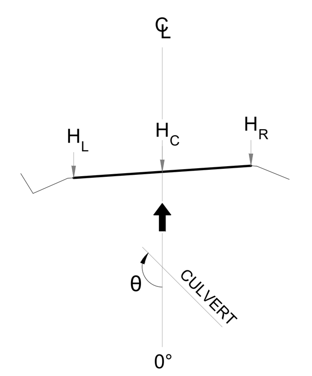
ORIGINAL PAPER SIZE: A0

ROAD 5



PROFILE OF GRADE LINE

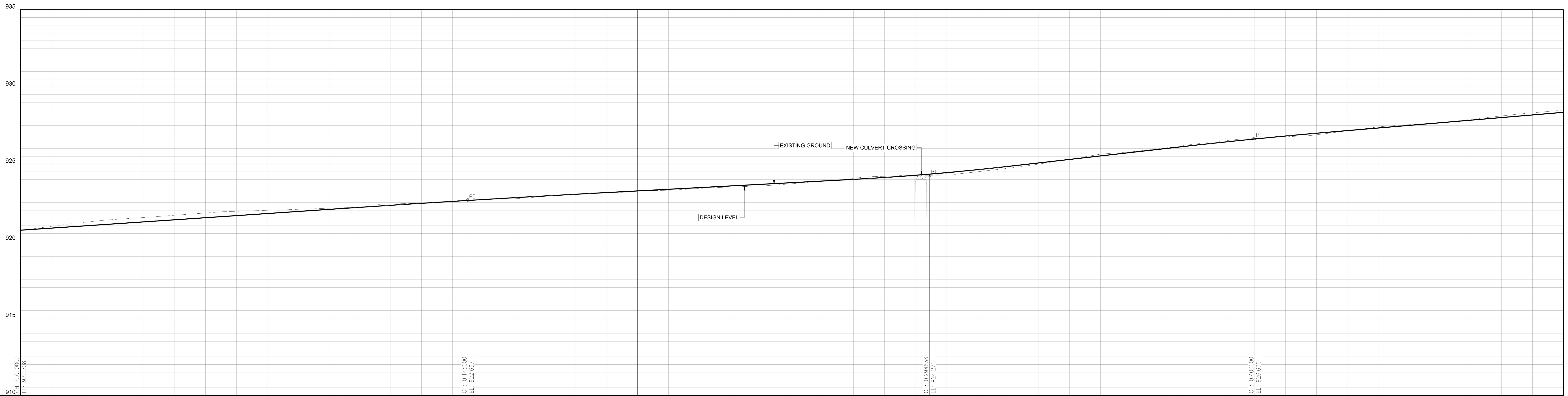
SCALE:
HORIZONTAL 1:500
VERTICAL 1:100

m

5 m

50 m

DATUM 910.000



VERTICAL CURVES / GRADE: 1.35% — VCL=80 m, K=285.7 — 1.07% — VCL=50 m, K=41.7 — 2.27% — VCL=50 m, K=86.6 — 1.69%

	0.000	0.020	0.040	0.060	0.080	0.100	0.120	0.140	0.160	0.180	0.200	0.220	0.240
FINAL ROAD LEVELS H_L LEFT	920.648	920.919	921.189	921.459	921.729	921.999	922.266	922.518	922.757	922.982	923.196	923.410	923.625
FINAL ROAD LEVELS H_C 5.55m ON CL	920.708	920.979	921.249	921.519	921.789	922.059	922.326	922.578	922.817	923.042	923.256	923.470	923.685
FINAL ROAD LEVELS H_R RIGHT	920.768	921.039	921.309	921.579	921.849	922.119	922.386	922.638	922.877	923.102	923.316	923.530	923.745
SUPER ELEVATION													
GROUND LEVELS AT GRADE LINE	920.708	921.205	921.533	921.826	921.999	922.133	922.410	922.610	922.750	923.057	923.198	923.417	923.581
KILOMETER DISTANCE	0.000	0.020	0.040	0.060	0.080	0.100	0.120	0.140	0.160	0.180	0.200	0.220	0.240
CUT / FILL	0.000	-0.227	-0.284	-0.307	-0.210	-0.074	-0.085	-0.032	0.067	-0.016	0.058	0.053	0.103

	0.260	0.280	0.300	0.320	0.340	0.360	0.380	0.400	0.420	0.440	0.460	0.480	0.500
FINAL ROAD LEVELS H_L LEFT	923.839	924.068	924.380	924.785	925.239	925.693	926.145	926.564	926.937	927.277	927.615	927.953	928.292
FINAL ROAD LEVELS H_C 5.55m ON CL	923.899	924.126	924.438	924.845	925.299	925.753	926.205	926.624	926.997	927.337	927.675	928.013	928.352
FINAL ROAD LEVELS H_R RIGHT	923.959	924.189	924.500	924.906	925.359	925.813	926.265	926.684	927.057	927.397	927.735	928.073	928.412
SUPER ELEVATION													
GROUND LEVELS AT GRADE LINE	923.881	924.202	924.280	924.725	925.310	925.792	926.281	926.660	926.897	927.405	927.687	928.119	928.506
KILOMETER DISTANCE	0.260	0.280	0.300	0.320	0.340	0.360	0.380	0.400	0.420	0.440	0.460	0.480	0.500
CUT / FILL	0.017	-0.076	0.158	0.120	-0.011	-0.039	-0.076	-0.036	0.100	-0.068	-0.011	-0.105	-0.154

GUARDRAIL LEFT
KERB LEFT
SHOULDER LEFT
GUARDRAIL RIGHT
KERB RIGHT
SHOULDER RIGHT

HORIZONTAL ALIGNMENT: km 0.000 — STRAIGHT L=226.214m 328° 07' 14" — km 0.226 — R=1000.00m L=135.00m Δ=7°44'00" — km 0.361 — STRAIGHT L=497.285m 320° 23' 09"

DRAINAGE — KILOMETER DISTANCE SIZE AND ANGLE

No.	DATE	REVISIONS	BY	CHECKED BY
-	-	-	-	-

DESIGNED BY: RALEMA CONSULTING ENGINEERS
RALEMA CONSULTING ENGINEERS
34 MEZZANINE OXFORD OFFICE PARK
03 BAUHINIA STREET
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0157
Tel: (012) 753 0744
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Email: admin@ralemacons.co.za

S. Bapela-Pr Tech Eng — DESIGNED
M. Jikwana — DRAWN
S. Bapela-Pr Tech Eng — CHECKED

RALEMA CONSULTING	DEPARTMENT
ISSUED BY:	RECEIVED BY: ....
DATE:	DATE: ....

CLIENT ADDRESS
GROBLERSDAL
PRIVATE BAG X5006
Groblersdal
0950
Tel: (013) 962 1828
Fax: (013) 962 1017
A RE BELEGANENG

CLIENT: ELIAS MOTSOALEDI LOCAL MUNICIPALITY
CONTRACT No. EMLM 20/2023
IPW No. -----
SHEET 1 of 2

PROJECT TITLE: UPGRADING OF KGOBOKWANE-KGAPHAMADI ROADS, BRIDGES AND STORMWATER

DRAWING TITLE: ROAD 5: Km 0+000 to 0+500: LAYOUT PLAN AND LONGITUDINAL SECTION

SCALE: 1:500
TYPES OF PLANNING: PLANNING, CONSTRUCTION, AS-BUILT
STATUS: PLANNING
REVISION: 00
PLAN No. RCE73_EMLM_05_5LS_01

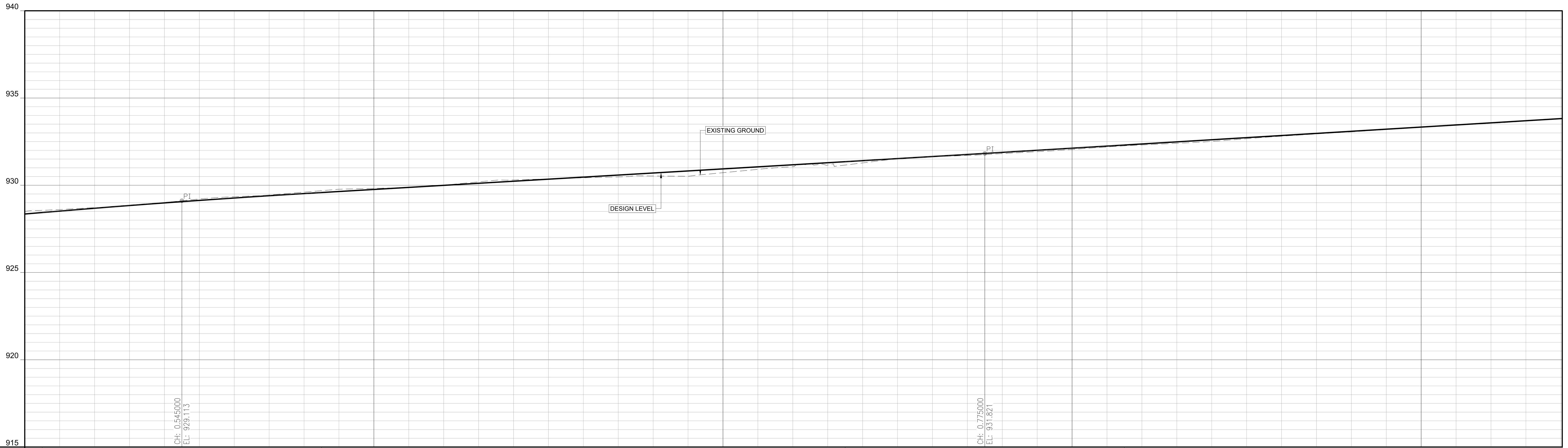
ORIGINAL PAPER SIZE: A0

ROAD 5

PROFILE OF GRADE LINE

SCALE:
HORIZONTAL 1:500
VERTICAL 1:100

DATUM 915.000



VERTICAL CURVES / GRADE: 1.69% | VCL=80 m, K=155.5 | 1.18% | VCL=80 m, K=2392.2 | 1.21%

KILOMETER DISTANCE	FINAL ROAD LEVELS H_L LEFT	FINAL ROAD LEVELS H_C 5.55m ON CL	FINAL ROAD LEVELS H_R RIGHT	SUPER ELEVATION	GROUND LEVELS AT GRADE LINE	CUT / FILL
0.500	928.292	928.352	928.412		928.506	-0.154
0.520	928.623	928.683	928.743		928.718	-0.035
0.540	928.929	928.989	929.049		929.009	-0.020
0.560	929.209	929.269	929.329		929.342	-0.073
0.580	929.464	929.524	929.584		929.606	-0.082
0.600	929.700	929.760	929.820		929.822	-0.062
0.620	929.936	929.996	930.056		930.009	-0.013
0.640	930.171	930.231	930.291		930.306	-0.075
0.660	930.407	930.467	930.527		930.426	0.041
0.680	930.642	930.702	930.762		930.531	0.171
0.700	930.878	930.938	930.998		930.720	0.218
0.720	931.113	931.173	931.233		931.065	0.109
0.740	931.349	931.409	931.469		931.281	0.128
0.760	931.585	931.645	931.705		931.635	0.010
0.780	931.824	931.884	931.944		931.814	0.070
0.800	932.064	932.124	932.184		932.053	0.070
0.820	932.305	932.365	932.425		932.309	0.056
0.840	932.547	932.607	932.667		932.514	0.093
0.860	932.790	932.850	932.910		932.812	0.037
0.880	933.032	933.092	933.152		933.057	0.034
0.900	933.274	933.334	933.394		933.318	0.016
0.920	933.516	933.576	933.636		933.546	0.030
0.940	933.758	933.818	933.878		933.817	[illegible]
0.940	933.763	933.823	933.883		933.823	0.000

GUARDRAIL LEFT
KERB LEFT
SHOULDER LEFT
GUARDRAIL RIGHT
KERB RIGHT
SHOULDER RIGHT

HORIZONTAL ALIGNMENT

Start	Element	End
km 0.361	STRAIGHT L=497.285m 320° 23' 09"	km 0.858
km 0.858	R=1000.00m L=56.95m Δ=3°15'50"	km 0.915
km 0.915	STRAIGHT L=24.961m 317° 07' 22"	

DRAINAGE — KILOMETER DISTANCE SIZE AND ANGLE

No.	DATE	REVISIONS	BY	CHECKED BY
-	-	-	-	-

DESIGNED BY: RALEMA CONSULTING ENGINEERS
RALEMA CONSULTING ENGINEERS
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Email: admin@ralemacons.co.za

S. Bapela-Pr Tech Eng — DESIGNED
M. Jikwana — DRAWN
S. Bapela-Pr Tech Eng — CHECKED

RALEMA CONSULTING	DEPARTMENT
ISSUED BY:	RECEIVED BY: ....
DATE:	DATE: ....

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Groblersdal
0950
Tel: (013) 962 1828
Fax: (013) 962 1017

CLIENT: ELIAS MOTSOALEDI LOCAL MUNICIPALITY

CONTRACT No.: EMLM 20/2023 | IPW No.: ----- | SHEET: 2 of 2

PROJECT TITLE: UPGRADING OF KGOBOKWANE-KGAPHAMADI ROADS, BRIDGES AND STORMWATER

DRAWING TITLE: ROAD 5: Km 0+500 to 0+940: LAYOUT PLAN AND LONGITUDINAL SECTION

SCALE	TYPES OF PLANNING	STATUS
1:500	PLANNING / CONSTRUCTION / AS-BUILT	PLANNING

REVISION	PLAN No.
00	RCE73_EMLM_05_5LS_02