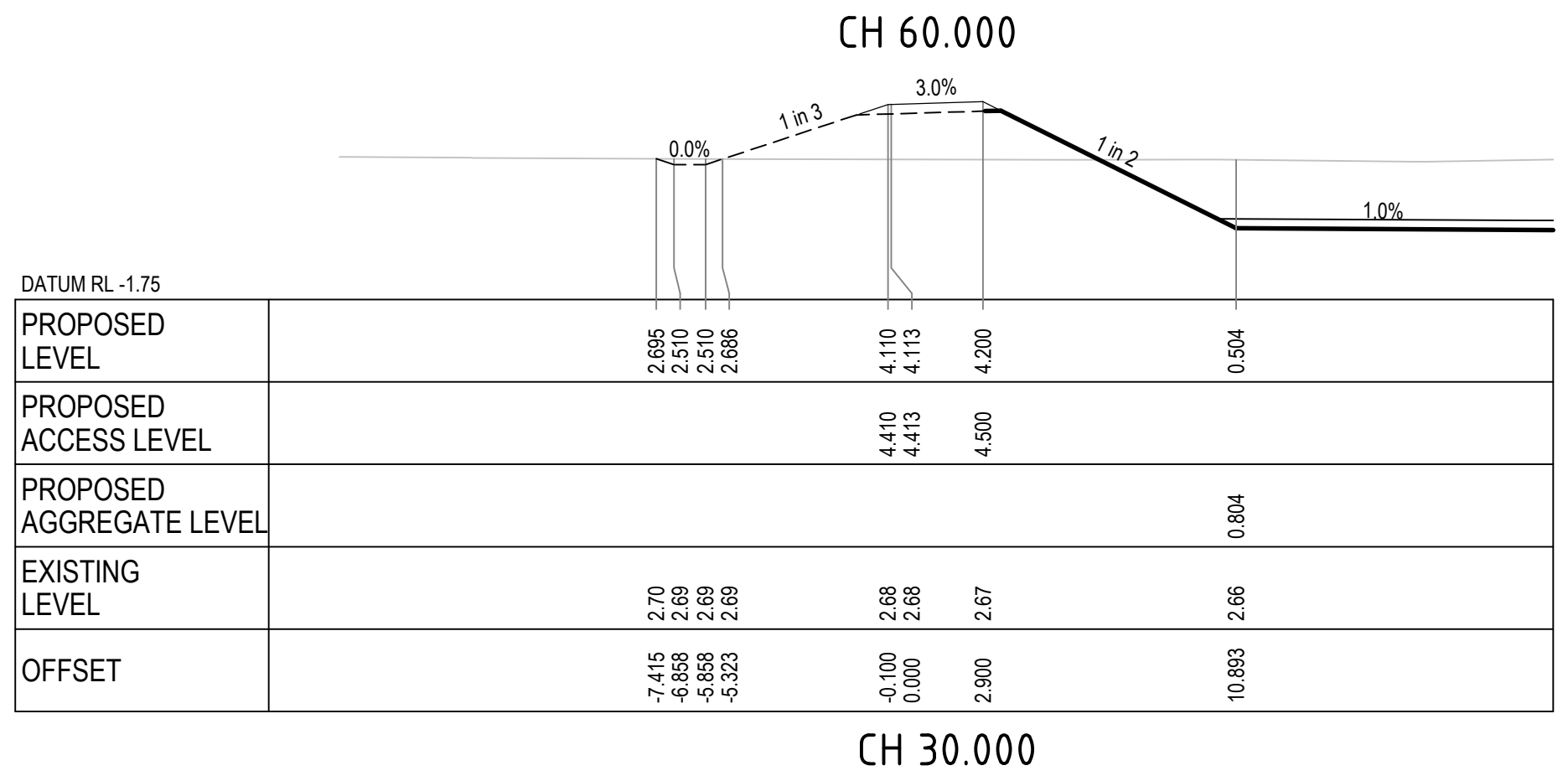
© Cardno Limited All Rights Reserved.
This document is produced by Cardno Limited solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Limited does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Cardno
Shaping the Future

Cardno (NSW/ACT) Pty Ltd | ABN 95 001 145 035
Level 9, The Forum, 203 Pacific Highway
St Leonards, NSW 2065
Tel: 02 9496 7700 Fax: 02 9439 5170
Web: www.cardno.com.au

Drawn PDK	Date 29/05/2017	Client BREEN RESOUCES PTY LTD
Checked GJN	Date 29/05/2017	Project KURNELL LANDFILL FACILITY
Designed PDK	Date 17/05/2017	LANDFILL CELL B11
Verified GJN	Date 29/05/2017	STAGE B
Approved		Title NORTH CELL BOUNDARY CROSS SECTIONS SHEET 2
Status FOR CONSTRUCTION		
DATUM AHD	DATE May-17	Scale 1:200
Drawing Number NA89913035-CI-1502	Size A1	Revision 4

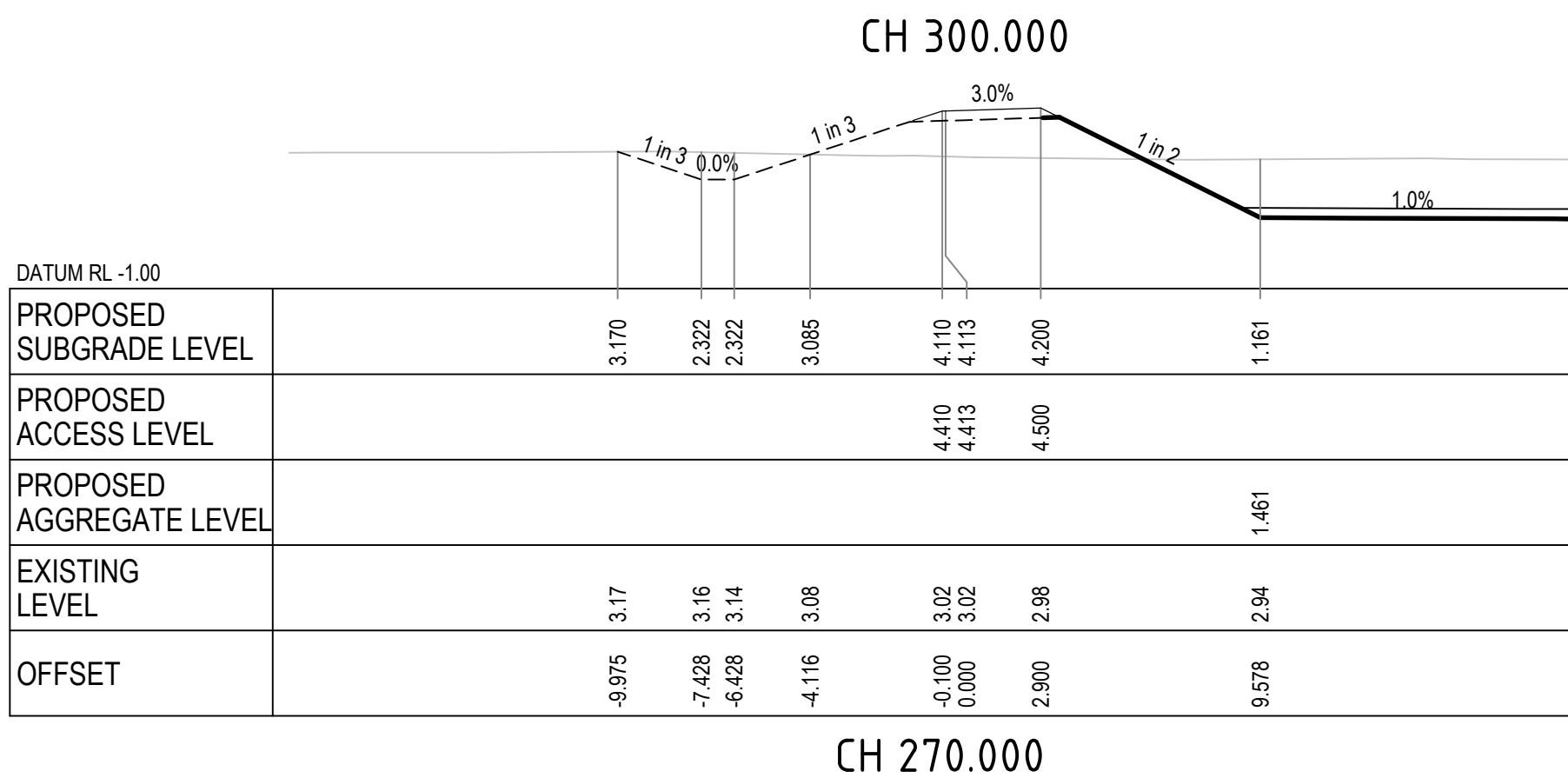
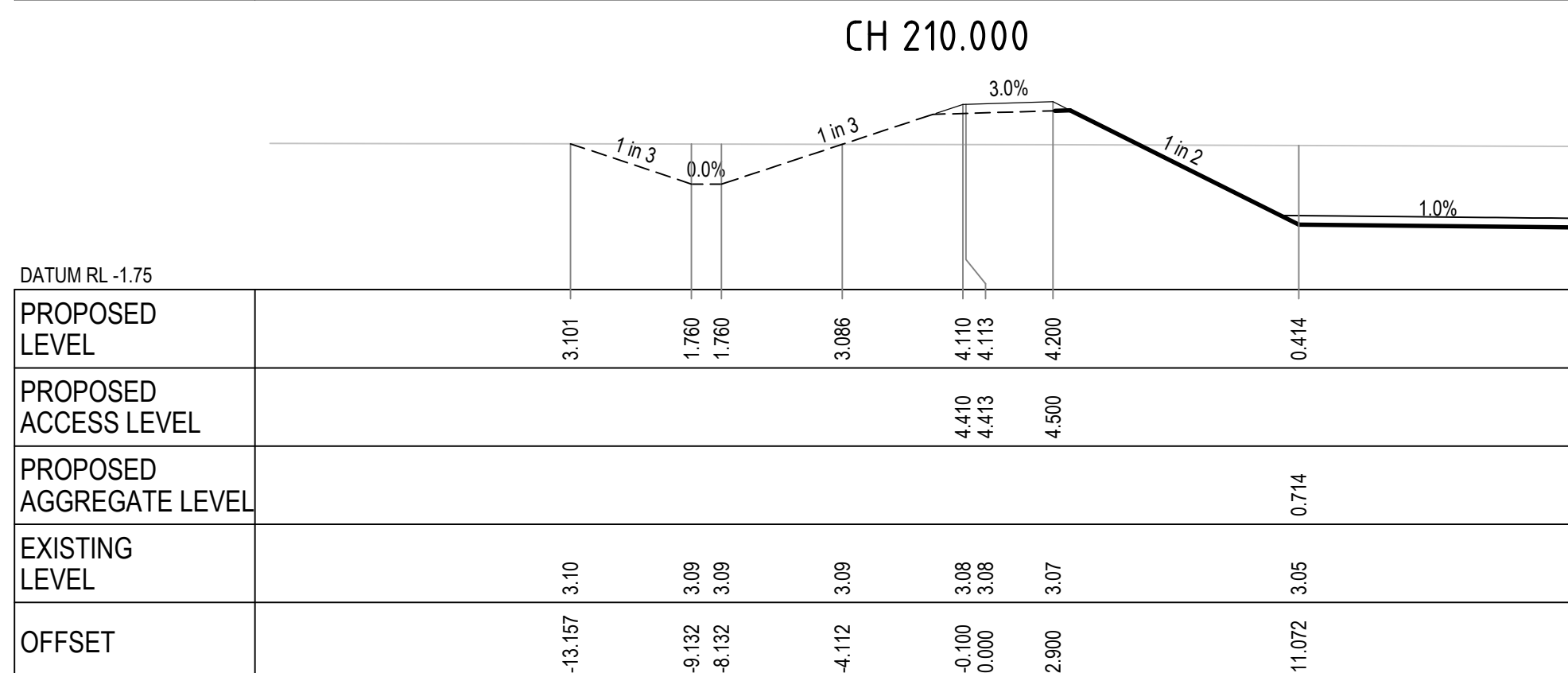


4	31/01/2018	ISSUED FOR CONSTRUCTION	PDK		G/JN	
3	20/12/2017	ISSUED FOR FINAL REVIEW	PDK		G/JN	
2	22/11/2017	ISSUED FOR CLIENT REVIEW	PDK	G/JN		
1	29/05/2017	ISSUED FOR CLIENT REVIEW	PDK	G/JN		
Rev.	Date	Description	Des.	Verif.	Appd.	

© Cardno Limited All Rights Reserved.
This document is produced by Cardno Limited solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Limited does not and shall not assume any responsibility or liability whatsoever to any party arising out of any use or reliance by third party on the content of this document.



Drawn PDK	Date 29/05/2017	Client BREEN RESOURCES PTY LTD				
Checked G-JN	Date 29/05/2017	Project KURNELL LANDFILL FACILITY LANDFILL CELL B11 STAGE B	Status FOR CONSTRUCTION			
Designed PDK	Date 17/05/2017					
Verified G-JN	Date 29/05/2017					
Approved		Title EAST TEMPORARY BUND CELL BOUNDARY CROSS SECTIONS SHEET 1	DATUM AHD May-17		Scale 1:200	Size A1
			Drawing Number NA89913035-CI-1511			Revision 4



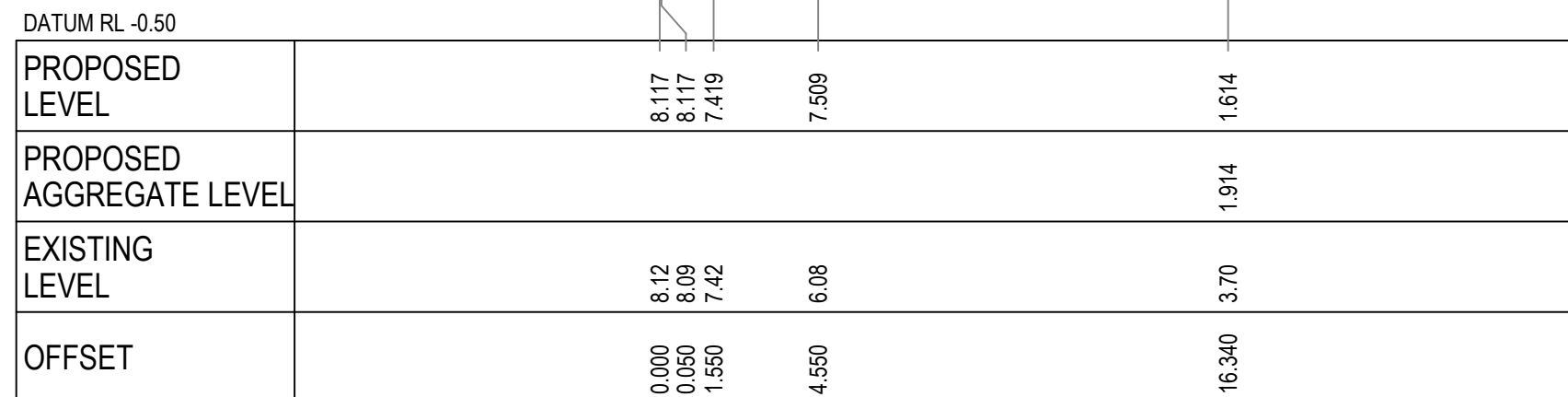
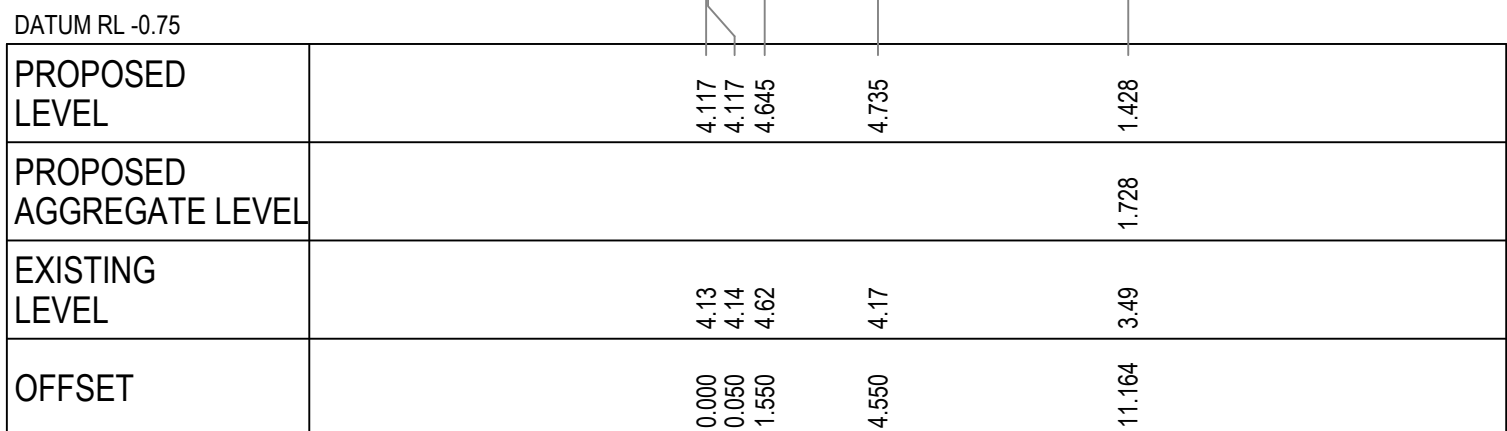
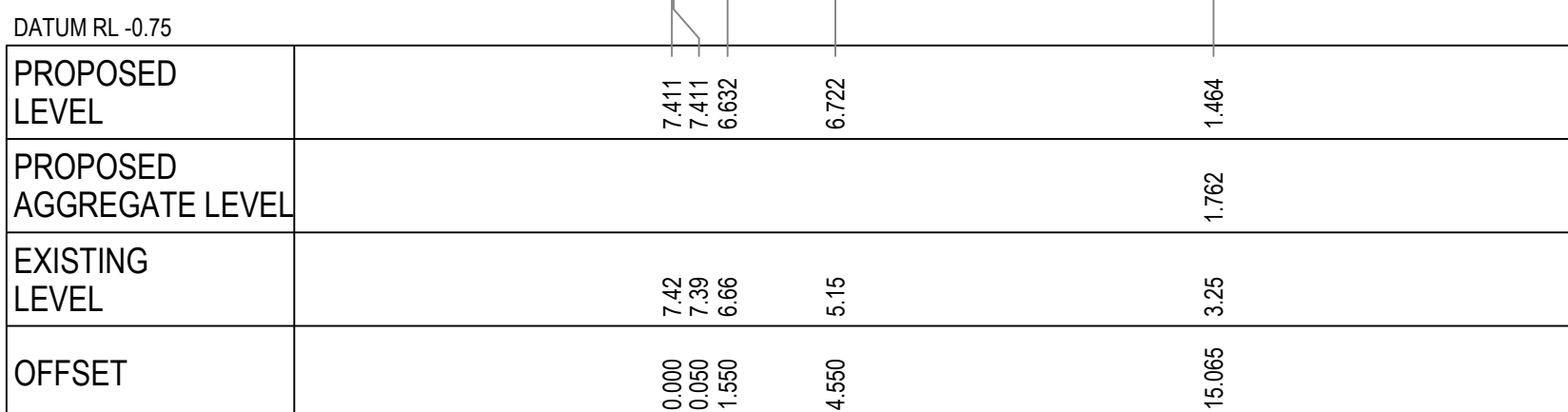
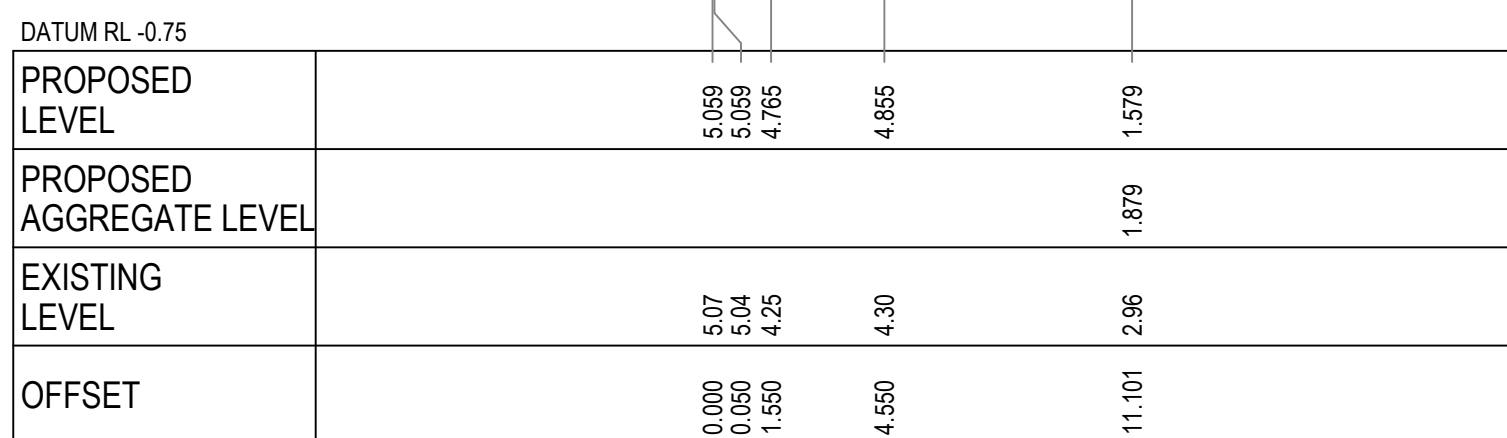
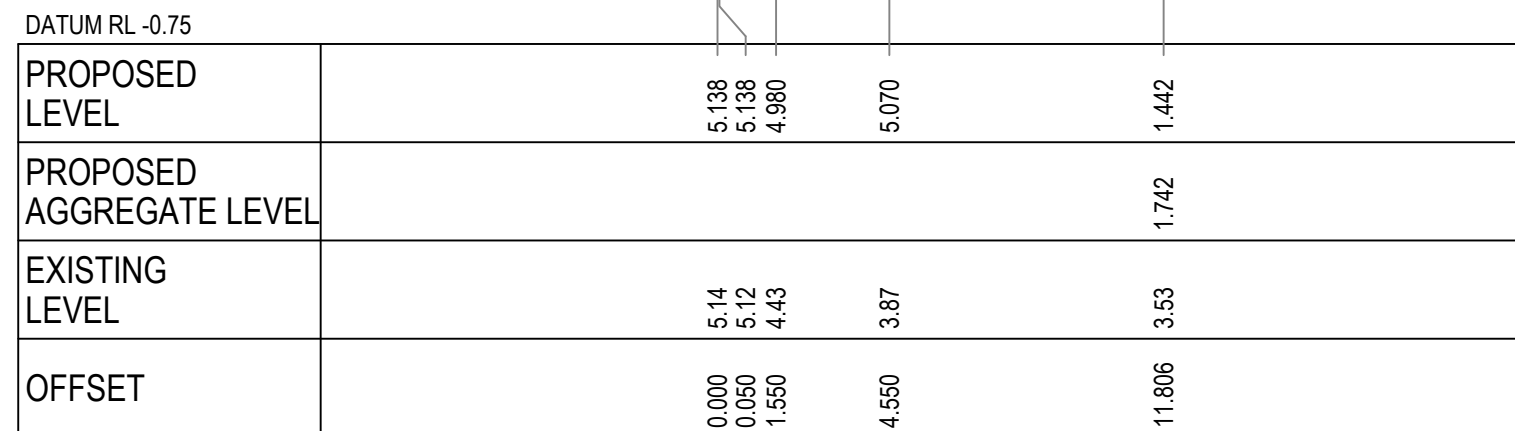
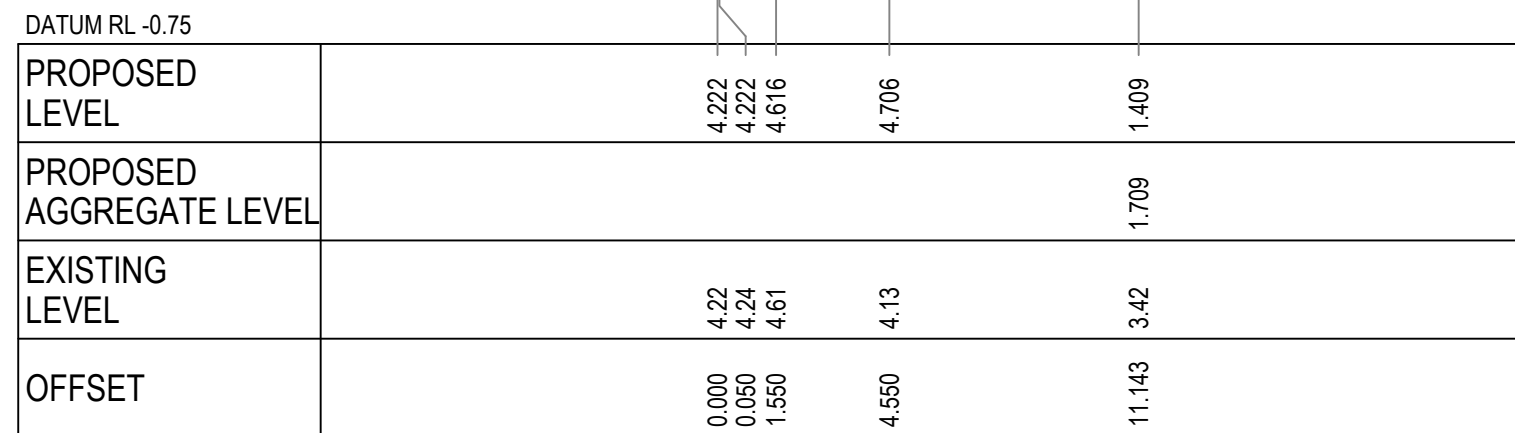
4	31/01/2018	ISSUED FOR CONSTRUCTION	PDK		G/JN	
3	20/12/2017	ISSUED FOR FINAL REVIEW	PDK		G/JN	
2	22/11/2017	ISSUED FOR CLIENT REVIEW	PDK	G/JN		
1	29/05/2017	ISSUED FOR CLIENT REVIEW	PDK	G/JN		
Rev.	Date	Description	Des.	Verif.	Appd.	

© Cardno Limited All Rights Reserved.
This document is produced by Cardno Limited solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Limited does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



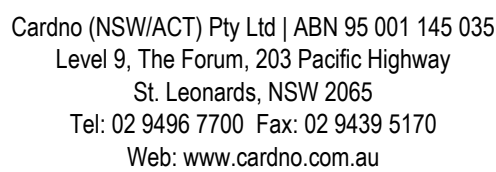
Drawn PDK	Date 29/05/2017	Client BREEN RESOURCES PTY LTD			
Checked GJN	Date 29/05/2017	Project KURNELL LANDFILL FACILITY LANDFILL CELL B11 STAGE B	Status FOR CONSTRUCTION		
Designed PDK	Date 17/05/2017		DATUM DATE Scale Size AHD May-17 1:200 A1		
Verified GJN	Date 29/05/2017		Drawing Number Revision NA89913035-CI-1512 4		
Approved		Title EAST TEMPORARY BUND CELL BOUNDARY CROSS SECTIONS SHEET 2			

THE SOUTHERN BENCH LONGITUDINAL SECTION
SHOWN ON DRG NA89913035-CI-1401
CORRESPONDS TO THE 1.550 OFFSET SHOWN ON
THE CROSS SECTIONS BELOW



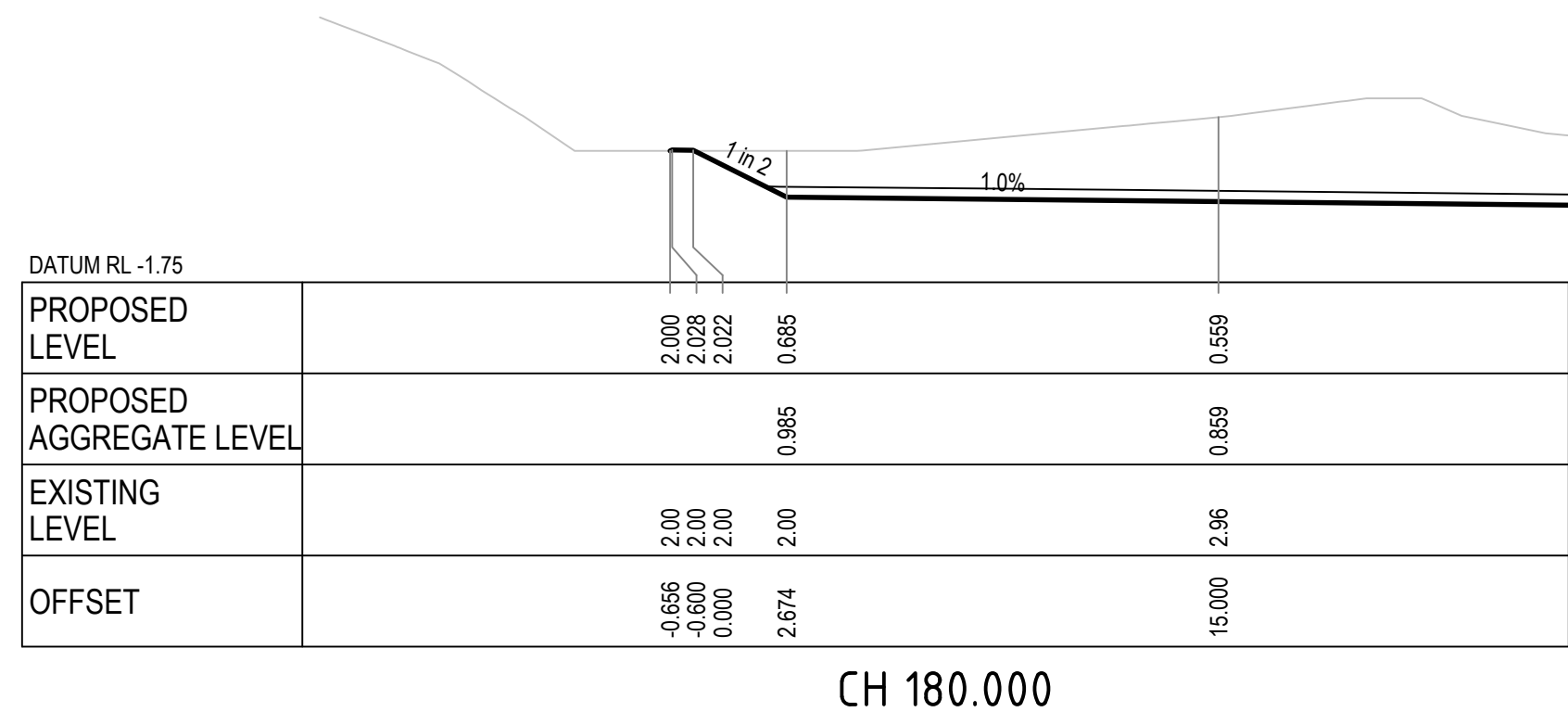
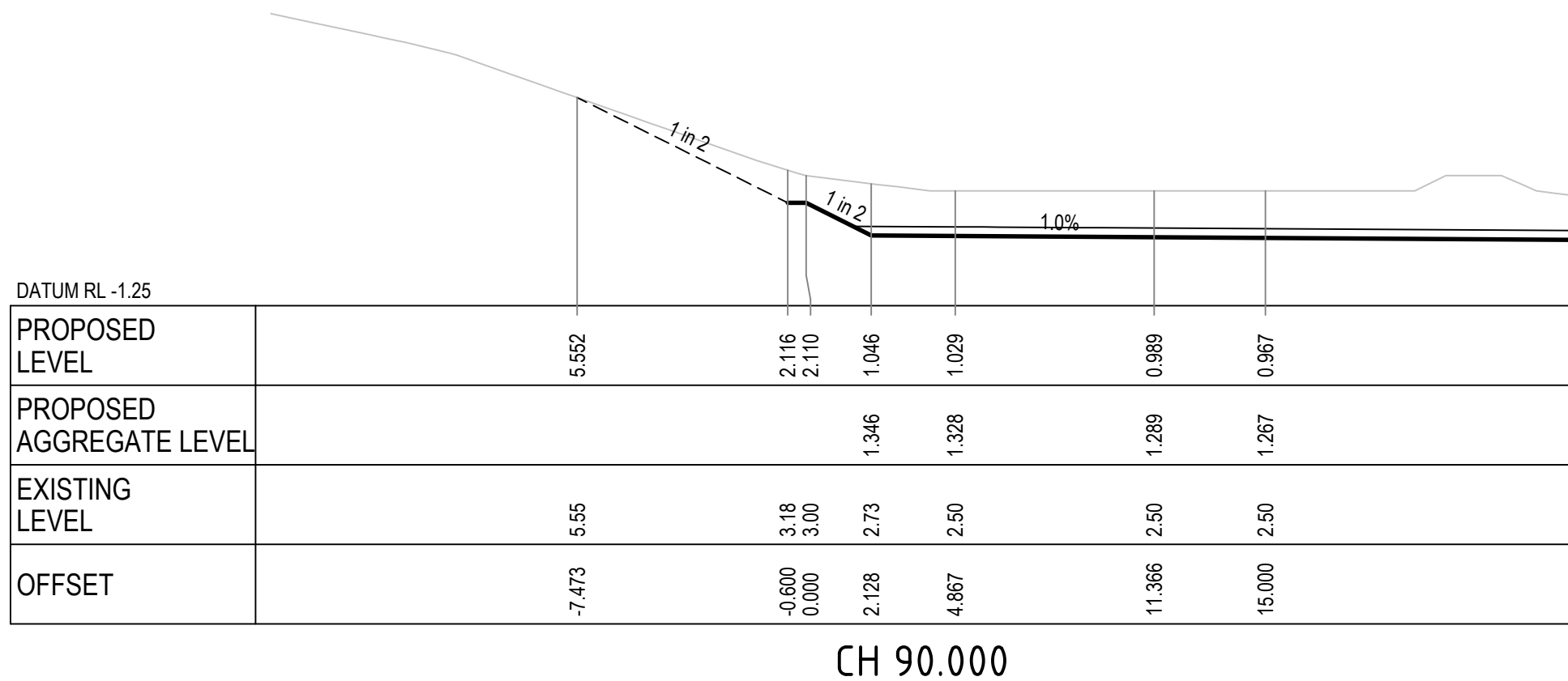
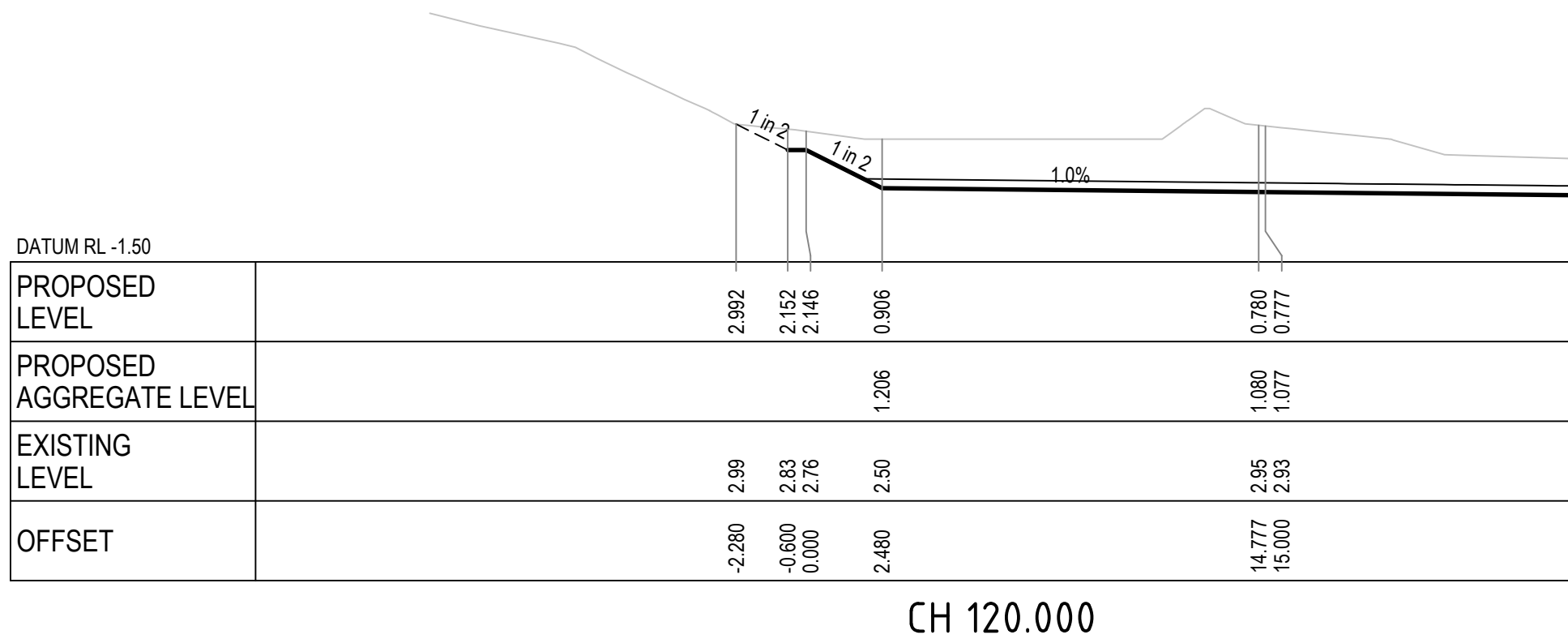
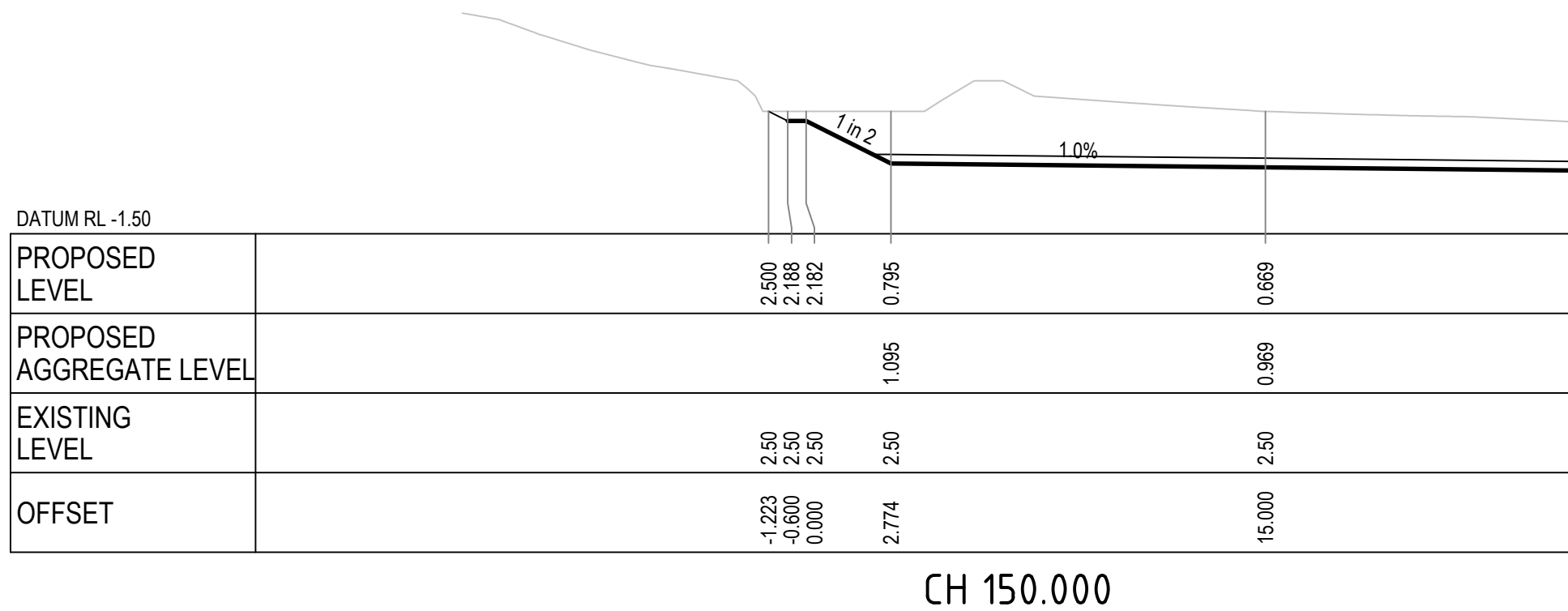
4	31/01/2018	ISSUED FOR CONSTRUCTION		PDK			GJN	
3	20/12/2017	ISSUED FOR FINAL REVIEW		PDK			GJN	
2	22/11/2017	ISSUED FOR CLIENT REVIEW		PDK	GJN			
1	29/05/2017	ISSUED FOR CLIENT REVIEW		PDK	GJN			
Rev.	Date	Description		Des.	Verif.		Appd.	

This document is produced by Cardno Limited solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Limited does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Drawn PDK	Date 29/05/2017	Client BREEN RESOURCES PTY LTD
Checked GJN	Date 29/05/2017	Project KURNELL LANDFILL FACILITY
Designed PDK	Date 17/05/2017	LANDFILL CELL B11 STAGE B
Verified GJN	Date 29/05/2017	Title SOUTH PROPERTY BOUNDARY
Approved		CROSS SECTIONS SHEET 1

Status			
FOR CONSTRUCTION			
DATUM	DATE	Scale	Size
AHD	May-17	1:200	A1
Drawing Number			Revision
NA89913035-CI-1521			4

[illegible]

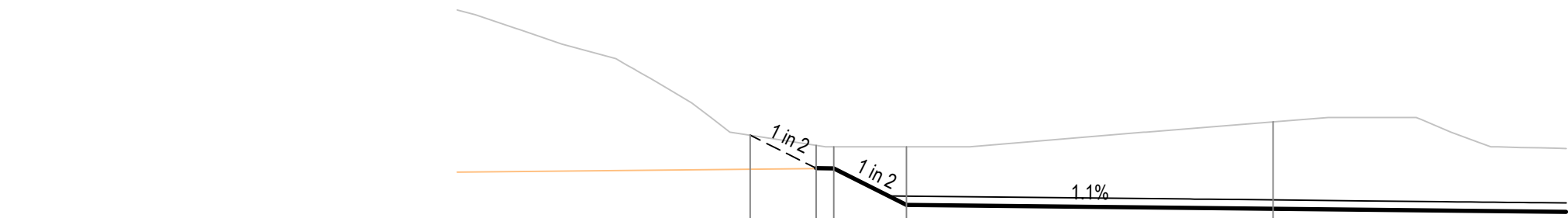
© Cardno Limited All Rights Reserved.
This document is produced by Cardno Limited solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Limited does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Drawn PDK	Date 29/05/2017	Client BREEN RESOURCES PTY LTD			
Checked GJN	Date 29/05/2017	Project KURNELL LANDFILL FACILITY LANDFILL CELL B11 STAGE B	Status FOR CONSTRUCTION		
Designed PDK	Date 17/05/2017		DATUM AHD		
Verified GJN	Date 29/05/2017		DATE May-17	Scale 1:200	Size A1
Approved			Drawing Number NA89913035-CI-1531		Revision 4
Title		WEST CELL BOUNDARY CROSS SECTIONS SHEET 1			

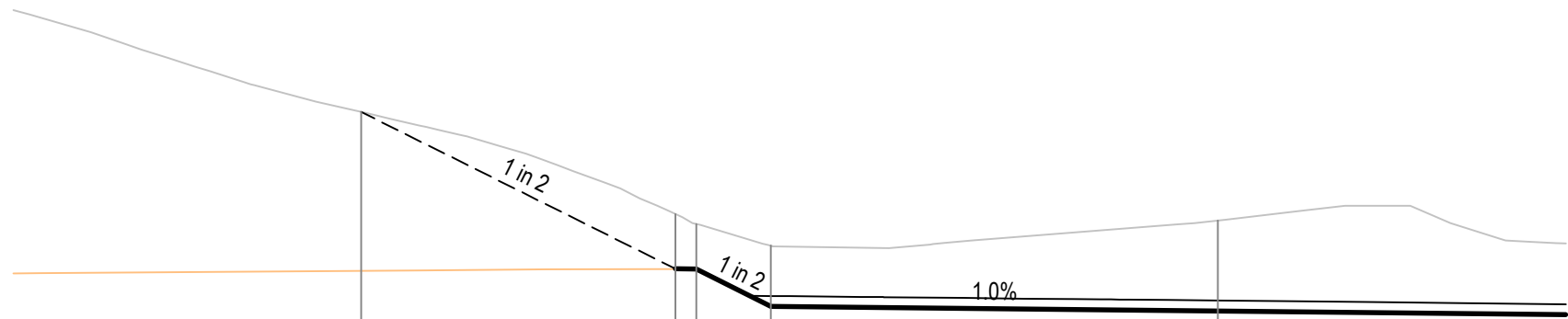
DATE PLOTTED: 31 January 2018 7:06 PM BY: PATRICK KING

XREFs:
CAD File: N:\Projects\89913035\Kurnell Landfill Site Stormwater Strategy\01 - KURNELL LANDFILL SITE\011 - STORMWATER STRATEGY\Landfill Cell B11\Drawings\NA89913035-CI-1531-1532.dwg



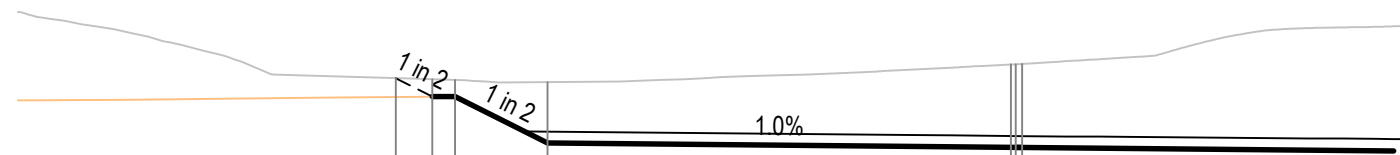
DATUM RL -1.75					
PROPOSED LEVEL		2.884			0.387
CELL B11 STAGE A CLAY LINER LEVEL	1.735	1.757	1.763	1.782	
PROPOSED AGGREGATE LEVEL				0.819	0.687
EXISTING LEVEL		2.89	2.55	2.50	3.35
OFFSET	-2.850	-0.600	0.000	2.488	15.000

CH 240.000



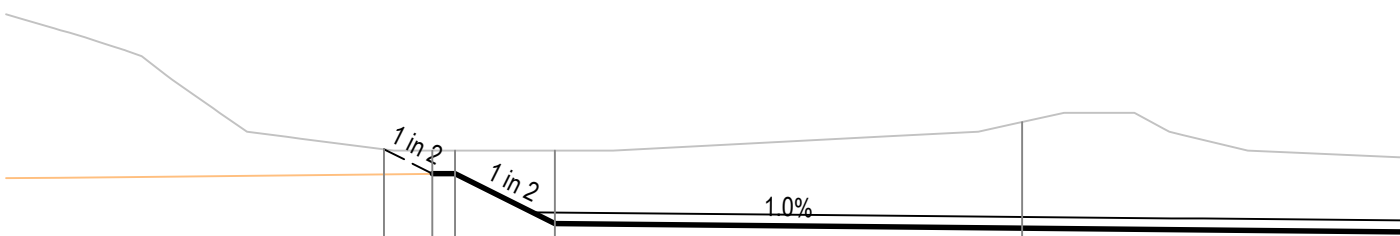
DATUM RL -1.75					
PROPOSED LEVEL	6.202	1.686	1.680	0.606	0.473
CELL B11 STAGE A CLAY LINER LEVEL	1.624	1.679	1.680	1.684	
PROPOSED AGGREGATE LEVEL				0.906	0.773
EXISTING LEVEL	6.20	3.26	2.96	2.35	3.08
OFFSET	-9.633	-0.600	0.000	2.148	15.000

CH 210.000



DATUM RL -1.75					
PROPOSED LEVEL	2.402	1.906	1.912	1.913	0.573
CELL B11 STAGE A CLAY LINER LEVEL	1.912	1.919	1.916	1.913	0.571
PROPOSED AGGREGATE LEVEL				0.992	0.874
EXISTING LEVEL	2.40	2.40	2.37	2.36	2.77
OFFSET	-1.566	-0.600	0.000	2.442	14.701

CH 300.000



DATUM RL -1.75					
PROPOSED LEVEL	2.534	1.888	1.881	1.884	0.448
CELL B11 STAGE A CLAY LINER LEVEL	1.888	1.881	1.888	1.888	
PROPOSED AGGREGATE LEVEL				0.668	0.747
EXISTING LEVEL	2.53	2.50	2.50	2.50	3.25
OFFSET	-1.880	-0.600	0.000	2.639	15.000

CH 270.000

4	31/01/2018	ISSUED FOR CONSTRUCTION	PDK	GJN	
3	20/12/2017	ISSUED FOR FINAL REVIEW	PDK	GJN	
2	22/11/2017	ISSUED FOR CLIENT REVIEW	PDK	GJN	
1	29/05/2017	ISSUED FOR CLIENT REVIEW	PDK	GJN	
Rev.	Date	Description	Des.	Verif.	Appd.

© Cardno Limited All Rights Reserved.
This document is produced by Cardno Limited solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Limited does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



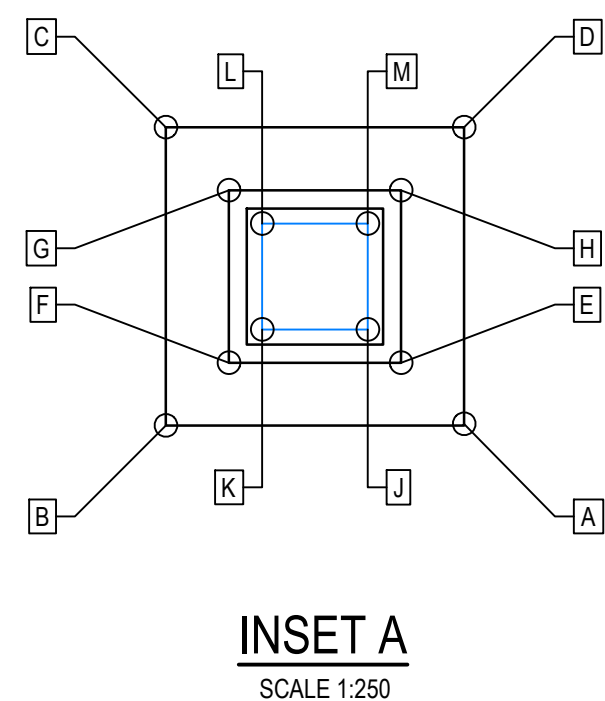
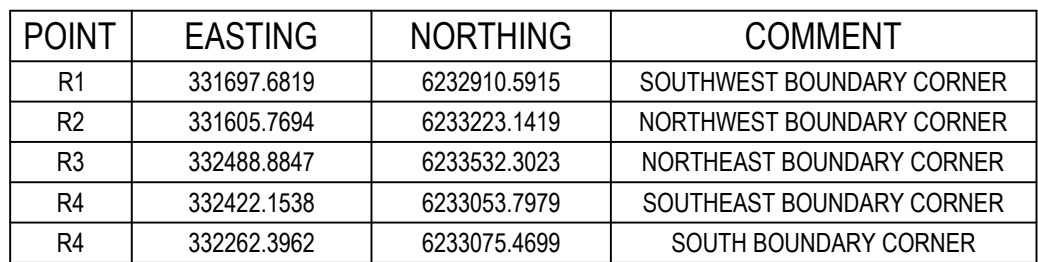
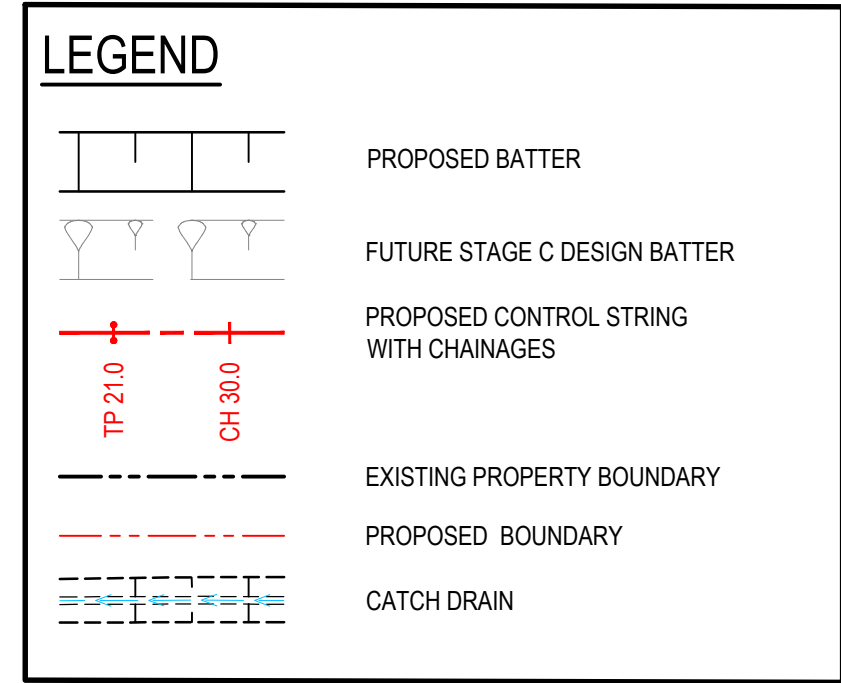
Cardno
Shaping the Future

Cardno (NSW/ACT) Pty Ltd | ABN 95 001 145 035
Level 9, The Forum, 203 Pacific Highway
St. Leonards, NSW 2065
Tel: 02 9496 7700 Fax: 02 9439 5170
Web: www.cardno.com.au

Drawn	Date	Client
PDK	29/05/2017	BREEN RESOURCES PTY LTD
Checked	Date	Project
GJN	29/05/2017	KURNELL LANDFILL FACILITY
Designed	Date	LANDFILL CELL B11
PDK	17/05/2017	STAGE B
Verified	Date	Title
GJN	29/05/2017	WEST CELL BOUNDARY
Approved		CROSS SECTIONS
		SHEET 2

DATUM	DATE	Scale	Size
AHD	May-17	1:200	A1
Drawing Number	Revision		
NA89913035-CI-1532	4		

Status	FOR CONSTRUCTION		
DATUM	DATE	Scale	Size
AHD	May-17	1:200	A1
Drawing Number	Revision		
NA89913035-CI-1532	4		



POINT	EASTING	NORTHING	HEIGHT	COMMENT
A	332091.0977	6233229.1680	0.400	TOP OF SUMP BATTER
B	332081.7796	6233229.9388	0.400	TOP OF SUMP BATTER
C	332078.5504	6233235.2570	0.400	TOP OF SUMP BATTER
D	332087.8685	6233238.4862	0.400	TOP OF SUMP BATTER
E	332088.4501	6233230.4528	-1.430	BOTTOM OF SUMP BATTER
F	332083.0644	6233228.5864	-1.430	BOTTOM OF SUMP BATTER
G	332081.1979	6233233.9722	-1.430	BOTTOM OF SUMP BATTER
H	332086.5837	6233235.8386	-1.430	BOTTOM OF SUMP BATTER
J	332087.0506	6233231.1320	-2.000	BOTTOM OF SUMP RISER FOOTING
K	332083.7435	6233229.9860	-2.000	BOTTOM OF SUMP RISER FOOTING
L	332082.5975	6233233.2930	-2.000	BOTTOM OF SUMP RISER FOOTING
M	332085.9045	6233234.4391	-2.000	BOTTOM OF SUMP RISER FOOTING

EASTERN TEMPORARY BUND CONTROL LINE					
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING
IP 1	0.000	332110.469	6233361.408		161°15'38.88"
	15.000	332115.288	6233347.203	4.413	161°15'38.88"
	30.000	332120.107	6233332.999	4.413	161°15'38.88"
	45.000	332124.925	6233318.794	4.413	161°15'38.88"
	60.000	332129.744	6233304.589	4.413	161°15'38.88"
	75.000	332134.563	6233290.384	4.413	161°15'38.88"
	90.000	332139.382	6233276.179	4.413	161°15'38.88"
	105.000	332144.201	6233261.974	4.413	161°15'38.88"
	120.000	332149.020	6233247.769	4.413	161°15'38.88"
	135.000	332153.839	6233233.565	4.413	161°15'38.88"
	150.000	332158.658	6233219.360	4.413	161°15'38.88"
	165.000	332163.477	6233205.155	4.413	161°15'38.88"
	180.000	332168.296	6233190.950	4.413	161°15'38.88"
	195.000	332173.115	6233176.745	4.413	161°15'38.88"
	210.000	332177.934	6233162.540	4.413	161°15'38.88"
	225.000	332182.752	6233148.335	4.413	161°15'38.88"
	240.000	332187.571	6233134.131	4.413	161°15'38.88"
	255.000	332192.390	6233119.926	4.413	161°15'38.88"
	270.000	332197.209	6233105.721	4.413	161°15'38.88"
	285.000	332202.028	6233091.516	4.413	161°15'38.88"
300.000	332206.847	6233077.311	4.413	161°15'38.88"	
315.000	332211.666	6233063.106	4.475	161°15'38.88"	
IP 2	317.348	332212.420	6233060.883	4.841	161°15'38.88"

SOUTHERN BENCH CONTROL LINE					
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING
IP 1	0.00	332111.986	6233062.370	4.500	253°43'34.11"
	15.000	332197.587	6233058.167	4.714	253°43'34.11"
	30.000	332183.188	6233053.964	4.980	253°43'34.11"
	45.000	332168.789	6233049.760	4.988	253°43'34.11"
	60.000	332154.390	6233045.557	4.616	253°43'34.11"
	75.000	332139.991	6233041.353	4.303	253°43'34.11"
	90.000	332125.592	6233037.150	4.645	253°43'34.11"
	105.000	332111.193	6233033.946	5.938	253°43'34.11"
	120.000	332096.794	6233028.743	6.632	253°43'34.11"
	135.000	332082.395	6233024.540	5.073	253°43'34.11"
IP 2	150.000	332067.996	6233020.336	4.765	253°43'34.11"
	165.000	332053.597	6233016.133	5.816	253°43'34.11"
	180.000	332039.198	6233011.929	7.419	253°43'34.11"
	185.905	332033.530	6233010.275	7.831	253°43'34.11"

AL INT str->INT west bdy str HORIZONTAL POINTS						
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RADIUS
IP 1	0.000	332033.964	6233008.787	8.599	343°43'43.76"	
	15.000	332029.761	6233023.186	3.745	343°43'43.76"	
	30.000	332025.586	6233037.585	3.404	343°43'43.76"	
	45.000	332021.356	6233051.984	3.064	343°43'43.76"	
	60.000	332017.153	6233066.383	2.723	343°43'43.76"	
	75.000	332012.950	6233080.783	2.382	343°43'43.76"	
	90.000	332008.747	6233095.182	2.110	343°43'43.76"	
	105.000	332004.545	6233109.581	2.128	343°43'43.76"	
TP	120.000	332000.342	6233123.980	2.146	343°43'43.76"	
	135.000	331996.139	6233138.379	2.164	343°43'43.76"	
	150.000	331991.936	6233152.779	2.182	343°43'43.76"	
	165.633	331988.111	6233165.885	2.199	343°43'43.76"	
	164.763	331987.800	6233166.950	2.200		R = 100.00'
	165.000	331987.742	6233167.180	2.201	344°30'02.01"	
	165.872	331987.513	6233168.022	2.205	345°00'01.53"	
	180.000	331983.856	6233181.668	2.022	345°00'01.53"	
TP	180.792	331983.651	6233182.433	2.007	345°00'01.53"	
	183.834	331982.856	6233185.395	1.949		R = 20.000'
IP 3	186.877	331982.988	6233188.458	1.892	2°25'54.36"	
	195.000	331983.333	6233196.574	1.739	2°25'54.36"	
	210.000	331983.969	6233211.560	1.680	2°25'54.36"	
	225.000	331984.606	6233226.547	1.716	2°25'54.36"	
	240.000	331985.242	6233241.533	1.763	2°25'54.36"	
	255.000	331985.878	6233256.520	1.813	2°25'54.36"	
	270.000	331986.515	6233271.506	1.888	2°25'54.36"	
	285.000	331987.151	6233286.493	1.917	2°25'54.36"	
TP	300.000	331987.788	6233301.479	1.913	2°25'54.36"	
	315.000	331988.424	6233316.466	3.418	2°25'54.36"	
	315.187	331988.432	6233316.653		2°25'54.36"	

[illegible]

© Cardno Limited All Rights Reserved.
This document is produced by Cardno Limited solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Limited does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Drawn PDK	Date 20/12/2017	Client BREEN RESOURCES PTY LTD
Checked GJT	Date 20/12/2017	
Designed PDK	Date 20/12/2017	
Verified GJT	Date 20/12/2017	
Approved		
		Project KURNELL LANDFILL FACILITY LANDFILL CELL B11 STAGE B
		Title SETOUT PLAN AND SCHEDULES

Status			
FOR CONSTRUCTION			
DATUM AHD	DATE Dec-17	Scale AS SHOWN	Size A1
Drawing Number NA89913035-C1-1601			Revision 2