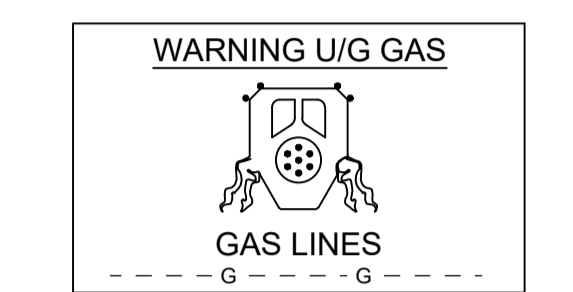
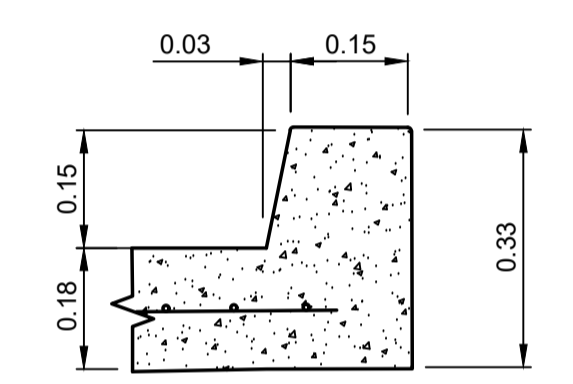


**WARNING**  
 UNDERGROUND SERVICES HAVE BEEN PLOTTED FROM RECORDS SUPPLIED BY THE PUBLIC AUTHORITIES TO SCD 12/8/23. LOCATIONS HAVE BEEN INTERPRETED FROM THESE RECORDS AND ARE APPROXIMATE ONLY. EXTREME CAUTION SHOULD BE TAKEN BY PERSONS EXCAVATING.

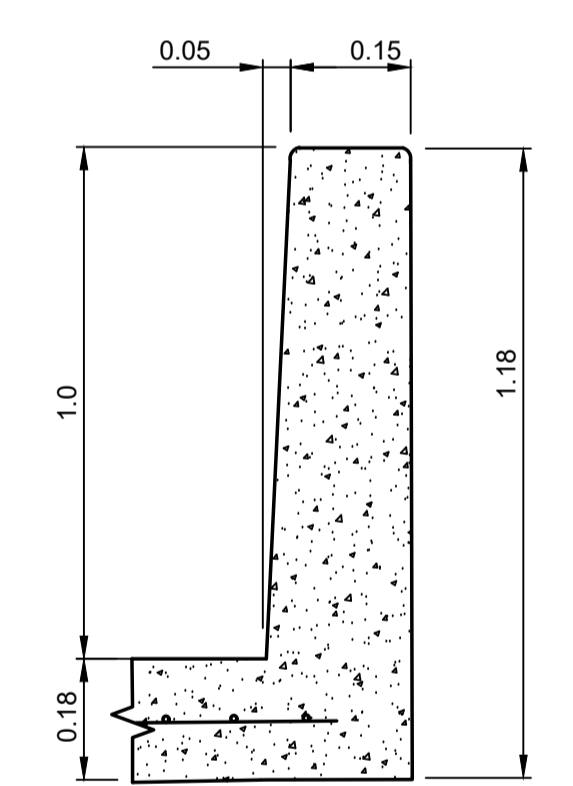


**CAUTION BEFORE EXCAVATION**  
 FOR LEGAL REASONS TELSTRA PLANS MUST BE ON SITE AT ALL TIMES DURING CONSTRUCTION. CALL "DIAL BEFORE YOU DIG" 1100. OBTAIN UPDATED SERVICE LOCATIONS PRIOR TO COMMENCEMENT.  
 TELSTRA SEQUENCE # 228271719  
 date of search 12/08/2023

**THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE CONDITIONS OF DEVELOPMENT CONSENT DA2024/0741**



**DETAIL - 150 KERB**  
 NTS.



**DETAIL - 1m KERB**  
 NTS.

**LEGEND**

	BROOM (HARD) FINISH, CONCRETE DRIVEWAY 180mm THICK SL82 MESH SUBJECT TO REVIEW BY STRUCTURAL ENGINEER
	CONCRETE BLOCK RETAINING WALL TO BE DESIGNED BY STRUCTURAL/GEOLOGICAL ENGINEER
	INDICATIVE SOIL NAILS OR ROCK DOWELS TO BE DESIGNED BY STRUCTURAL/GEOLOGICAL ENGINEER

**PLAN**  
 SCALE 1:100

ISSUE	DESCRIPTION	DRAWN	APPR'D	DATE
D	COUNCIL COMMENTS	C.J.	C.J.	12/9/24
C	UPDATE TITLE DETAILS	C.J.	C.J.	16/5/24
B	ADJUST DRIVEWAY ALIGNMENT	C.J.	C.J.	19/4/24
A	ADJUST DRAINAGE LAYOUT AND DRIVEWAY ALIGNMENT	C.J.	C.J.	5/4/24

DATUM	SURVEYOR	APPROVED	DATE
AHD	CMS	C.J.	28/7/03
AZIMUTH	FIELD BOOK	CHECKED	DATE
MGA		C.J.	28/7/23
RELATED PLANS	DESIGNED	DATE	
	B.A.	28/7/23	



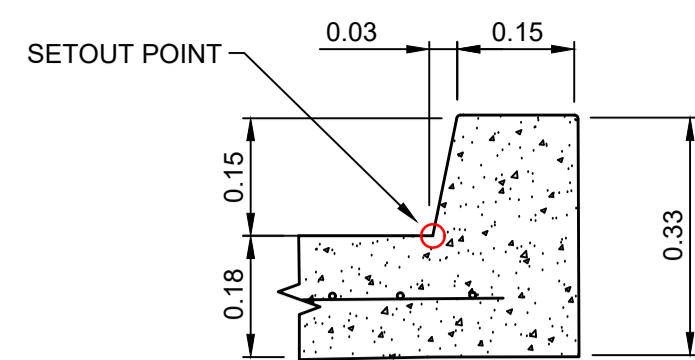
**SHIRE CIVIL DESIGN**  
 CIVIL, HYDRAULIC & TRAFFIC ENGINEERING  
 MOBILE: 0422 008 325  
 EMAIL: COLIN@SHIRECIVILDISEGN.COM.AU  
 ADDRESS: PO BOX 1381 CRONULLA NSW2230  
 WWW.SHIRECIVILDISEGN.COM.AU

CLIENT: D.W.KNOX & PARTNERS  
 32A,34,36,38 NAREEN PDE, NTH NARRABEEN  
 DRIVEWAY REMEDIATION  
 CONSTRUCTION PLAN

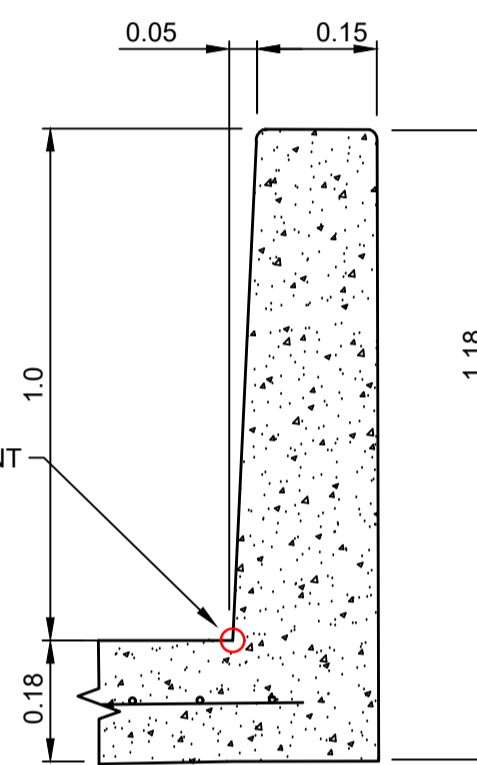
SCALES AS-NOTED	PROJECT No. C19112	A1 ORIGINAL
	SHEET 3 OF 9 SHEETS	ISSUE
	DRAWING No. C19112	SHEET No. C02
		D

**WARNING**  
 UNDERGROUND SERVICES HAVE BEEN PLOTTED FROM RECORDS SUPPLIED BY THE PUBLIC AUTHORITIES TO SCD 12/8/23  
 LOCATIONS HAVE BEEN INTERPRETED FROM THESE RECORDS AND ARE APPROXIMATE ONLY.  
 EXTREME CAUTION SHOULD BE TAKEN BY PERSONS EXCAVATING.

**CAUTION BEFORE EXCAVATION**  
 FOR LEGAL REASONS TELSTRA PLANS MUST BE ON SITE AT ALL TIMES DURING CONSTRUCTION  
 CALL "DIAL BEFORE YOU DIG" 1100  
 OBTAIN UPDATED SERVICE LOCATIONS PRIOR TO COMMENCEMENT  
 TELSTRA SERVICE # 228271719  
 DATE OF RECORD 12/08/2023



**DETAIL - KERB**  
 NTS.



**DETAIL - 1m KERB**  
 NTS.

POINT No.	EASTING	NORTHING	R.L.	DESCRIPTION
1	1015.023	892.257		MATCH KR1 - TP
2	1015.547	893.504	2.370	KR1
3	1015.769	894.668	2.580	KR1
4	1015.599	896.748	3.325	KR1 - 3/4
5	1015.025	898.182	3.880	KR1 - TP
6	1011.409	904.629	5.705	KR1 - TP
7	1008.772	908.868	6.950	KR1
8	1008.111	909.849	7.244	KR1
9	1005.968	912.844	8.160	KR1
10	1002.631	916.959	9.469	KR1 - TP/PIT 4
11	999.087	919.882	10.564	KR1
12	991.597	926.061	12.993	KR1 - PIT 5
13	984.205	932.155	15.329	KR1
14	981.514	934.374	15.666	KR1 - TP
15	980.102	936.955	15.889	KR1 - PIT 6
16	980.030	939.307	16.106	KR1 - MID
17	980.983	941.832	16.359	KR1 - 3/4
18	983.203	943.366	16.612	KR1 - TP
19	985.427	944.121	16.841	KR1 - 1/4
20	987.758	944.408	17.090	KR1 - MID
21	990.098	944.214	17.359	KR1 - 3/4
22	992.351	943.547	17.623	KR1 - TP
23	995.532	941.831	18.390	KR1 - MID
24	998.656	940.013	19.120	KR1 - TP
25	1003.254	938.277	20.168	KR1
26	1008.076	937.205	21.193	KR1
27	1012.220	936.824	22.415	KR1 - TP
28	1013.697	937.141	22.808	KR1 - MID
29	1015.007	937.851		MATCH KR1 - TP
30	1017.079	939.549		MATCH KR1
31	1019.965	942.542		MATCH KR1

POINT No.	EASTING	NORTHING	R.L.	DESCRIPTION
59	1002.515	904.551	2.510	GRATE LEVEL PIT 2
60	1004.358	914.931	8.790	GRATE LEVEL PIT 3

POINT No.	EASTING	NORTHING	R.L.	DESCRIPTION
32	1018.119	889.305		MATCH KR2
33	1018.690	890.548	2.250	KR2
34	1019.568	892.457	2.597	KR2 - TP
35	1020.024	893.914	2.853	KR2 - 1/4
36	1020.094	895.449	3.109	KR2 - MID
37	1019.779	896.945	3.365	KR2 - 3/4
38	1019.087	898.322	3.628	KR2 - TP
39	1014.025	906.218	5.858	KR2 - TP
40	1011.327	910.431	7.066	KR2
41	1008.355	914.623	8.308	KR2
42	1005.217	918.631	9.538	KR2 - TP
43	1001.659	922.222	10.737	KR2
44	994.536	929.450	13.217	KR2 - TP
45	991.550	932.993	14.374	KR2 - MID
46	988.895	936.792	15.532	KR2 - TP

POINT No.	EASTING	NORTHING	R.L.	DESCRIPTION
47	988.627	938.197	16.538	KR2 - 1/4
48	988.979	938.952	17.010	KR2 - MID
49	989.923	939.584	17.405	KR2 - 3/4
50	991.059	939.539	17.625	KR2 - TP/PIT 7
51	997.409	937.180	19.028	KR2
52	1000.847	935.902	19.813	KR2
53	1007.044	933.939	21.092	KR2
54	1012.195	932.306	22.320	KR2
55	1017.913	930.494		MATCH KR2
56	1019.485	932.299		MATCH KR2
57	1021.699	934.841		MATCH KR2
58	1024.755	938.351		MATCH KR2

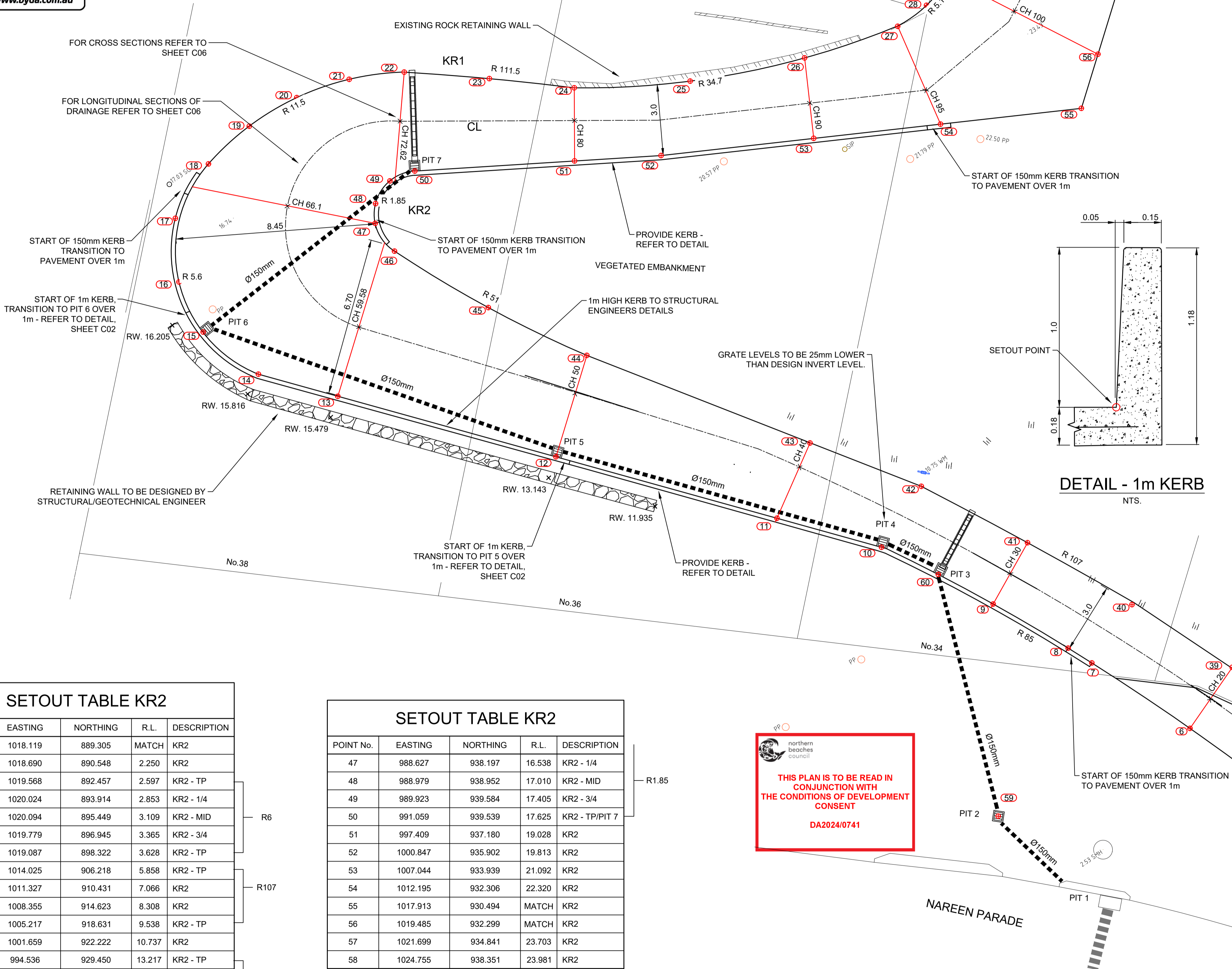
**THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE CONDITIONS OF DEVELOPMENT CONSENT DA2024/0741**

**LEGEND**

CONCRETE BLOCK RETAINING WALL TO BE DESIGNED BY STRUCTURAL/GEOTECHNICAL ENGINEER

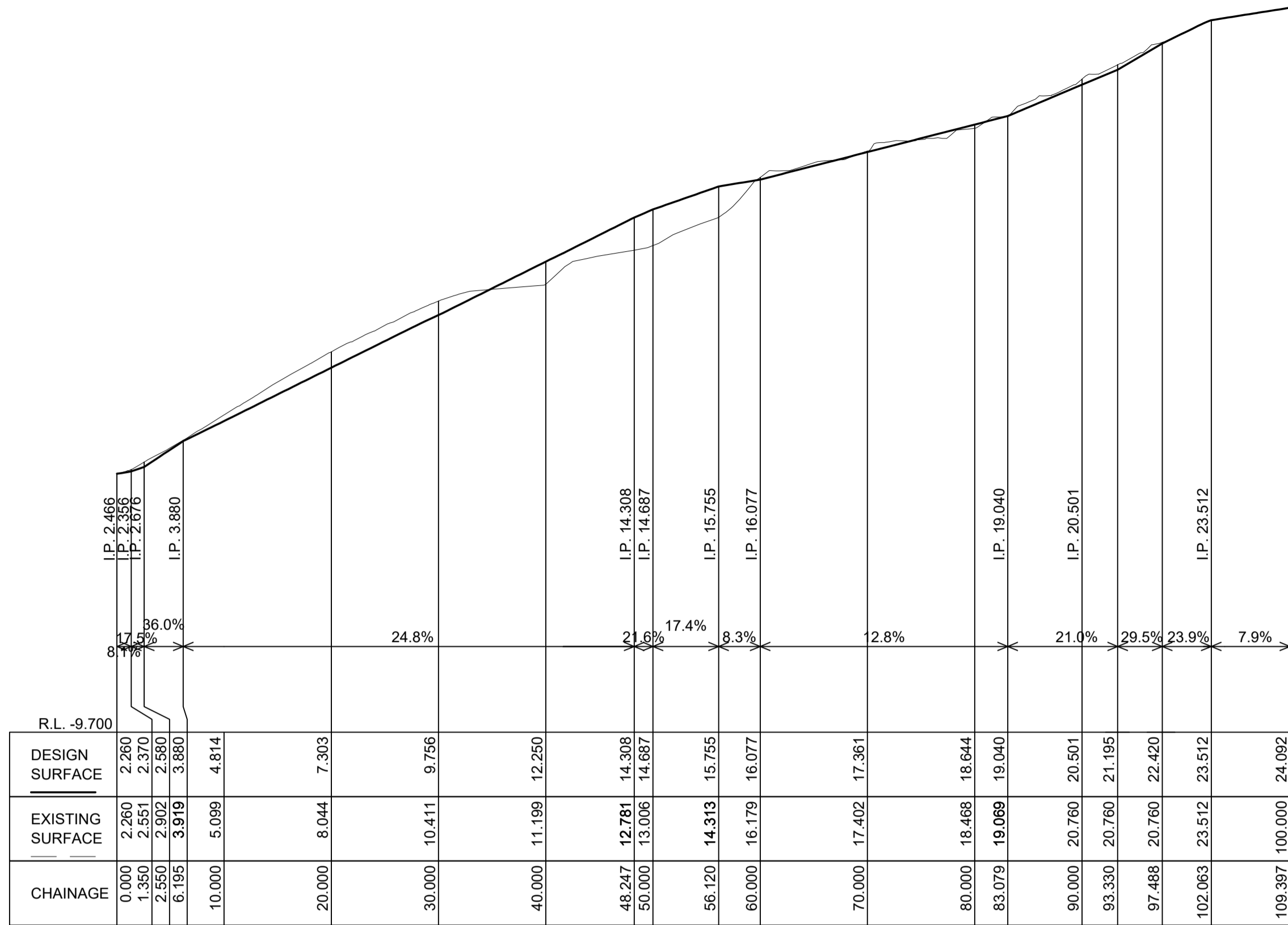
RW. 11.935 x TOP OFF RETAINING WALL HEIGHT

**NOTE:** SETOUT TABLES EASTING AND NORTHINGS ARE BASED ON SURVEY PROVIDED IN DWG FORMAT. GRATE LEVEL IS TO BE 25mm BELOW INVERT LEVEL PROVIDED.

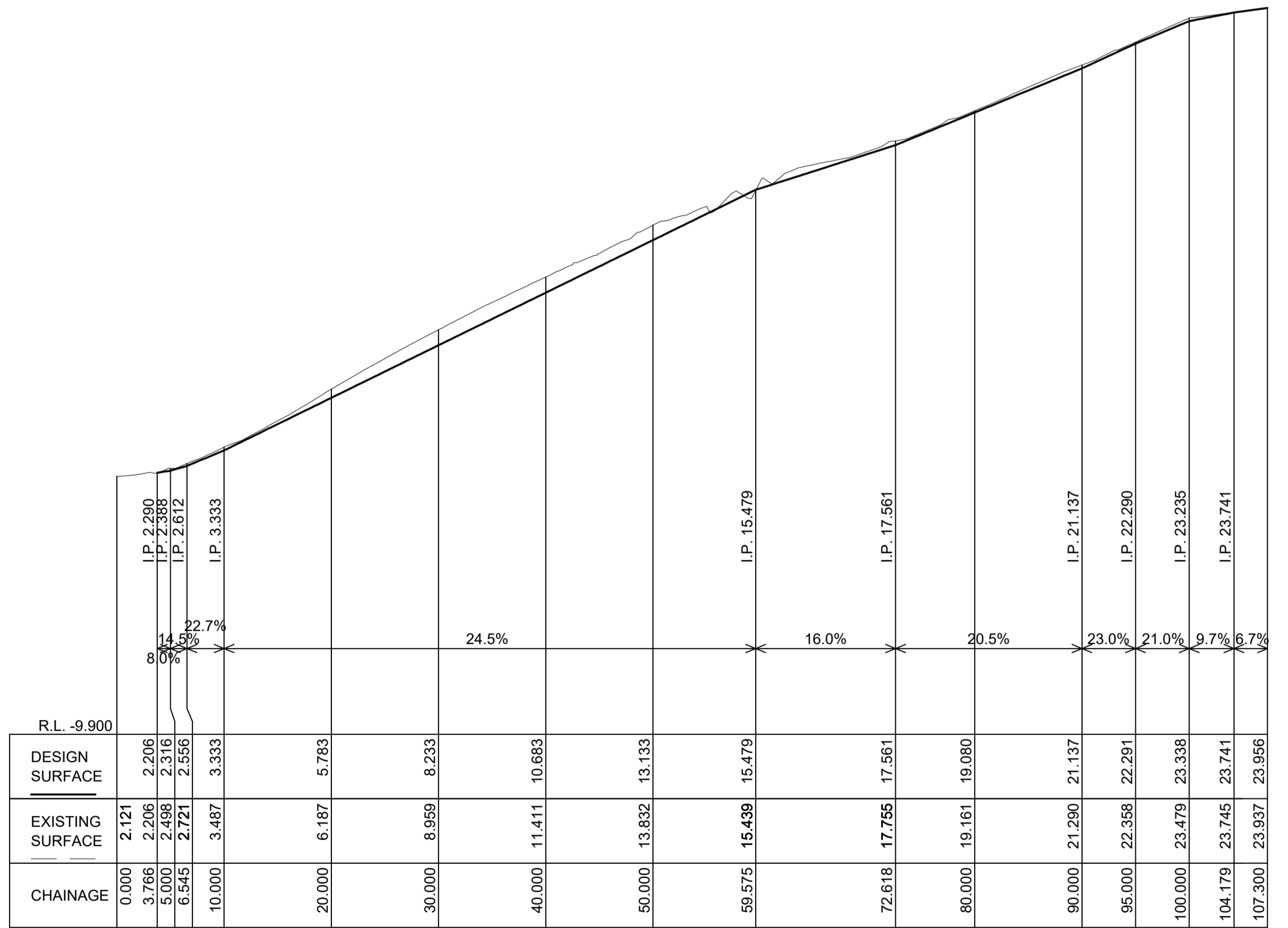


**PLAN**  
 SCALE 1:100

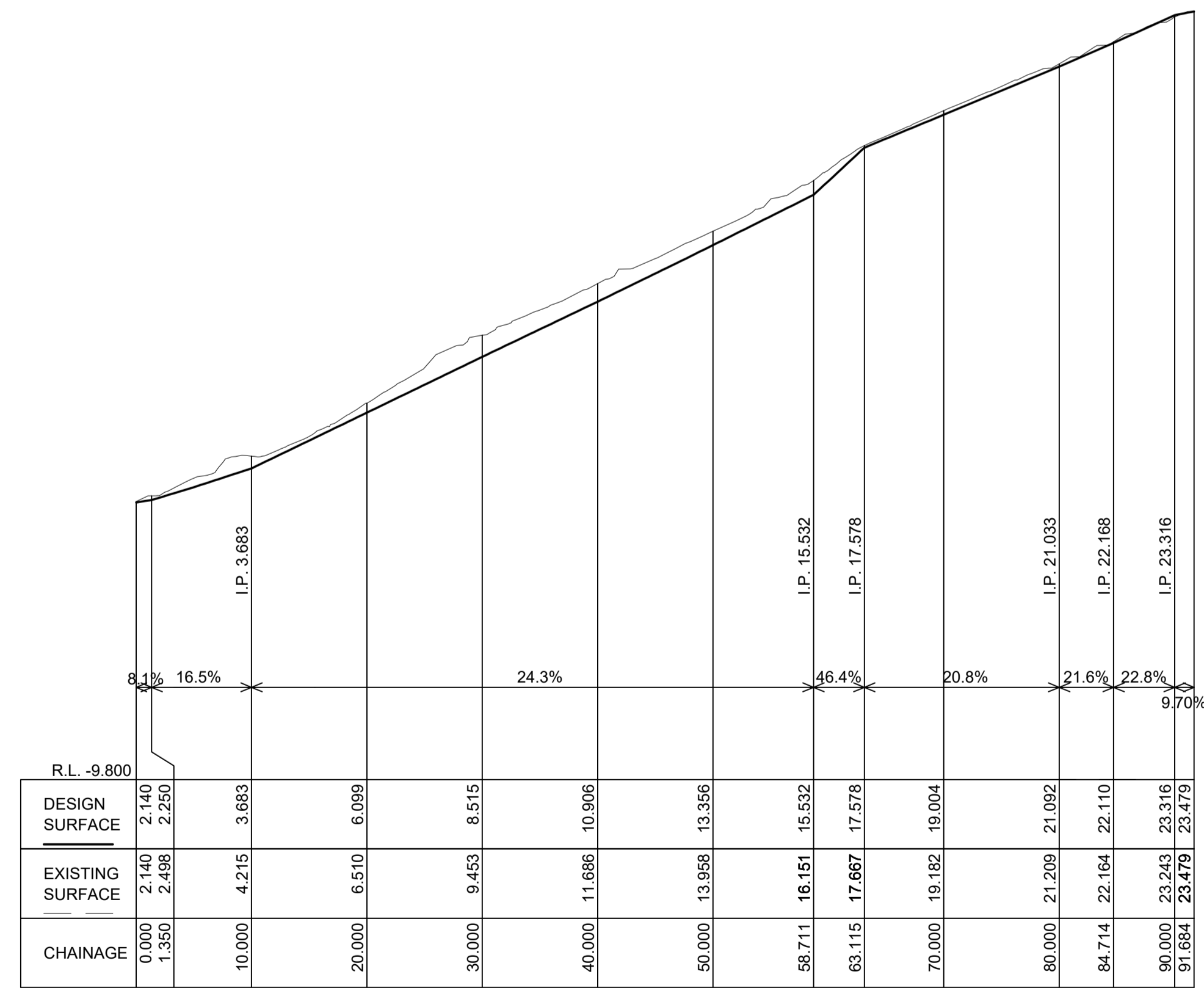
D	COUNCIL COMMENTS	C.J.	C.J.	12/9/24	DATUM AHD	SURVEYOR CMS	APPROVED C.J.	DATE 28/7/03		<b>SHIRE CIVIL DESIGN</b> CIVIL, HYDRAULIC & TRAFFIC ENGINEERING MOBILE: 0422 008 325 EMAIL: COLIN@SHIRECIVILDESIGN.COM.AU ADDRESS: PO BOX 1381 CRONULLA NSW2230 WWW.SHIRECIVILDESIGN.COM.AU	CLIENT: D.W.KNOX & PARTNERS 32A,34,36,38 NAREEN PDE, NTH NARRABEEN DRIVEWAY REMEDIATION SETOUT PLAN	SCALES AS-NOTED NORTH POINT 	PROJECT No. C19112	A1 ORIGINAL
C	UPDATE TITLE DETAILS	C.J.	C.J.	16/5/24	AZIMUTH MGA	FIELD BOOK	CHECKED C.J.	DATE 28/7/23					SHEET 4 OF 9 SHEETS	ISSUE
B	ADJUST DRIVEWAY ALIGNMENT	C.J.	C.J.	19/4/24	RELATED PLANS		DESIGNED B.A.	DATE 28/7/23					DRAWING No. C19112	SHEET No. C03
A	ADJUST DRAINAGE LAYOUT AND DRIVEWAY ALIGNMENT	C.J.	C.J.	5/4/24										
ISSUE	DESCRIPTION	DRAWN	APPR'D	DATE										



**LONGITUDINAL SECTION KERB 1 (KR1)**  
 KR1 Ch 0.000 to Ch 109.397  
 SCALES: HORIZONTAL 1:400 VERTICAL 1:200



**LONGITUDINAL SECTION CENTRE LINE (CL)**  
 CL Ch 0.000 to Ch 107.300  
 SCALES: HORIZONTAL 1:400 VERTICAL 1:200

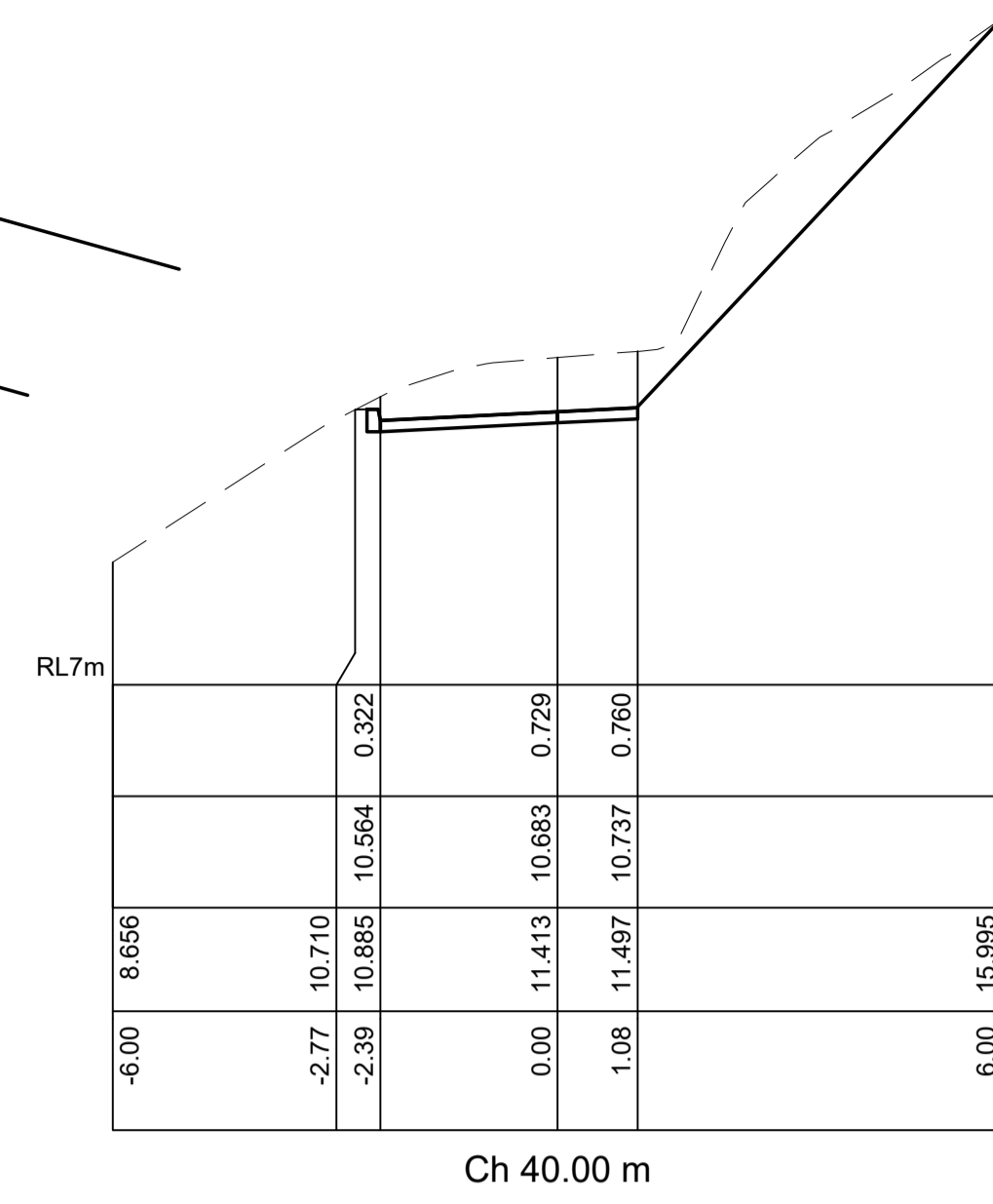
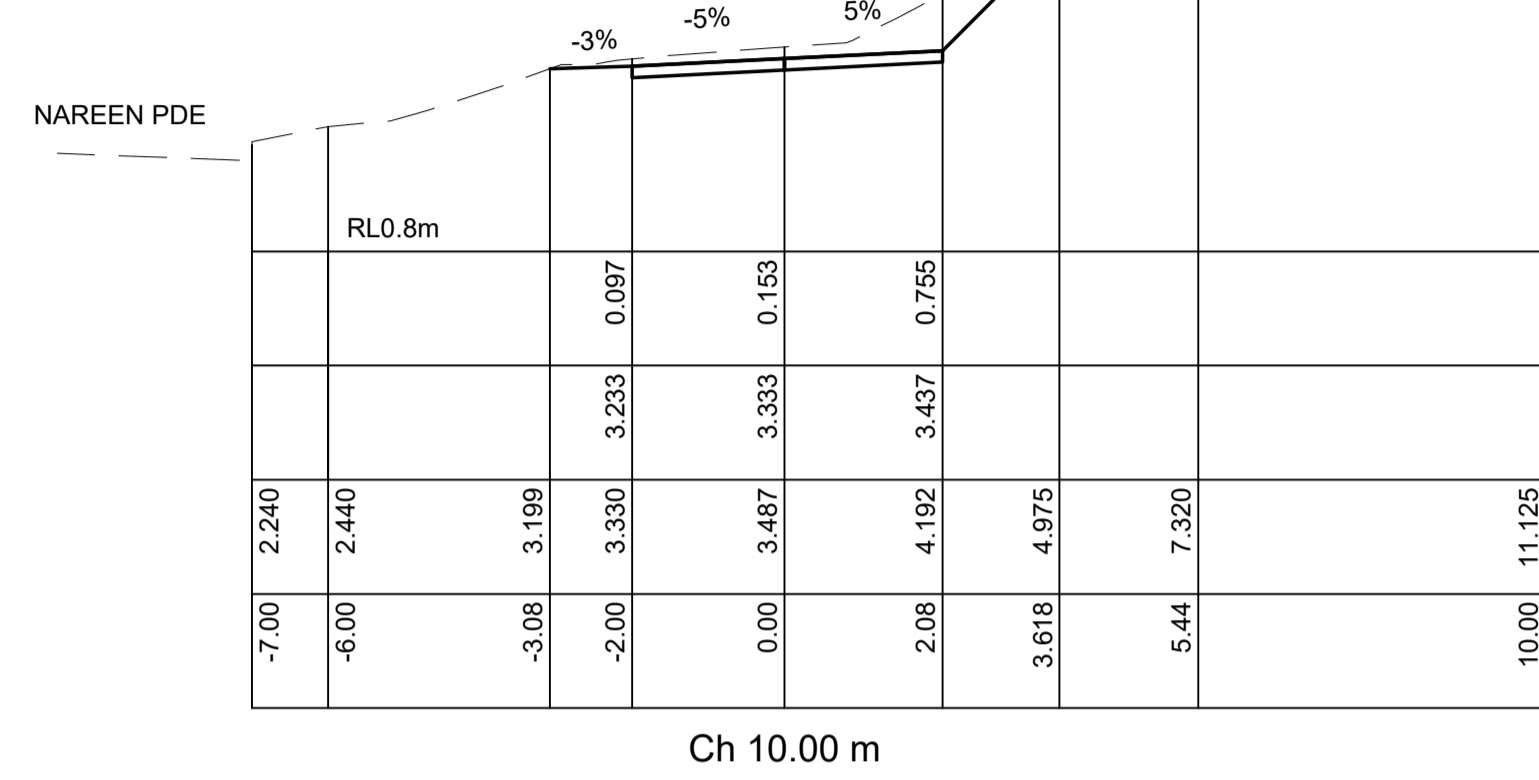


**LONGITUDINAL SECTION KERB 2 (KR2)**  
 KR2 Ch 0.000 to Ch 91.684  
 SCALES: HORIZONTAL 1:400 VERTICAL 1:200

northern beaches council  
**THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE CONDITIONS OF DEVELOPMENT CONSENT**  
 DA2024/0741

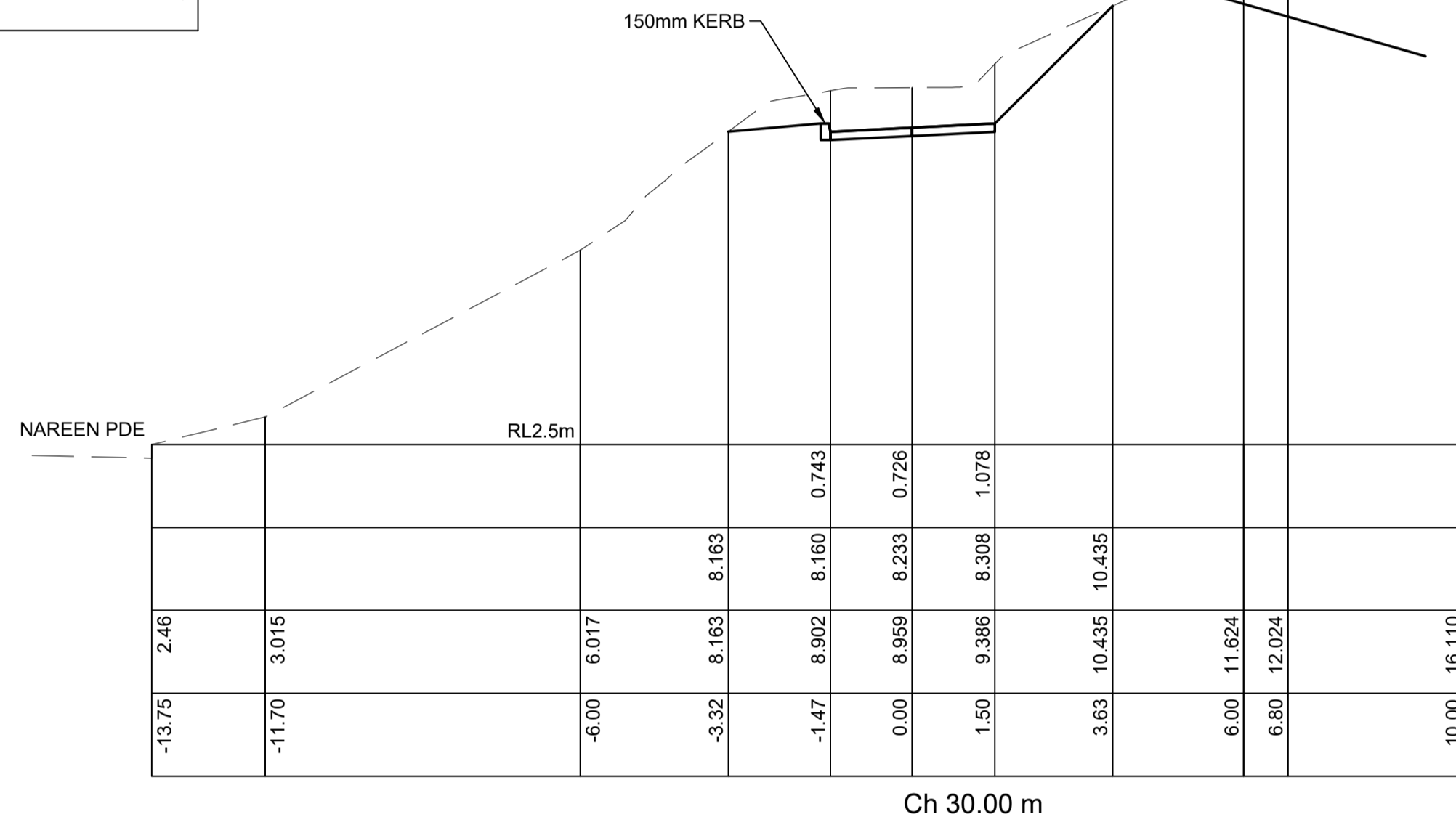
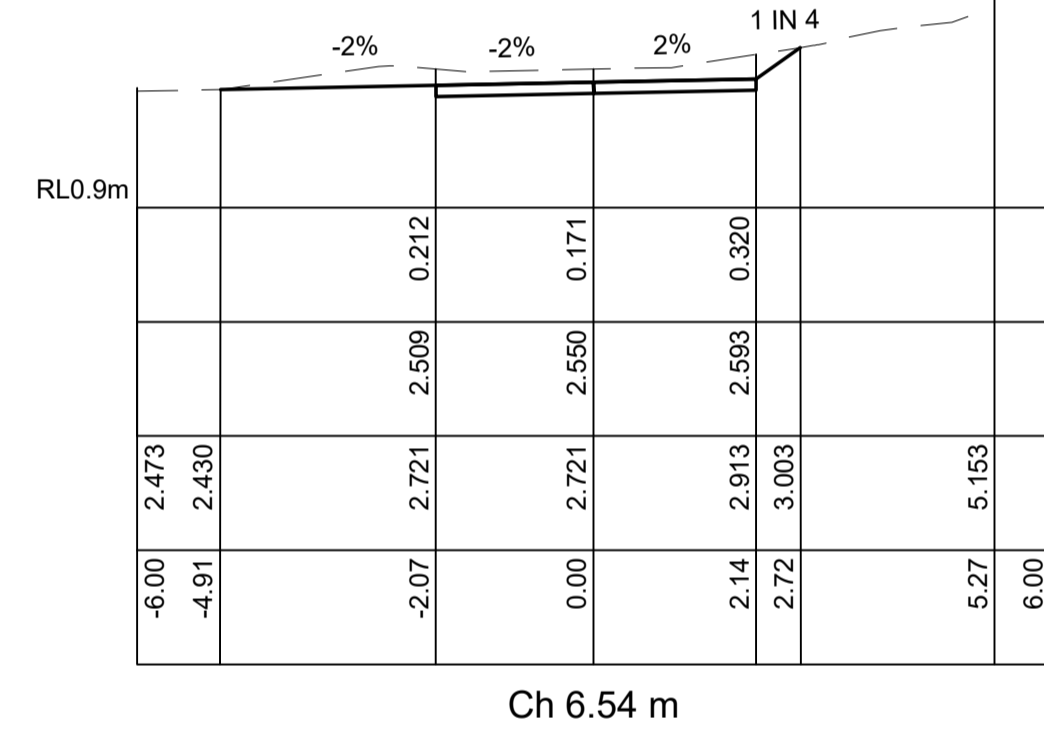
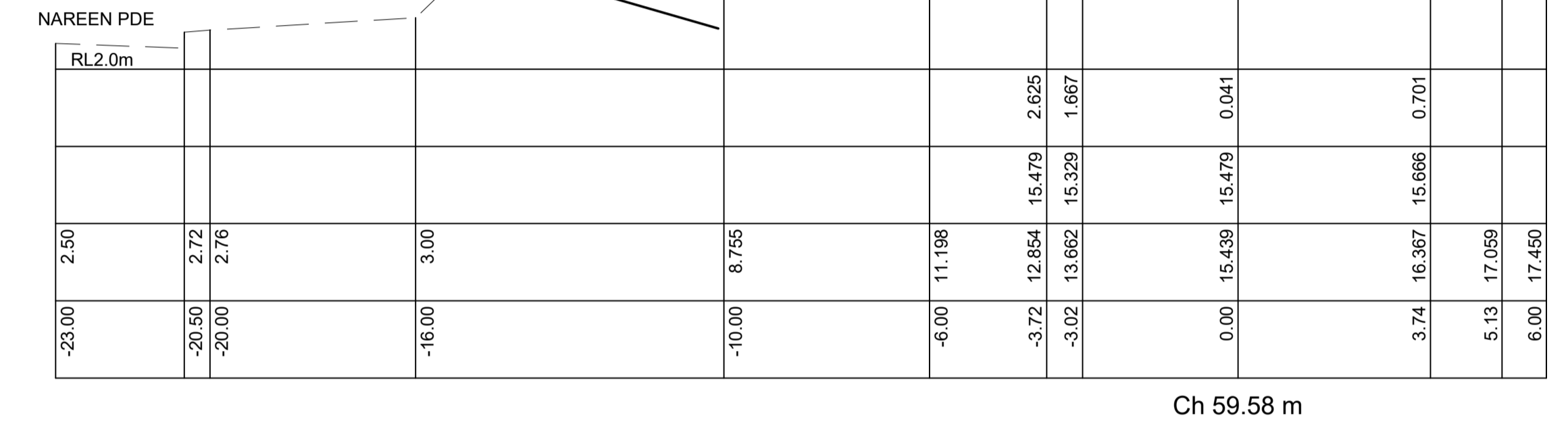
D	COUNCIL COMMENTS	C.J.	C.J.	12/9/24	DATUM AHD	SURVEYOR CMS	APPROVED C.J.	DATE 28/7/23		<b>SHIRE CIVIL DESIGN</b> CIVIL, HYDRAULIC & TRAFFIC ENGINEERING MOBILE: 0422 008 325 EMAIL: COLIN@SHIRECIVILDESIGN.COM.AU ADDRESS: PO BOX 1381 CRONULLA NSW2230 WWW.SHIRECIVILDESIGN.COM.AU	CLIENT: D.W.KNOX & PARTNERS 32A,34,36,38 NAREEN PDE, NTH NARRABEEN DRIVEWAY REMEDIATION LONGITUDINAL SECTIONS-CL, KR1 AND KR2	SCALES AS-NOTED <b>NORTH POINT</b>	PROJECT No. C19112		A1 ORIGINAL ISSUE
C	UPDATE TITLE DETAILS	C.J.	C.J.	16/5/24	AZIMUTH MGA	FIELD BOOK -	CHECKED C.J.	DATE 28/7/23					SHEET 5 OF 9 SHEETS		
B	ADJUST DRIVEWAY ALIGNMENT	C.J.	C.J.	19/4/24	RELATED PLANS		DESIGNED B.A.	DATE 28/7/23					DRAWING No. C19112 SHEET No. C04		
A	ADJUST DRAINAGE LAYOUT AND DRIVEWAY ALIGNMENT	C.J.	C.J.	5/4/24											
ISSUE	DESCRIPTION	DRAWN	APPR'D	DATE											

INDICATIVE SOIL NAILS WITH SHOTCRETE OR ROCK DOWELS TO BE DESIGNED BY STRUCTURAL ENGINEER/GEOTECHNICAL ENGINEER

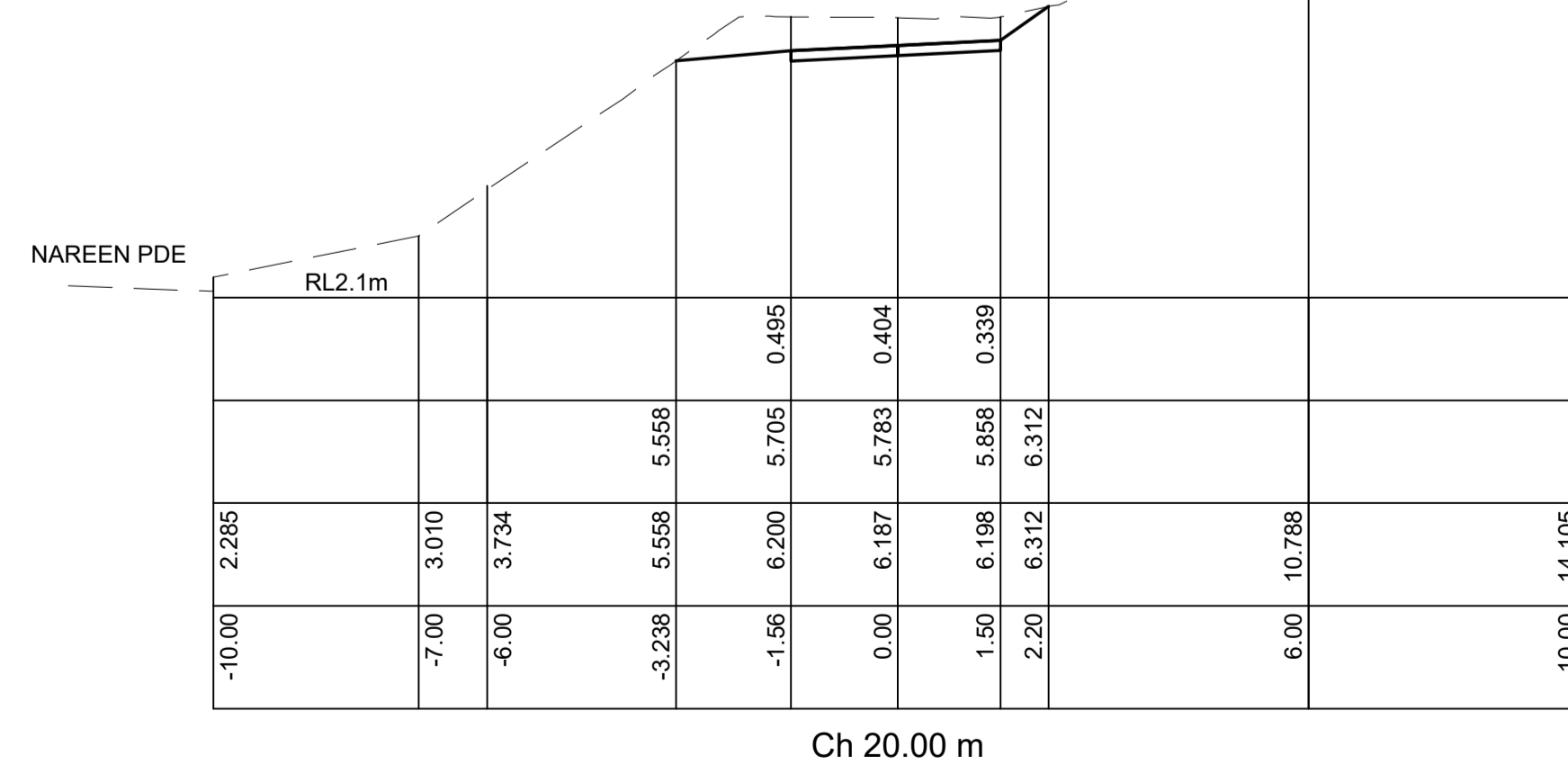
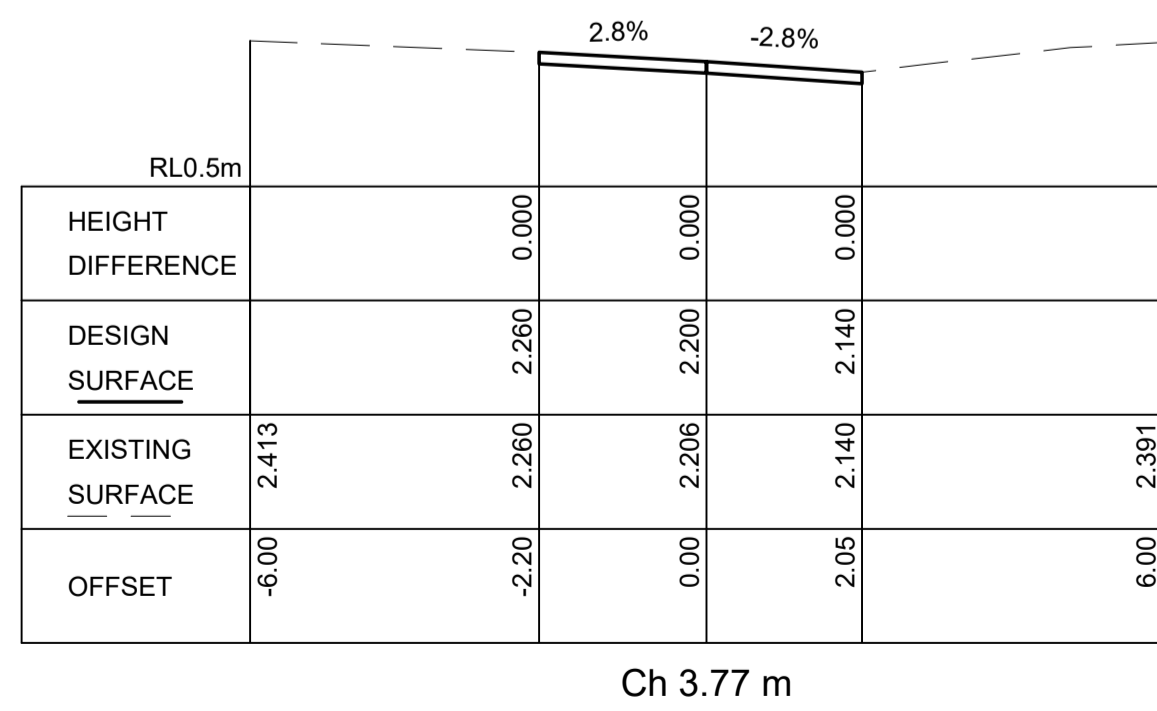
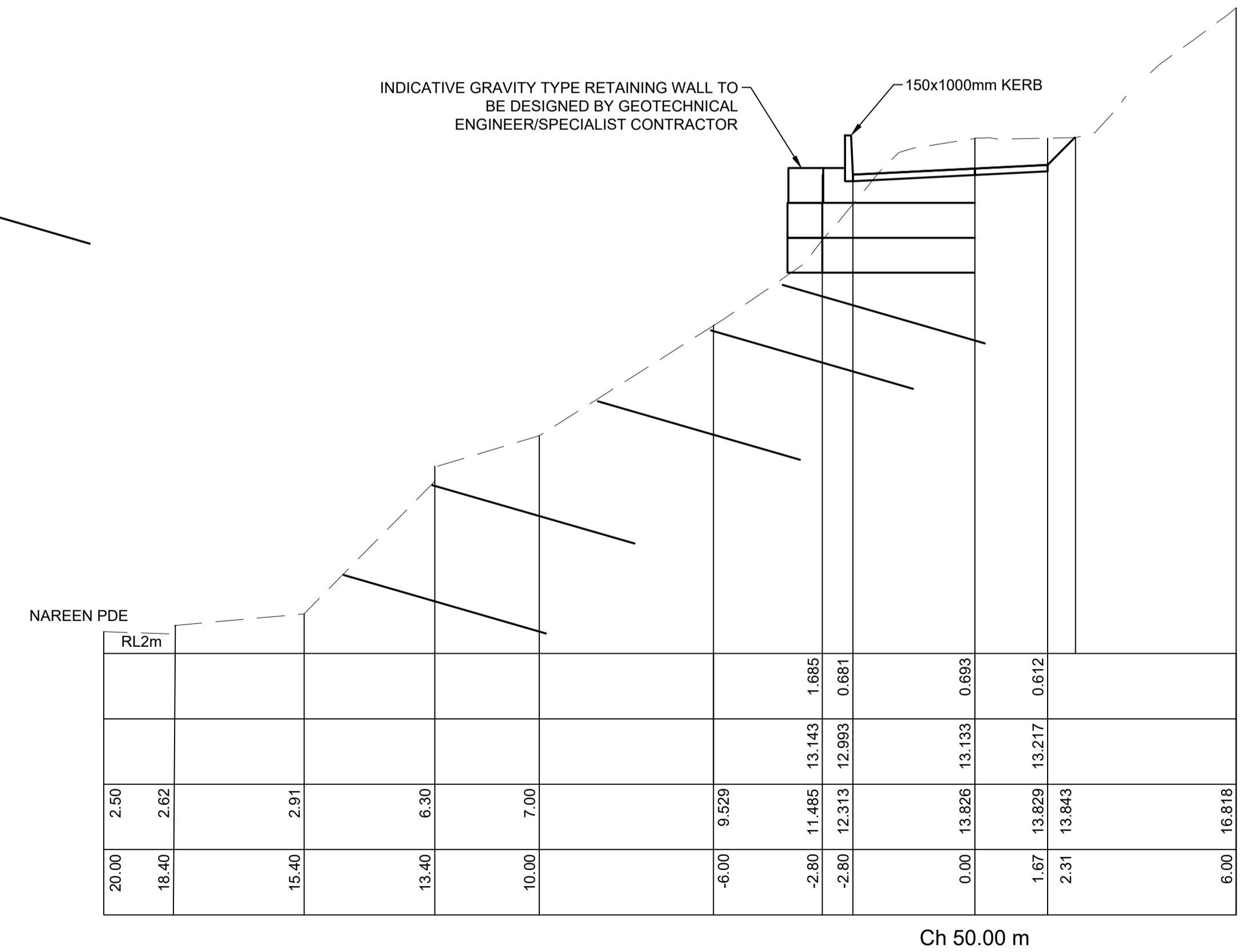


INDICATIVE SOIL NAILS WITH SHOTCRETE OR ROCK DOWELS TO BE DESIGNED BY STRUCTURAL ENGINEER/GEOTECHNICAL ENGINEER

**THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE CONDITIONS OF DEVELOPMENT CONSENT DA2024/0741**



INDICATIVE GRAVITY TYPE RETAINING WALL TO BE DESIGNED BY GEOTECHNICAL ENGINEER/SPECIALIST CONTRACTOR



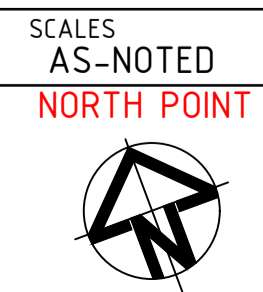
ISSUE	DESCRIPTION	DRAWN	APPR'D	DATE
D	COUNCIL COMMENTS	C.J.	C.J.	12/9/24
C	UPDATE TITLE DETAILS	C.J.	C.J.	16/5/24
B	ADJUST DRIVEWAY ALIGNMENT	C.J.	C.J.	19/4/24
A	ADJUST DRAINAGE LAYOUT AND DRIVEWAY ALIGNMENT	C.J.	C.J.	5/4/24

DATUM	SURVEYOR	APPROVED	DATE
AHD	CMS	C.J.	28/7/23
AZIMUTH	FIELD BOOK	CHECKED	DATE
MGA	-	C.J.	28/7/23
RELATED PLANS	DESIGNED	DATE	
	B.A.	28/7/23	

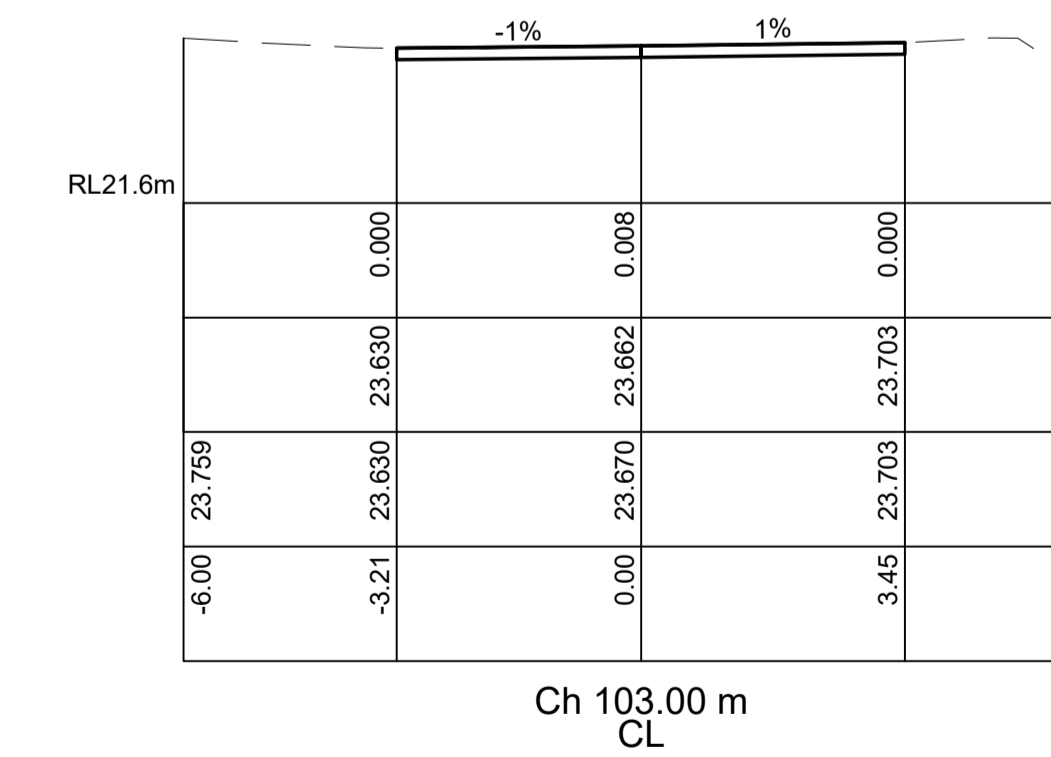
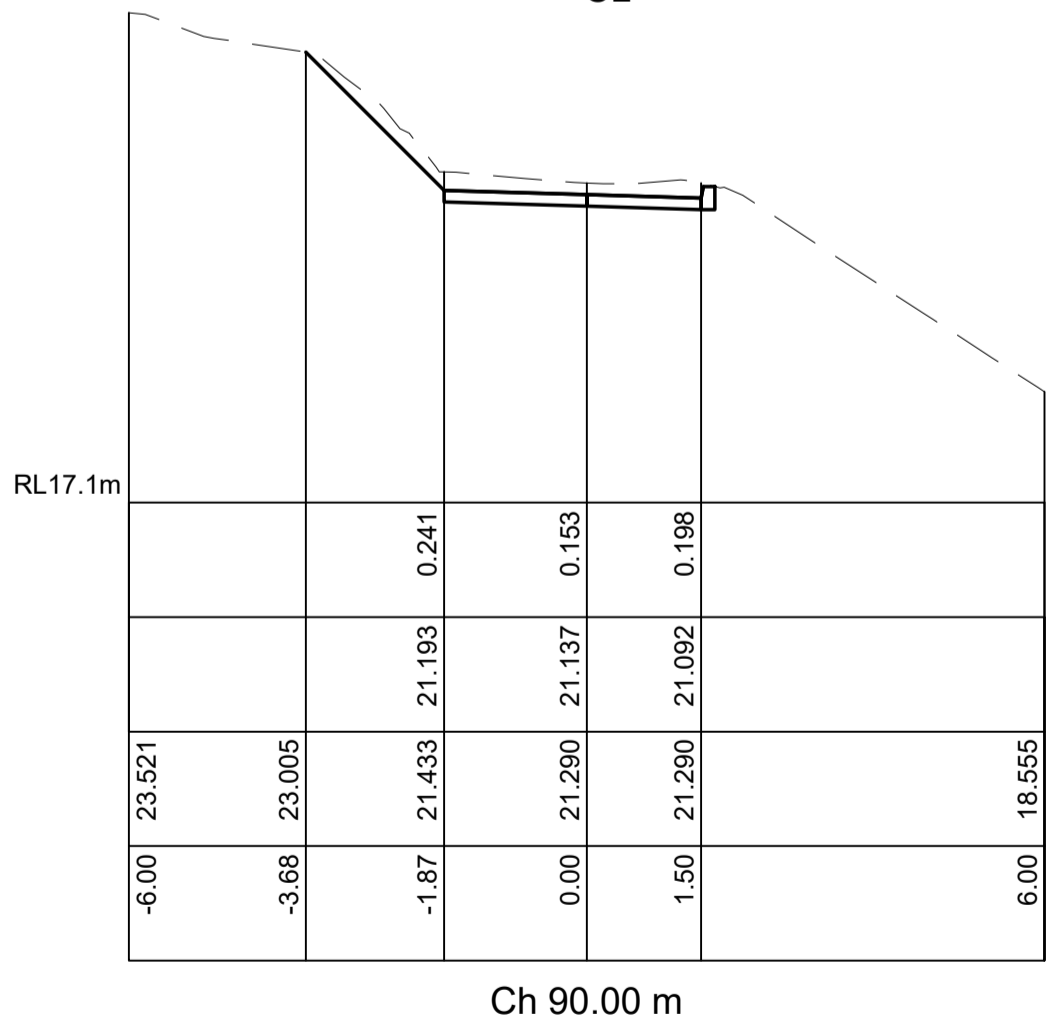
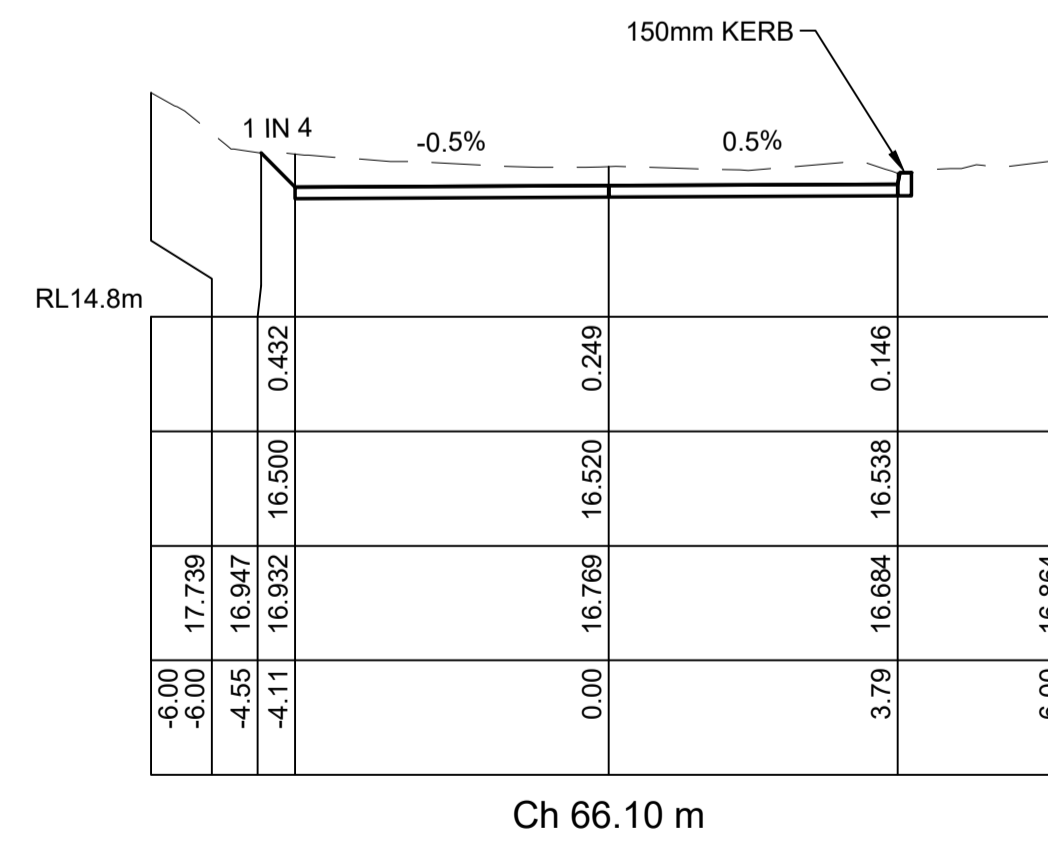
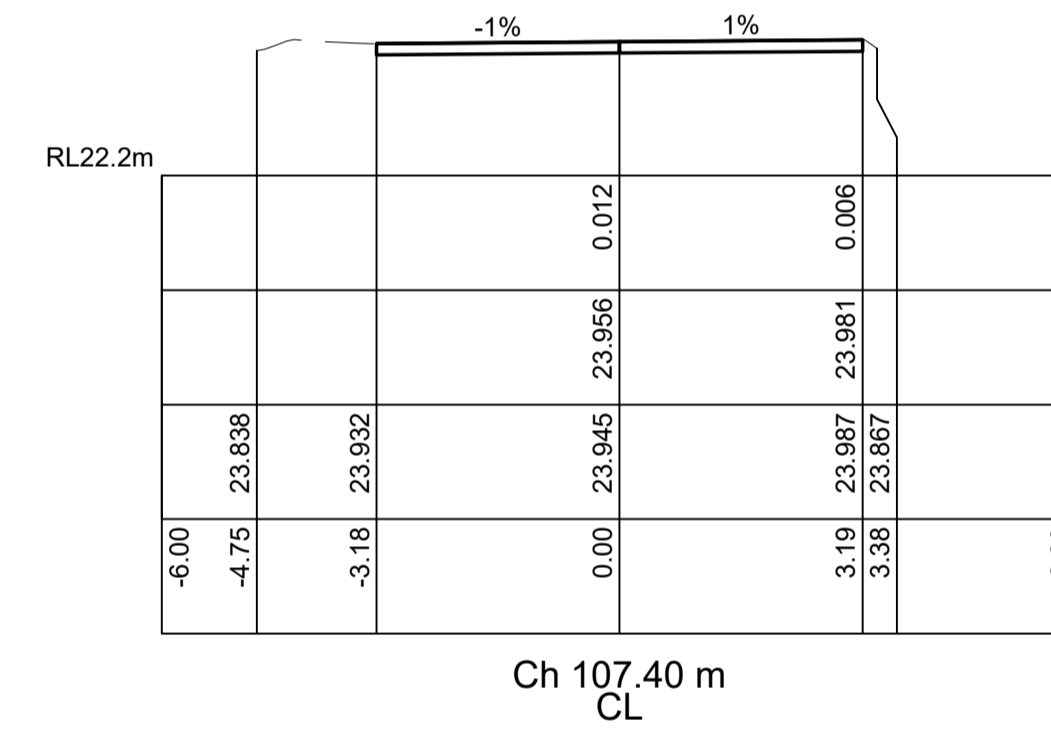
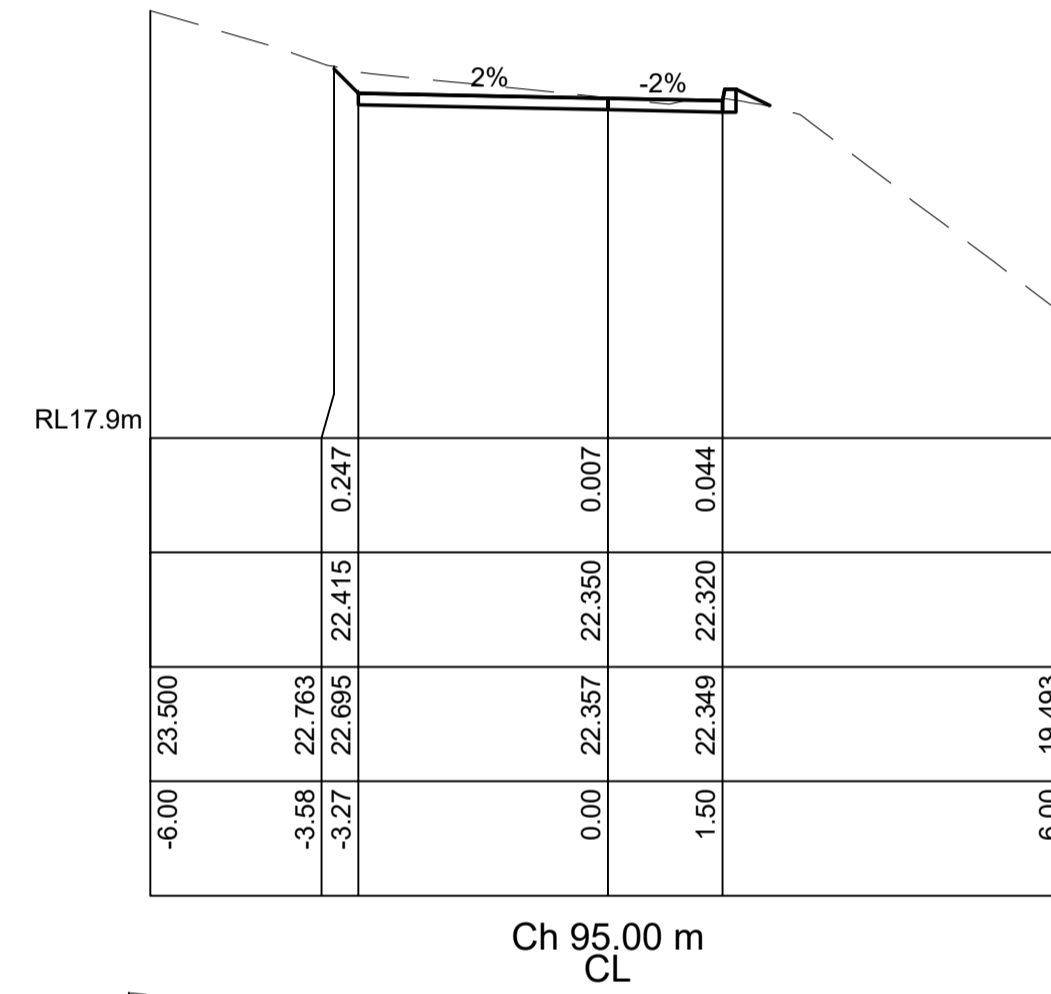
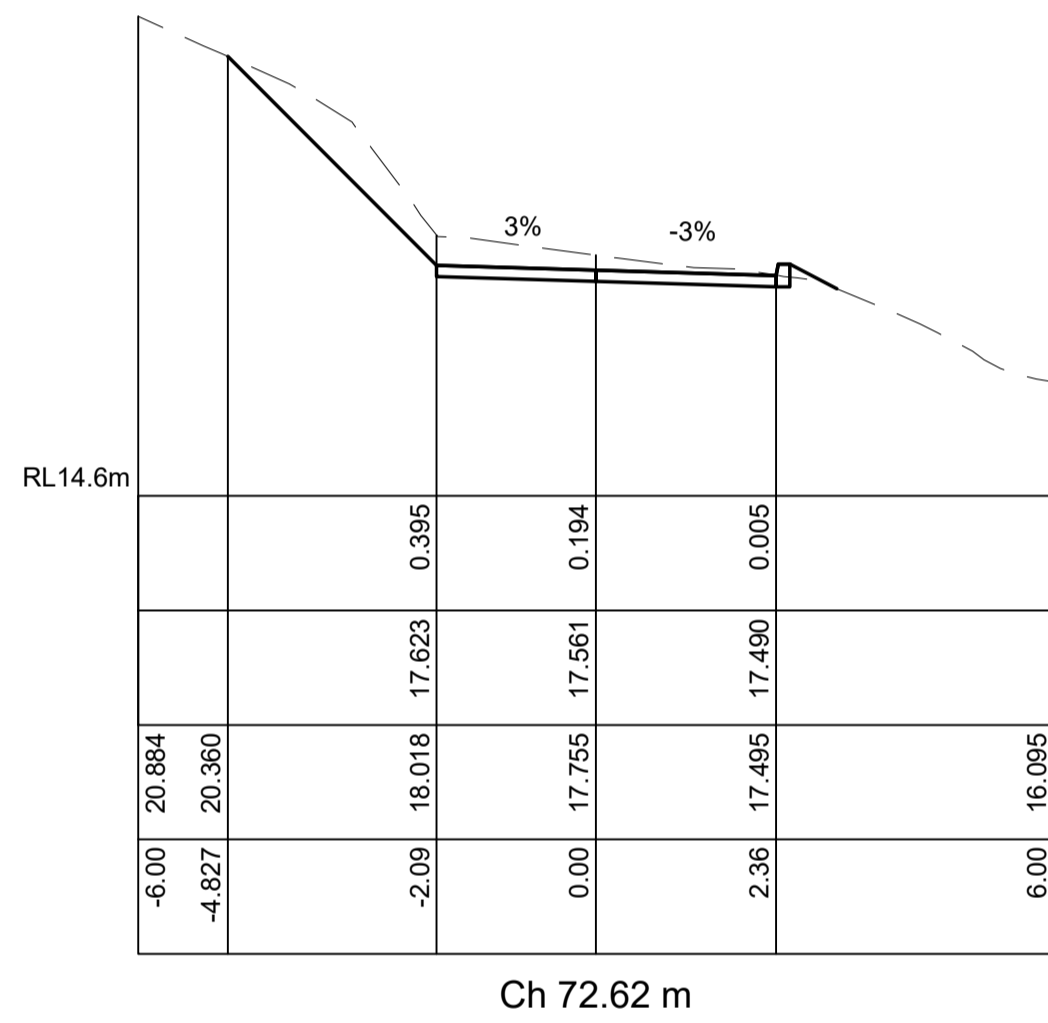
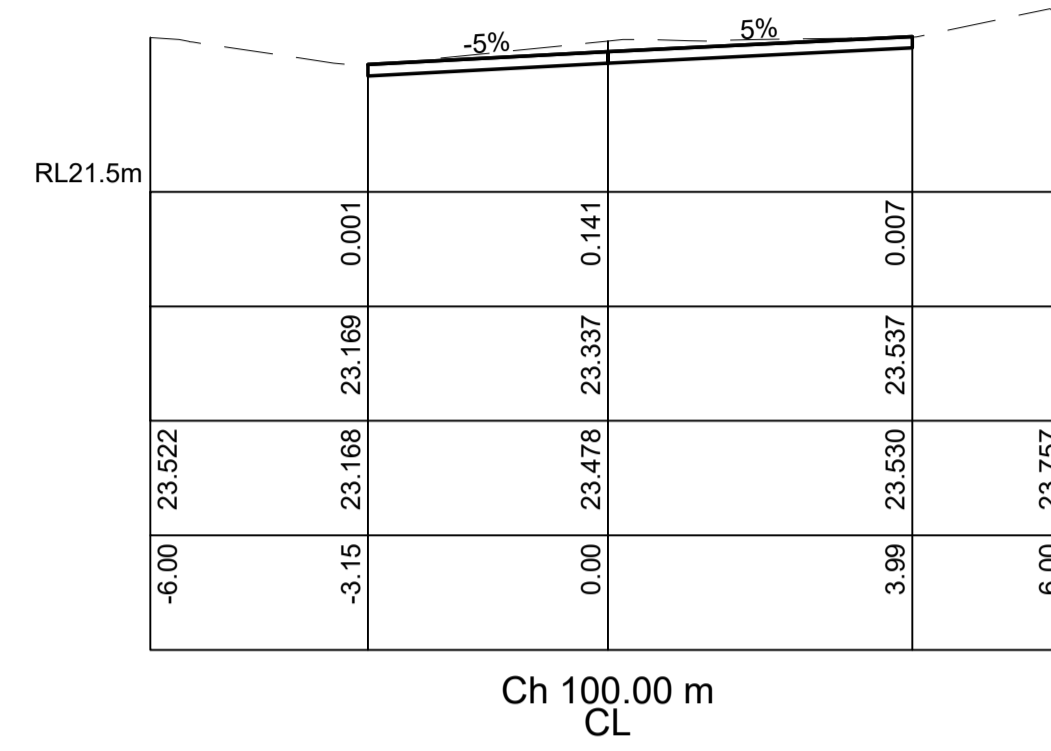
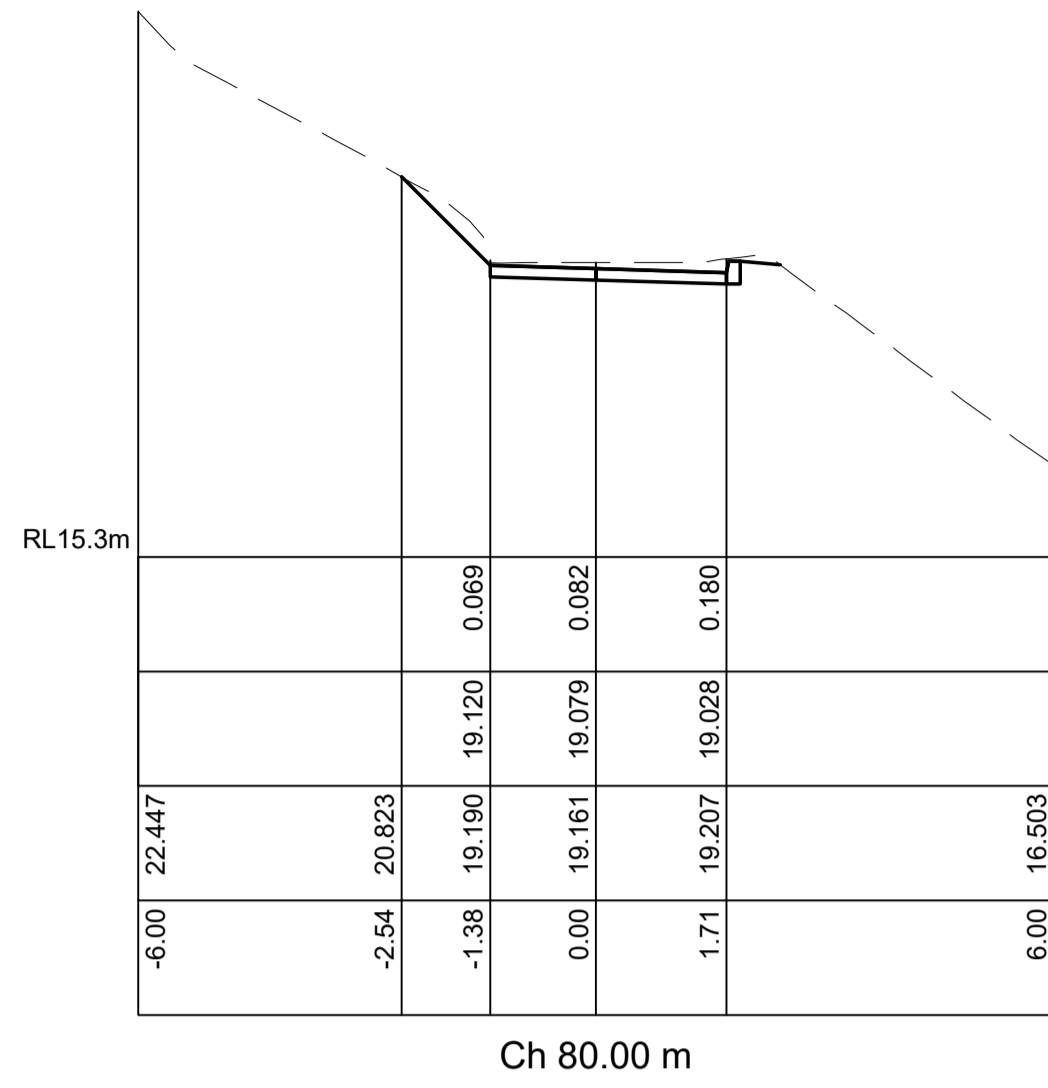


**SHIRE CIVIL DESIGN**  
 CIVIL, HYDRAULIC & TRAFFIC ENGINEERING  
 MOBILE: 0422 008 325  
 EMAIL: COLIN@SHIRECIVILDESIGN.COM.AU  
 ADDRESS: PO BOX 1381 CRONULLA NSW2230  
 WWW.SHIRECIVILDESIGN.COM.AU

CLIENT: D.W.KNOX & PARTNERS  
 32A,34,36,38 NAREEN PDE, NTH NARRABEEN  
 DRIVEWAY REMEDIATION  
 CROSS SECTIONS CH 3.77 TO 59.58



PROJECT No.	C19112	A1 ORIGINAL
SHEET 6 OF 9 SHEETS		
DRAWING No.	C19112	ISSUE
SHEET No.	C05	D



**THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE CONDITIONS OF DEVELOPMENT CONSENT**  
 DA2024/0741

D	COUNCIL COMMENTS	C.J.	C.J.	12/9/24
C	UPDATE TITLE DETAILS	C.J.	C.J.	16/5/24
B	ADJUST DRIVEWAY ALIGNMENT	C.J.	C.J.	19/4/24
A	ADJUST DRAINAGE LAYOUT AND DRIVEWAY ALIGNMENT	C.J.	C.J.	5/4/24
ISSUE	DESCRIPTION	DRAWN	APPR'D	DATE

DATUM	AHD	SURVEYOR	CMS	APPROVED	C.J.	DATE	28/7/23
AZIMUTH	MGA	FIELD BOOK	-	CHECKED	C.J.	DATE	28/7/23
RELATED PLANS		DESIGNED	B.A.	DATE		DATE	28/7/23

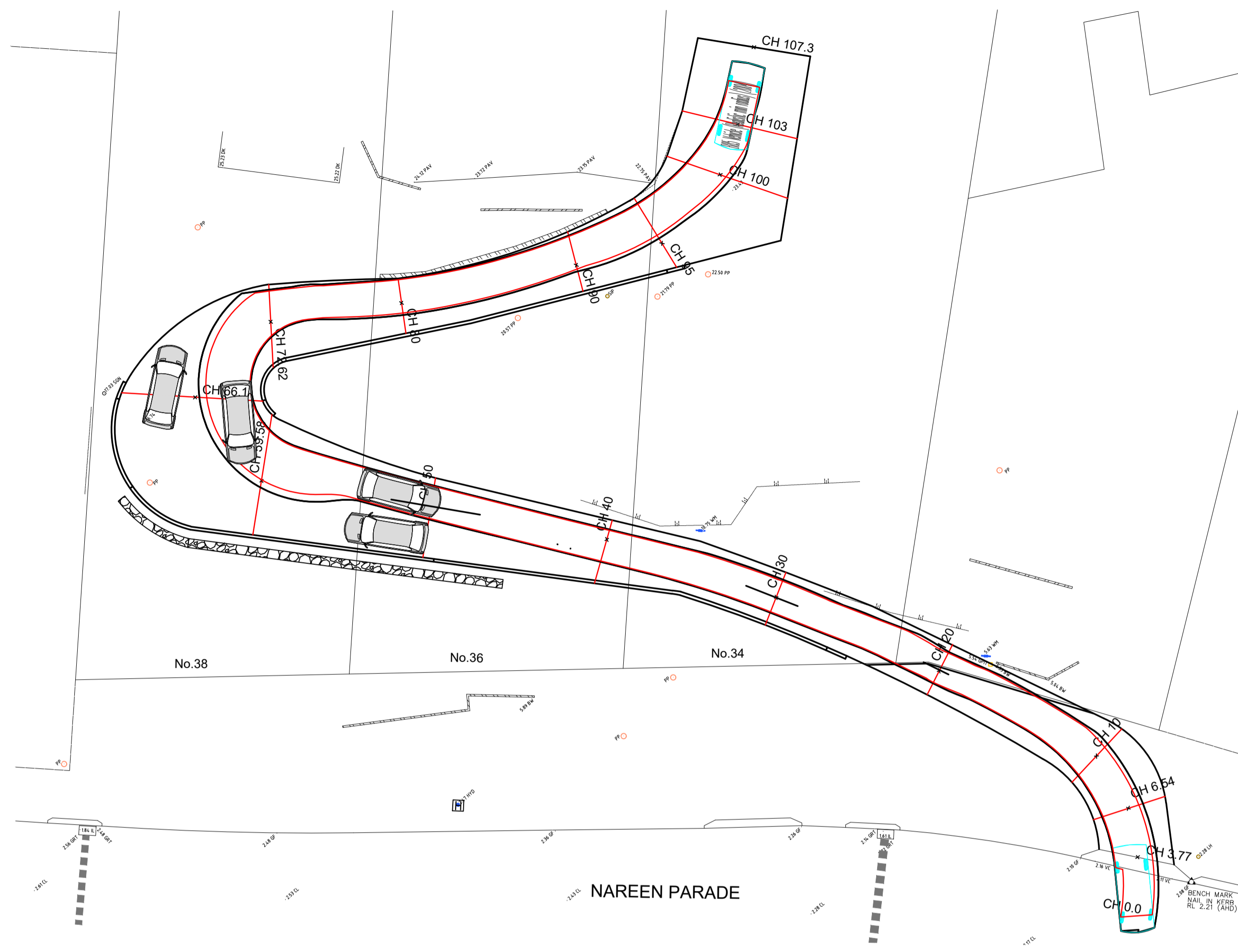


**SHIRE CIVIL DESIGN**  
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 MOBILE: 0422 008 325  
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 WWW.SHIRECIVILDESIGN.COM.AU

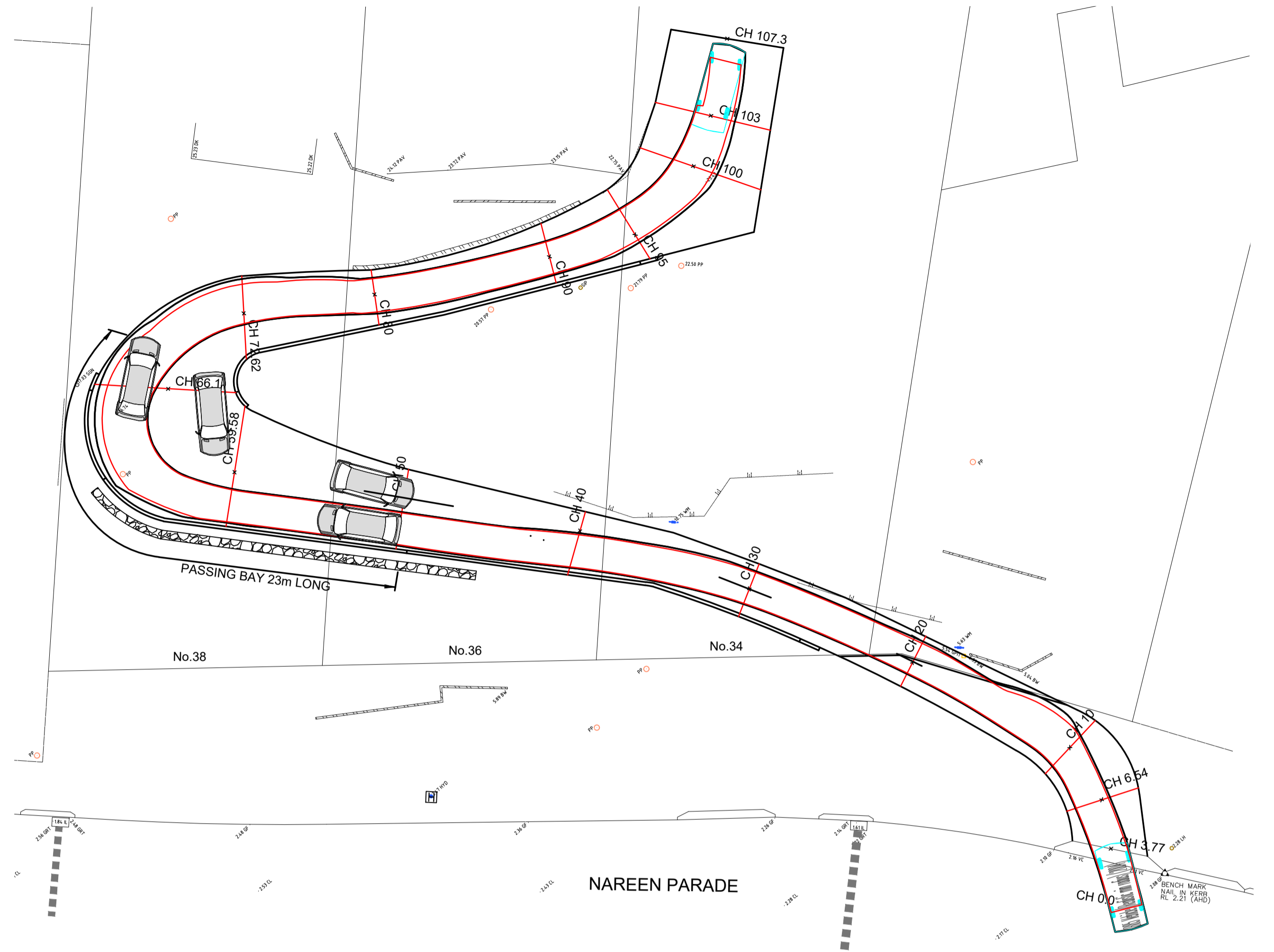
CLIENT: D.W.KNOX & PARTNERS  
 32A,34,36,38 NAREEN PDE, NTH NARRABEEN  
 DRIVEWAY REMEDIATION  
 CROSS SECTION CH 66.1 TO 105

SCALES	AS-NOTED	PROJECT No.	C19112	A1 ORIGINAL
		SHEET 7 OF 9 SHEETS		
		DRAWING No.	C19112	ISSUE
		SHEET No.	C06	D



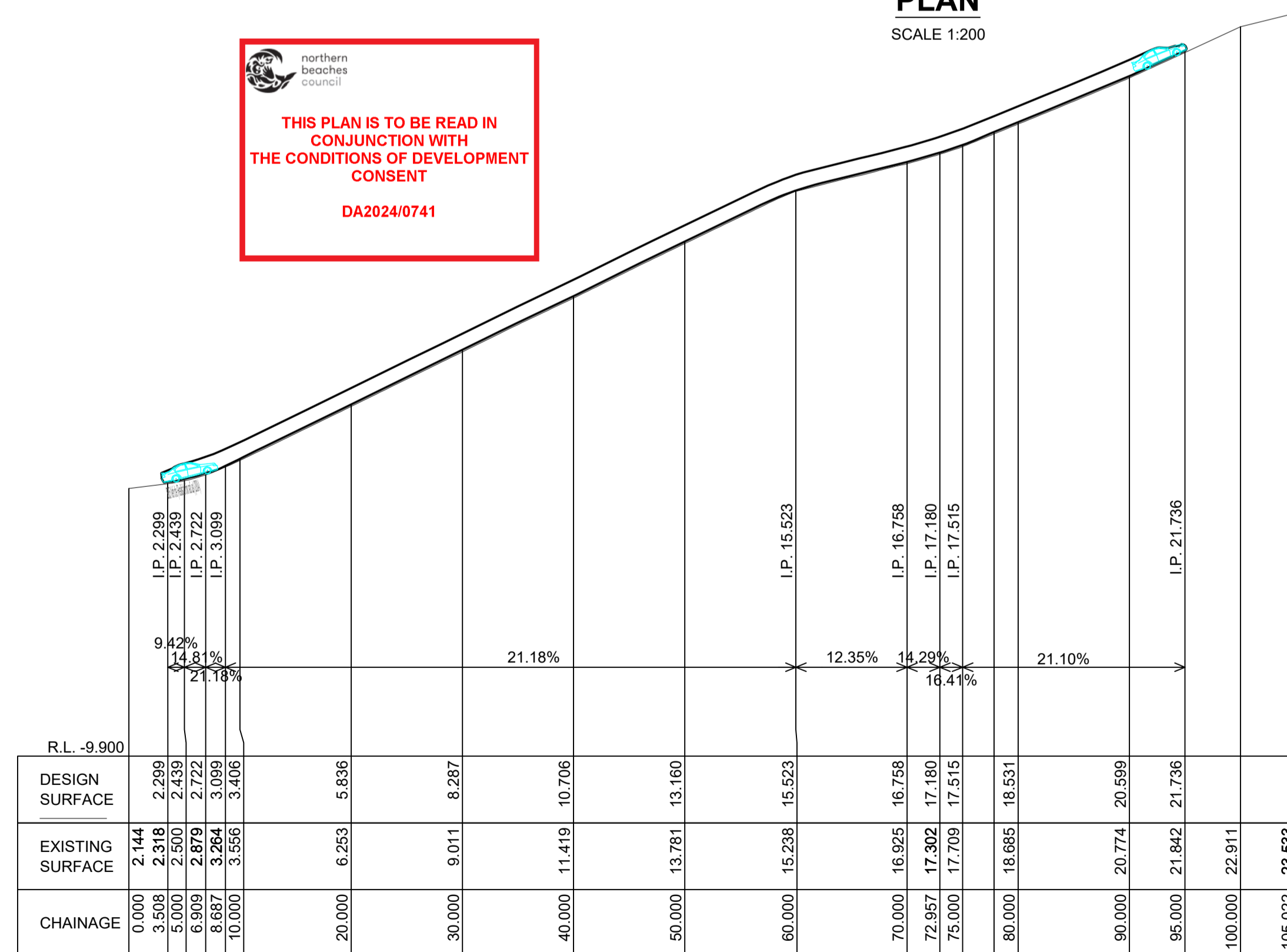


**PLAN**  
SCALE 1:200

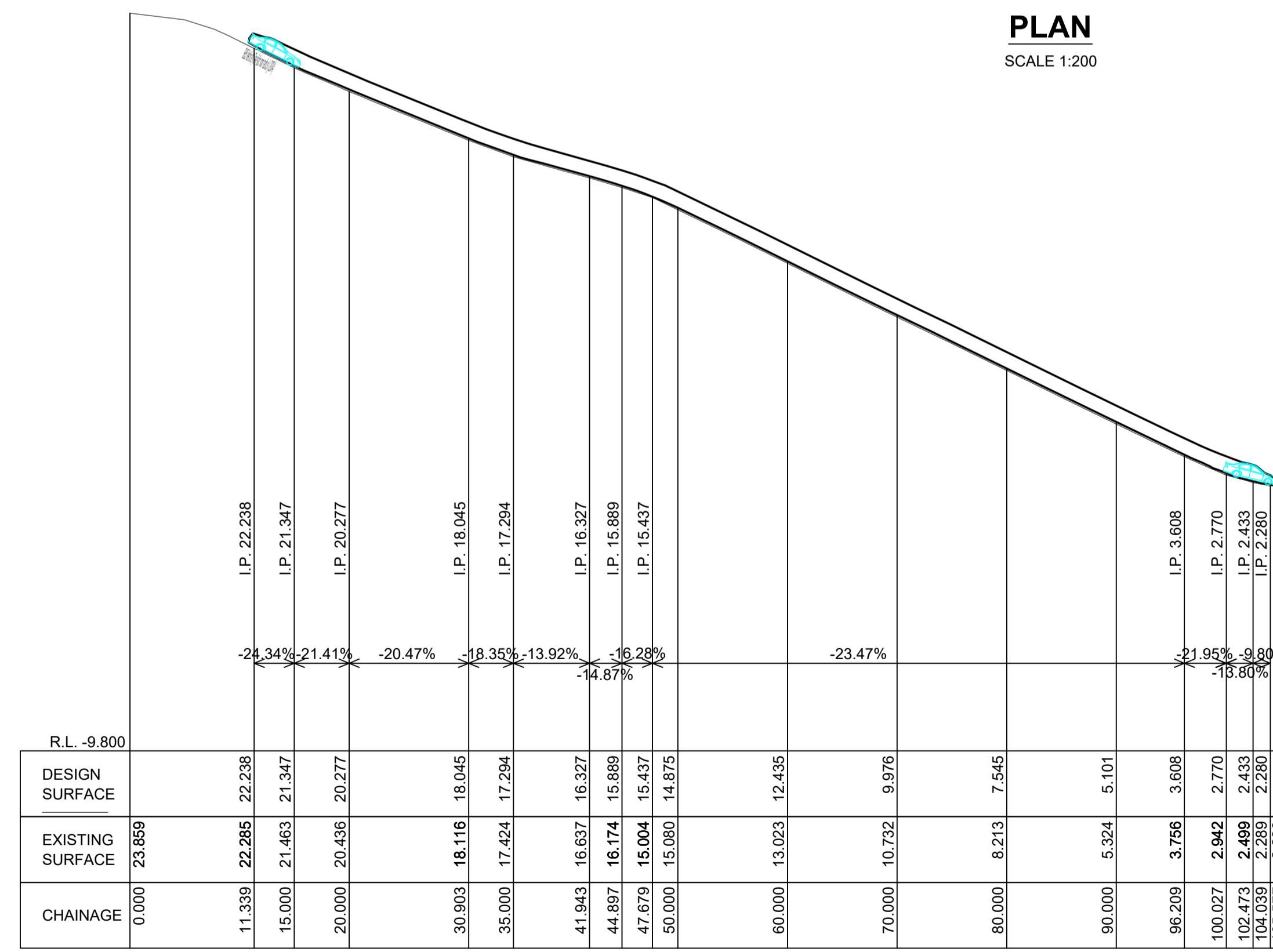


**PLAN**  
SCALE 1:200

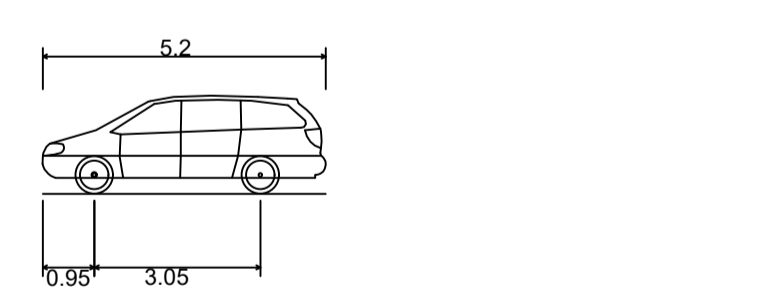
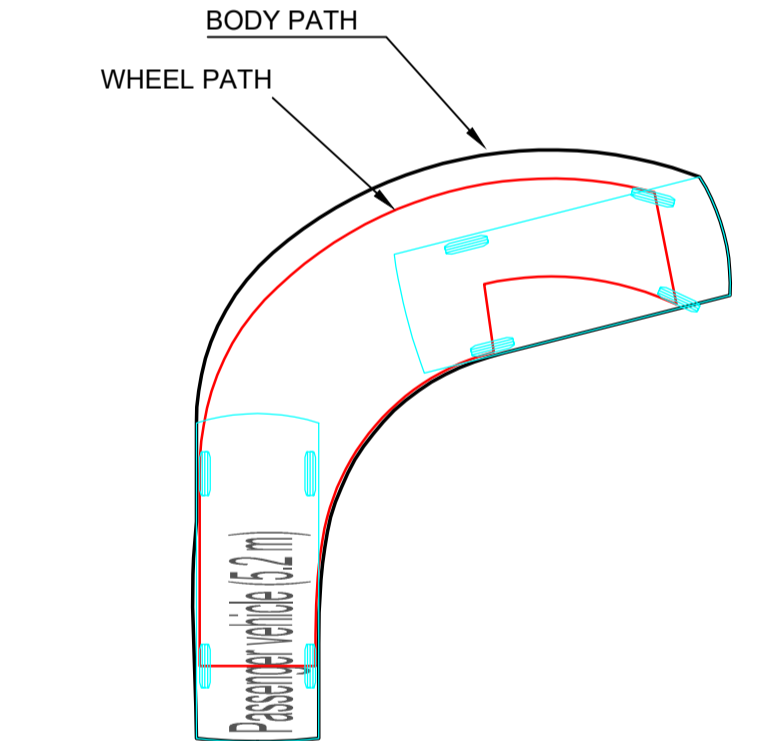
 northern beaches council  
**THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE CONDITIONS OF DEVELOPMENT CONSENT**  
 DA2024/0741



**LONGITUDINAL SECTION**  
Ch 0.000 to Ch 105.022  
SCALES: HORIZONTAL 1:400 VERTICAL 1:200  
CAR ASCENDING



**LONGITUDINAL SECTION**  
Ch 0.000 to Ch 105.577  
SCALES: HORIZONTAL 1:400 VERTICAL 1:200  
CAR DESCENDING



Passenger vehicle (5.2 m)  
 Overall Length 5.200m  
 Overall Width 1.940m  
 Overall Body Height 1.804m  
 Min Body Ground Clearance 0.295m  
 Track Width 1.840m  
 Lock-to-lock time 4.00s  
 Curb to Curb Turning Radius 6.300m

The turning paths illustrated in this drawing have been prepared using the AutoCAD Vehicle tracking modelling software in conjunction with AutoCAD Civil3D. The vehicle model was prepared by Vehicle Tracking based upon vehicle data provided by Austroads. While this modelling represents a conservative assessment of the vehicles ability, it is not possible to account for all vehicle types/characteristics or driver ability.

ISSUE	DESCRIPTION	DRAWN	APPR'D	DATE
D	COUNCIL COMMENTS	C.J.	C.J.	12/9/24
C	UPDATE TITLE DETAILS	C.J.	C.J.	16/5/24
B	ADJUST DRIVEWAY ALIGNMENT	C.J.	C.J.	19/4/24
A	ADJUST DRAINAGE LAYOUT AND DRIVEWAY ALIGNMENT	C.J.	C.J.	5/4/24

DATUM	SURVEYOR	APPROVED	DATE
AHD	CMS	C.J.	28/7/23
AZIMUTH	FIELD BOOK	CHECKED	DATE
MGA		C.J.	28/7/23
RELATED PLANS		DESIGNED	DATE
		B.A.	28/7/23



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 CIVIL, HYDRAULIC & TRAFFIC ENGINEERING  
 MOBILE: 0422 008 325  
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CLIENT: D.W.KNOX & PARTNERS  
 32A,34,36,38 NAREEN PDE, NTH NARRABEEN  
 DRIVEWAY REMEDIATION  
 B85-SWEPT PATHS AND PROFILES PLAN

SCALES	PROJECT No.	C1912	A1 ORIGINAL
AS-NOTED	SHEET 9 OF 9 SHEETS		
NORTH POINT	DRAWING No.	SHEET No.	ISSUE
	C19112	C08	D