



KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN
POLITEKNIK NEGERI SRIWIJAYA

Jalan Srijaya Negara, Palembang 30139

Telp. 0711-353414 Fax. 0711-355918

Website : www.polisriwijaya.ac.id E-mail : info@polsri.ac.id



KARTU ASISTENSI SKRIPSI

Judul : Perancangan Geometrik dan Tebal Perkerasan kaku Jalan Tol
Binjai – Pangkalan Berandan Provinsi Sumatra Utara (STA
12+950 – STA 18+100)

Nama : M. Rahmat Septiyadi (061840111611)
Oryza Mayudhira Siregar (061840111612)

Dosen Pembimbing : Drs. Mochamad Absor, M.T

NIP : 195801121989031001

No.	Tanggal	Keterangan	Paraf
1	11-5-2022	Cek kembali peta topografisnya !!	
	20-7-2022	Cari titik koordinat masing-masing titik dan hitung jarak dan sudut hubungannya !!	
		- Gambar dan Suplevasi Ganda rencana pada standar RT.	
	1-7-'22	Buat gambar pemayangan menurut pd. standar RT	
	7-7-'22	Buat perbedaan antara muka tanah asli dan rencana jalan pd. pemayangan menurut	



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No.	Tanggal	Keterangan	Paraf
	7-7-2022	- Gbr as jalan di per tabel - Buat grid per 10 m - Bab III perbaiki perbet gal medan Buat gambar Sket. - Foto jalan sebelum pulut jarak.	
	16-7-2022	Lanjutan ke Bab IV.	



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KARTU ASISTENSI TUGAS AKHIR

Nama Mahasiswa : - M.Rachmad Septriadi (061840111611)
- Oryza Mayudhira siregar (061840111621)
Pembimbing : Fadhila Firdausa, S.T., M.Eng
NIP : 199010302018032001
Judul : Perencanaan Geometrik dan Tebal Pengerasan Kaku Jalan
Tol Binjai – Pangkalan Berandan Provinsi Sumatera Utara
(STA 12+950 – 13+150)

No.	Tanggal	Uraian	Paraf
1.	19 Juni 22	Buat Backup Perhitungan Excel	
2.	4 Juli 22	Bab 1 dan Bab 2	
3.	19 Juli 22	Bab 4 dan Bab 5	



LEMBAR REKOMENDASI SIDANG TUGAS AKHIR

Pembimbing Tugas Akhir memberikan rekomendasi kepada :

Nama : M. Rachmad Septiyadi
NIM : 061840111611
Jurusan / Program Studi : Teknik Sipil / DIV Perancangan Jalan & Jembatan
Judul Laporan : Perencanaan Geometrik dan Tebal Perkerasan Kaku
Jalan Tol Binjai – Pangkalan Berandan Provinsi
Sumatera Utara (STA 12+950 – STA 23+150)

Mahasiswa tersebut telah memenuhi persyaratan dan dapat mengikuti Ujian Tugas Akhir pada Tahun Akademik 2021/2022.

Pembimbing I,

Drs. Mochamad Absor, M.T
NIP. 195801121989031001

Palembang, Juli 2022

Pembimbing II

Fadhila Firdausa, S.T., M.Eng
199010302018032001



LEMBAR REKOMENDASI SIDANG TUGAS AKHIR

Pembimbing Tugas Akhir memberikan rekomendasi kepada :

Nama : Oryza mayudhira Siregar
NIM : 061840111621
Jurusan / Program Studi : Teknik Sipil / DIV Perancangan Jalan & Jembatan
Judul Laporan : Perencanaan Geometrik dan Tebal Perkerasan Kaku
Jalan Tol Binjai – Pangkalan Berandan Provinsi
Sumatera Utara (STA 12+950 – STA 23+150)

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Pembimbing I,

Drs. Mochamad Absor, M.T
NIP. 195801121989031001

Palembang, Juli 2022

Pembimbing II

Fadhila Firdausa, S.T., M.Eng
199010302018032001

DATA CBR SEKSI I BINJAI – PANGKALAN BERANDAN

STA	NILAI CBR
STA 12+950	5,8
STA 13+150	6,3
STA 13+350	6,8
STA 13+550	5,1
STA 13+750	7,6
STA 13+950	8,5
STA 14+150	6,7
STA 14+350	8,8
STA 14+550	3,8
STA 14+750	6,8
STA 14+950	7,9
STA 15+150	7,2
STA 15+350	8,5
STA 15+550	7,9
STA 15+750	5,4
STA 15+950	6,7
STA 16+150	4,2
STA 16+350	8,0
STA 16+550	7,4
STA 16+750	7,9
STA 16+950	6,3
STA 17+150	7,3
STA 17+350	6,7
STA 17+550	7,6
STA 17+750	5,8
STA 17+950	6,7
STA 18+150	7,1
STA 18+350	7,8
STA 18+550	6,2
STA 18+750	6,2
STA 18+950	7,5

STA 19+150	6,1
STA 19+350	7,3
STA 19+550	6,8
STA 19+750	7,8
STA 19+950	5,9
STA 20+150	8,4
STA 20+350	6,2
STA 20+550	7,3
STA 20+750	3,5
STA 20+950	7,6
STA 21+150	8,3
STA 21+350	7,2
STA 21+550	3,7
STA 21+750	6,8
STA 21+950	4,5
STA 22+150	7,7
STA 22+350	7,3
STA 22+550	8,1
STA 22+750	7,0
STA 22+950	6,8
STA 23+130	7,3

STANDAR HARGA
DINAS PEKERJAAN UMUM DAN PENATAAN RUANG
BINJAI

A. HARGA DASAR SATUAN UPAH

No	URAIAN	KODE/SPESIFIKASI	SATUAN	HARGA (Rp)
1	Pekerja	L01	Jam	16.175,40
2	Tukang	L02	Jam	18.595,40
3	Mandor	L03	Jam	20.119,05
4	Operator	L04	Jam	21.800,00
5	Pembantu Operator	L05	Jam	16.343,00
6	Sopir / Driver	L06	Jam	21.800,00
7	Pembantu Sopir / Driver	L07	Jam	16.343,00
8	Mekanik	L08	Jam	13.000,00
9	Pembantu Mekanik	L09	Jam	9.000,00
10	Kepala Tukang	L10	Jam	22.100,00
11	Pekerja	L11	Hari	129.403,20
12	Tukang	L12	Hari	148.763,20
13	Mandor	L13	Hari	160.952,40
14	Operator	L14	Hari	174.400,00
15	Pembantu Operator	L15	Hari	130.744,00
16	Sopir / Driver	L16	Hari	174.400,00
17	Pembantu Sopir / Driver	L17	Hari	130.744,00
18	Mekanik	L18	Hari	104.000,00
19	Pembantu Mekanik	L19	Hari	72.000,00
20	Kepala Tukang	L20	Hari	176.800,00

B. HARGA DASAR SATUAN BAHAN

No	URAIAN	KODE/SPESIFIKASI	SATUAN	HARGA (Rp)
1	Pasir Kasar	M01a	M3	132.000
2	Pasir Pasang (Sedang)	M01b	M3	132.000
3	Pasir Halus	M01c	M3	132.000
4	Pasir Urug (ada unsur lempung)	M01d	M3	120.000
	Pasir Urug	M01e	M3	120.000
5	Batu Kali	M02	M3	260.000
	Batu Karang	M02a	M3	221.000
	Batu Kali (Pinggir Sungai)	M02b	M3	290.000
6	Agregat Pecah Kasar	M03	M3	290.000
7	Agregat Halus	M03a	M3	300.000
8	Agregat Pecah Mesin (5-10 & 10-20)	M03b	M3	316.500
9	Agregat Pecah Mesin (20-30)	M03c	M3	300.000
10	Agregat Pecah Mesin (0-5)	M03d	M3	316.500
11	Agregat Pecah Mesin (5-10 & 10-15)	M03e	M3	316.500
12	Agregat Pecah Mesin (9,5-19,0)	M03f	M3	300.000
13	Split	M03g	M3	419.146
14	Filler	M04	Kg	2.300
15	Batu Belah / Kerakal	M05	M3	218.000
16	Gravel	M06	M3	225.000
17	Bahan Tanah Timbunan	M07	M3	40.000
18	Bahan Pilihan	M08	M3	80.000
19	Timbunan Porous	M09	M3	50.000
20	Aspal	M10	Kg	7.500
21	Aspal Modifikasi	M11	Kg	6.700
22	Aspal Emulsi	M12	Kg	12.300
23	Kerosen / Minyak Tanah	M13	LITER	11.700
24	Semen / VC (50 kg)	M14	Zak	70.000
25	Semen /VC (kg)	M14a	Kg	1.400
26	Besi Beton	M15	Kg	12.000
27	Kawat Beton	M16	Kg	17.000
28	Kawat Bronjong (Pabrikasi Dia kawat 3 mm Uk. 2x1x0,5)	M17	Set	453.000
29	Kawat Bronjong	M17a	Kg	28.000
30	Sirtu	M18	M3	272.000
31	Cat Marka (Non Termoplas)	M19	Kg	42.100
32	Cat Marka (Termoplastic)	M19a	Kg	50.000
33	Paku	M20	Kg	15.000
34	Kayu Perancah	M21	M3	2.050.000
35	Kayu Acuan	M22	M3	2.100.000
36	Bensin	M23	LITER	7.850
37	Solar	M24	LITER	9.800

38	Minyak Pelumas / Olie	M25	LITER	39.500
39	Plastik Filter	M26	M2	19.000
40	Pipa Gavanis Dia. 3"	M27a	M'	289.667
41	Pipa Gavanis Dia. 4"	M27b	M'	478.500
42	Pipa Porus	M28	M'	58.000
43	Agregat Base Kelas A	M29	M3	330.000
44	Agregat Base Kelas B	M30	M3	442.792
45	Agregat Base Kelas C	M31	M3	489.978
46	Geotextile	M32	M2	30.375
47	Gebatan Rumput	M33	M2	3.750
48	Thinner	M34	LITER	20.000
49	Glass Bead	M35	Kg	63.250
50	Pelat Rambu (Eng. Grade)	M36	BH	218.500
51	Pelat Rambu (High I. Grade)	M36a	BH	287.500
52	Rambu Ukur	M36b	BH	200.000
53	Rol Pengaman	M37	M'	517.500
54	Beton K-125	M38	M3	1.178.196
55	Beton K-175	M39	M3	1.256.973
56	Beton K-250	M40	M3	1.588.189
57	Beton K-300	M41	M3	1.631.844
58	Beton K-350	M42	M3	2.471.057
59	Beton K-400	M43	M3	2.544.077
60	Beton K-500	M44	M3	2.699.718
61	Baja Tulangan (Polos) U28	M45	Kg	14.000
62	Baja Tulangan (Polos) U32	M45a	Kg	15.000
63	Baja Tulangan (Ulir) D32	M46	Kg	16.000
64	Baja Tulangan (Ulir) D39	M46a	Kg	16.000
65	Baja Tulangan (Ulir) D48	M46b	Kg	16.000
66	Kapur	M47	M3	53.500
67	Chipping	M48	M3	305.000
68	Chipping (kg)	M48a	Kg	160
69	Cat Besi	M49	Kg	60.000
70	Pemantul Cahaya (Reflector)	M50	Bh	17.800
71	Arbocell	M51	Kg	51.750
72	Baja Bergelombang	M52	Kg	23.000
73	Baja Struktur	M53	Kg	46.575
74	Tiang Pancang Baja	M54	M'	46.000
75	Tiang Pancang Beton Praktekan	M55	M'	517.500
76	Pile Beton	M56	M'	221.375
77	Kawat Las	M57	Dos	46.000
78	Besi Profil	M58	Kg	47.575
79	Minyak Fluks	M59	Liter	8.625
80	Bunker Oil	M60	Liter	5.750
81	Asbuton Halus	M61	Ton	446.200

82	Baja Prategang	M62	Kg	14.375
83	PCI Girder L=17m	M63	Buah	112.125.000
84	PCI Girder L=21m	M63a	Buah	126.500.000
85	PCI Girder L=26m	M63b	Buah	167.325.000
86	PCI Girder L=32m	M63c	Buah	207.000.000
87	PCI Girder L=36m	M63d	Buah	218.500.000
88	PCI Girder L=41m	M63e	Buah	253.000.000
89	Cerucuk	M64	M1	15.000
90	Bahan Pengawet : kreosot	M65	Liter	5.000
91	Mata Kucing	M66	Buah	95.450
92	Anchorage	M67	Buah	862.500
93	Anchorage Hidup	M67a	Buah	750.000
94	Anchorage Mati	M67b	Buah	400.000
95	Anti Stripping agent	M68	Kg	55.200
96	Bahan Modifikasi	M69	Kg	93.150
97	Ducting (Kabel prestress)	M70	M'	201.250
98	Ducting (Strand prestress)	M70a	M'	69.000
99	Multipleks / Fly Wood 3 mm (1,22 m x 2,44 m)	M71	Kpg	51.800
100	Multipleks / Fly Wood 6 mm (1,22 m x 2,44 m)	M71a	Kpg	105.150
101	Multipleks / Fly Wood 9 mm (1,22 m x 2,44 m)	M71b	Kpg	154.200
102	Multipleks / Fly Wood 12 mm (1,22 m x 2,44 m)	M71c	Kpg	225.000
103	Elastomer Jenis 1 (350x300x36 mm)	M72	Buah	543.375
104	Elastomer Jenis 2 (400x350x39 mm)	M72a	Buah	784.875
105	Elastomer Jenis 3 (400x450x45 mm)	M72b	Buah	1.164.375
106	Elastomer Alam	M73	Kg	30.000
107	Elastomer Sintesis	M74	Kg	30.000
108	Expansion Tipe Joint Asphaltic Plug	M75	M	1.276.500
109	Expansion Join Tipe Rubber	M75a	M	1.610.000
110	Expansion Joint Tipe Torma	M75b	M	1.610.000
111	Expansion Join Baja Siku	M75c	M	368.000
112	Marmer	M76	M2	400.000
113	Kerb	M77	Buah	59.000
114	Vaving Block	M78	Buah	52.550
115	Mini Timber Pile	M79	Buah	34.500
116	Strip Bearing	M80	Buah	293.250
117	Joint Socket Pile 35x35	M81	Set	782.000
118	Joint Socket Pile 16x16x16	M82	Set	207.000
119	Mikro Pile 16x16x16	M83	M1	77.050

120	Matras Concrete	M84	Buah	529.000
121	Asselline	M85	Botol	316.250
122	Oxygen	M86	Botol	49.500
123	Batu Bara	M87	Kg	850
124	Pipa Baja	M88b	Kg	48.246
125	Joint Sealent	M90	Kg	41.975
126	Cat Anti Karat	M91	Kg	35.650
127	Expansion Cap	M92	M2	7.750
128	Polylene 125 Mikron	M93	Kg	24.150
129	Curing Compound	M94	Liter	48.300
130	Additive	M95	Liter	48.300
131	Additive Anti Pengelupasan	M95a	Kg	55.200
132	Casing	M96	M2	11.500
133	Pasir Tailing	M97	M3	259.000
134	Polimer	M98	-	45.000
135	Bahan Pengisi (Filler) Tambahan	M99	Kg	1.600
136	Asbuton yang diproses	M100	Kg	30.000
137	Kabel Prategang	M101	Kg	14.375
138	Baja Prategang	M102	Kg	14.375
139	Baja Profil I WF	M103	Kg	46.575
140	Epoxy Bahan Penutup (sealnt)	M104	Kg	41.975
141	Besi Siku / Plat Strip	M105	Kg	8.000
142	Pelat Baja	M106	Kg	15.000
143	Pelat Baja Galvanis	M107	Kg	31.000
144	Cat Galvanis / Anti Karat	M108	Kg	35.650
145	Kayu Kelas II	M109	M3	4.600.000
146	Kayu Kelas III	M110	M3	3.200.000
147	Kayu Kelas IV	M111	M3	2.350.000
148	Bahan Pengaman Tebing Galian (kayu)	M112	M3	2.300.000
149	Petroleum Jelly	M113	Kg	350.000
150	Bahan Anti Rayap / Ter (Residu)	M114	Kg	22.500
151	Mortar	M115	M3	450.000
152	Cat Menie	M116	Kg	40.000
153	Amplas	M117	Lbr	7.000
154	Dempul	M118	Kg	55.000
155	Snear Connector	M119	Kg	15.000
156	Pasangan Seling Utama Dia 1,5"	M120	M'	190.000
157	Pasangan Seling Pengaku Dia 1"	M121	M'	90.000
158	Pasangan Seling u/ Ralling Dia 0,5"	M122	M'	30.000
159	Pasangan Roseling 1,5"	M123	Set	1.500.000
160	Pasangan Klem Penggantung + Pengaku	M124	Set	110.000
161	Pasangan Klem u/ Ralling 3/4"	M125	Bh	40.000
162	Pasangan Klem (Kuku Macan) Seling Dia 1,5"	M126	Bh	333.000

163	Pasangan Klem (Kuku Macan) Seling Dia 1"	M127	Bh	125.000
164	Baut 5/8 "	M128	Bh	4.000
165	Baja Padat Dia 2 "	M129	Kg	15.000
166	U- Ditch Beton 40x40x120 cm	M130	Bh	1.200.000
167	U- Ditch Beton 50x50x120 cm	M131	Bh	1.400.000
168	U- Ditch Beton 50x70x120 cm	M132	Bh	1.500.000
169	Box Culvert Bertulang 100. 100. 120-12,5 K 400	M133	Bh	5.150.000
170	Box Culvert Bertulang 100. 200. 100-21 K 400	M134	Bh	9.200.000
171	Box Culvert Bertulang 150. 150. 100-20 K 400	M135	Bh	9.500.000
172	Pipe Culvert d 30. 120. 4,0 K 400	M136	Bh	1.350.000
173	Pipe Culvert d 60. 120. 5,5 K 400	M137	Bh	2.050.000
174	Pipe Culvert d 80. 120. 6,5 K 400	M138	Bh	2.550.000
175	Asbes Gelombang Kecil	6 Kaki / Feet	Kpg	41.950
176	Palu		Bh	30.000
177	Gergaji		Bh	90.000
178	Cangkul		Bh	75.000
179	Meteran		Bh	26.000
180	Obeng		Bh	25.000
181	Pahat		Bh	29.000
182	Centong Semen		Bh	39.000
183	Obeng		Bh	25.000
184	Aluminium Foil		M'	10.000
185	Bak Air Fiberglas	0,25 M3	Bh	265.000
186	Bak Air Fiberglas	1,00 M3	Bh	1.685.000
187	Bak Cuci Piring Aluminium		Bh	310.000
188	Bataco Buntu	40. 18. 10 Cm	Bh	7.700
189	Batu Alam Kuning / Hijau		M2	175.000
190	Batu dari Galian Bukit / Batu Gunung		M3	210.000
191	Batu Koral		M3	250.000
192	Batu Bata Biasa		Bh	865
193	Batu Bata Bolong		Bh	1.150
194	Besi Beton		Kg	13.500
195	Barrier		Buah	1.272.800
196	Bola Lampu SL 20 watt		Bh	45.000
197	Bubungan Asbes (Karpus)		Kpg	35.000
198	Bubungan Gentengan Keramik		Bh	28.500
199	Calsie Board	4 MM	Kpg	58.300
200	Cat Tembok	@ 1kg	Kg	25.000
201	Closet duduk lengkap		Bh	2.200.000
202	Closet Jongkok		Bh	275.000
203	Closet Jongkok Ex.Lokal		Bh	154.200
204	Conblok polos 6 mm		Bh	2.200

205	Conblok polos 8 mm		Bh	2.200
206	Engsel H 3 "		Bh	7.500
207	Engsel Kuningan 3"		Bh	11.000
208	Engsel Kuningan 4"		Bh	22.000
209	Floor Drain Plastik		Bh	8.500
210	Genteng Keramik		Bh	15.000
211	Glass Block		Bh	28.000
212	Pintu WC		Bh	213.000
213	Pintu WC Biasa		Bh	280.000
214	Gorong-gorong dia. 30 cm bertulang		M'	95.000
215	Gorong-gorong dia. 40 cm bertulang		M'	120.000
216	Gorong-gorong dia. 50 cm bertulang		M'	185.000
217	Gorong-gorong dia. 60 cm bertulang		M'	250.000
218	Gorong-gorong dia. 80 cm bertulang		M'	270.000
219	Gorong-gorong dia. 100 cm bertulang		M'	300.000
220	Grendel 2"		Bh	8.300
221	Gypsum Board	120 x 240 cm x 9 mm	Lbr	77.050
222	Granit 60x60 cm		Bh	68.900
223	Handel / Tarikan / Pegangan Jendela		Bh	15.500
224	Handel / Tarikan / Pegangan Pintu		Bh	90.000
225	Besi Hollow Pagar		M	13.000
226	Hollow Rangka Plapond		M'	3.500
227	Kaca Bening tebal 3 mm	1,22 M x 1,52 M	Kpg	155.000
228	Kaca Bening tebal 5 mm	1,22 M x 1,52 M	Kpg	225.000
229	Kaitan Angin		Bh	10.000
230	Kawat Duri	90 M	RoI	189.200
231	Kayu Bulat / Dolken	4 Meter	Btg	10.000
232	Kayu Gelam / Cerucuk	4 Meter	Btg	60.000
233	Kayu Kelas IV Papan		M3	2.300.000
234	Kayu Kelas IV Persegi (racuk)		M3	2.300.000
235	Kayu Kls II Papan		M3	4.600.000
236	Kayu Kls II Persegi		M3	4.600.000
237	Kayu Kls III Papan		M3	3.200.000
238	Kayu Kls III Persegi		M3	3.200.000
239	Keramik 30x30 cm Anti Slip		Bh	6.500
240	Keramik 20x20 cm warna		Bh	5.670
241	Keramik 20x25 cm warna		Bh	5.460
242	Keramik 30x30 cm warna		Bh	6.500
243	Keramik 40x40 cm warna		Bh	11.200
244	Kran Air 1/2" Ex.Lokal		Bh	30.000
245	Kran Air 1/2" Ex.Import		Bh	15.000
246	Kran Air 3/4" Ex.Import		Bh	35.000
247	Kran Air 1/2" Ex.Lokal		Bh	21.000
248	Kuas 2"		bh	6.300

249	Kunci Gembok Sedang Kuningan		Bh	43.300
250	Kunci Tanam 1 Slag Biasa		Bh	84.100
251	Kunci Tanam 2 Slag Biasa		Bh	158.300
252	Kunci Tanam 2 Slag Merk Italy		Bh	299.250
253	Lampu SL Setara Philip 20 Watt		Bh	45.000
254	Lampu TL Setara Philip 20 Watt Komplit		Set	115.500
255	Lampu Down Light 20 Watt Komplit		Set	190.000
256	Lampu LED 11 Watt		Bh	68.250
257	Lampu LED 3 Watt		Bh	26.250
258	Lem Kayu		Kg	24.850
259	List Profil Kayu		Btg	21.000
260	List Profil Gypsum Besar		M'	27.000
261	List Profil Gypsum Sedang		M'	25.000
262	Paku Beton 2" s/d 5"		Bh	1.000
263	Paku Sekrup		Kg	45.000
264	Paku Seng		Kg	30.000
265	Paku Seng Ulir + Karet		Kg	35.000
266	Paku Ukuran 0" s/d 1"		Kg	16.500
267	Pintu Aluminium KM/WC + Kunci & Engsel		Unit	550.000
268	Pintu dan Jendela Aluminium (Lengkap)		M2	1.300.000
269	Pintu KM/WC Fiber		Unit	350.000
270	Pipa Ledeng dia 1" Galvanis		Btg	147.000
271	Pipa Ledeng dia 1,5" Galvanis		Btg	220.700
272	Pipa Ledeng dia 2" Galvanis		Btg	257.500
273	Pipa Ledeng dia 3/4" Galvanis		Btg	110.400
274	Pipa PVC dia. 3/4"		Btg	28.000
275	Pipa PVC dia. 1"		Btg	42.050
276	Pipa PVC dia. 1 1/2"		Btg	63.050
277	Pipa PVC dia. 2"		Btg	77.050
278	Pipa PVC dia. 3"		Btg	147.150
279	Pipa PVC dia. 4"		Btg	238.300
280	Plamer Cat Tembok		Kg	7.350
281	Plat Baja Tebal 4 mm		Kpg	1.400.000
282	Plafond PVC (Eks Shunda Plafond) + Rangka Hollow		M2	280.000
283	Plint Keramik 10x30 cm warna		Bh	2.200
284	Plint Keramik 10x40 cm warna		Bh	2.800
285	Politur / Politur Jadi		Btl	57.750
286	Pompa Air Sanyo		Unit	450.000
287	Rangka Baja Ringan + Atap Multiroof (berglazur pasir)		M2	245.000
288	Rangka Baja Ringan + Atap Multiroof (Polos)		M2	190.000
289	Roster Semen	15 Cm x 30 Cm	Bh	24.500

290	Sakelar Double / Ganda		Bh	32.900
291	Sakelar Engkel		Bh	21.000
292	Semen Putih (@ 40kg)		Zak	124.300
293	Seng Bubungan plat BJLS 20		M'	24.500
294	Seng Gelombang BJLS 21		Kaki	9.650
295	Seal Tape		Bh	5.300
296	Sok Elbow PVC dia. 3/4"		Bh	5.000
297	Sok Elbow PVC dia. 1"		Bh	5.000
298	Sok Elbow PVC dia. 1 1/2"		Bh	6.500
299	Sok Elbow PVC dia. 2"		Bh	8.000
300	Sok Elbow PVC dia. 3"		Bh	9.500
301	Sok Elbow PVC dia. 4"		Bh	12.000
302	Spritus		Kg	17.550
303	Stop Kontak		Bh	44.850
304	Penutup Seng Alkan 0,35 mm		Kpg	71.500
305	Penutup Seng Alkan 0,45 mm		Kpg	82.500
306	Aluminium Composit Panel (ACP)		M2	462.000
307	Teakwood tebal 4 mm (bermotif)		Kpg	126.500
308	Tecxtile Tape		M'	1.275
309	Washtafel KIA		Unit	750.000
310	Urinoir / Komplit		Bh	1.300.000
311	Drymix floor hardener @ 25kg		Kg	16.500
312	Drymix pasangan bata Setara @ 40kg		sak	191.950
313	Drymix plesteran Setara @ 40kg		sak	93.600
314	Drymix Acian Setara @ 40 kg		sak	215.050
315	Drymix Self Leveling floor @ 25kg		zak	362.450
316	Semen tahan api perekat bata tahan api		kg	9.003
317	Semen tahan api ex. TECHNOCAST CASTABLE LW-10T		kg	7.440
318	Kanstein uk. 60x15x30 cm		bh	59.000
319	Water Profing Membrane Bithuthene Sheet		m ²	155.000
320	Water Profing Membrane Polyethylene		m ²	350.000
321	Waterproofing coating Elastomeric Acrylic/Terpasang		m ²	75.000
322	Waterproofing Integral		ltr	35.000
323	Waterstop PVC Terpasang		m ¹	135.000
324	Sewa Pompa Ready Mix		hari	1.000.000
325	Lantai Homogenius tile 60x60 cm @ 1 dus/3 bh		bh	55.333
326	Lantai Homogenius tile 60x60 cm @ 1 dus/3 bh Unpholish		bh	50.000
327	Lantai Homogenius tile 30x60 cm		bh	27.667
328	Lantai Vinyl Sheet		m ²	400.000
329	Plint Homogenius tile 10x60 cm cutting size		bh	12.722

330	Step Noising Keramik 5x60 cm		bh	10.500
331	Batu Basalto		m ²	160.500
332	Alluminium Composite Panel PVDF 0.5 mm tebal 4 mm alloy 3003		m ²	378.000
333 4	Wallpapper		m ²	85.000
335	Hospital Plint/Skriting		bh	37.500
336	Bumper Guard + Aksesories terpasang		m ¹	540.000
337	*Aluminium Extrude Profil			
338	*Cover Vinyl Handrail			
339	*Endcap Section			
340	Rail Guard + Aksesories terpasang		m ¹	615000
341	*Aluminium Extrude Profil 140 mm			
342	*Cover Vinyl Handrail 140 mm			
343	*Braket Wall			
344	*Return Section (End Cap)			
345	Waterpass/Theodolite		BH	2.000.000
346	Stainless steel framing lift		m2	1.500.000
347	Plafond Akustik 60x60 cm		lbr	318.500
348	List Aluminium Profil U 2 cm		m	25.000
349	Wastafel Gantung Lengkap dengan Aksesoris		bh	868.000
350	Wastafel Undercounter Lengkap dengan Aksesoris		bh	1.743.800
351	Jet Washer		bh	423.500
352	Kran dinding		bh	125.000
353	Kran air panas dingin		bh	575.000
354	Partisi Urtinoir		bh	777.200
355	Soap Holder		bh	149.400
356	Tissue Holder		bh	104.100
357	Hand Shower Lengkap dengan Aksesoris		bh	512.000
358	Hand Drayer		bh	850.000
359	Towel Bar (Stainless Steel)		bh	309.800

NO	Jenis Alat	Harga yang digunakan	Harga contoh	Harga	Sumber Data	Keterangan
1	Asphalt Mixing Plant	34.500.000,00		34.500.000,00	34.500.000,00	Sesuai dengan peraturan dan ketentuan yang berlaku (Perpres yang berlaku)
2	Asphalt Finisher	23.328.900,00		23.328.900,00	23.328.900,00	
3	Asphalt Sprayer	92.046.000,00		92.046.000,00	92.046.000,00	
4	Bulldozer 100 - 150 HP	955.200.000,00		955.200.000,00	955.200.000,00	
5	Compressor 4000 - 6500 L/M	125.481.000,00		125.481.000,00	125.481.000,00	
6	Concrete Mixer 0,3 - 0,6 M3	187.679.000,00		187.679.000,00	187.679.000,00	
7	Crane 10 - 15 Ton	15.743.040,00		15.743.040,00	15.743.040,00	
8	Dump Truck 6 - 8 M3	905.500.000,00		905.500.000,00	905.500.000,00	
9	Dump Truck	380.880.000,00		380.880.000,00	380.880.000,00	
10	Excavator 80 - 140 HP	983.300.000,00		983.300.000,00	983.300.000,00	
11	Flat Bled Truck 3 - 4 M2	288.100.000,00		288.100.000,00	288.100.000,00	
12	Generator Bel	219.006.000,00		219.006.000,00	219.006.000,00	
13	Motor Grader > 100 HP	1.715.208.000,00		1.715.208.000,00	1.715.208.000,00	
14	Track Loader 75 - 100 HP	579.436.000,00		579.436.000,00	579.436.000,00	
15	Wheel Loader 1,0 - 1,6 M2	1.850.000.000,00		1.850.000.000,00	1.850.000.000,00	
16	Three Wheel Roller 6 - 8 T	370.300.000,00		370.300.000,00	370.300.000,00	
17	Tandem Roller 6 - 8 T	971.582.267,00		971.582.267,00	971.582.267,00	
18	Tine Roller 8 - 10 T	952.200.000,00		952.200.000,00	952.200.000,00	
19	Vibratory Roller 5 - 8 T	969.625.016,00		969.625.016,00	969.625.016,00	
20	Concrete Vibrator	4.108.400,00		4.108.400,00	4.108.400,00	
21	Stone Crusher	12.006.270,72		12.006.270,72	12.006.270,72	

22	Water Pump 70 - 100 mm	5.290.000,00		5.290.000,00	5.290.000,00
23	Water Tanker 3000 - 4000 L	115.090.000,00		115.090.000,00	115.090.000,00
24	Pedestrian Roller	158.700.000,00		158.700.000,00	158.700.000,00
25	Tamper	17.986.000,00		17.986.000,00	17.986.000,00
26	Jack Hammer	37.030.000,00		37.030.000,00	37.030.000,00
27	Fulvi Mixer	952.200.000,00		952.200.000,00	952.200.000,00
28	Concrete Pump	119.025.000,00		119.025.000,00	119.025.000,00
29	Trailer 20 Ton	634.800.000,00		634.800.000,00	634.800.000,00
30	Pile Driver + Hammer	925.750.000,00		925.750.000,00	925.750.000,00
31	Crane On Track 35 Ton	899.300.000,00		899.300.000,00	899.300.000,00
32	Welding Set	18.515.000,00		18.515.000,00	18.515.000,00
33	Bone Pile Machine	2.380.500.000,00		2.380.500.000,00	2.380.500.000,00
34	Asphalt Liquid Mixer	15.870.000,00		15.870.000,00	15.870.000,00
35	Trailer 15 Ton	476.100.000,00		476.100.000,00	476.100.000,00
36	Rock Drill Breaker	952.200.000,00		952.200.000,00	952.200.000,00
37	Cold Miling	5.231.810.000,00		5.231.810.000,00	5.231.810.000,00
38	Cold Recycler	20.631.000.000,00		20.631.000.000,00	20.631.000.000,00
39	Hot Recycler	30.946.500.000,00		30.946.500.000,00	30.946.500.000,00
40	Aggregat (chip) Spreader	417.910.000,00		417.910.000,00	417.910.000,00
41	Asphalt Distribution	425.000.000,00		425.000.000,00	425.000.000,00
42	Split Form Paver	1.436.697.143,00		1.436.697.143,00	1.436.697.143,00
43	Concrete Pan Mixer	156.000.000,00		156.000.000,00	156.000.000,00
44	Concrete Breaker	952.200.000,00		952.200.000,00	952.200.000,00
45	Asphalt Tanker	529.000.000,00		529.000.000,00	529.000.000,00
46	Cement Tanker	529.000.000,00		529.000.000,00	529.000.000,00
47	Concrete Mixer (350)	37.030.000,00		37.030.000,00	37.030.000,00
48	Vibrating Rammer	21.160.000,00		21.160.000,00	21.160.000,00
49	Truk Mixer	853.000.000,00		853.000.000,00	853.000.000,00

50	Bone Pile Machine Dia 60	1.237.860.000,00		1.237.860.000,00	1.237.860.000,00
51	Crane On Track 75 - 100 Ton	952.200.000,00		952.200.000,00	952.200.000,00
52	Blending Equipment	529.000.000,00		529.000.000,00	529.000.000,00
53	Ashpalt Liquid Mixer (kap 20000)	158.700.000,00		158.700.000,00	158.700.000,00
54	Alat tambahan Batubara Direct	100,00		100,00	100,00
55	Alat Tambahan Gas Batubara	100.000,00		100.000,00	100.000,00
56	Chain Saw	10.000.000,00		10.000.000,00	10.000.000,00
57	Bar Bender	100,00		100,00	100,00
58	Bar Cutter	100,00		100,00	100,00
59	Breaker	100,00		100,00	100,00
60	Grouting Pump	100,00		100,00	100,00
61	Jack Hidrolio	100,00		100,00	100,00
62	Mesin Las	100,00		100,00	100,00
63	Pile Driver Leader, 75 Kw	100,00		100,00	100,00
64	Pile Hammer	100,00		100,00	100,00
65	Pile Hammer, 2,5 Ton	100,00		100,00	100,00
66	Stressing Jack	100,00		100,00	100,00
67	Welding Machine, 300 A	100,00		100,00	100,00
68	Stressing Machine	100,00		100,00	100,00
69	Gerinda dan bor beton	100,00		100,00	100,00
70	Penarik Kabel	100,00		100,00	100,00
71	Alat Grouting	100,00		100,00	100,00



POLITEKNIK NEGERI SRIWIJAYA
JURUSAN TEKNIK SIPIL
PALEMBANG

PERENCANAAN GEOMETRIK DAN TEBAL
PERKERASAN KAKU JALAN TOL BINJAI -
PANGKALAN BERANDAN PROVINSI
SUMATERA UTARA STA 12+950 - STA
22+150

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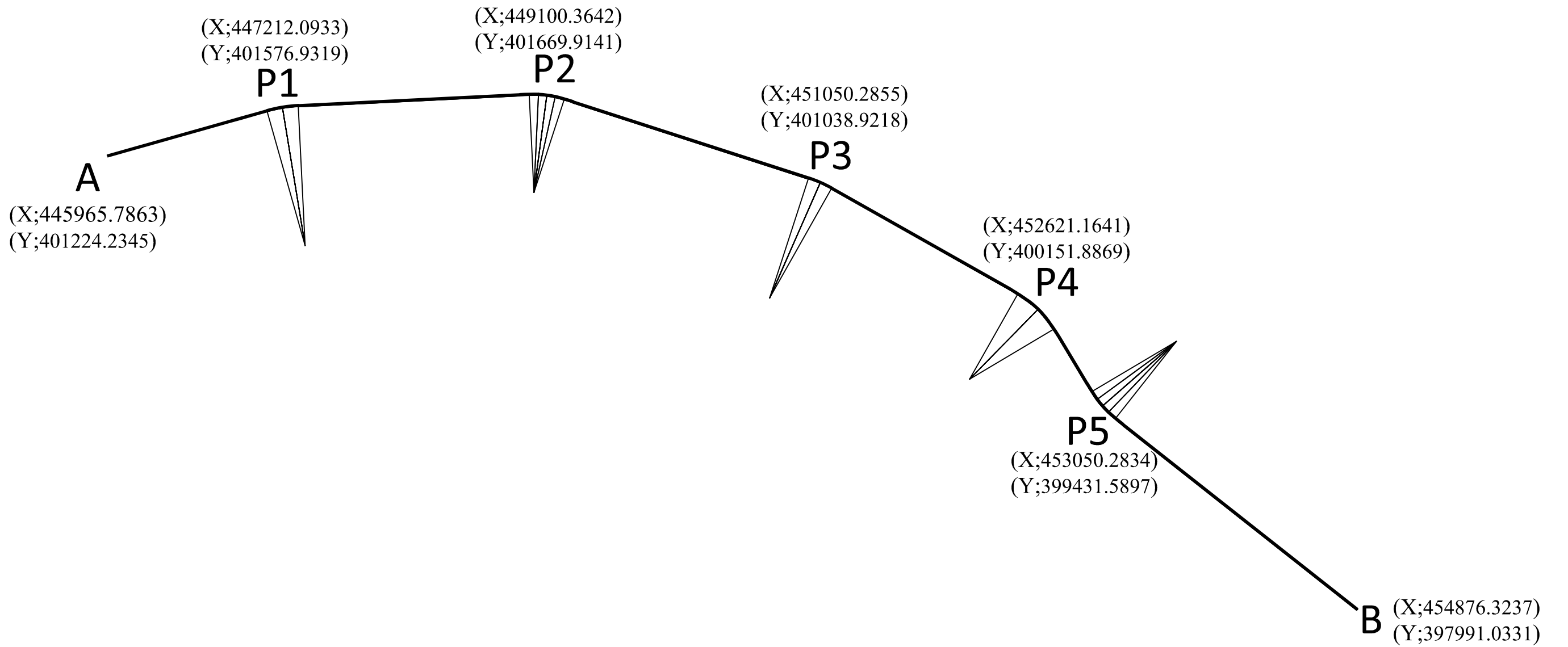
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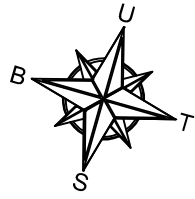
PETA RENCANA TRASE
JALAN

No Lembar : 02

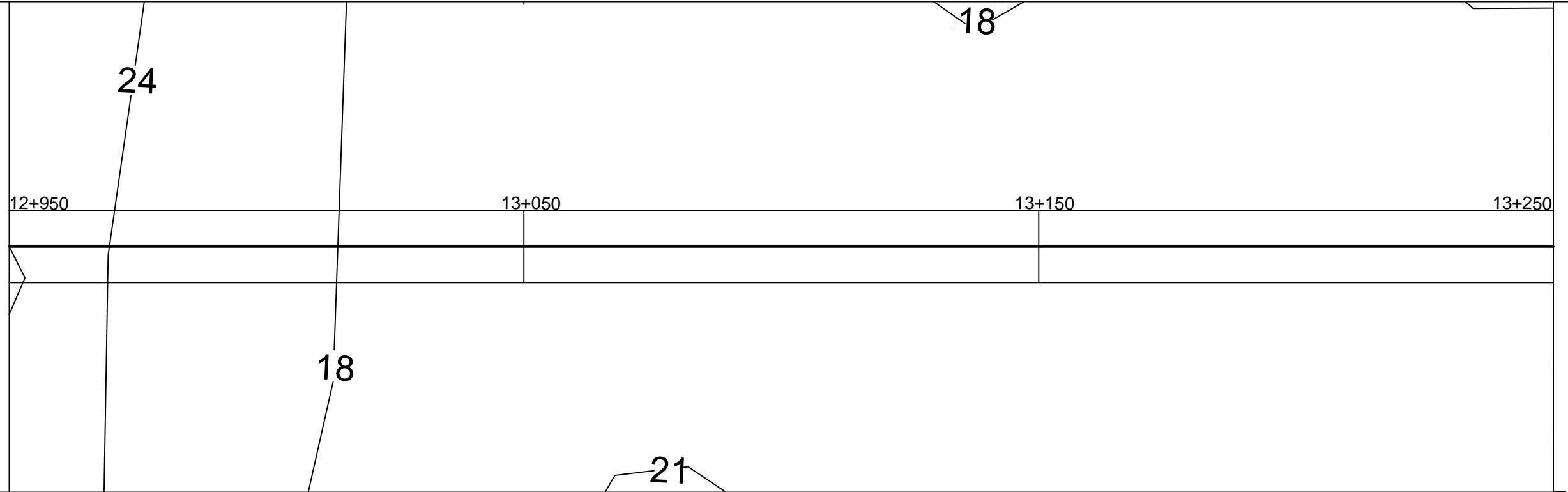
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Tanggal : 22 Juli 2022



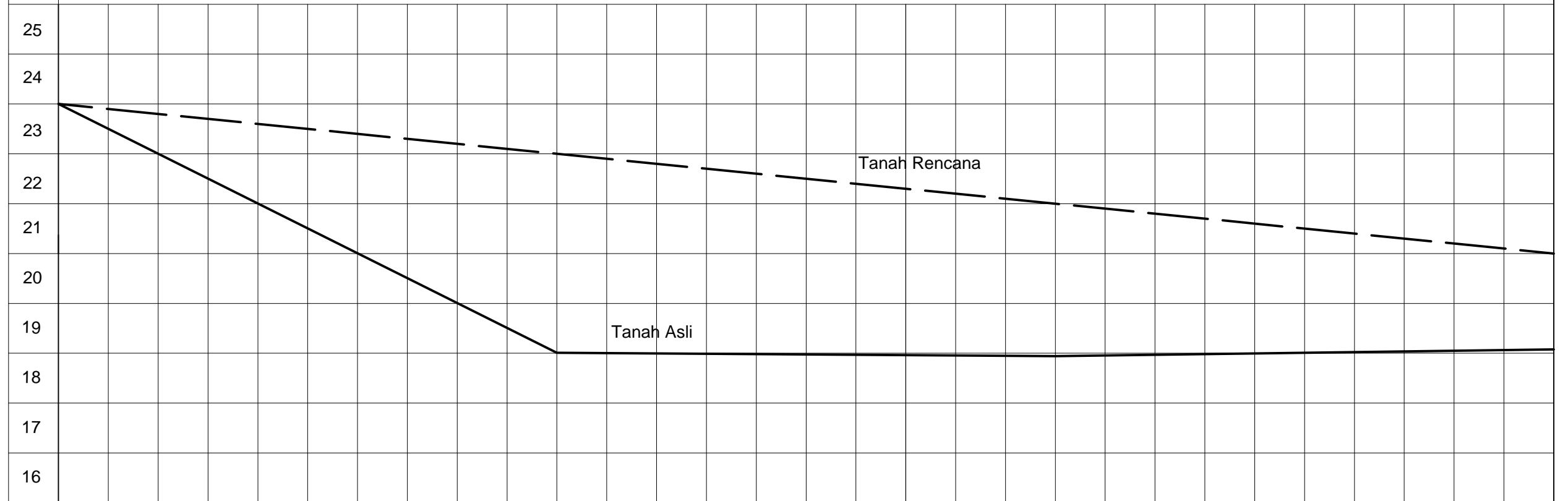


AWAL PROYEK

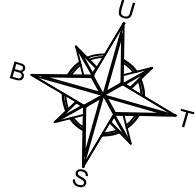


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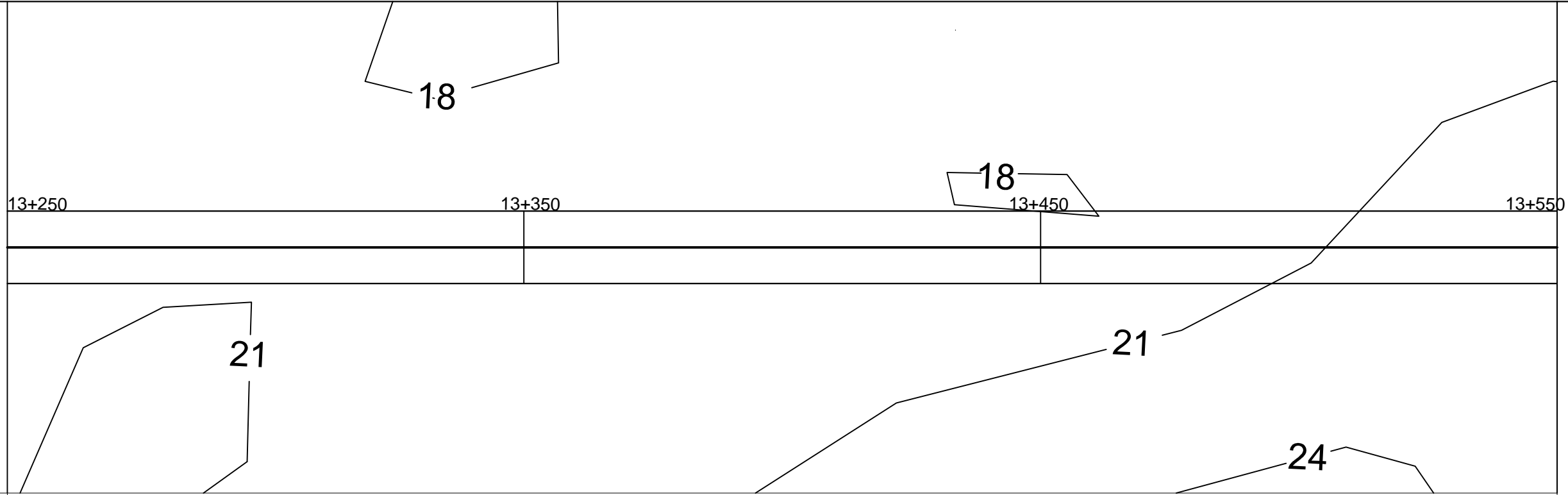
SUPER ELEVASI



STATION	12+950	13+050	13+150	13+250
ELEVASI TANAH ASLI	24.000	19.008	18.942	19.076
ELEVASI TANAH RENCANA	24.000	23.000	22.000	21.000



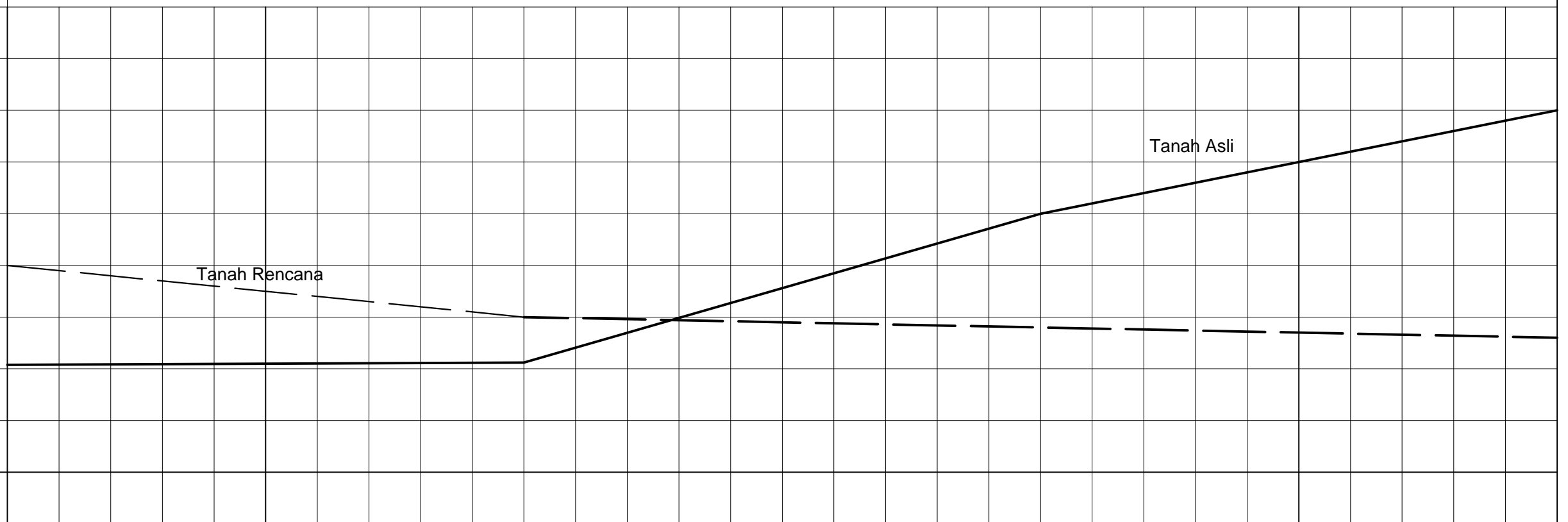
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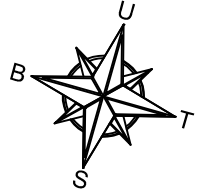
GARIS HIMPIT PADA STA 13+550

SUPER ELEVASI

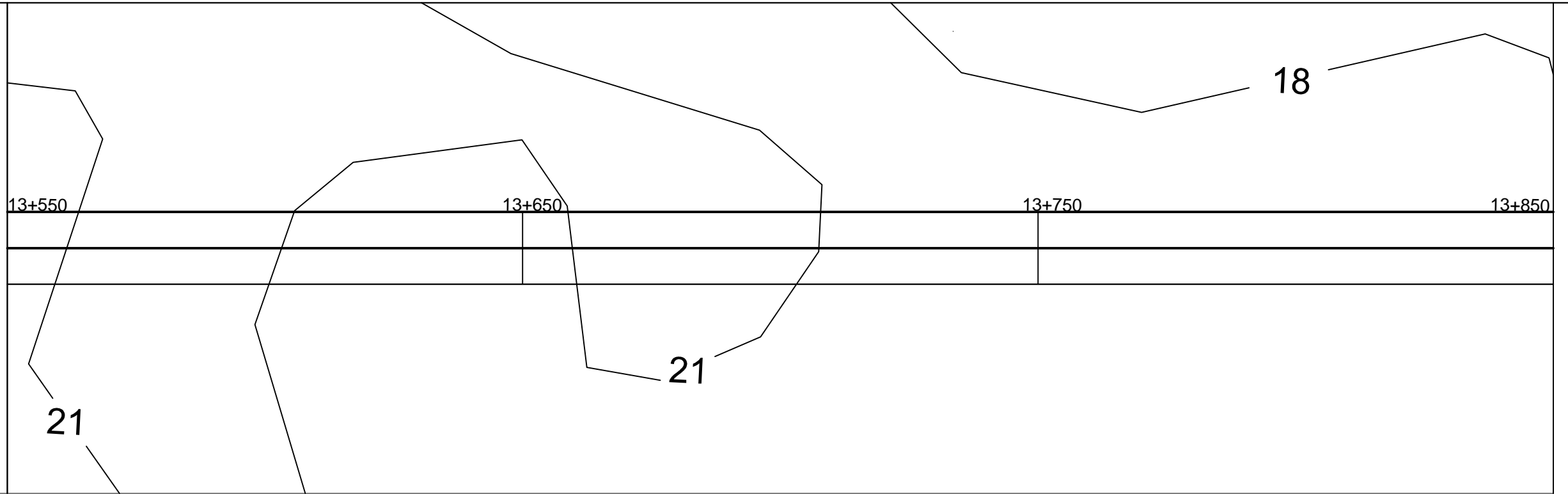
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STATION	13+250	13+350	13+450	13+550
ELEVASI TANAH ASLI	19.076	19.122	21.999	24.000
ELEVASI TANAH RENCANA	21.000	20.000	19.800	19.600



GARIS HIMPIT PADA STA 13+550

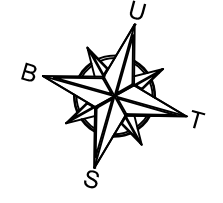


GARIS HIMPIT PADA STA 13+850

SUPER ELEVASI

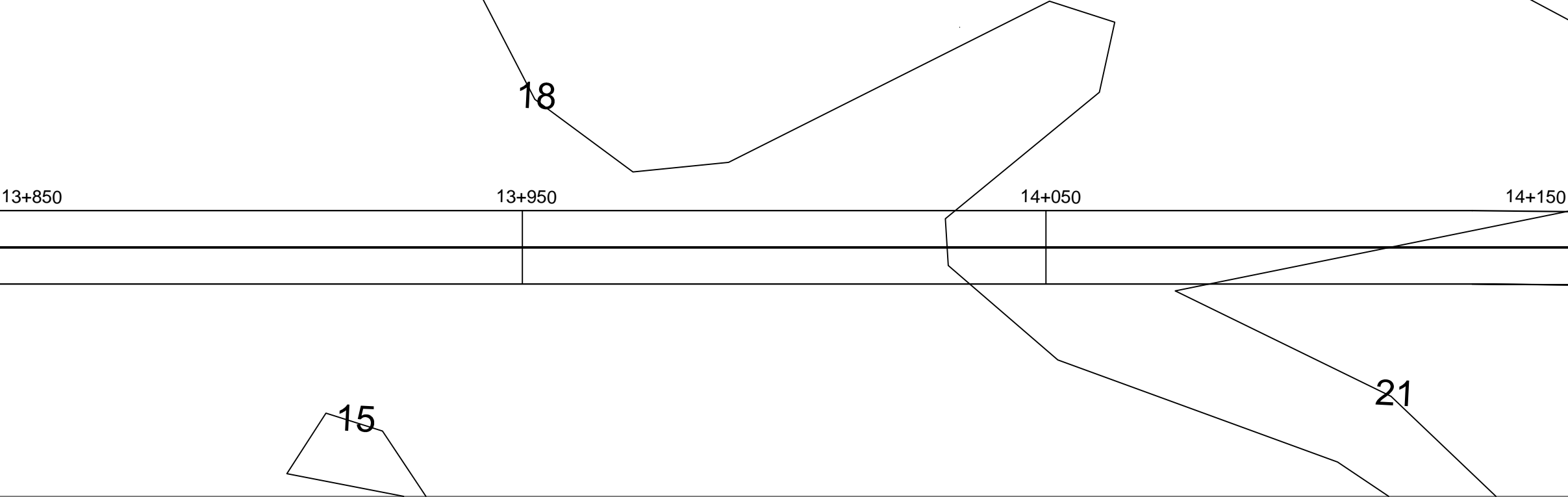


STATION	13+550	13+650	13+750	13+850
ELEVASI TANAH ASLI	24.000	21.000	18.000	18.000
ELEVASI TANAH RENCANA	19.600	19.400	19.199	19.000

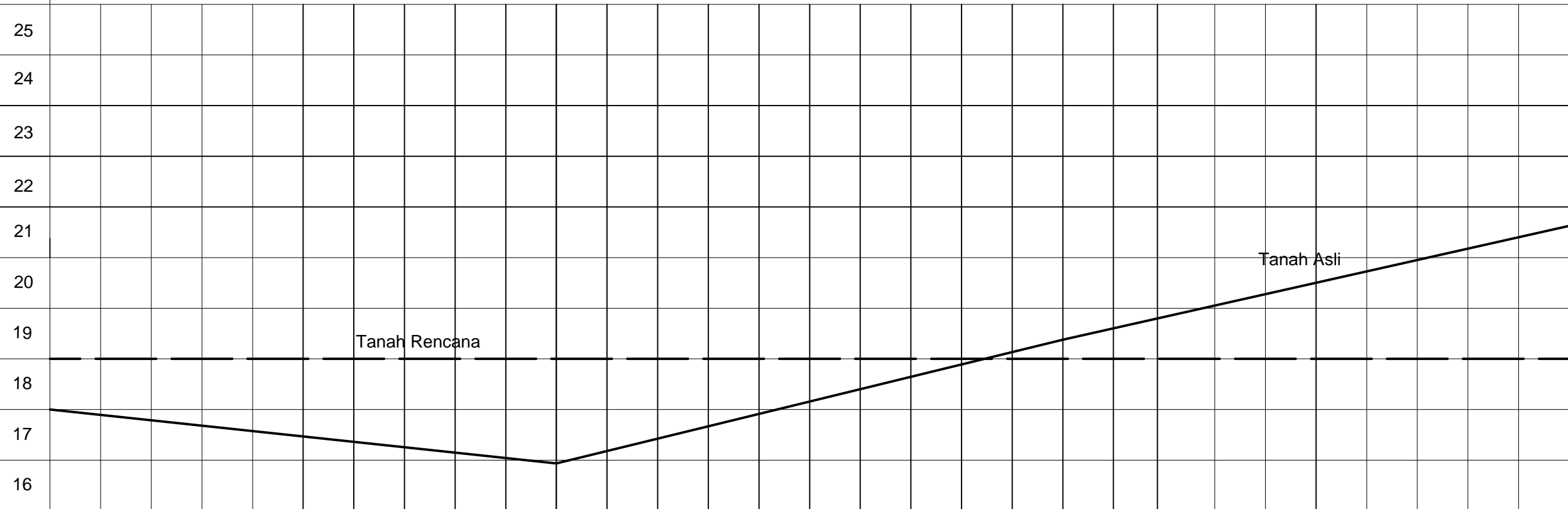
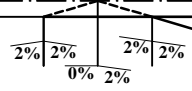


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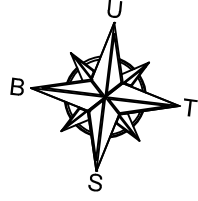
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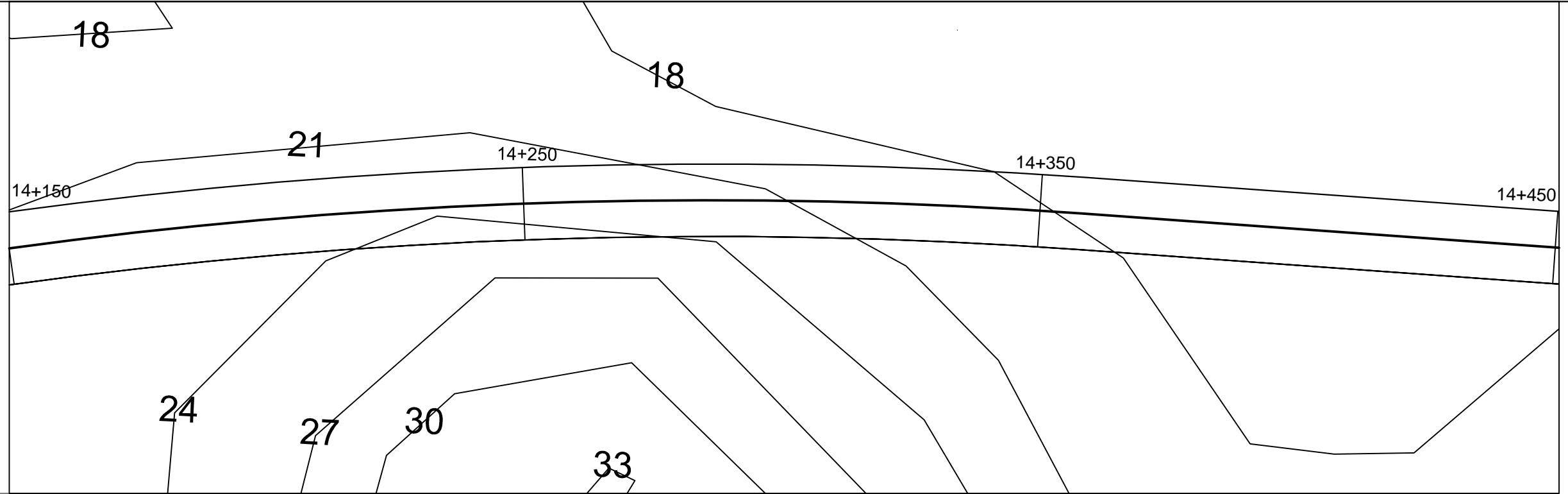
SUPER ELEVASI



STATION	13+850	13+950	14+050	14+150
ELEVASI TANAH ASLI	18.000	16.936	19.380	21.626
ELEVASI TANAH RENCANA	19.000	19.000	19.000	19.000

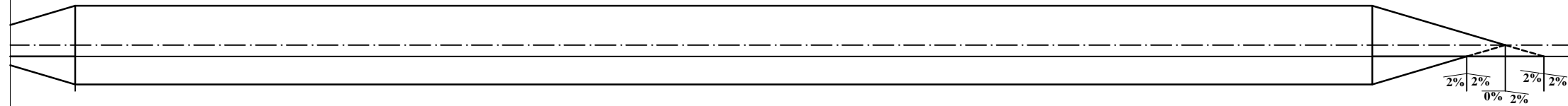


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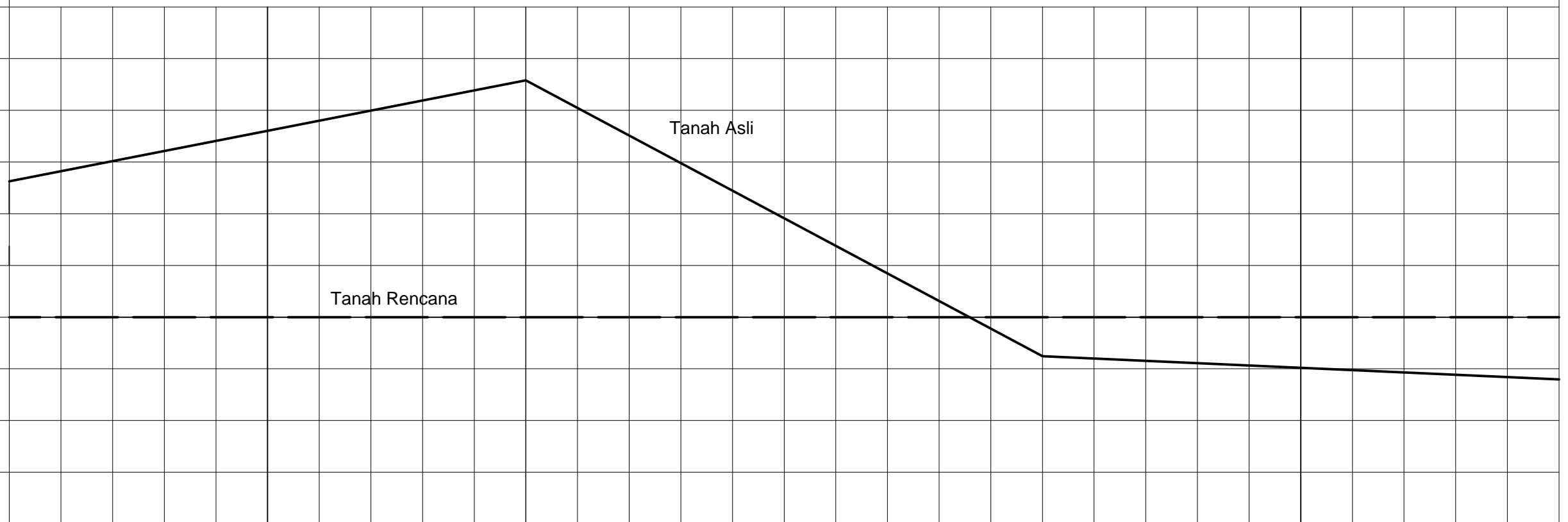


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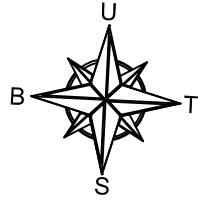
SUPER ELEVASI



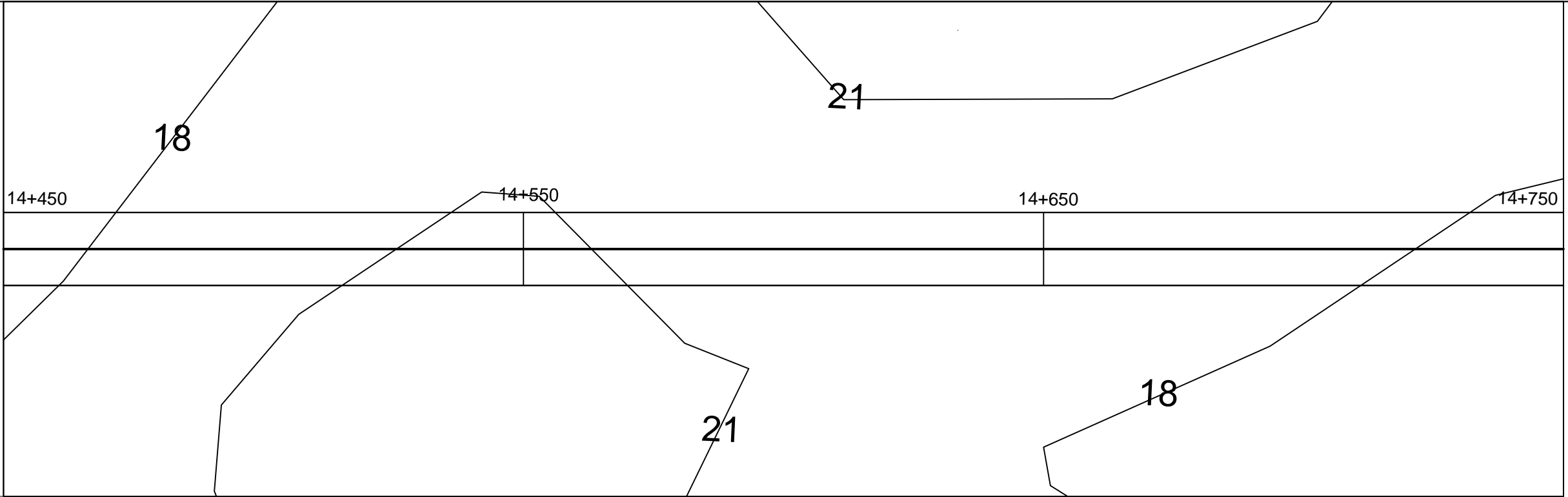
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STATION	14+150	14+250	14+350	14+450
ELEVASI TANAH ASLI	21.626	23.580	18.244	17.795
ELEVASI TANAH RENCANA	19.000	19.000	19.000	19.000



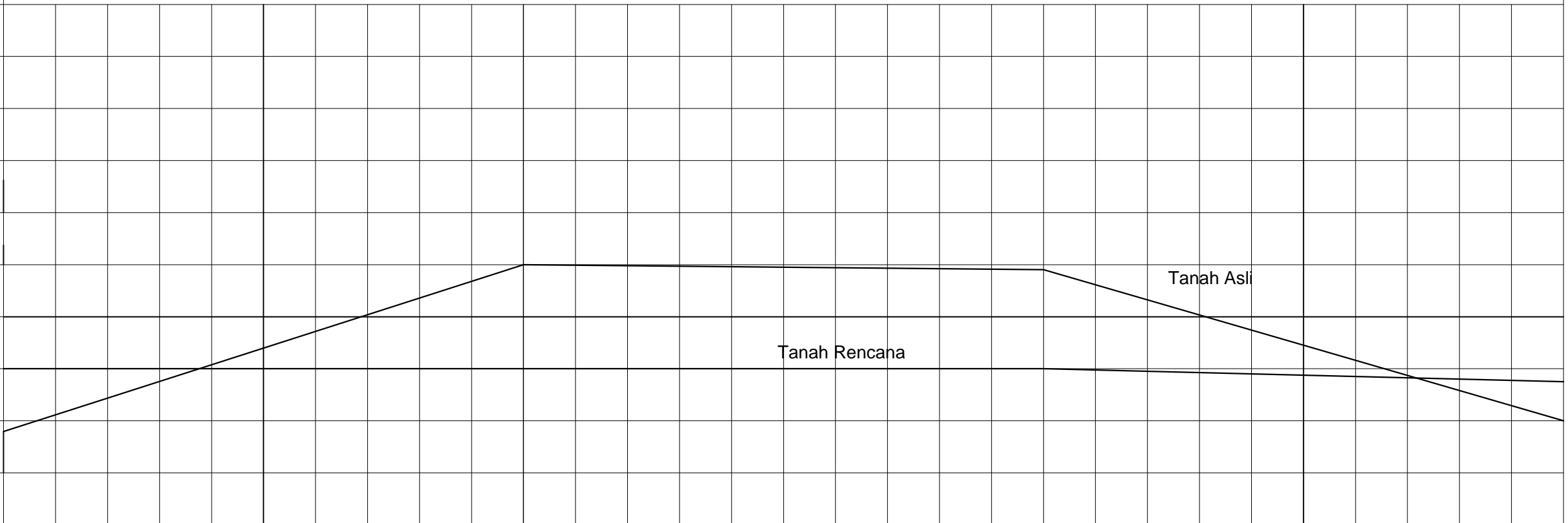
GARIS HIMPIT PADA STA 14+450



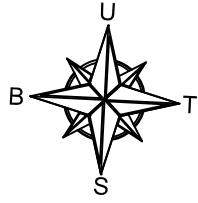
GARIS HIMPIT PADA STA 14+750

SUPER ELEVASI

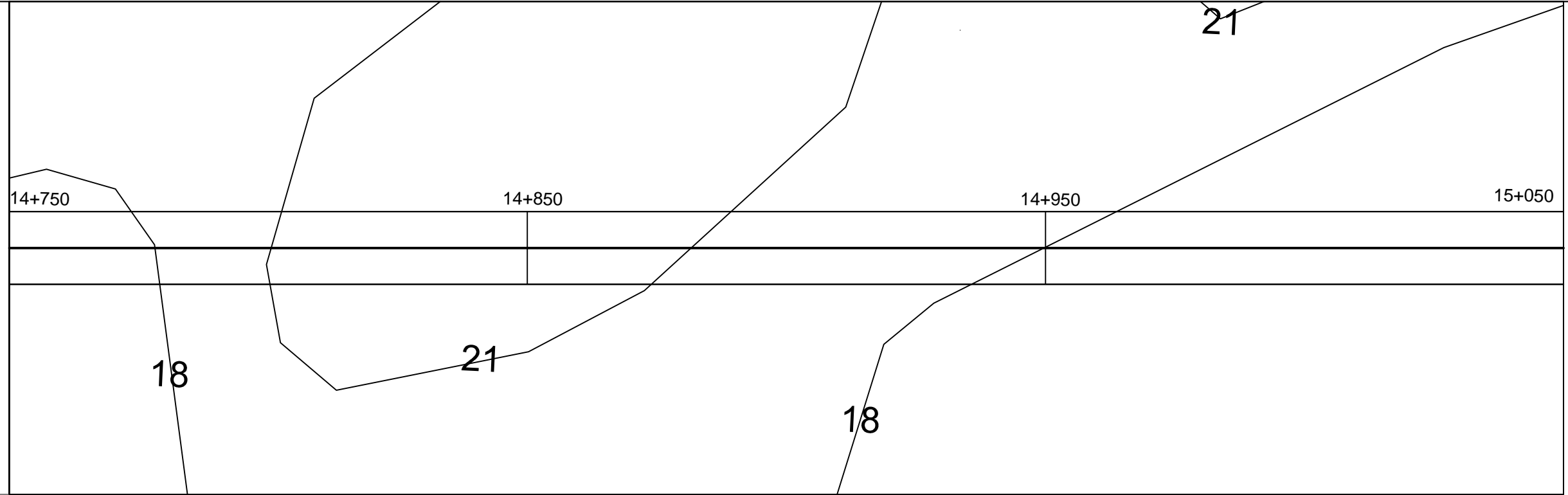
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STATION	14+450	14+550	14+650	14+750
ELEVASI TANAH ASLI	17.795	21.000	20.902	18.000
ELEVASI TANAH RENCANA	19.000	19.000	19.000	18.750

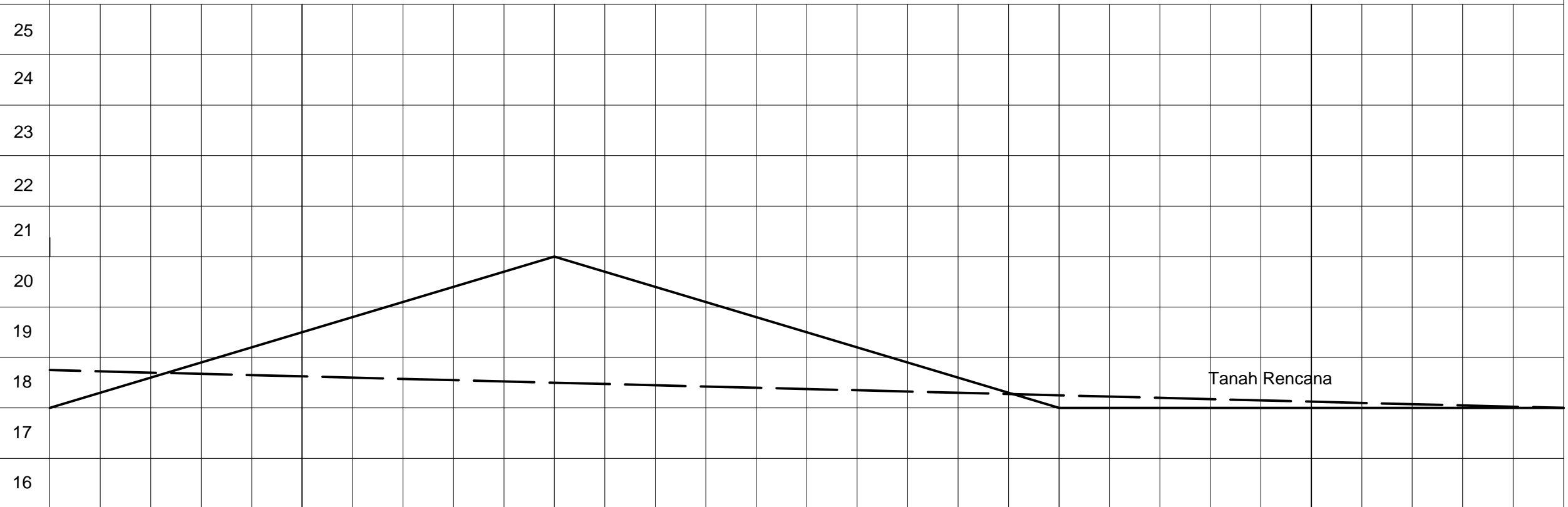


GARIS HIMPIT PADA STA 14+750

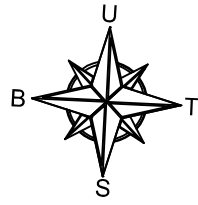


GARIS HIMPIT PADA STA 15+050

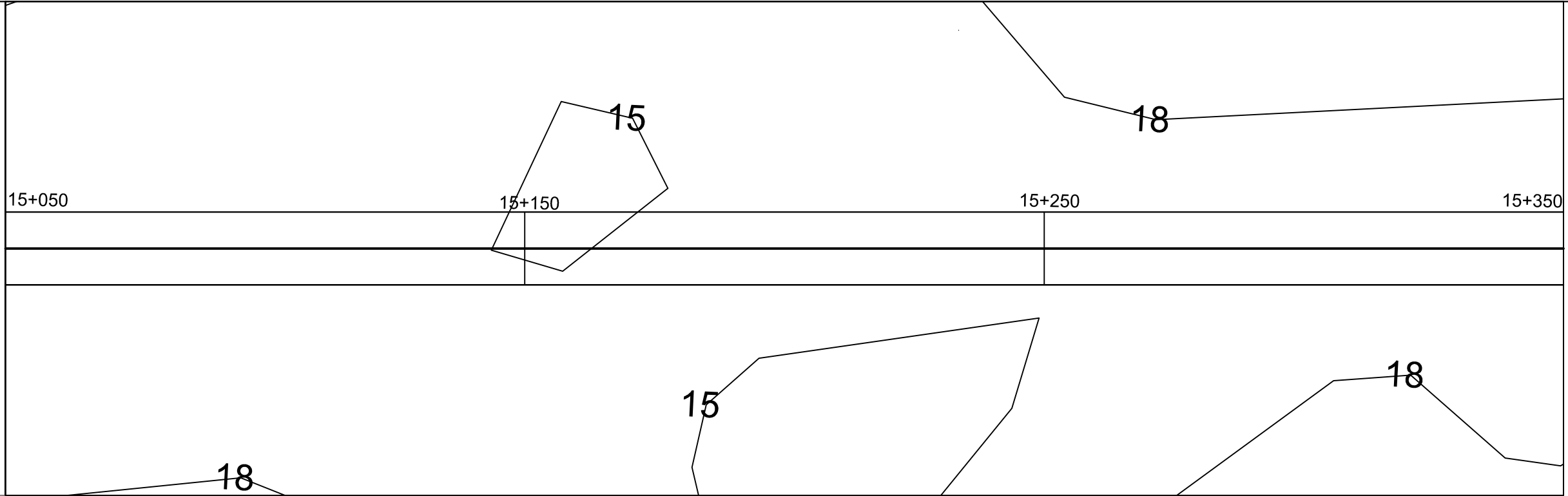
SUPER ELEVASI



STATION	14+750	14+850	14+950	15+050
ELEVASI TANAH ASLI	18.000	21.000	18.000	18.000
ELEVASI TANAH RENCANA	18.750	18.499	18.250	18.000



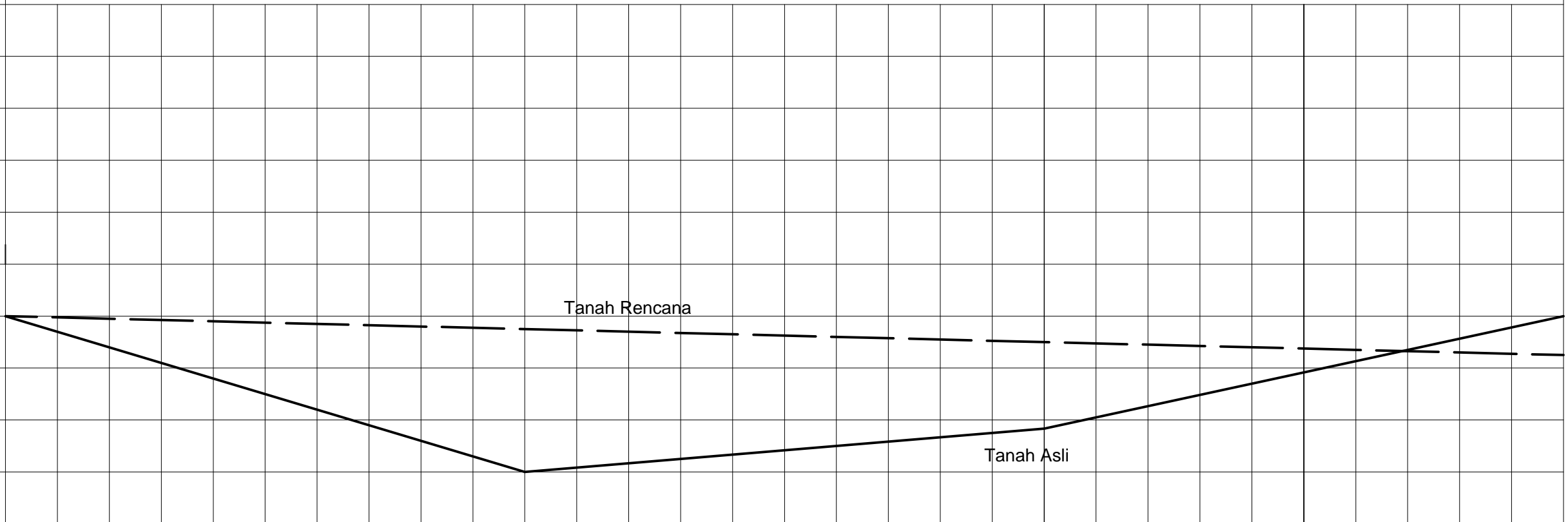
GARIS HIMPIT PADA STA 15+050



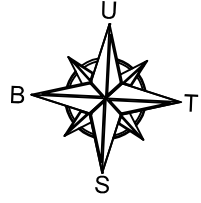
GARIS HIMPIT PADA STA 15+350

SUPER ELEVASI

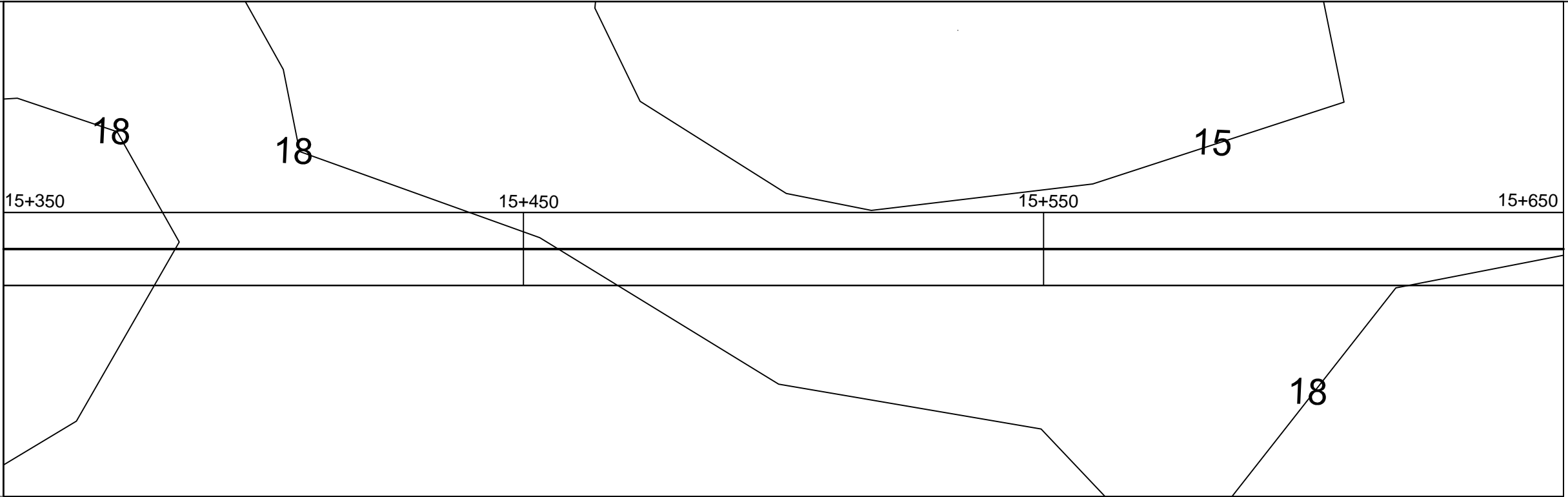
23
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STATION	15+050	15+150	15+250	15+350
ELEVASI TANAH ASLI	18.000	15.000	15.833	18.000
ELEVASI TANAH RENCANA	18.000	17.948	17.500	17.250



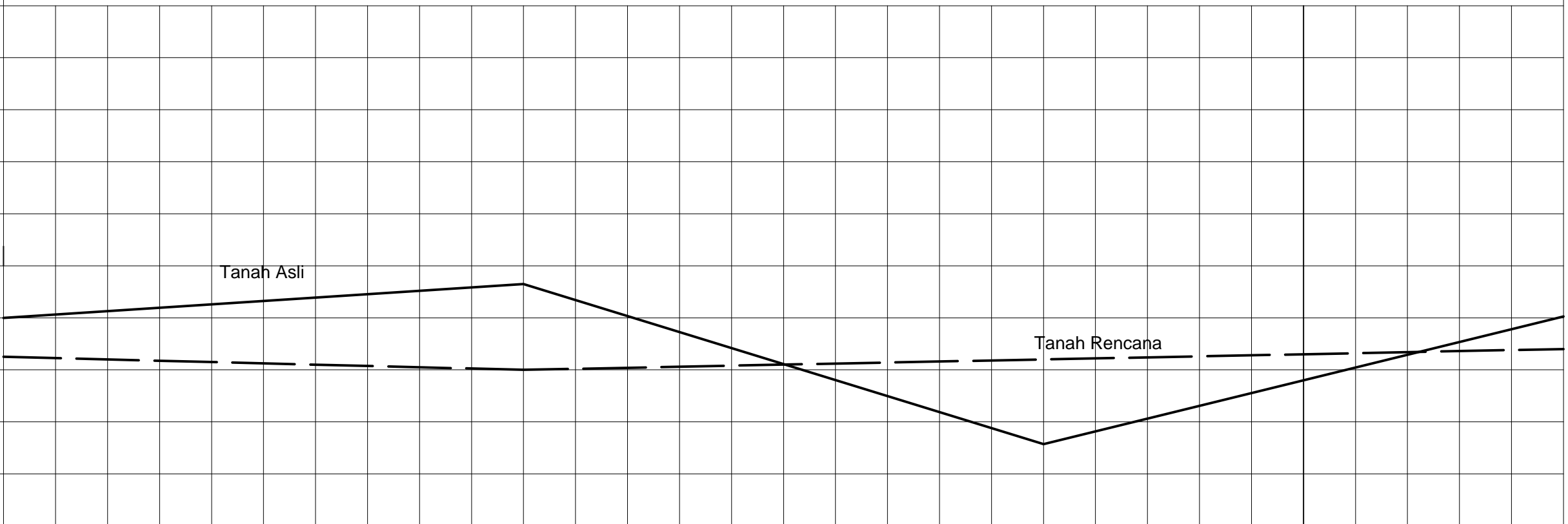
GARIS HIMPIT PADA STA 15+350



GARIS HIMPIT PADA STA 15+650

SUPER ELEVASI

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STATION

15+350

15+450

15+550

15+650

ELEVASI TANAH ASLI

18.000

18.648

15.573

18.027

ELEVASI TANAH RENCANA

17.250

17.000

17.200

17.400



POLITEKNIK NEGERI SRIWIJAYA
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PALEMBANG

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PERKERASAN KAKU JALAN TOL BINJAI -
PANGKALAN BERANDAN PROVINSI
SUMATERA UTARA STA 12+950 - STA
22+150

DIPERIKSA OLEH
PEMBIMBING I
DRS. Mochmad Absor., M.T.
NIP.195801121989031001

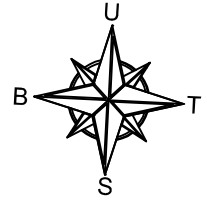
DIPERIKSA OLEH
PEMBIMBING II
Fadhila Firdausa, S.T.,M.Eng
NIP.199010302018032001

DIRENCANAKAN OLEH
M. Rahmat Septivadi
NPM. 061840111611

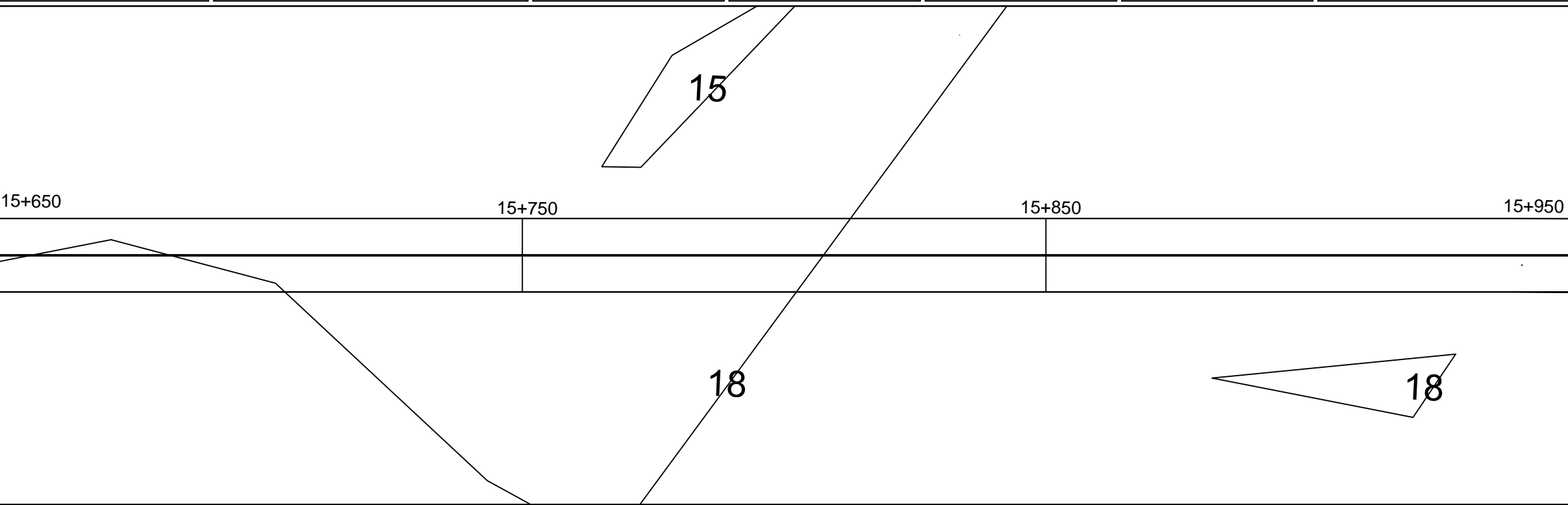
DIRENCANAKAN OLEH
Oryza Mayudhira Siregar
NPM. 061840111621

JUDUL GAMBAR :
POTONGAN MEMANJANG
STA 15+650 - STA 15+950

NO GAMBAR : 12
SKALA Horizontal 1 : 1000
Vertikal 1 : 100
TANGGAL : 22 JULI 2022

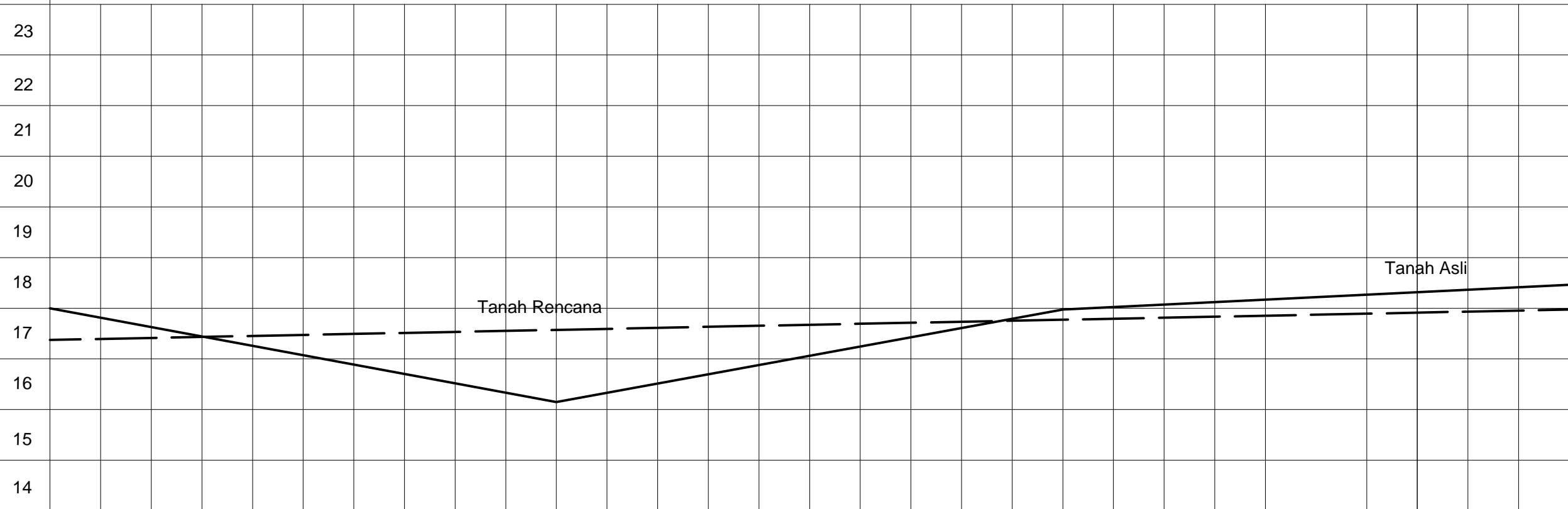
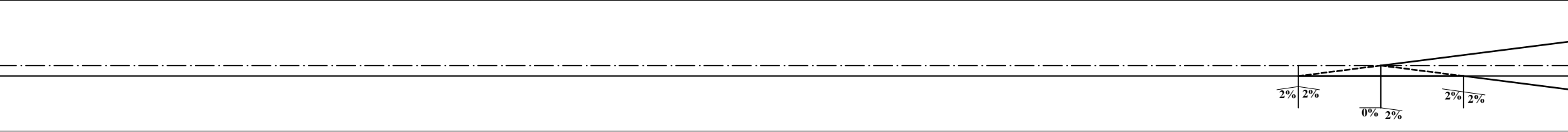


GARIS HIMPIT PADA STA 15+650

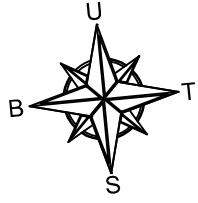


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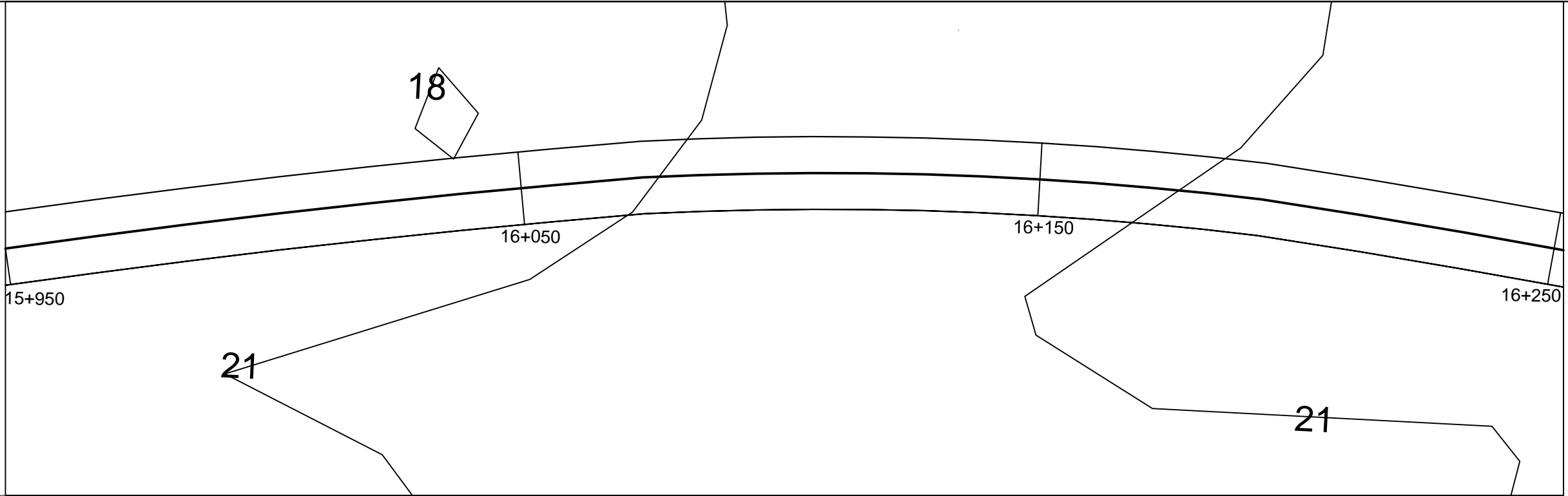
SUPER ELEVASI



STATION	15+650	15+750	15+850	15+950
ELEVASI TANAH ASLI	18.027	16.176	18.000	18.490
ELEVASI TANAH RENCANA	17.400	17.600	17.800	18.000

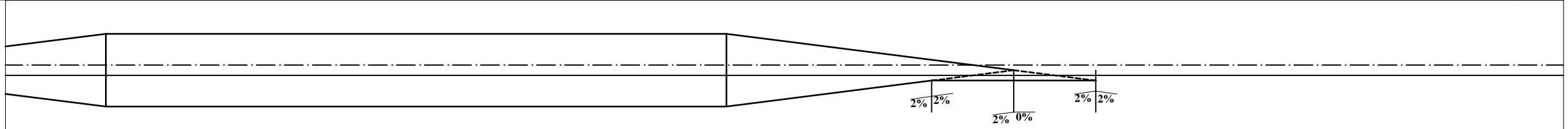


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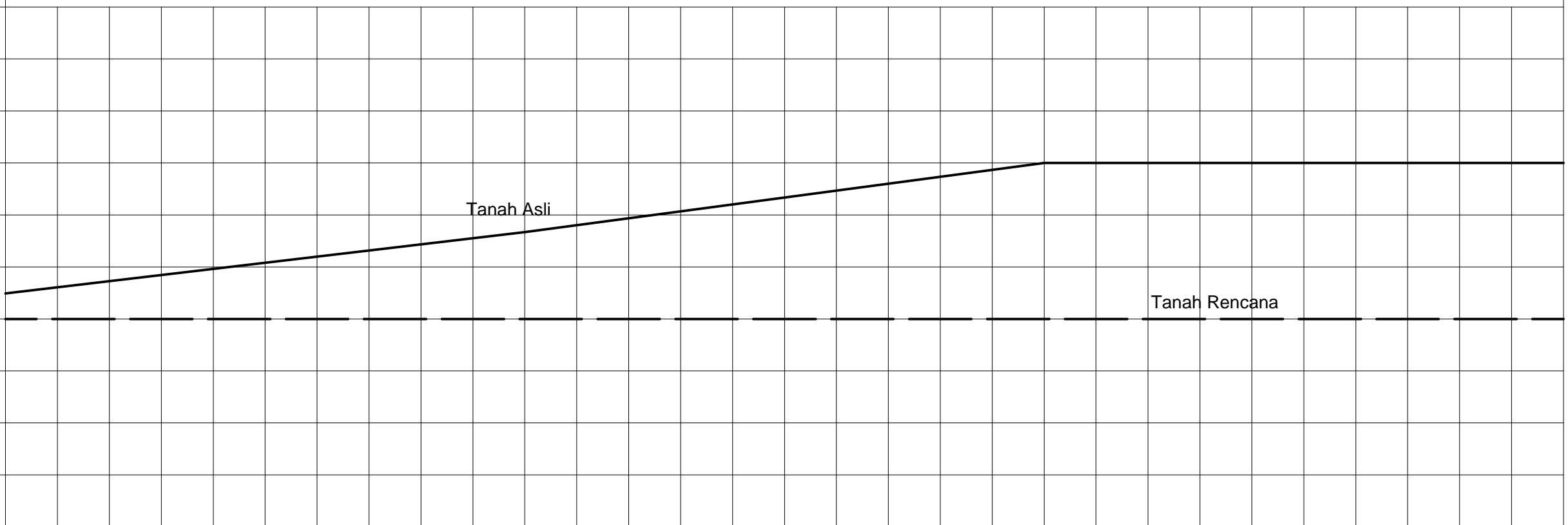


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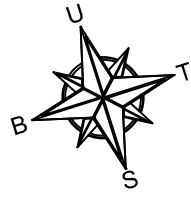
SUPER ELEVASI



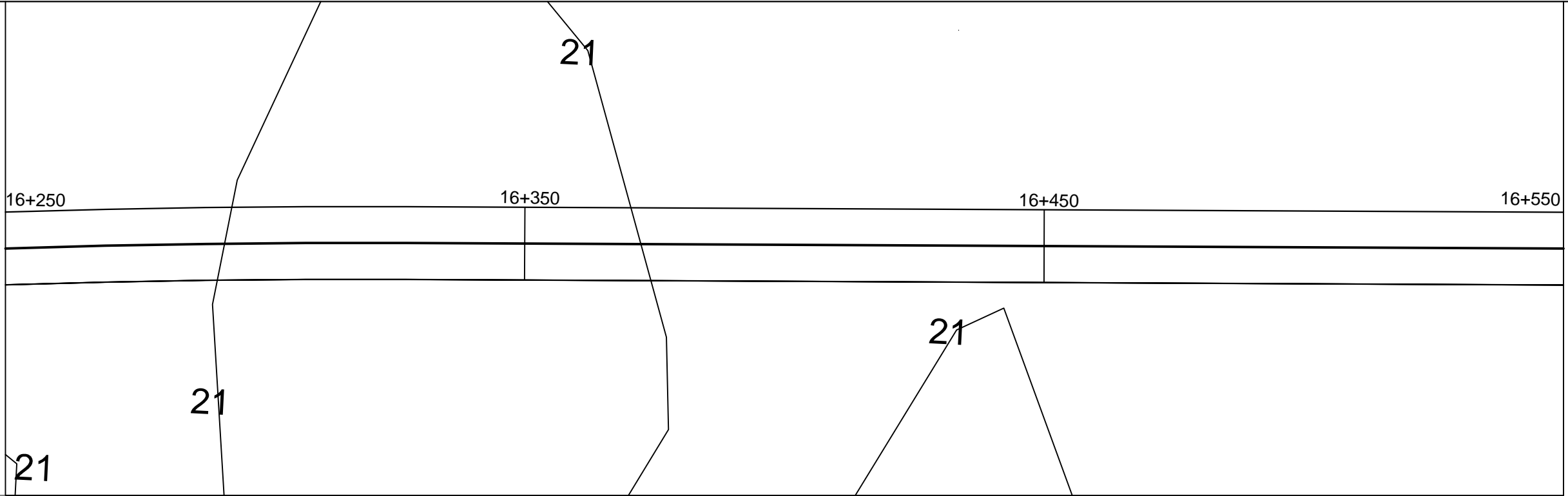
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STATION	15+950	16+050	16+150	16+250
ELEVASI TANAH ASLI	18.490	19.669	21.000	21.000
ELEVASI TANAH RENCANA	18.000	18.000	18.000	18.000

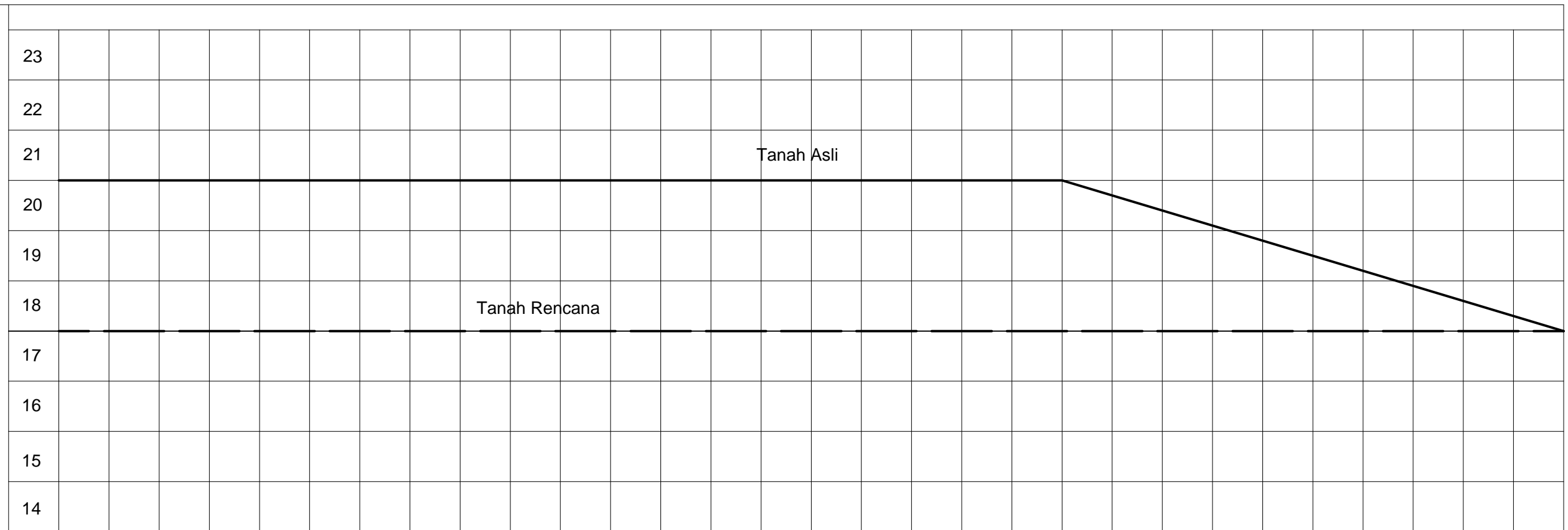


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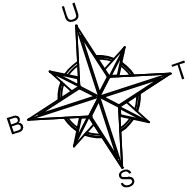


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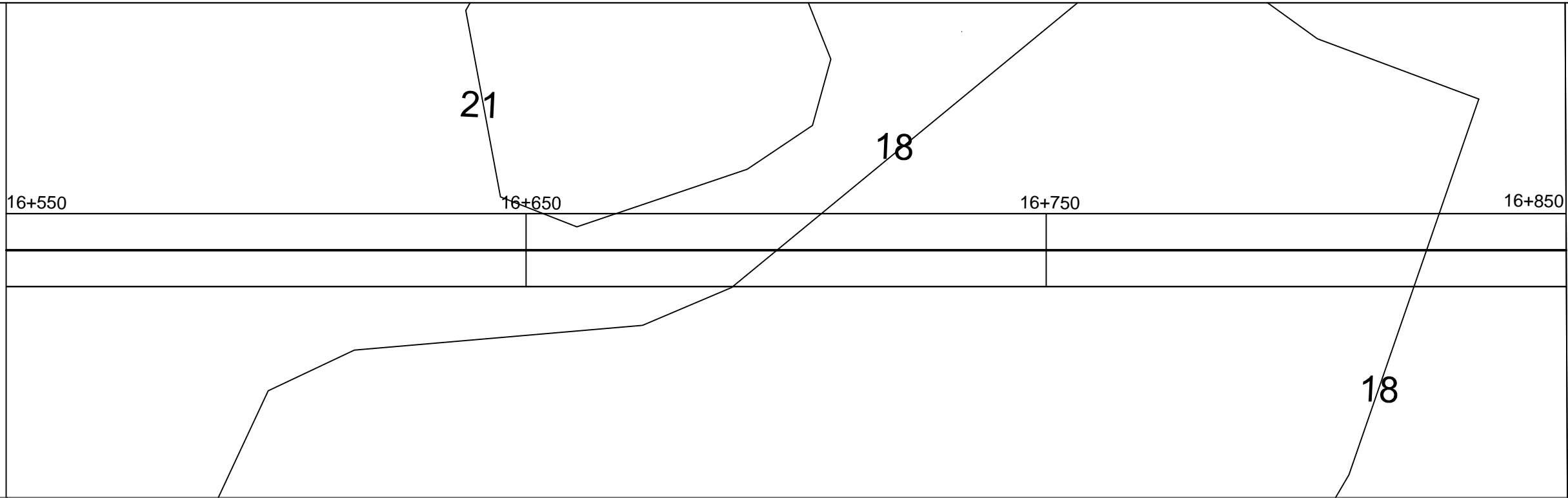
SUPER ELEVASI



STATION	16+250	16+350	16+450	16+550
ELEVASI TANAH ASLI	21.000	21.000	21.000	18.000
ELEVASI TANAH RENCANA	18.000	18.000	18.000	18.000



GARIS HIMPIT PADA STA 16+550



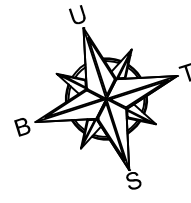
GARIS HIMPIT PADA STA 16+850

SUPER ELEVASI

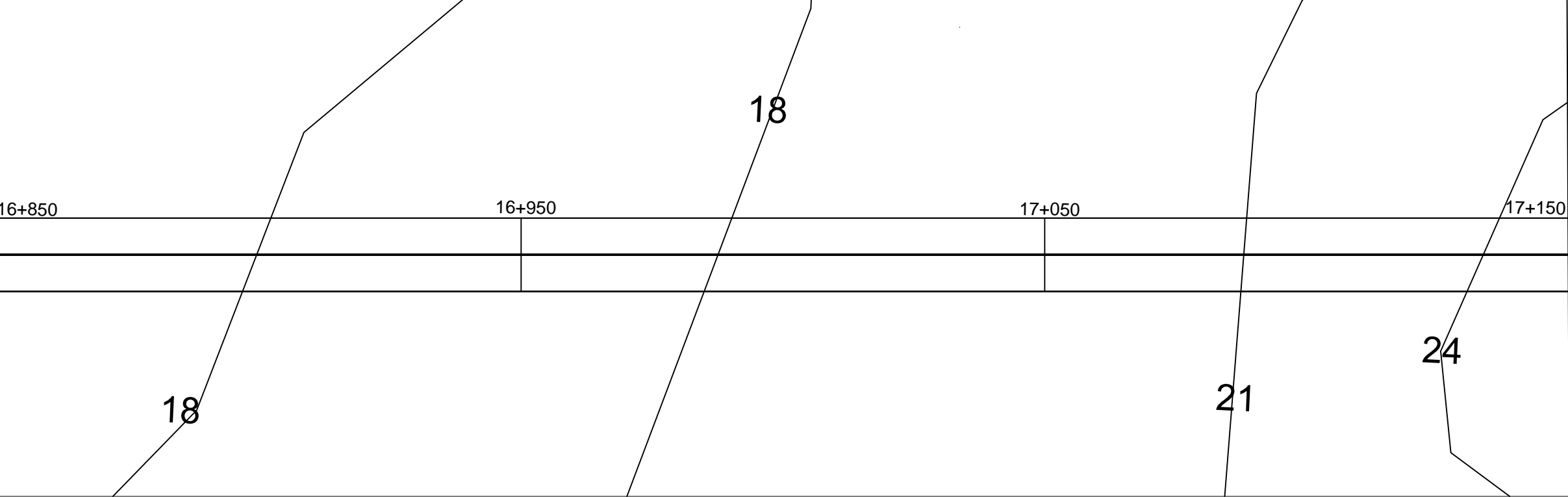
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STATION	16+550	16+650	16+750	16+850
ELEVASI TANAH ASLI	18.000	20.021	18.000	18.000
ELEVASI TANAH RENCANA	18.000	18.000	18.000	18.200

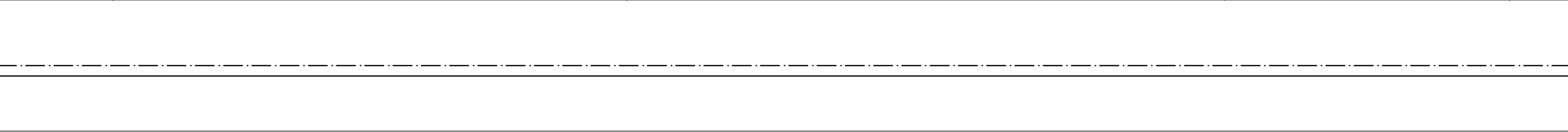


GARIS HIMPIT PADA STA 16+850

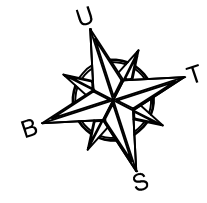


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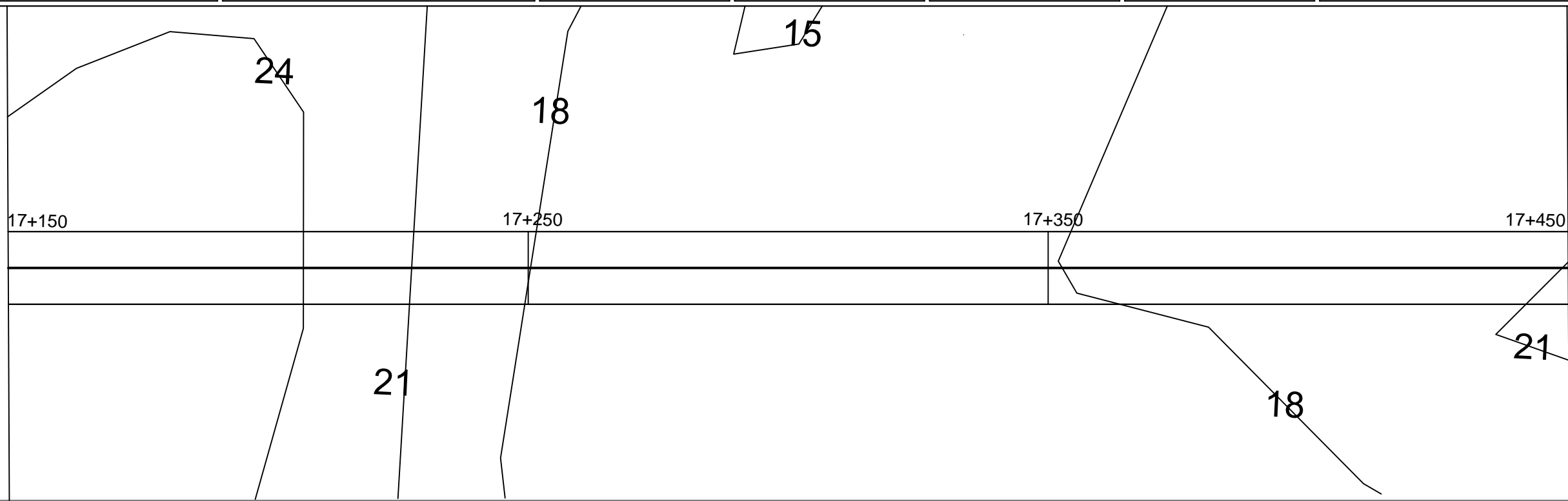
SUPER ELEVASI



STATION	16+850	16+950	17+050	17+150
ELEVASI TANAH ASLI	18.000	18.000	19.101	24.000
ELEVASI TANAH RENCANA	18.200	18.401	18.601	18.801

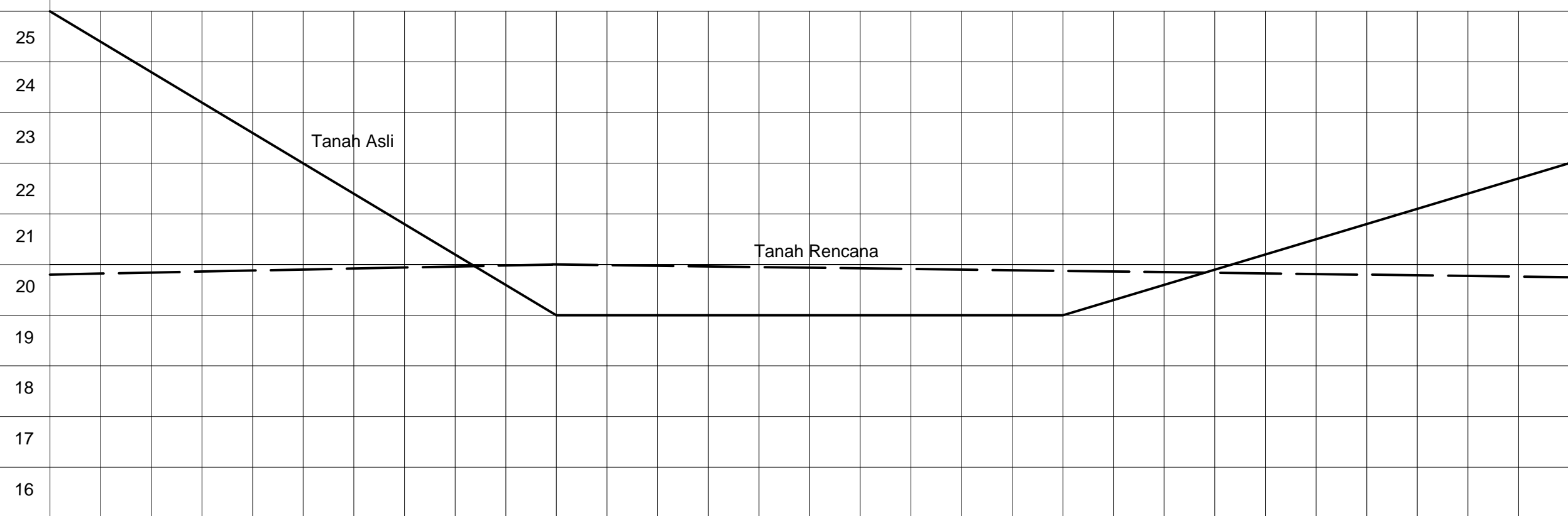


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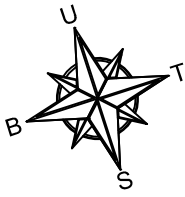


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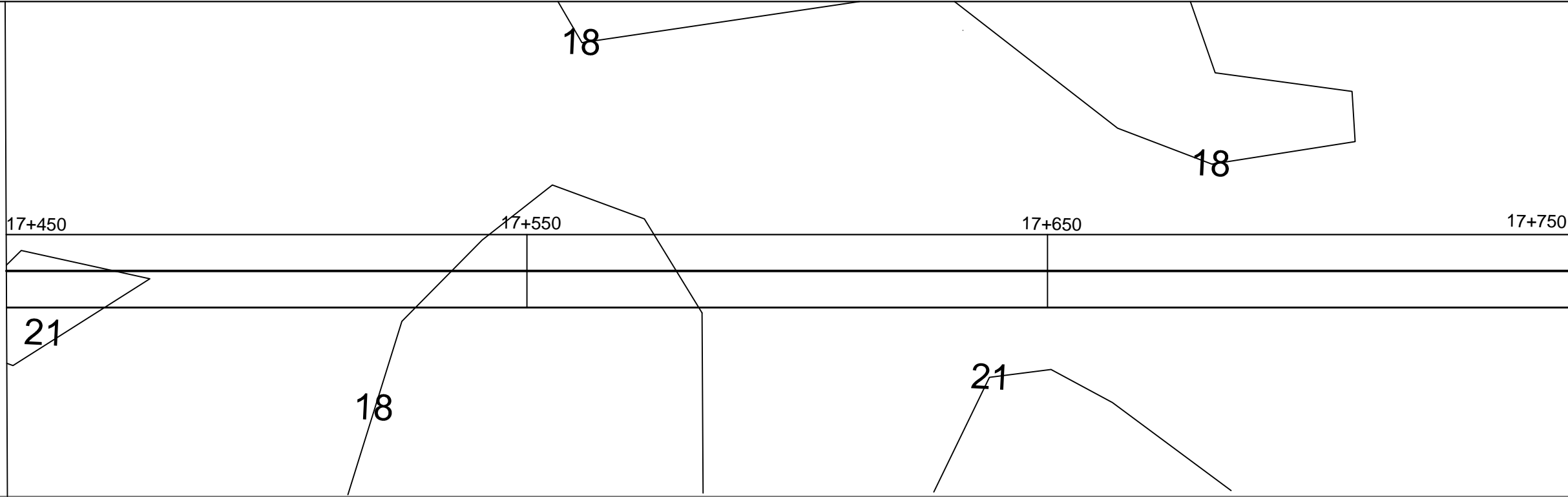
SUPER ELEVASI



STATION	17+150	17+250	17+350	17+450
ELEVASI TANAH ASLI	24.000	18.000	18.000	21.000
ELEVASI TANAH RENCANA	18.801	19.000	18.739	18.749

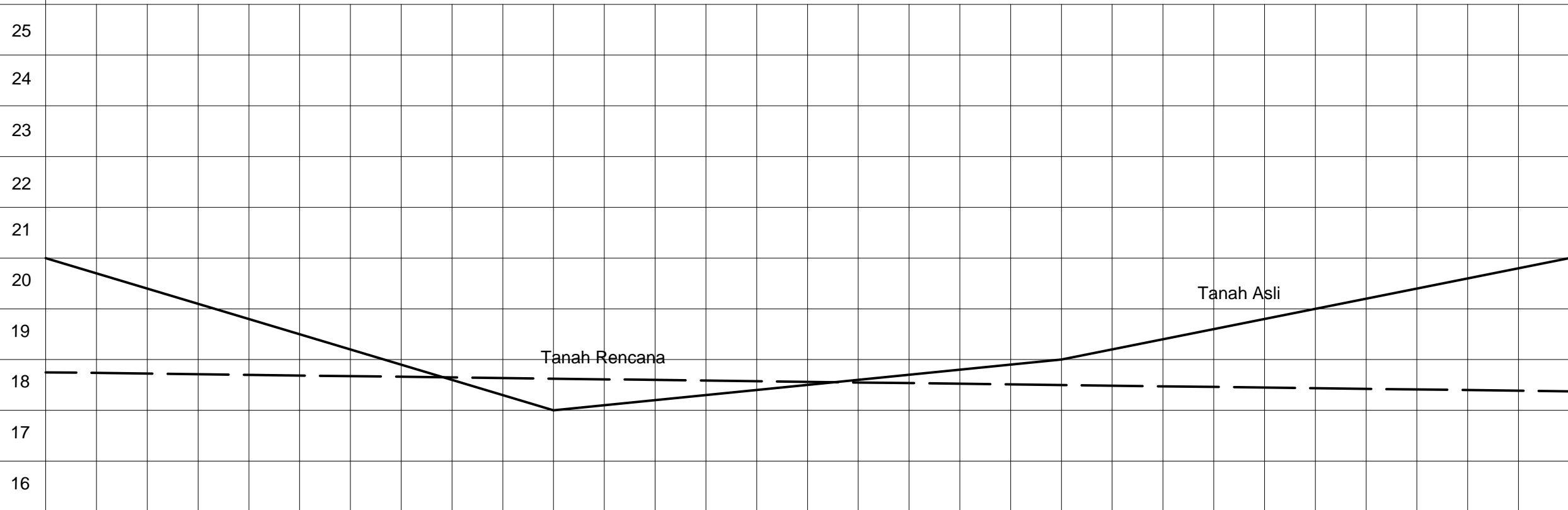


GARIS HIMPIT PADA STA 17+450



GARIS HIMPIT PADA STA 17+750

SUPER ELEVASI



STATION	17+450	17+550	17+650	17+750
ELEVASI TANAH ASLI	21.000	18.000	19.008	21.000
ELEVASI TANAH RENCANA	18.749	18.624	18.449	18.374



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PANGKALAN BERANDAN PROVINSI
SUMATERA UTARA STA 12+950 - STA
22+150

DIPERIKSA OLEH

DIPERIKSA OLEH

DIRENCANAKAN OLEH

DRS. Mochmad Absor., M.T.
NIP.195801121989031001

Fadhila Firdausa, S.T.,M.Eng
NIP.199010302018032001

M. Rahmat Septiyadi
NPM. 061840111611

Oryza Mayudhira Siregar
NPM. 061840111621

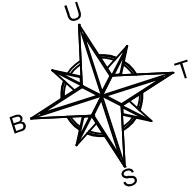
JUDUL GAMBAR :

POTONGAN MEMANJANG
STA 17+750 - STA 18+050

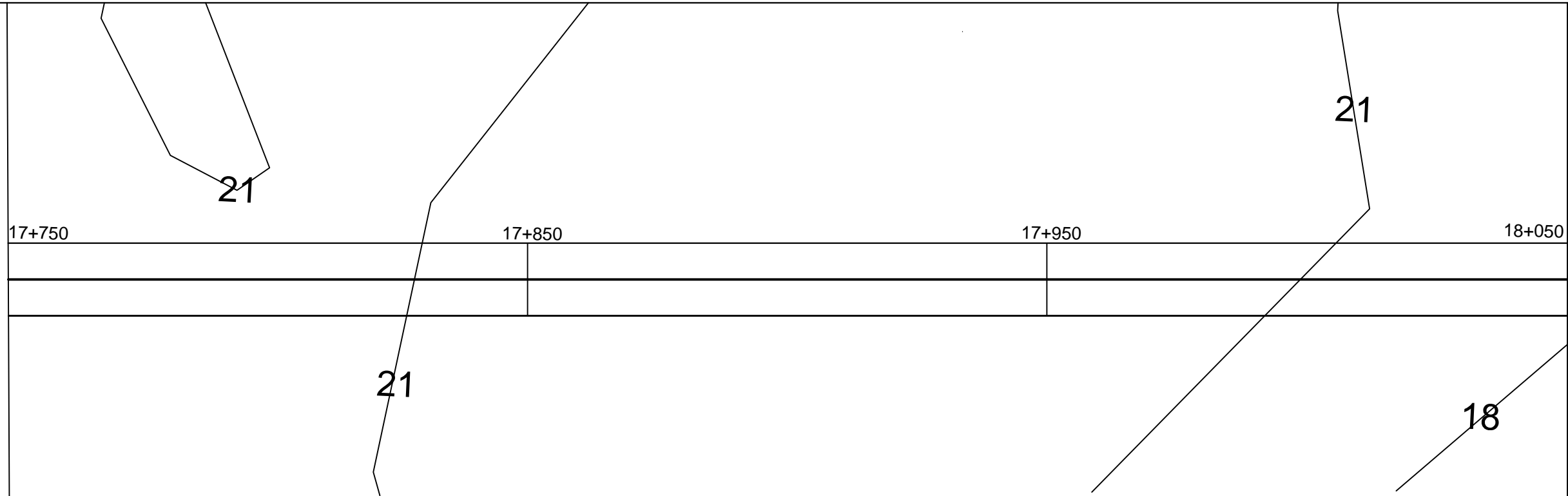
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SKALA Horizontal 1 : 1000
Vertikal 1 : 100

TANGGAL : 22 JULI 2022



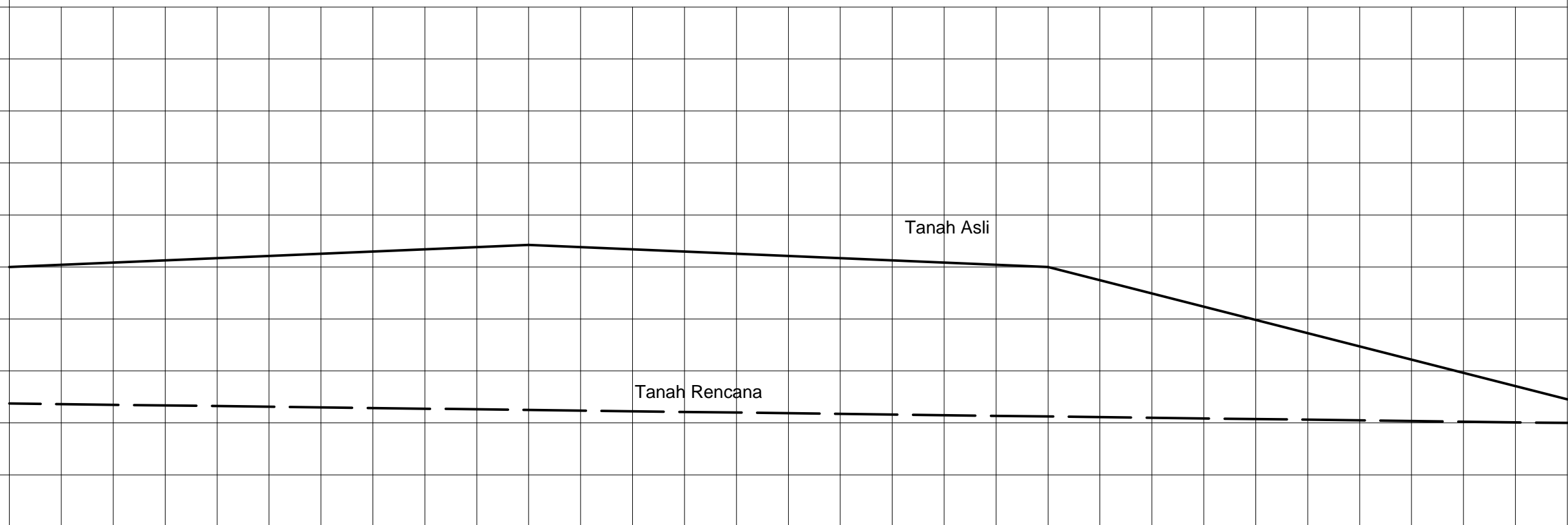
GARIS HIMPIT PADA STA 17+750



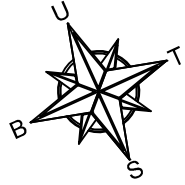
GARIS HIMPIT PADA STA 18+050

SUPER ELEVASI

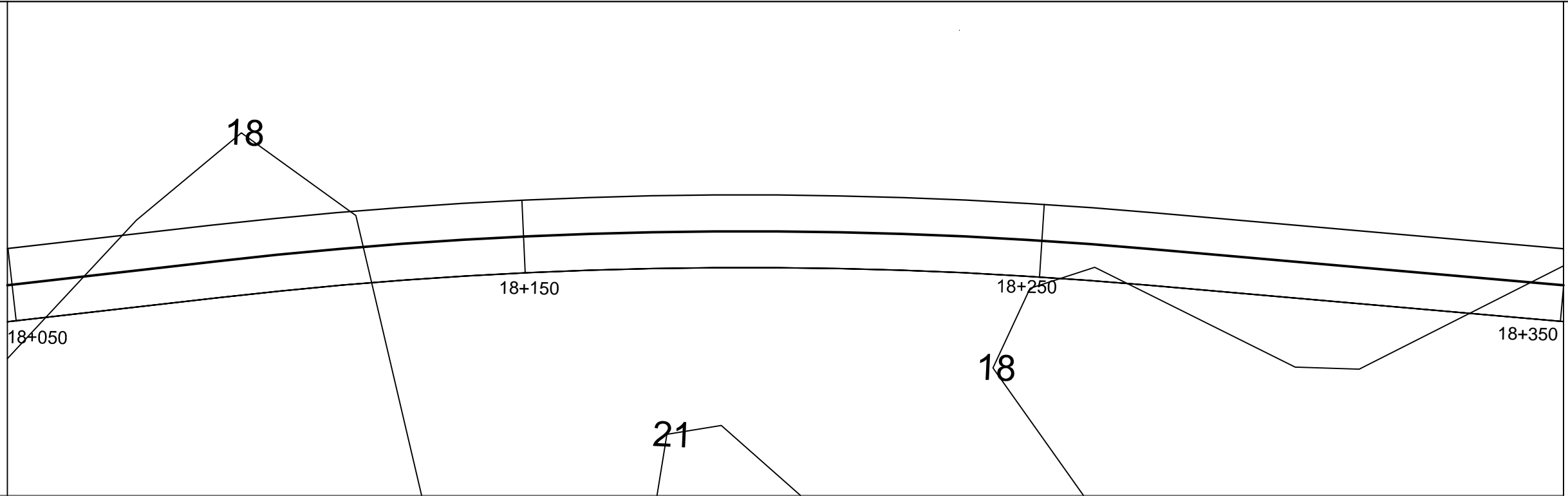
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STATION	17+750	17+850	17+950	18+050
ELEVASI TANAH ASLI	21.000	21.425	21.000	21.453
ELEVASI TANAH RENCANA	18.374	18.249	18.124	18.000

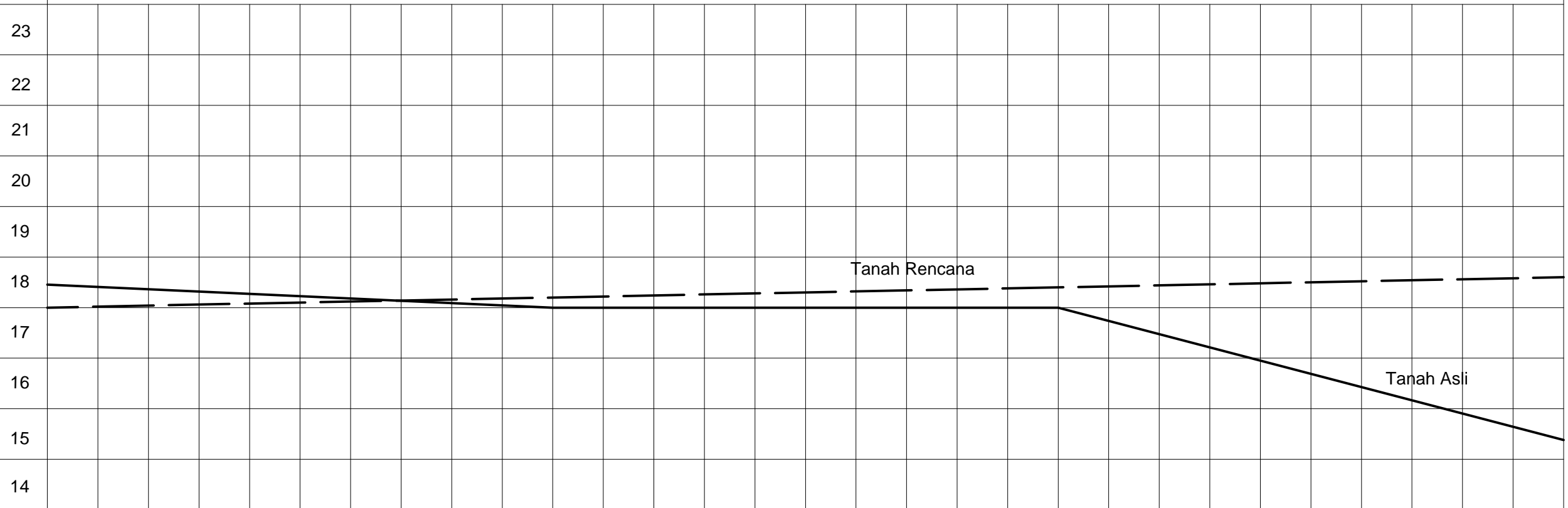
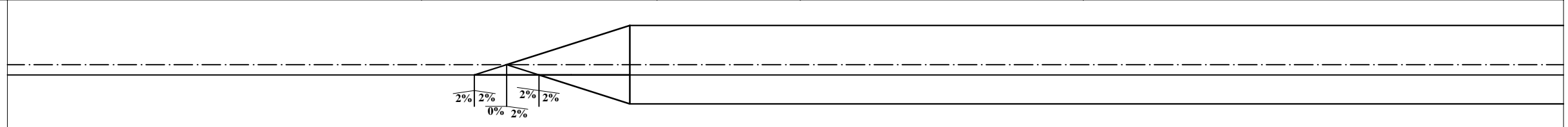


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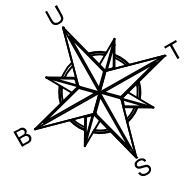


GARIS HIMPIT PADA STA 18+350

SUPER ELEVASI

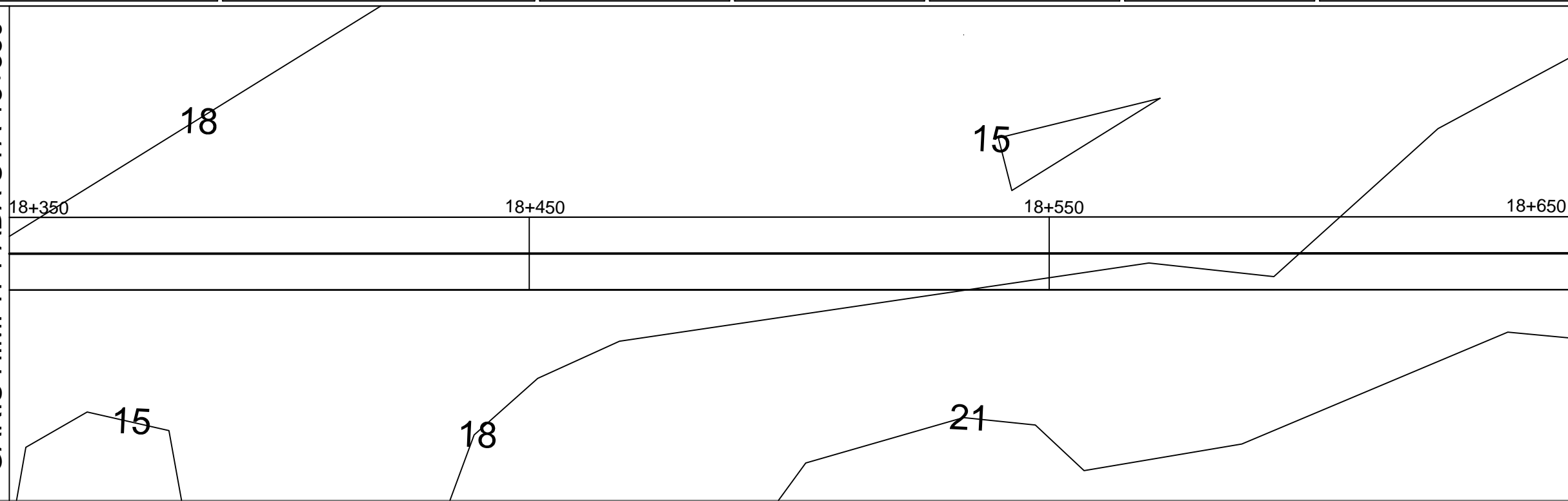


STATION	18+050	18+150	18+250	18+350
ELEVASI TANAH ASLI	18.453	18.000	18.000	15.383
ELEVASI TANAH RENCANA	18.000	18.200	18.401	18.601

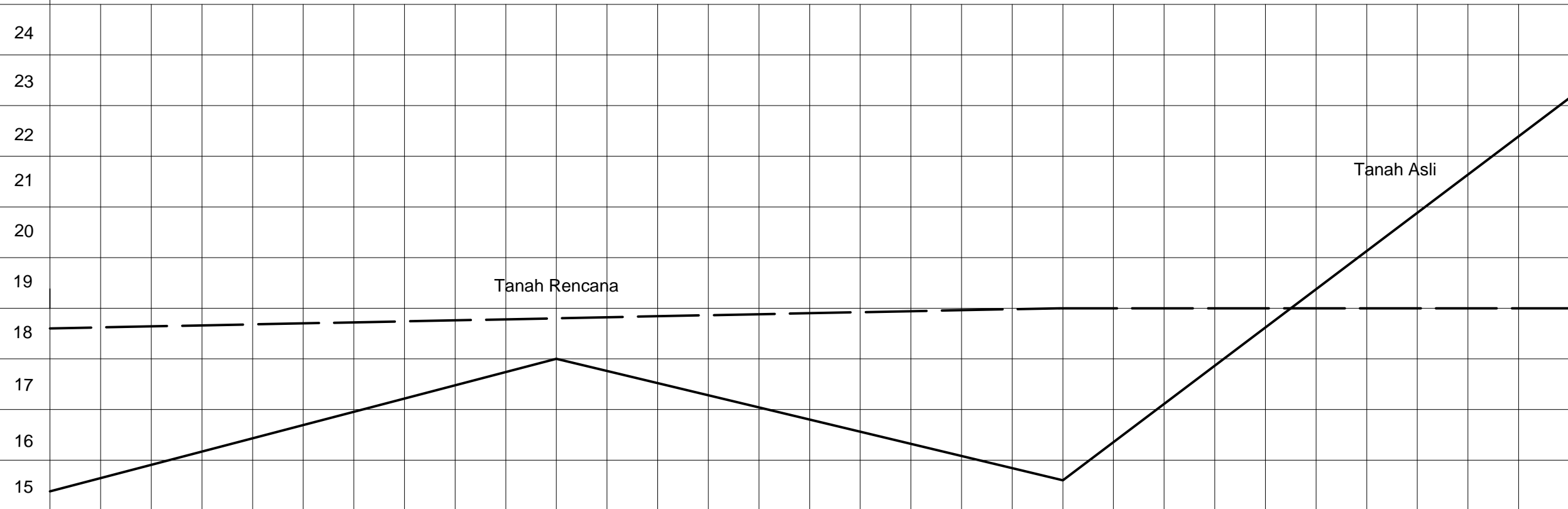
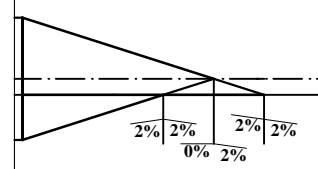


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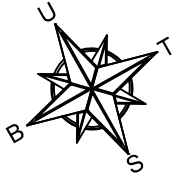
GARIS HIMPIT PADA STA 18+650



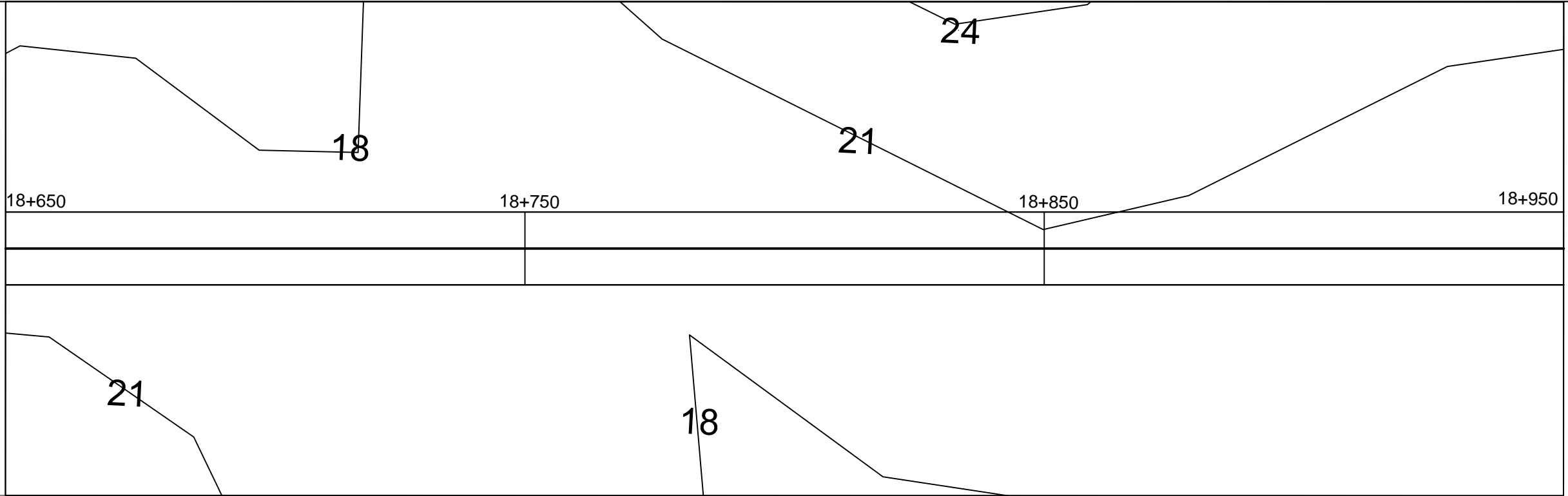
SUPER ELEVASI



STATION	18+350	18+450	18+550	18+650
ELEVASI TANAH ASLI	15.383	18.000	15.604	23.148
ELEVASI TANAH RENCANA	18.601	18.801	19.000	19.000



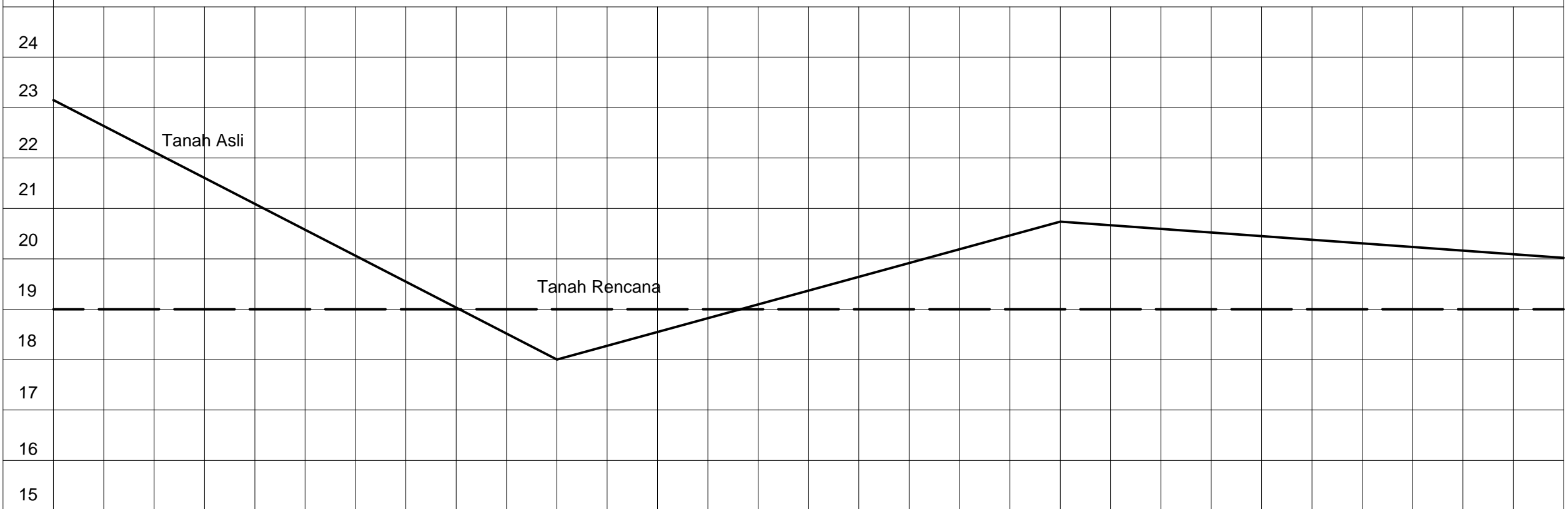
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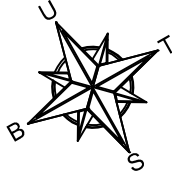
GARIS HIMPIT PADA STA 18+950

SUPER ELEVASI

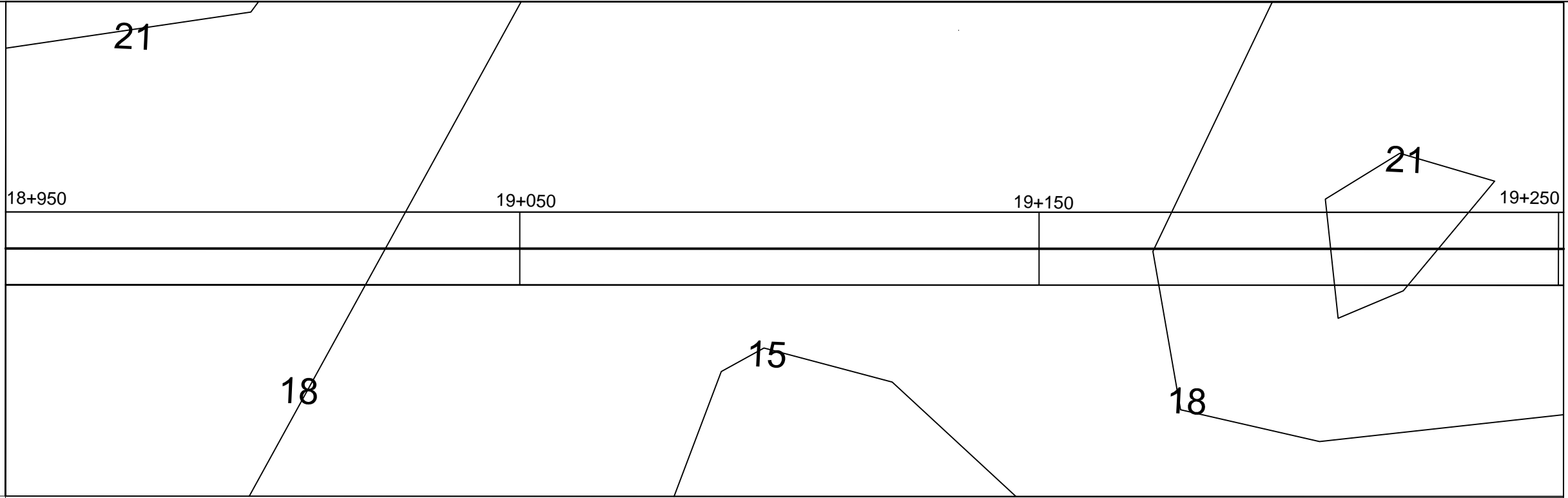
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STATION	18+650	18+750	18+850	18+950
ELEVASI TANAH ASLI	23.148	18.000	20.737	20.020
ELEVASI TANAH RENCANA	19.000	19.000	19.000	19.000

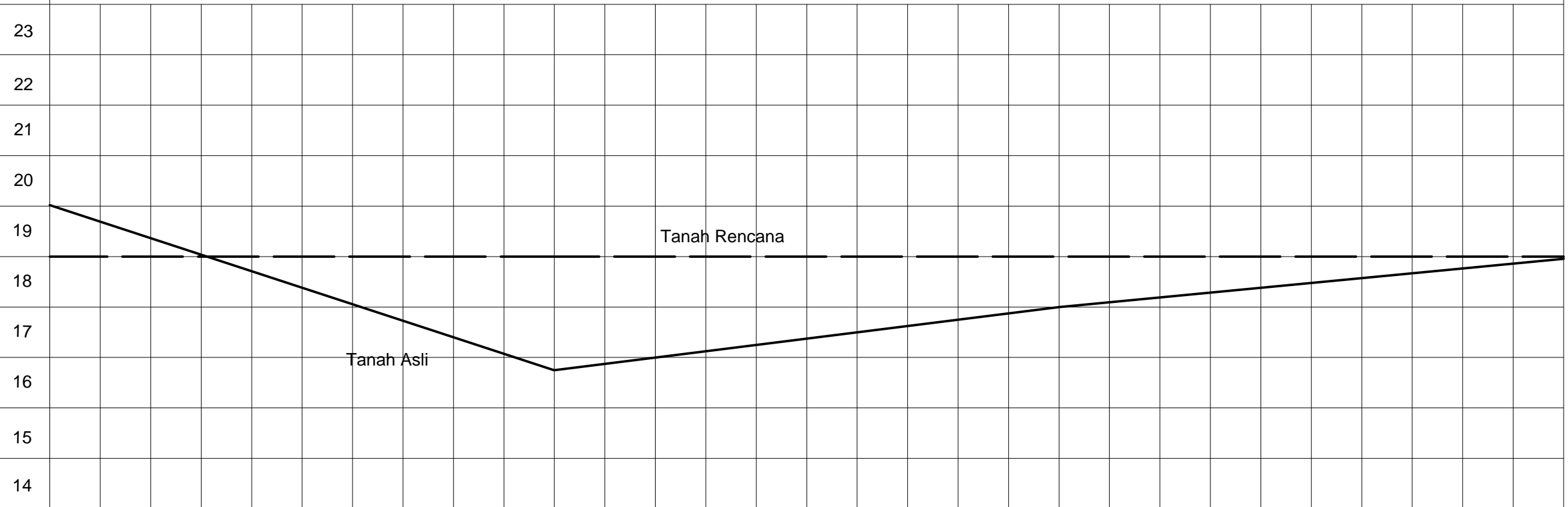


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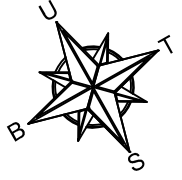


GARIS HIMPIT PADA STA 19+250

SUPER ELEVASI

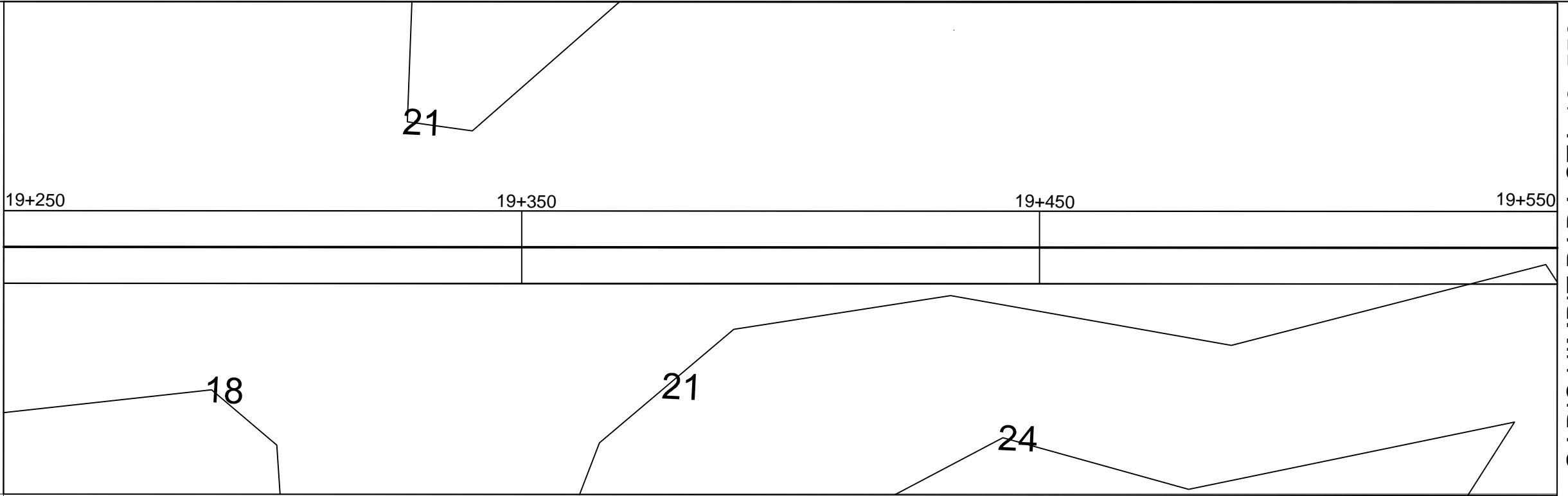


STATION	18+950	19+050	19+150	19+250
ELEVASI TANAH ASLI	20.020	16.747	18.000	18.957
ELEVASI TANAH RENCANA	19.000	19.000	19.000	19.000



GARIS HIMPIT PADA STA 19+250

GARIS HIMPIT PADA STA 19+550



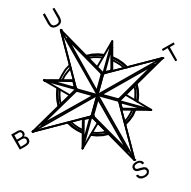
SUPER ELEVASI

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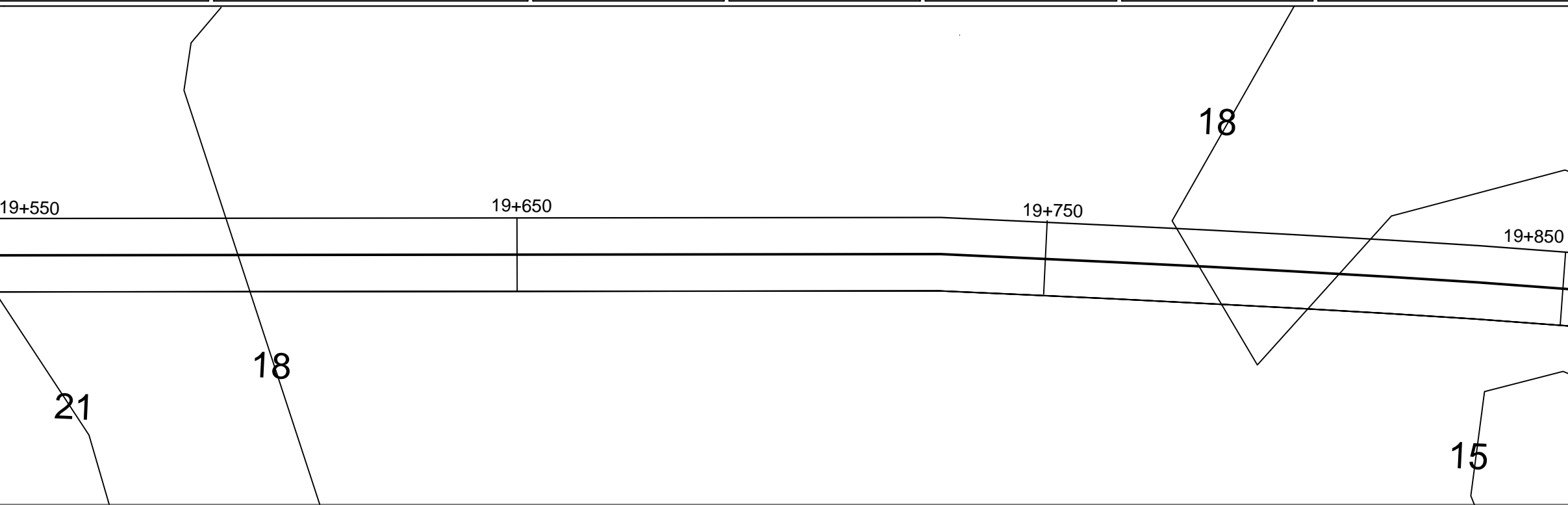
Tanah Asli

Tanah Rencana

STATION	19+250	19+350	19+450	19+550
ELEVASI TANAH ASLI	18.957	21.000	21.000	18.321
ELEVASI TANAH RENCANA	19.000	19.000	19.000	19.000

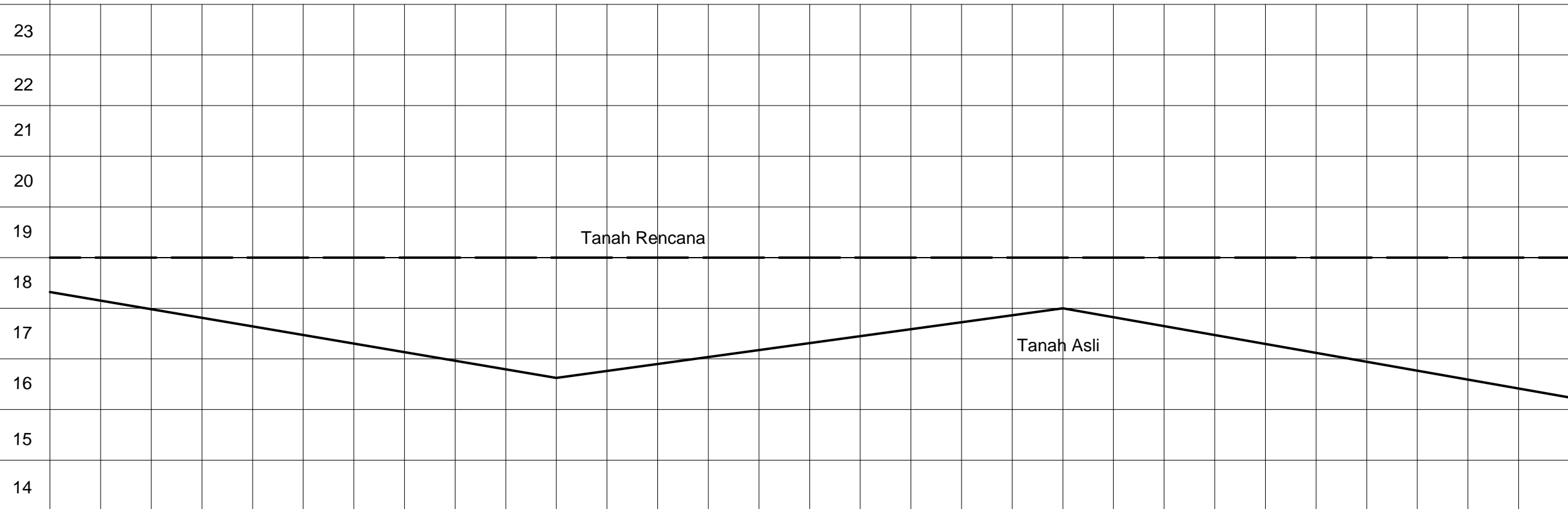


GARIS HIMPIT PADA STA 19+550



GARIS HIMPIT PADA STA 19+850

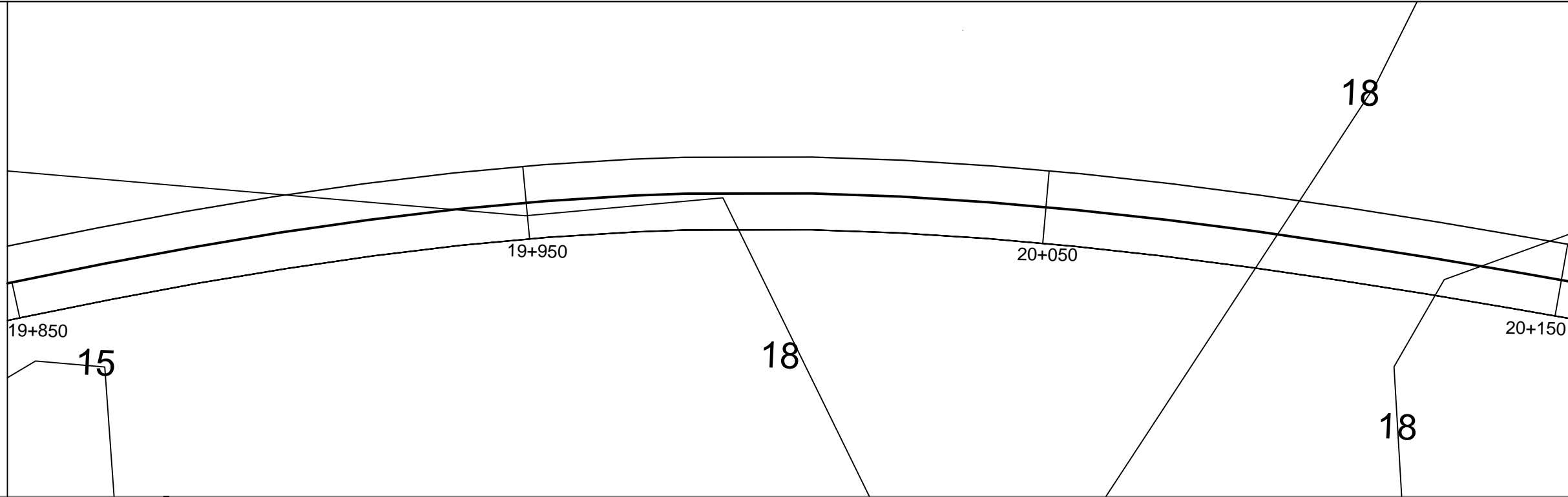
SUPER ELEVASI



STATION	19+550	19+650	19+750	19+850
ELEVASI TANAH ASLI	18.321	16.625	18.000	16.238
ELEVASI TANAH RENCANA	19.000	19.000	19.000	19.000

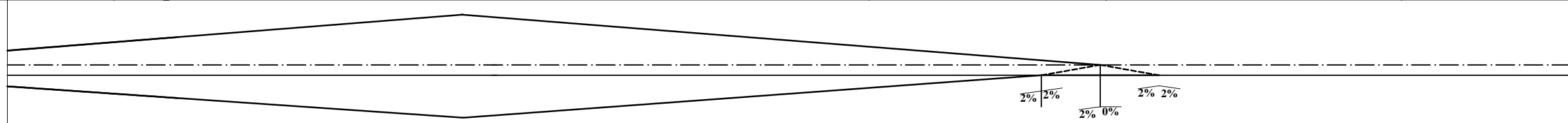


GARIS HIMPIT PADA STA 19+850

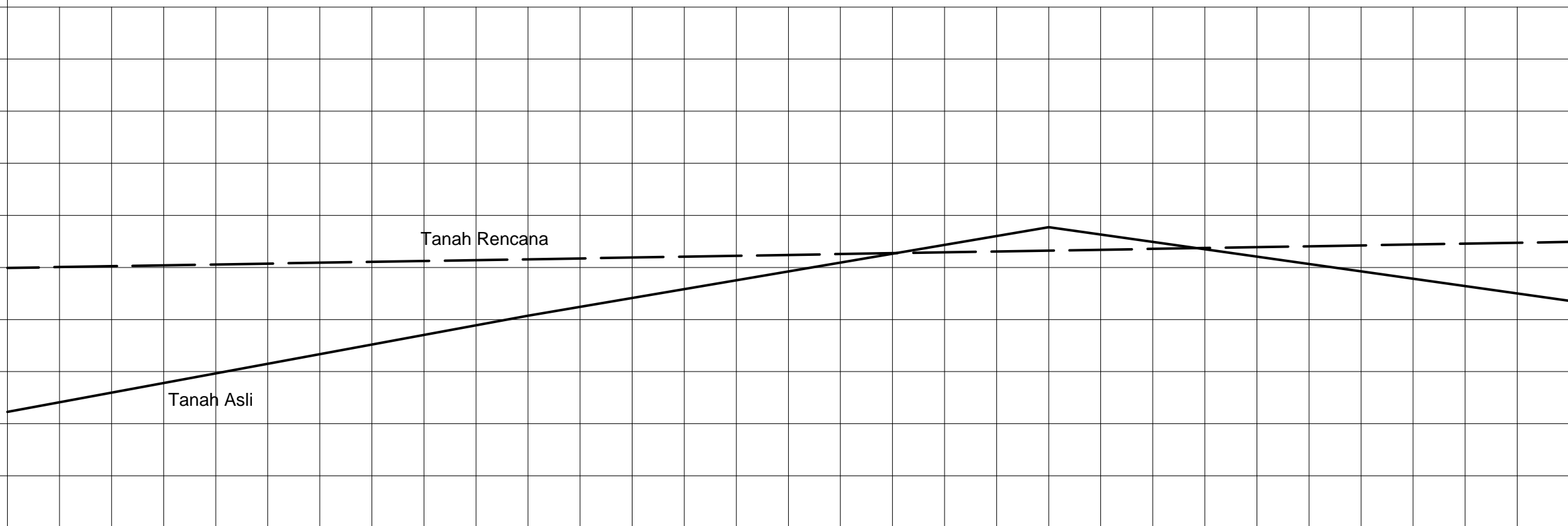


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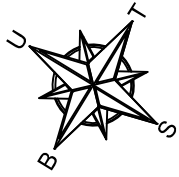
SUPER ELEVASI



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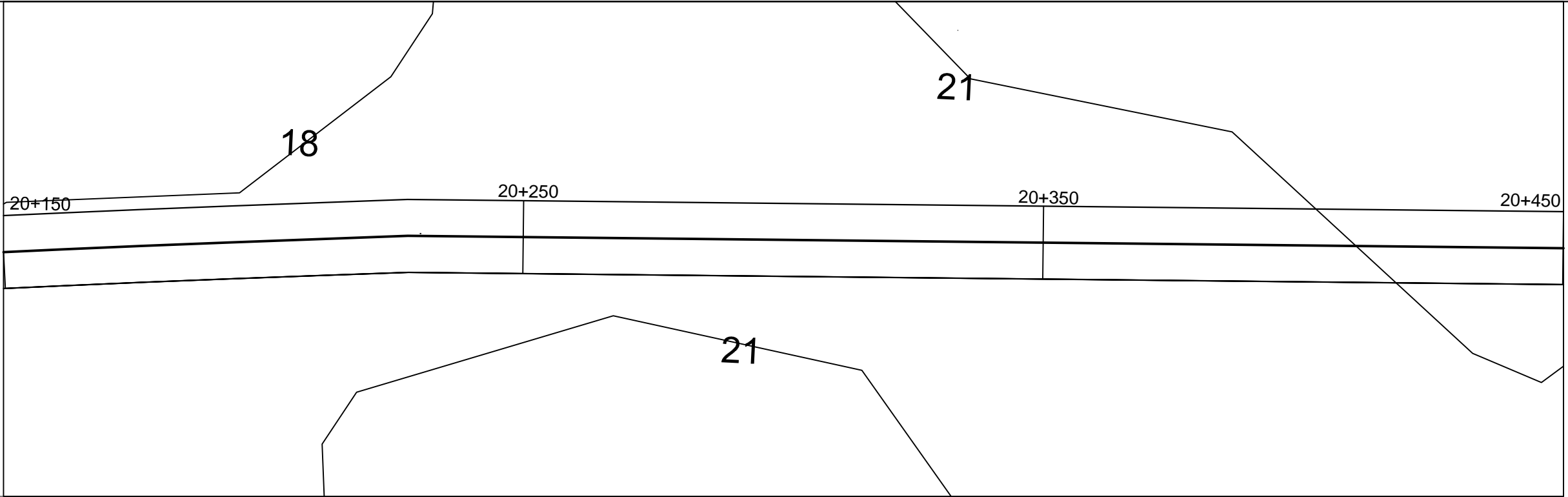


STATION	19+850	19+950	20+050	20+150
ELEVASI TANAH ASLI	16.238	18.084	19.784	18.371
ELEVASI TANAH RENCANA	19.000	19.167	19.333	19.500

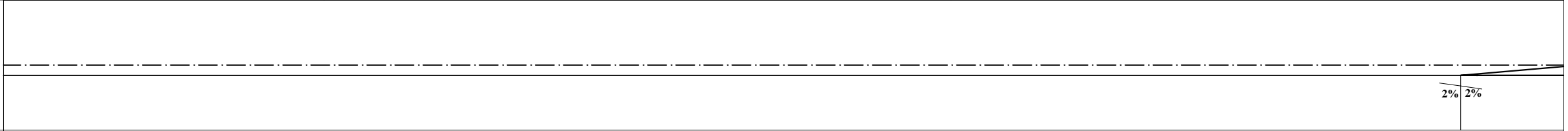


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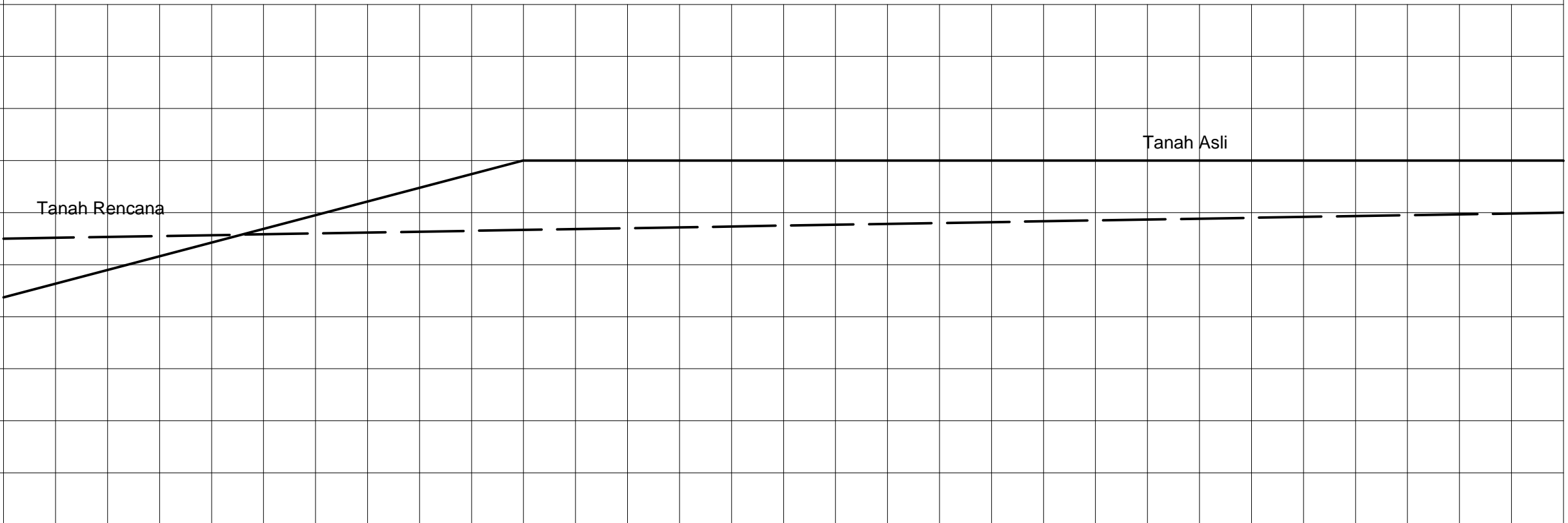
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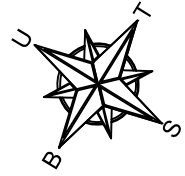
SUPER ELEVASI



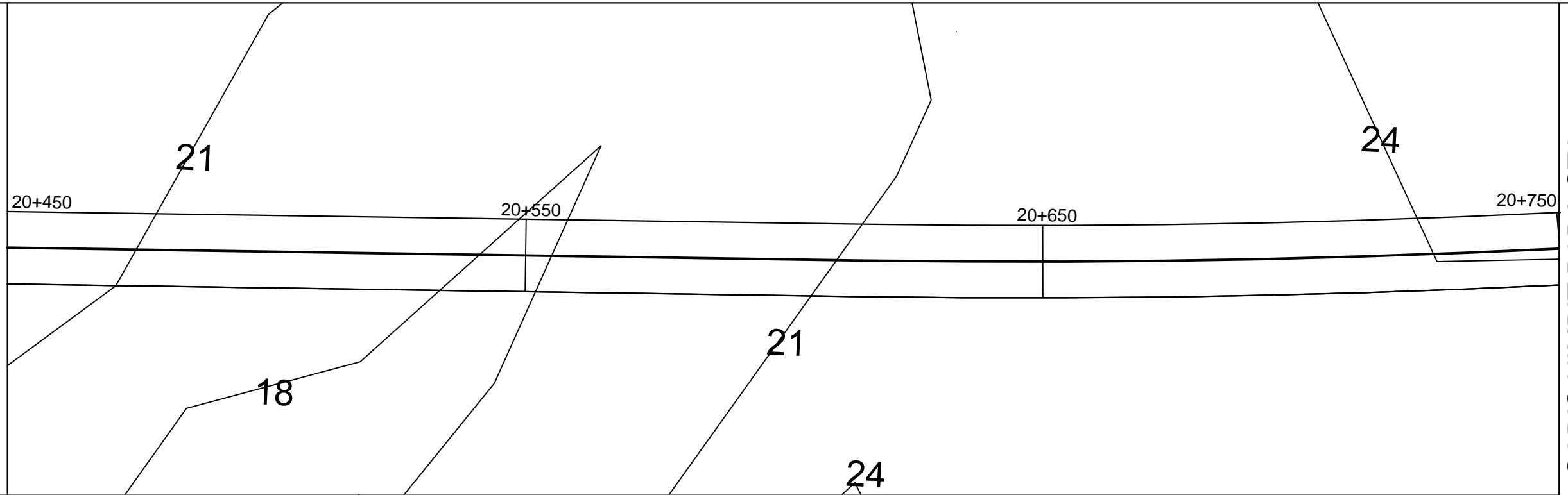
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STATION	20+150	20+250	20+350	20+450
ELEVASI TANAH ASLI	18.371	21.000	21.000	21.000
ELEVASI TANAH RENCANA	19.500	19.667	19.833	20.000

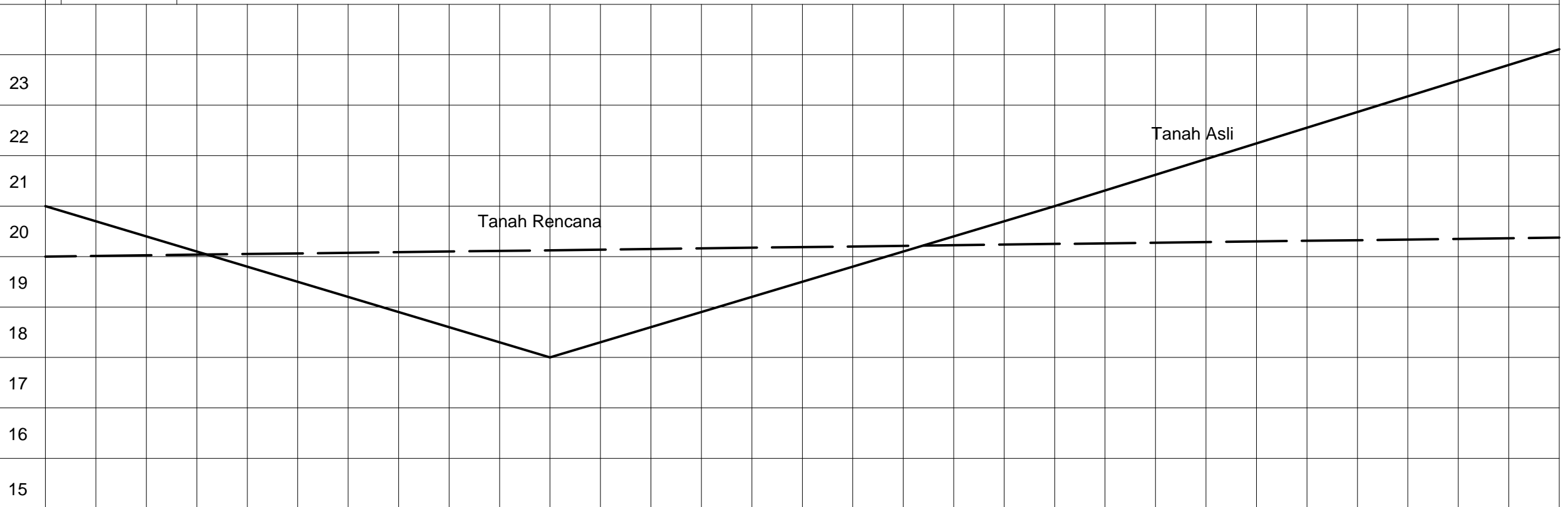
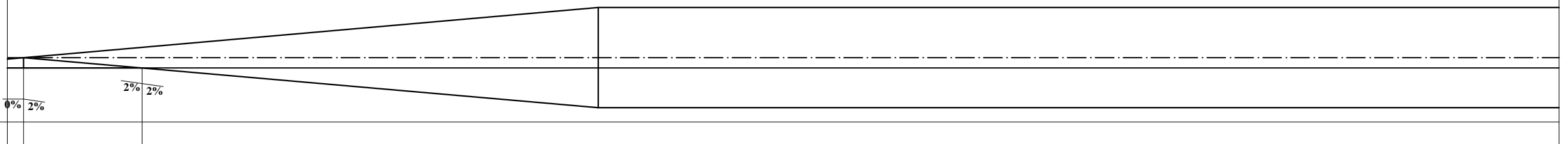


GARIS HIMPIT PADA STA 20+450



GARIS HIMPIT PADA STA 20+750

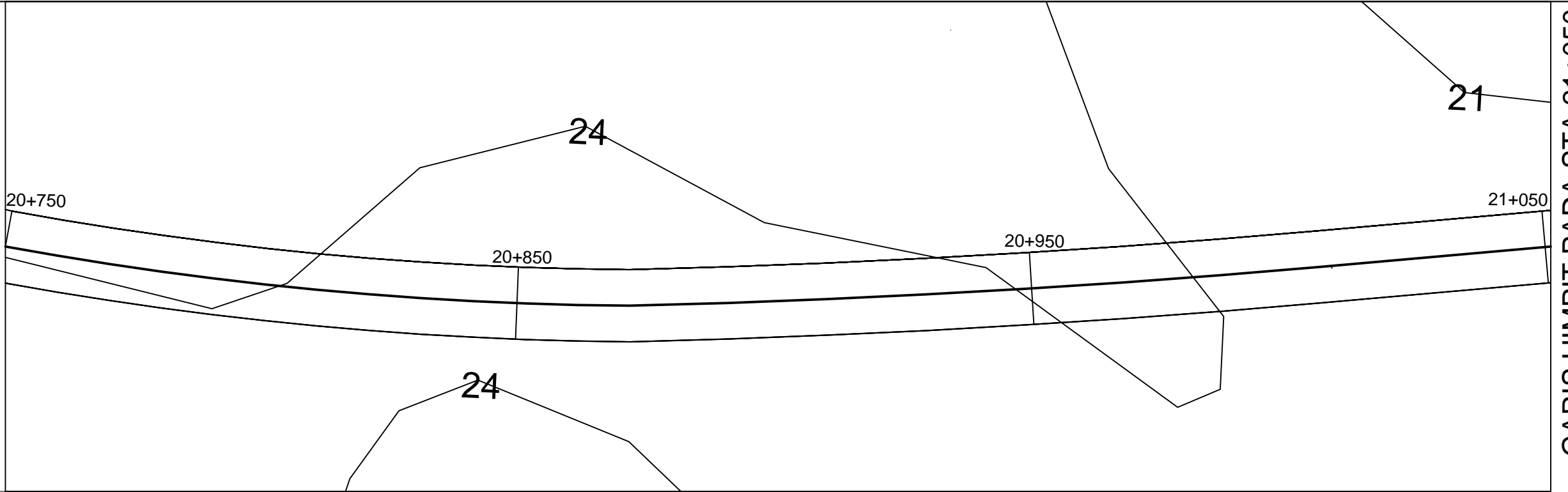
SUPER ELEVASI



STATION	20+450	20+550	20+650	20+750
ELEVASI TANAH ASLI	21.000	18.000	21.000	24.110
ELEVASI TANAH RENCANA	20000	20.125	20.650	20.375

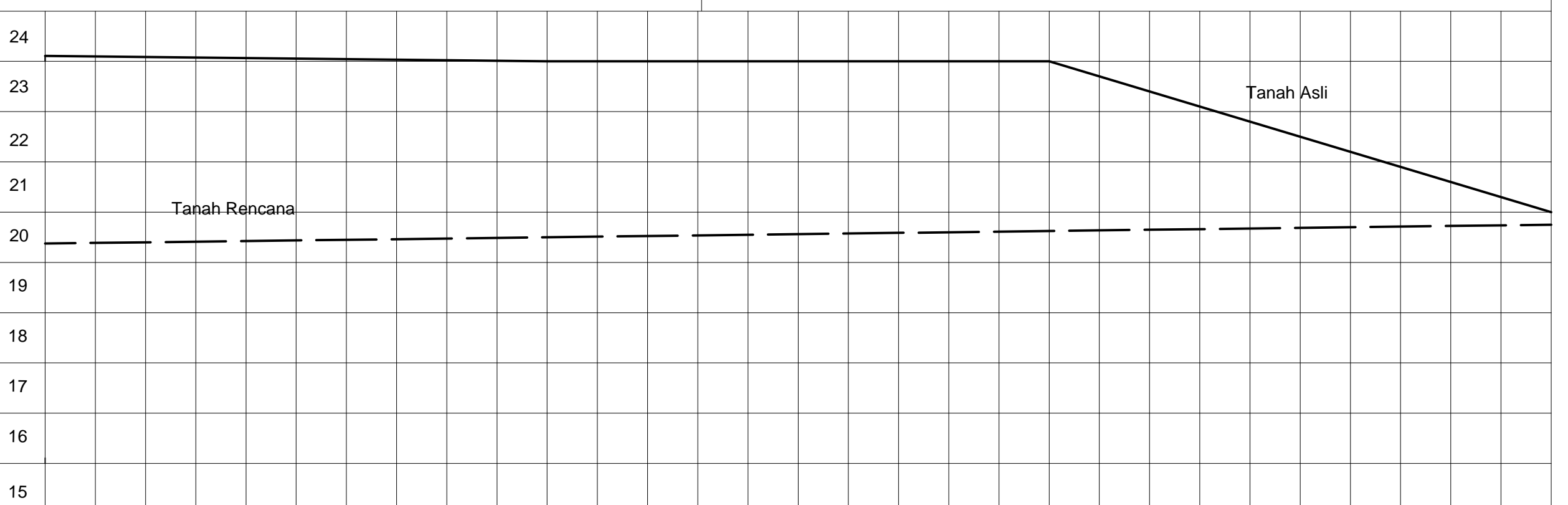
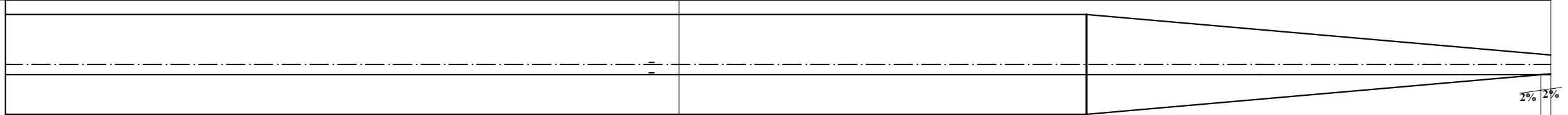


GARIS HIMPIT PADA STA 20+750

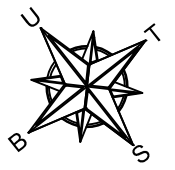


GARIS HIMPIT PADA STA 21+050

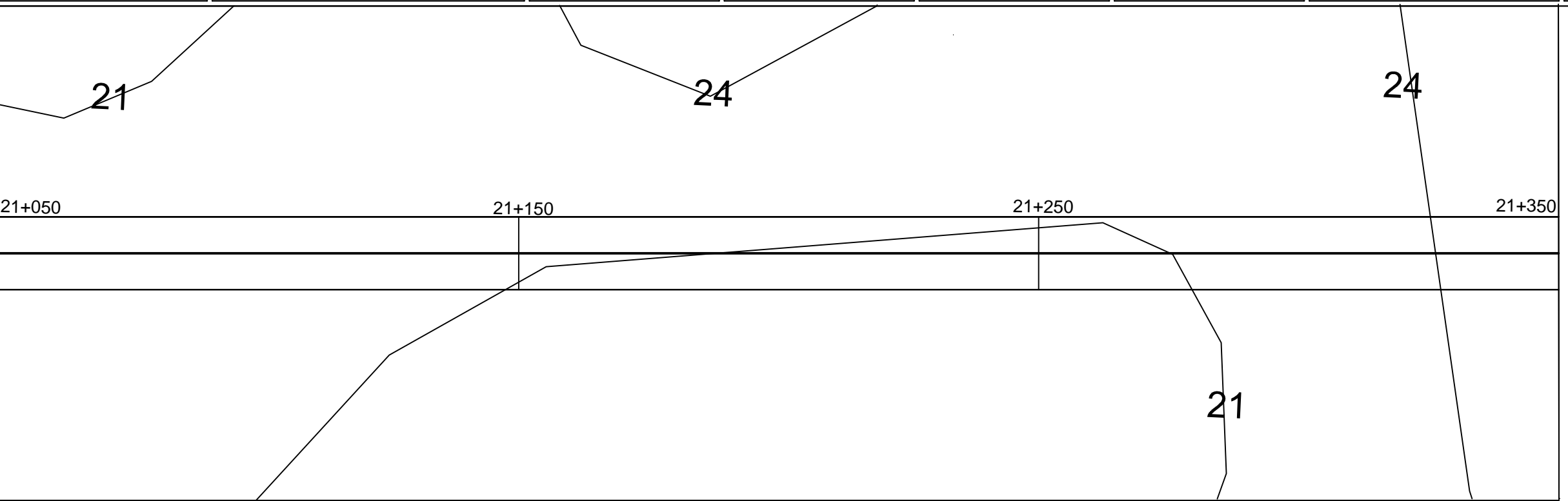
SUPER ELEVASI



STATION	20+750	20+850	20+950	21+050
ELEVASI TANAH ASLI	24.000	24.000	21.000	21.296
ELEVASI TANAH RENCANA	20.375	20.500	20.265	20.745

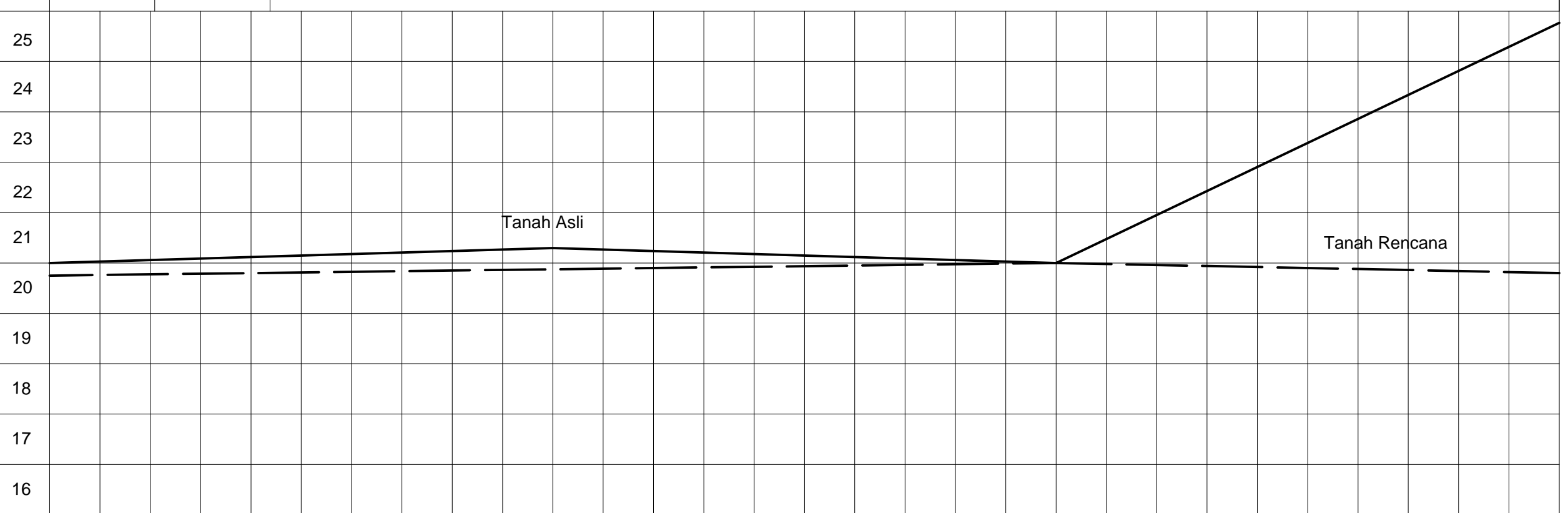
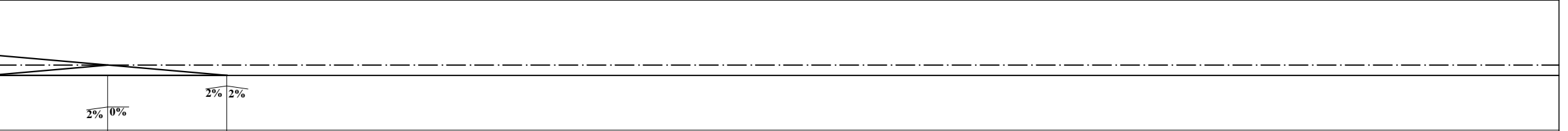


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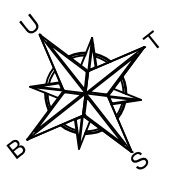


GARIS HIMPIT PADA STA 21+350

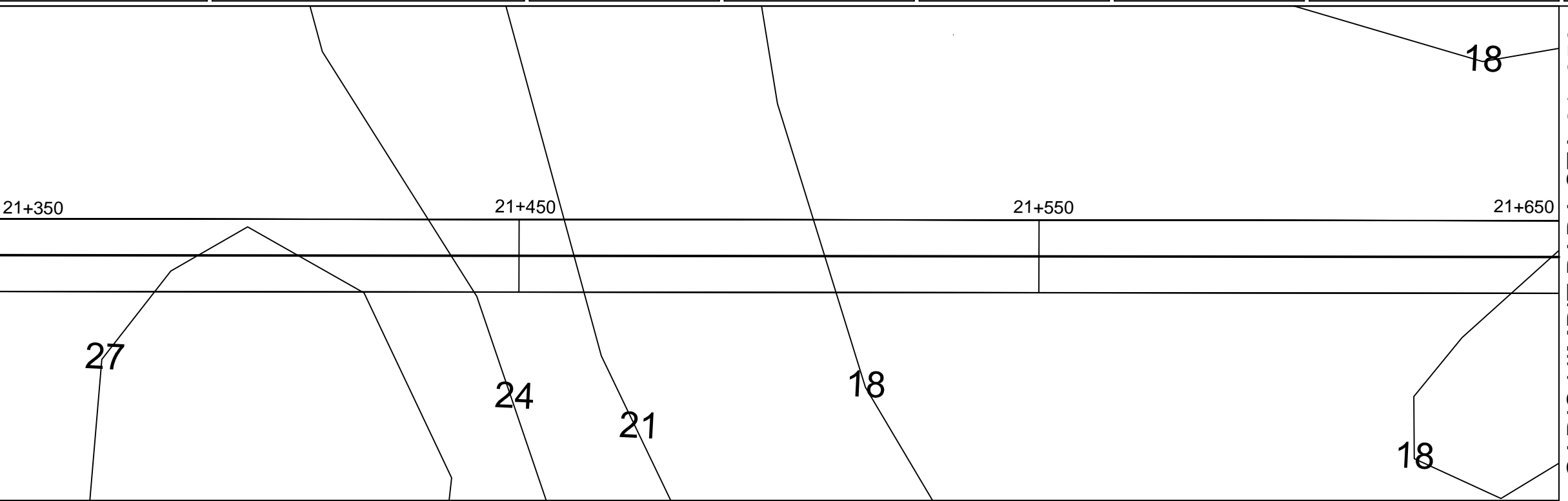
SUPER ELEVASI



STATION	21+050	21+150	21+250	21+350
ELEVASI TANAH ASLI	21.296	21.000	25.770	22.199
ELEVASI TANAH RENCANA	20.745	20.875	21.000	20.800

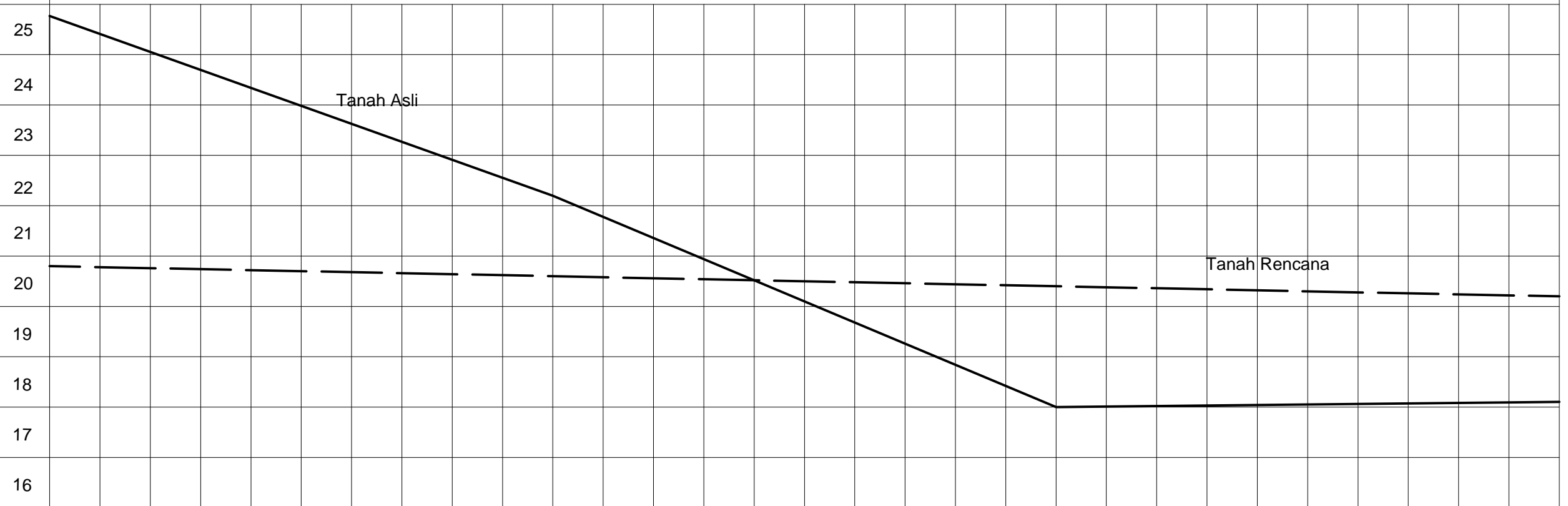


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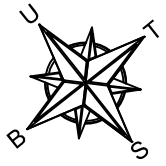


GARIS HIMPIT PADA STA 21+650

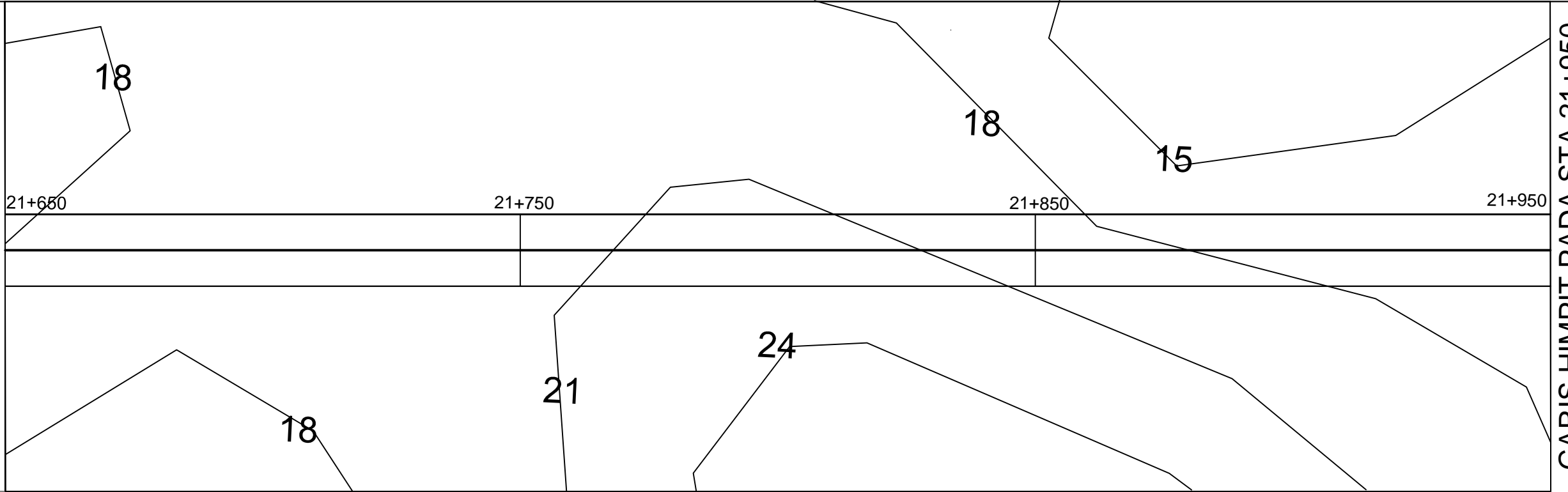
SUPER ELEVASI



STATION	21+350	21+450	21+550	21+650
ELEVASI TANAH ASLI	22.199	18.000	18.104	20.601
ELEVASI TANAH RENCANA	20.800	20.600	20.400	20.200

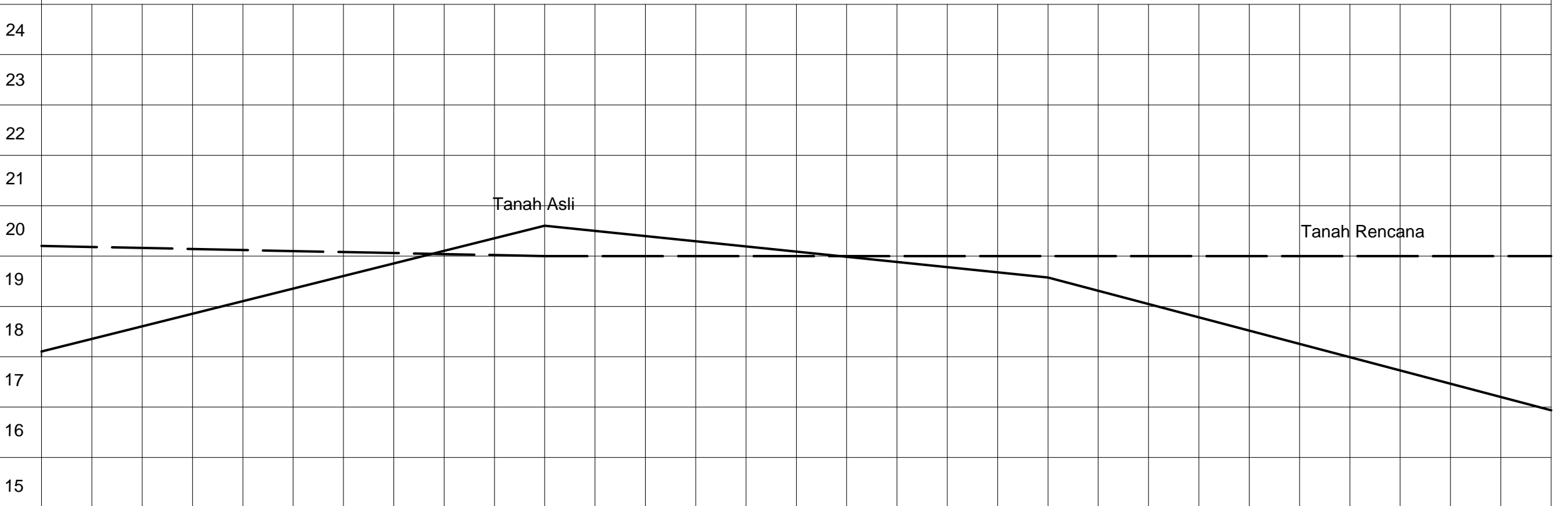


GARIS HIMPIT PADA STA 21+650

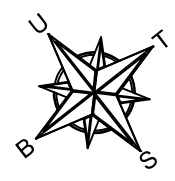


GARIS HIMPIT PADA STA 21+950

SUPER ELEVASI

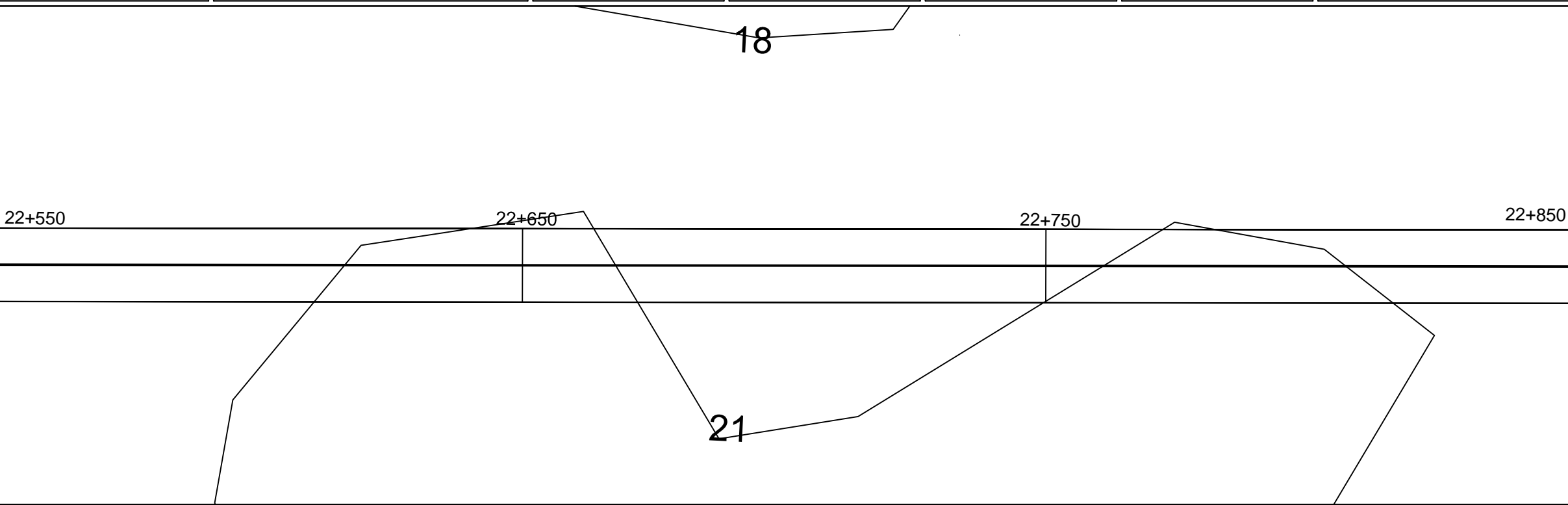


STATION	21+650	21+750	21+850	21+950
ELEVASI TANAH ASLI	20.601	19.573	16.937	18.000
ELEVASI TANAH RENCANA	20.200	20.000	20.000	20.000

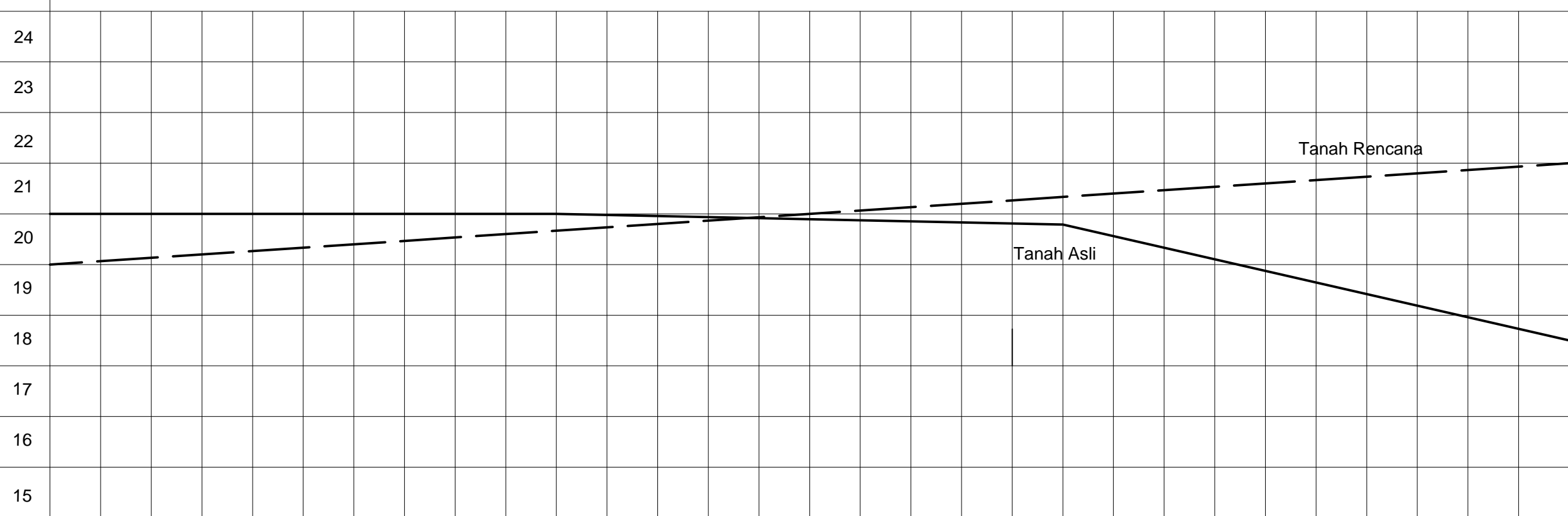


GARIS HIMPIT PADA STA 22+550

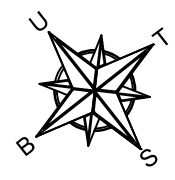
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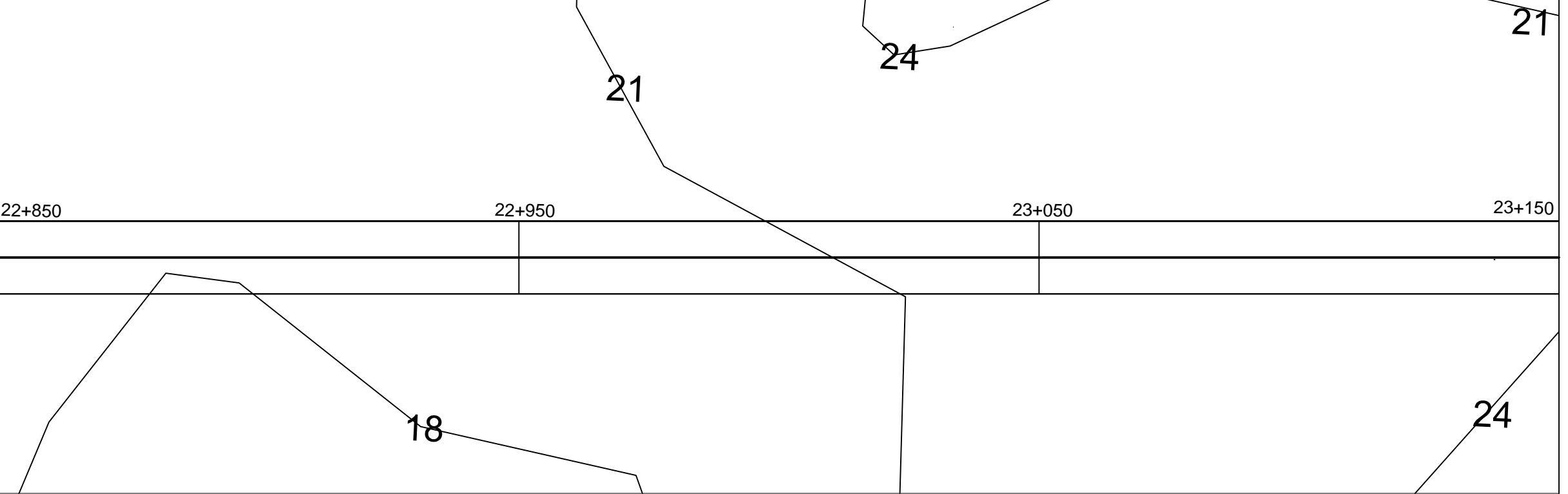
SUPER ELEVASI



STATION	22+550	22+650	22+750	22+850
ELEVASI TANAH ASLI	21.000	20.791	18.501	18.565
ELEVASI TANAH RENCANA	20.000	20.667	21.333	22.000

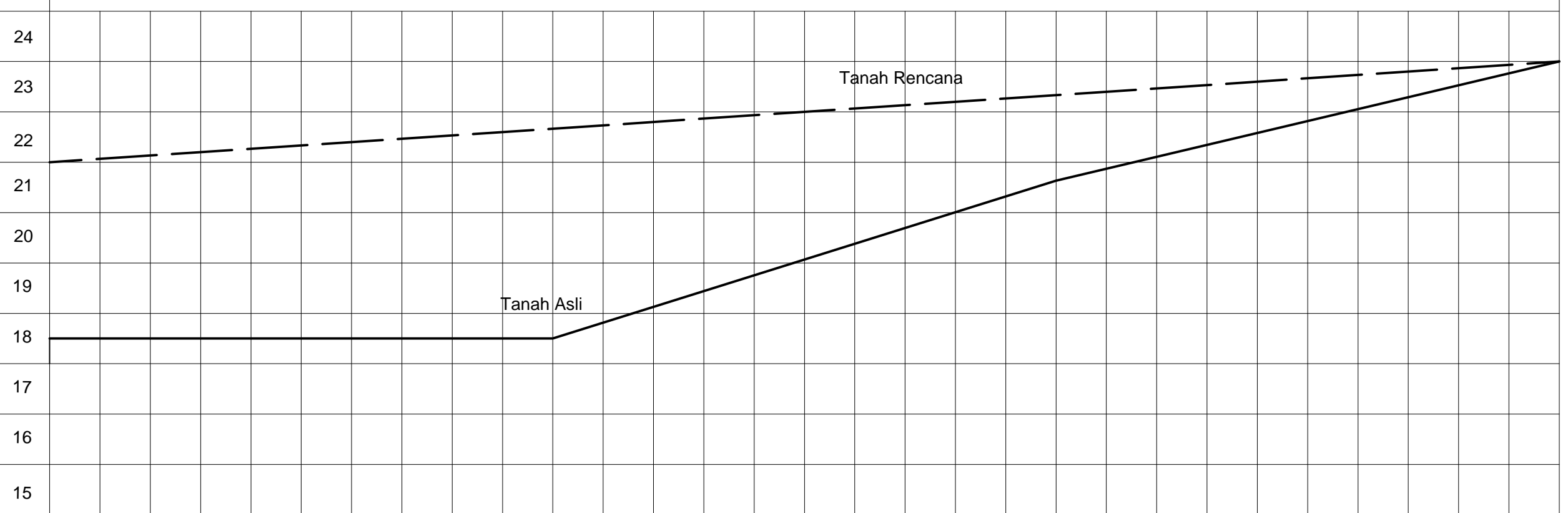


GARIS HIMPIT PADA STA 22+850

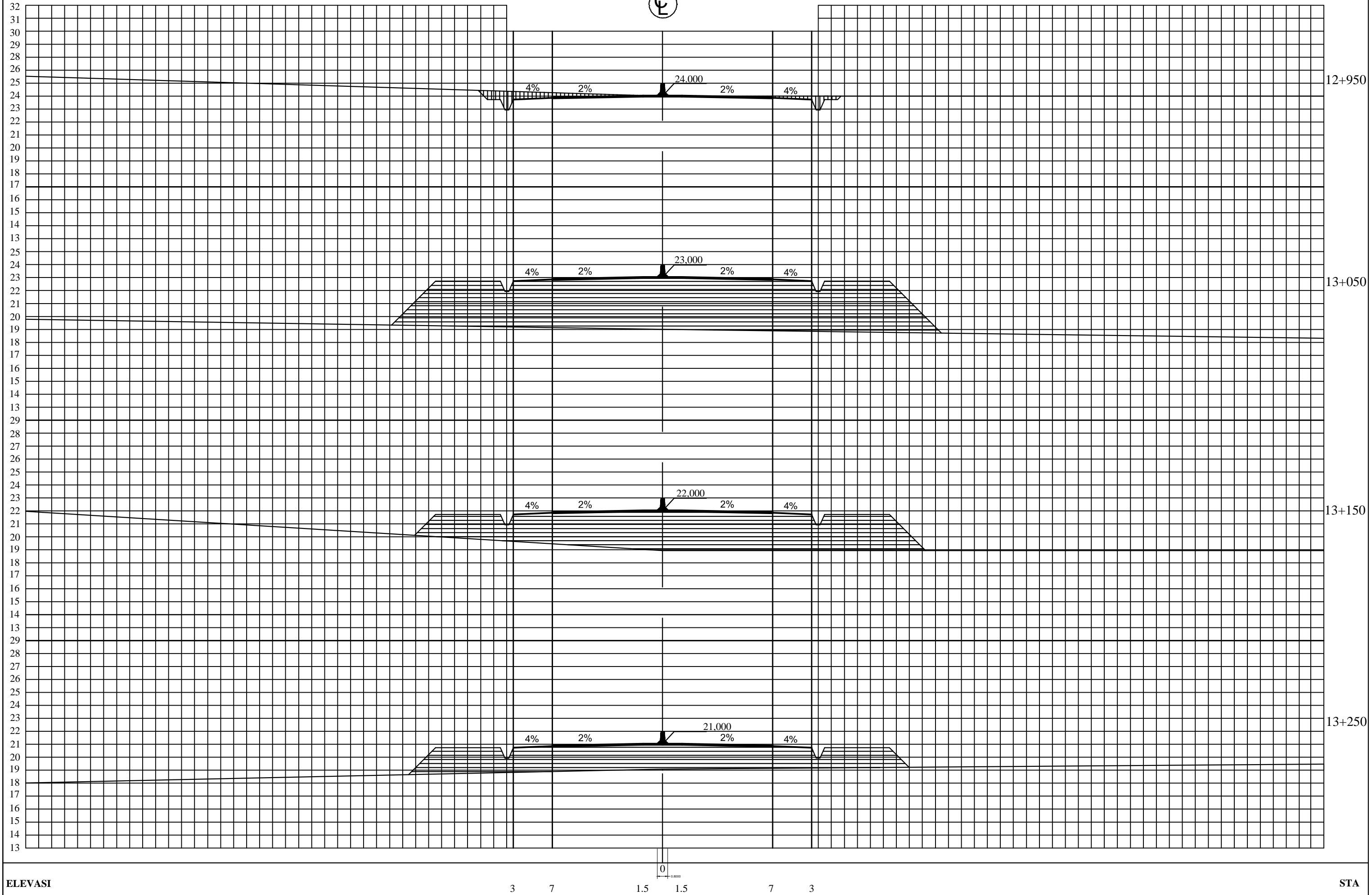


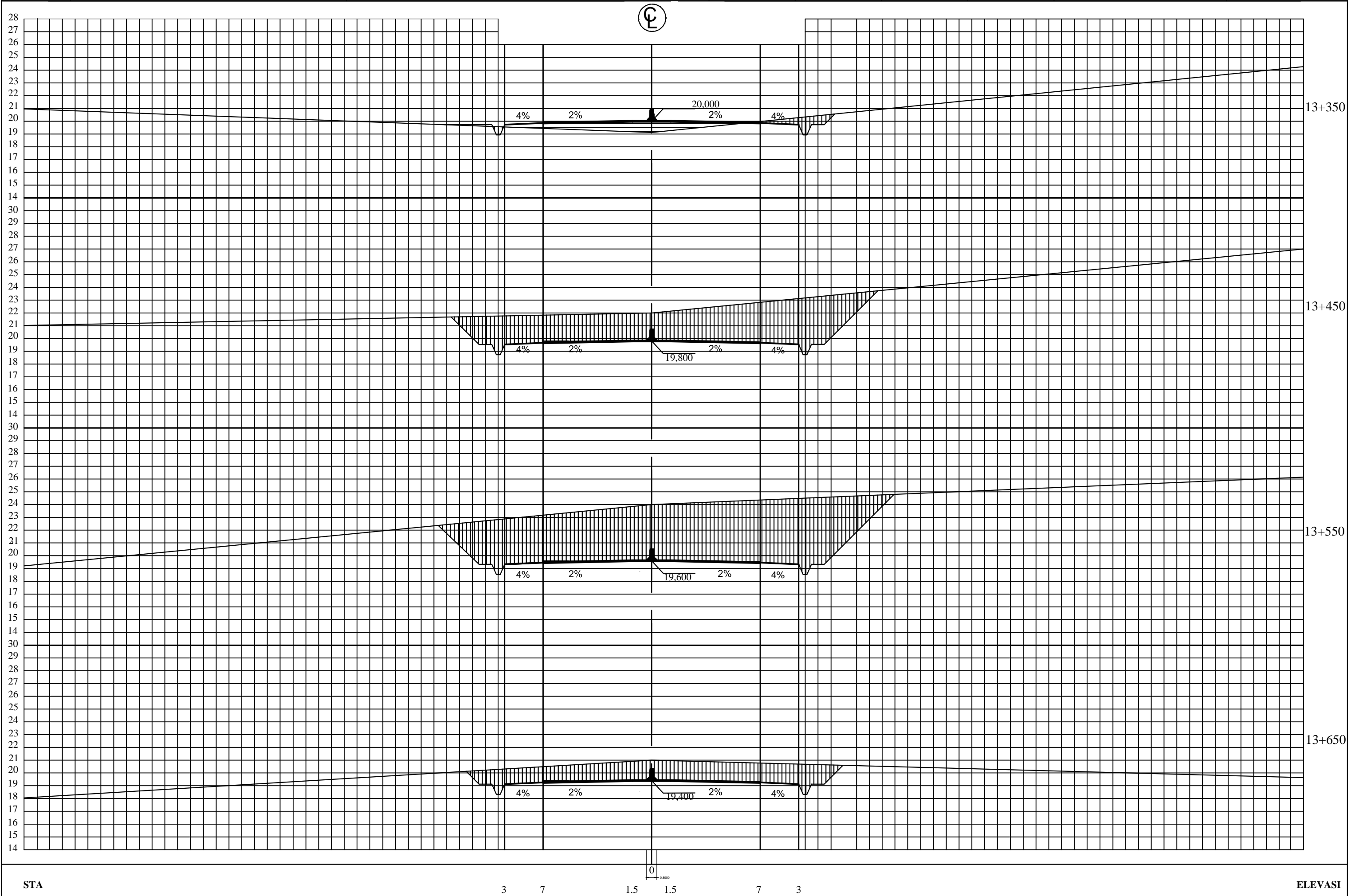
GARIS HIMPIT PADA STA 23+150

SUPER ELEVASI



STATION	22+850	22+950	23+050	23+150
ELEVASI TANAH ASLI	18.565	21.636	24.000	24.000
ELEVASI TANAH RENCANA	22.000	22.665	23.333	24.000

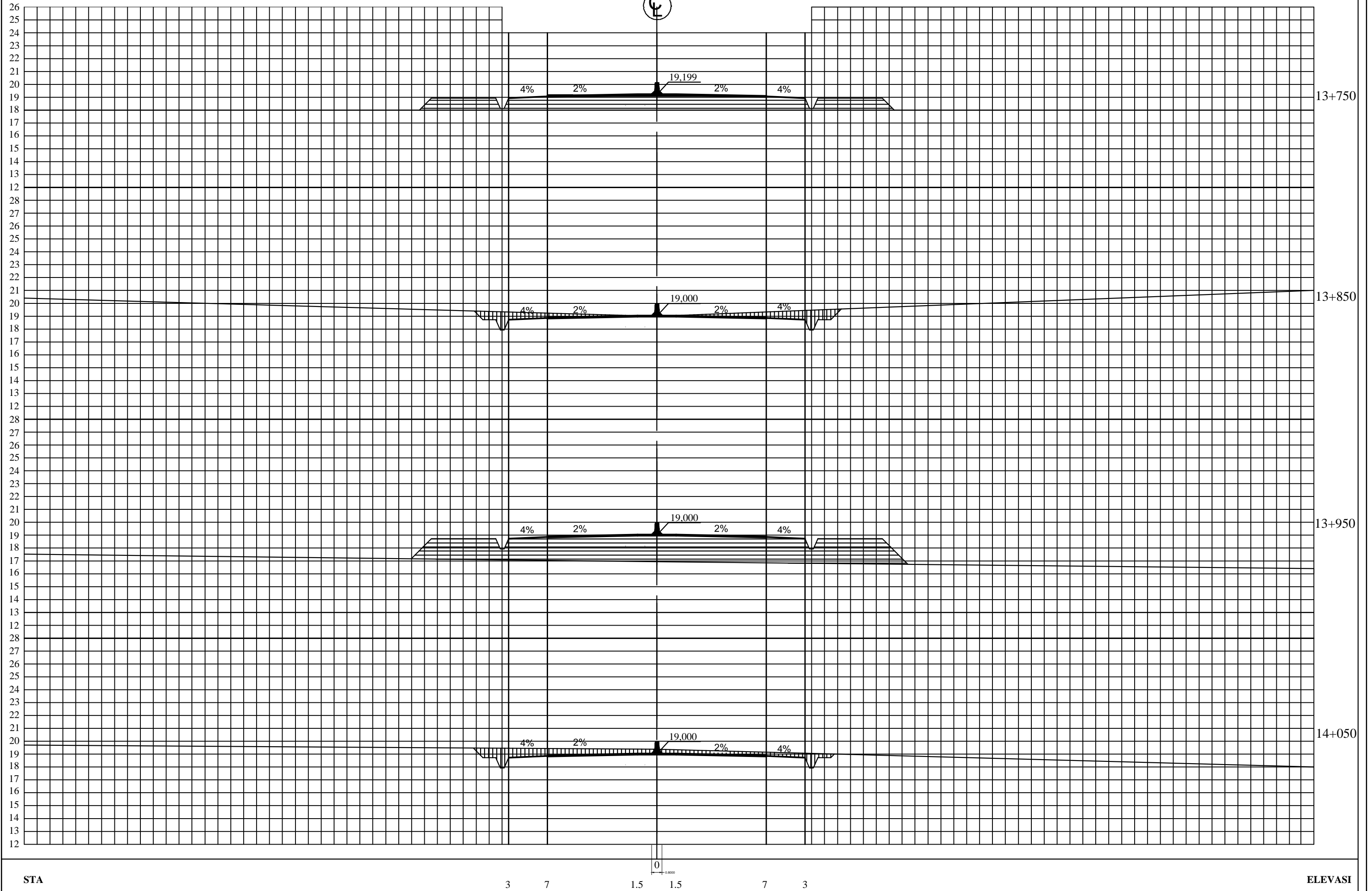




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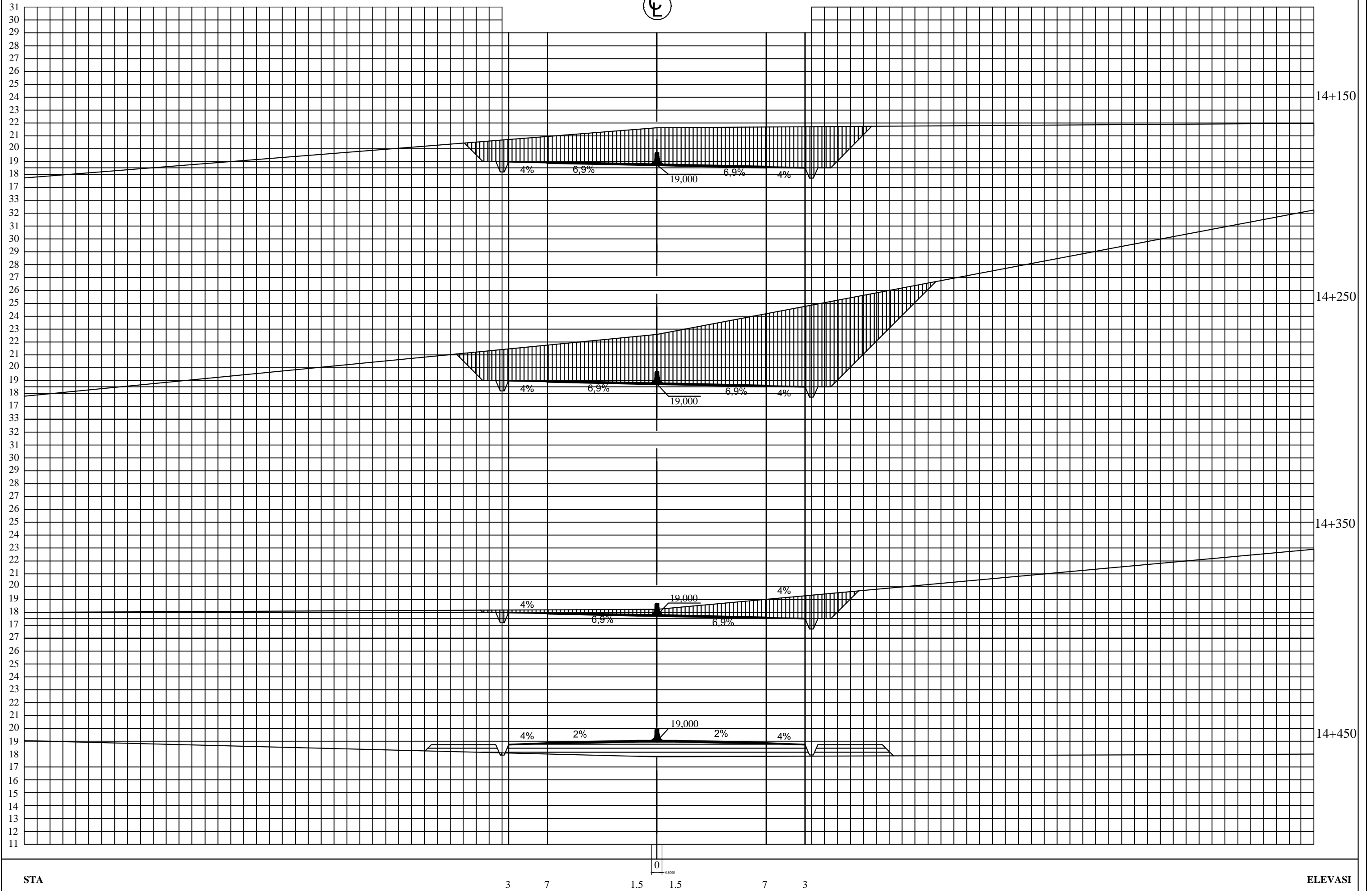
ELEVASI

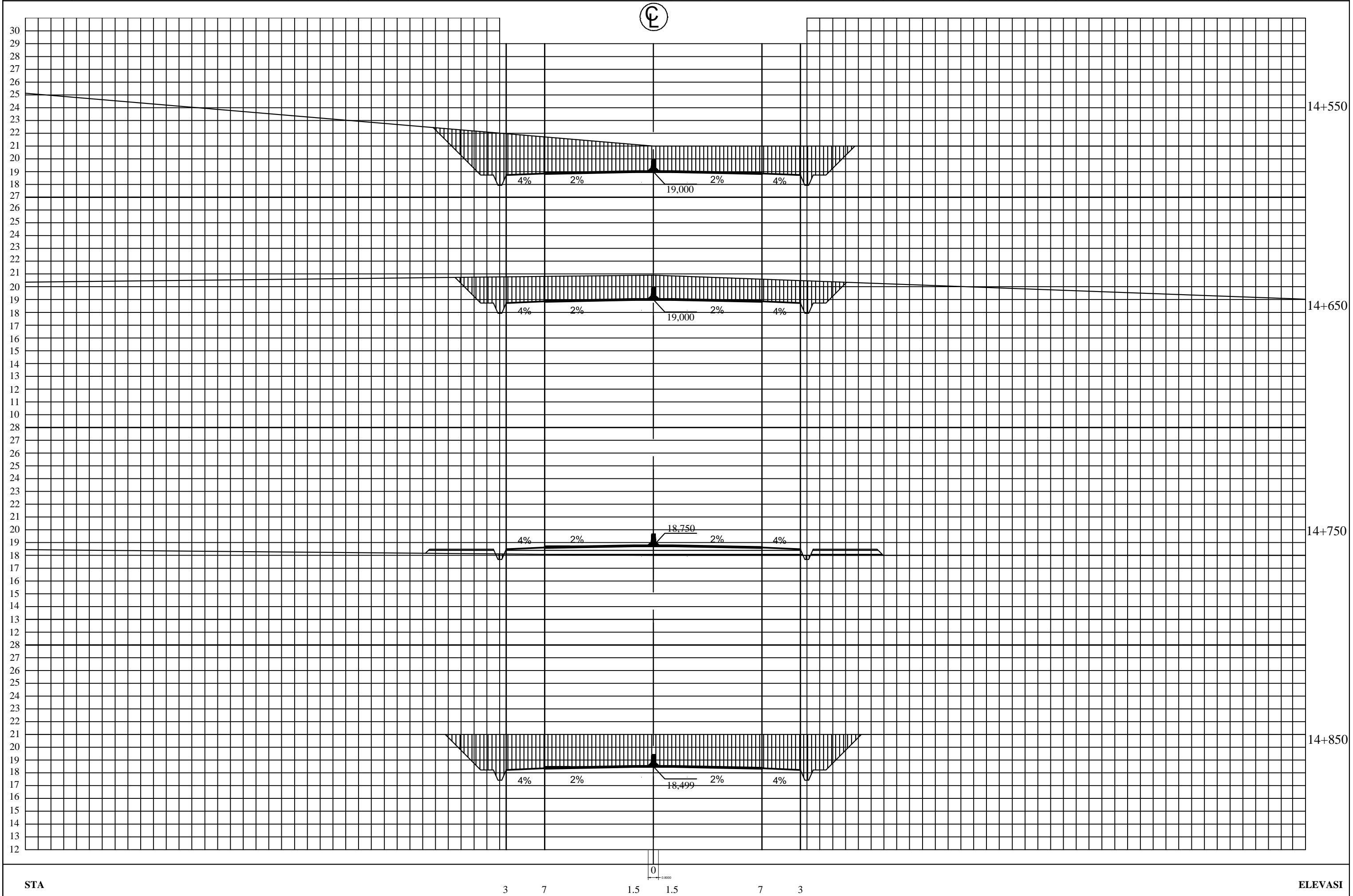


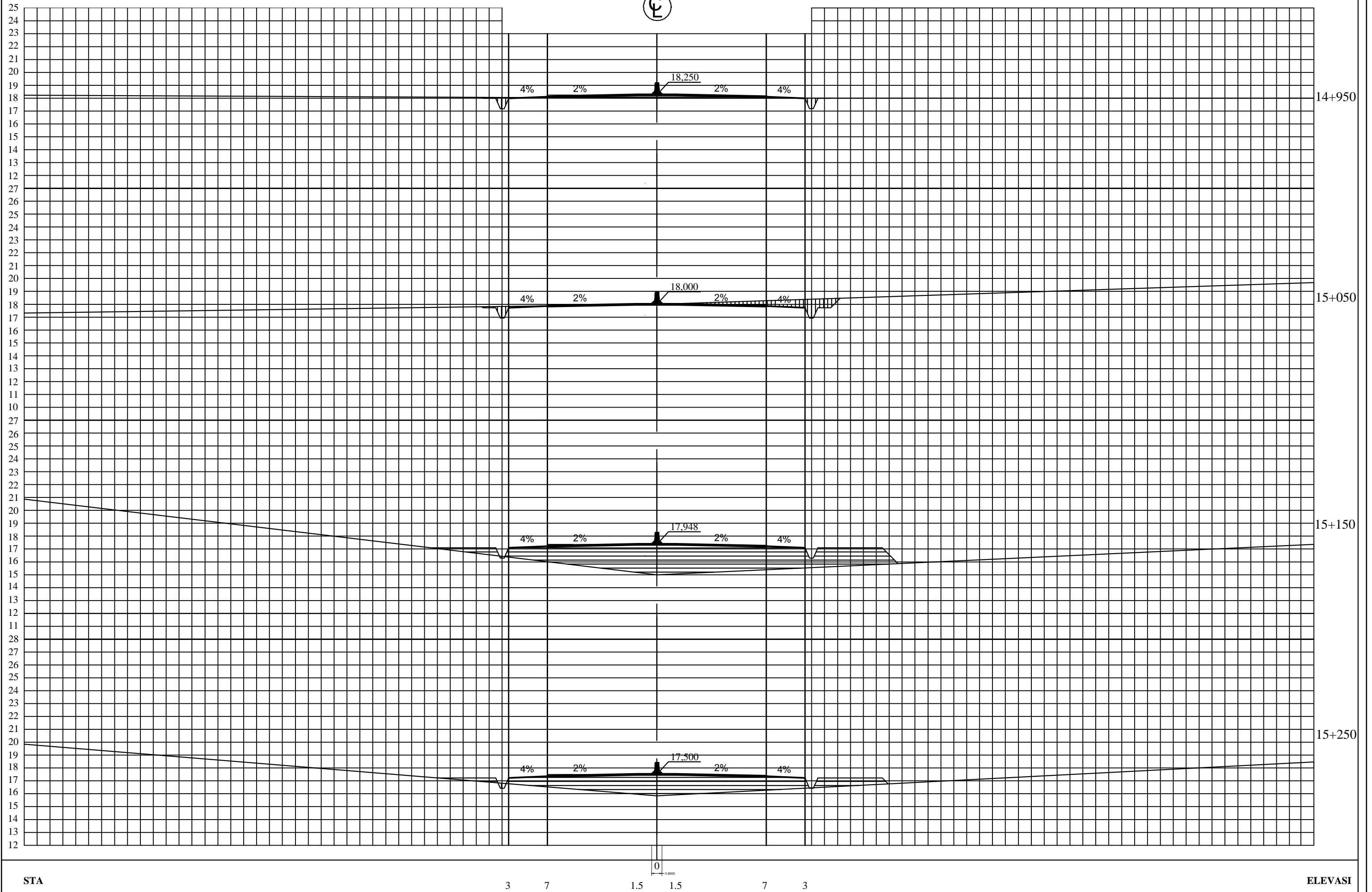
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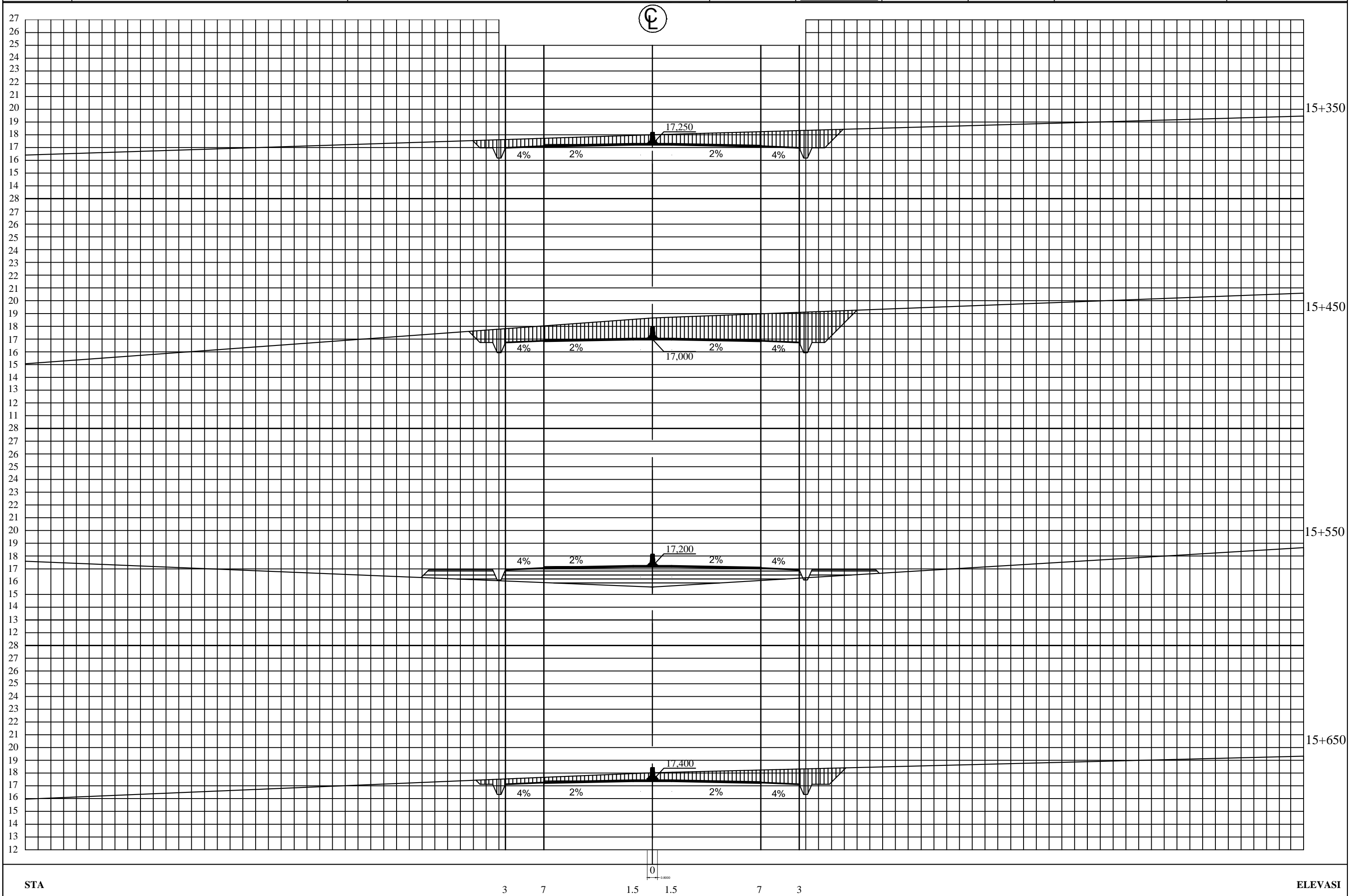
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ELEVASI



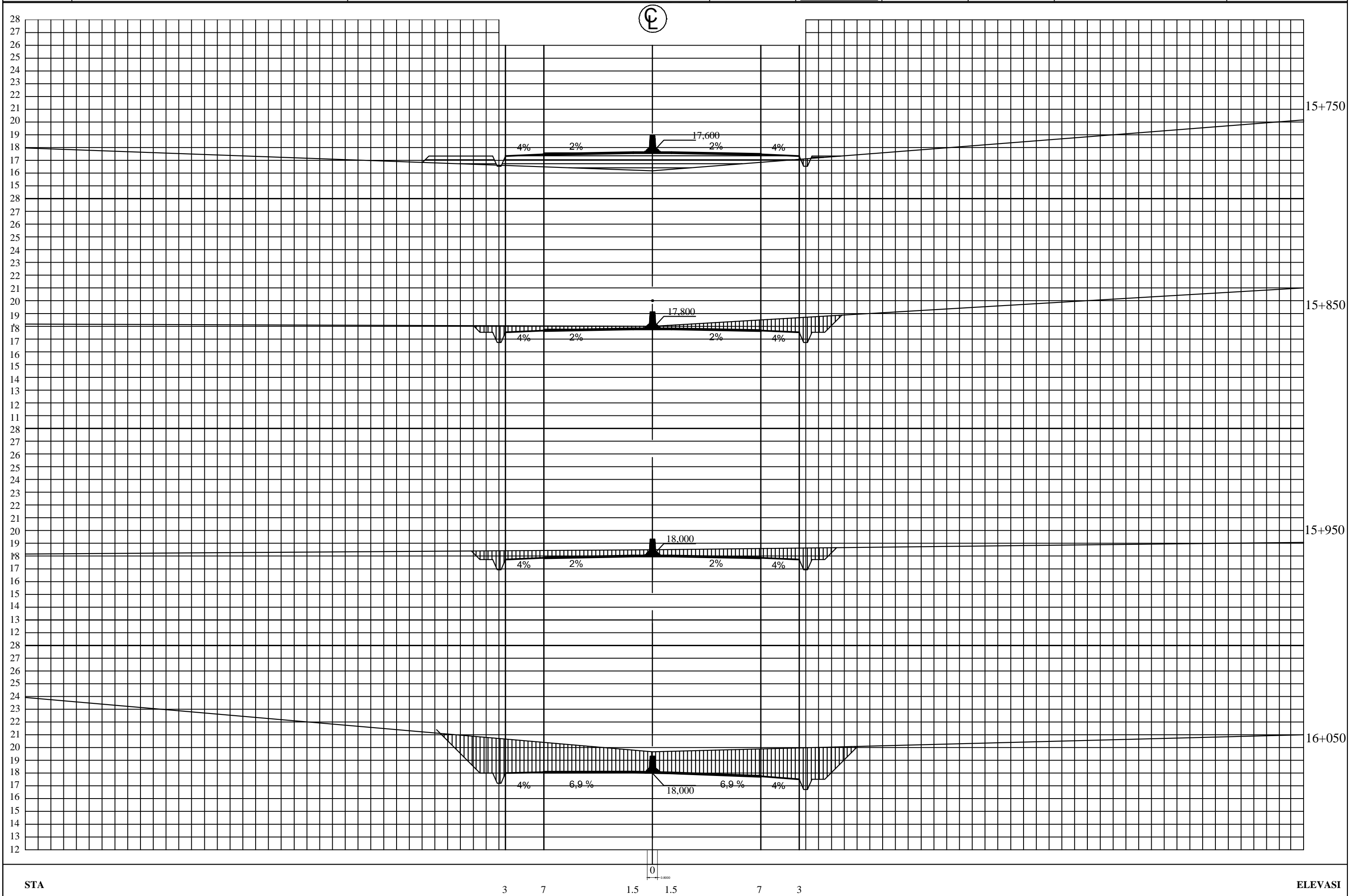






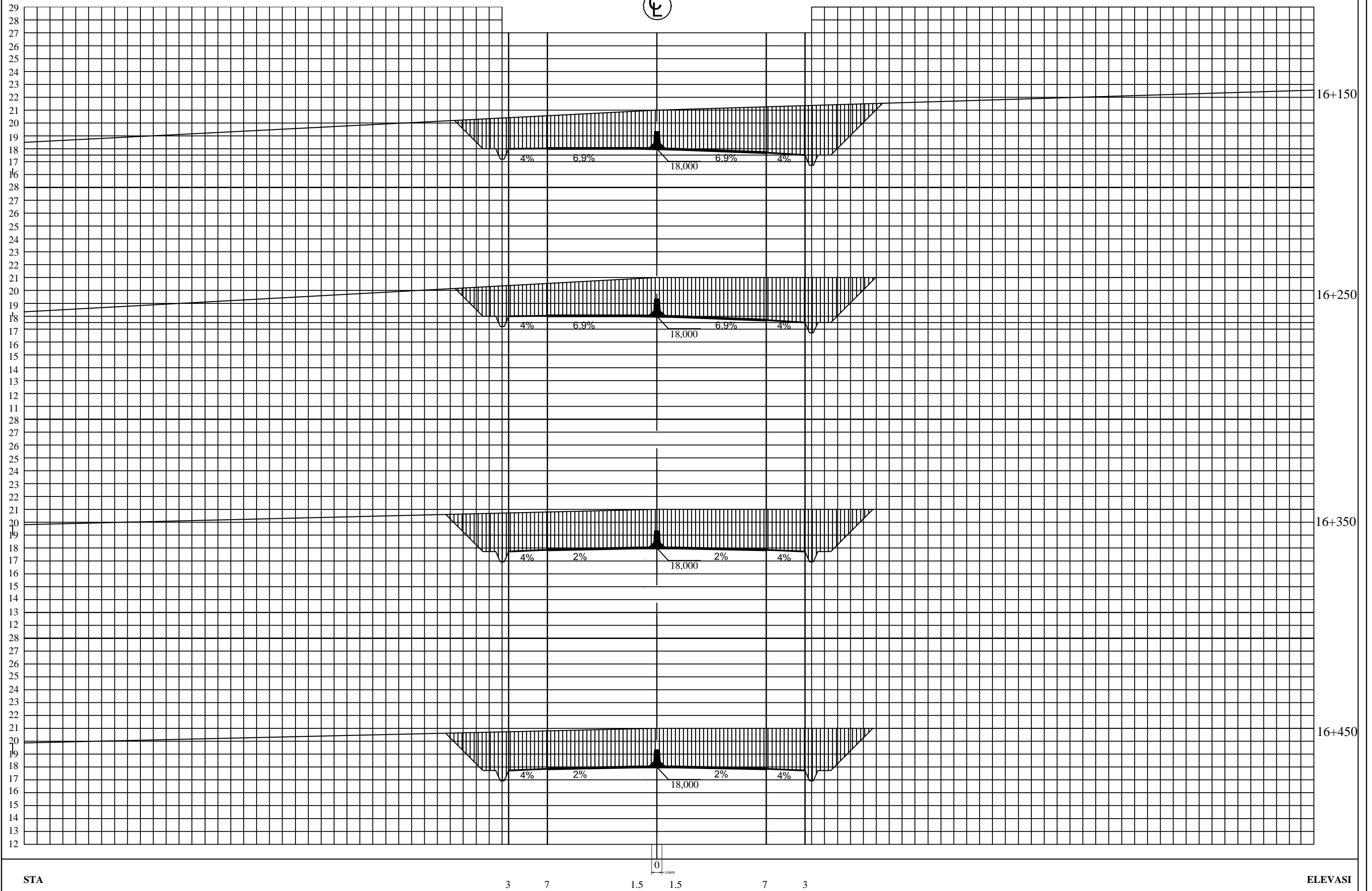
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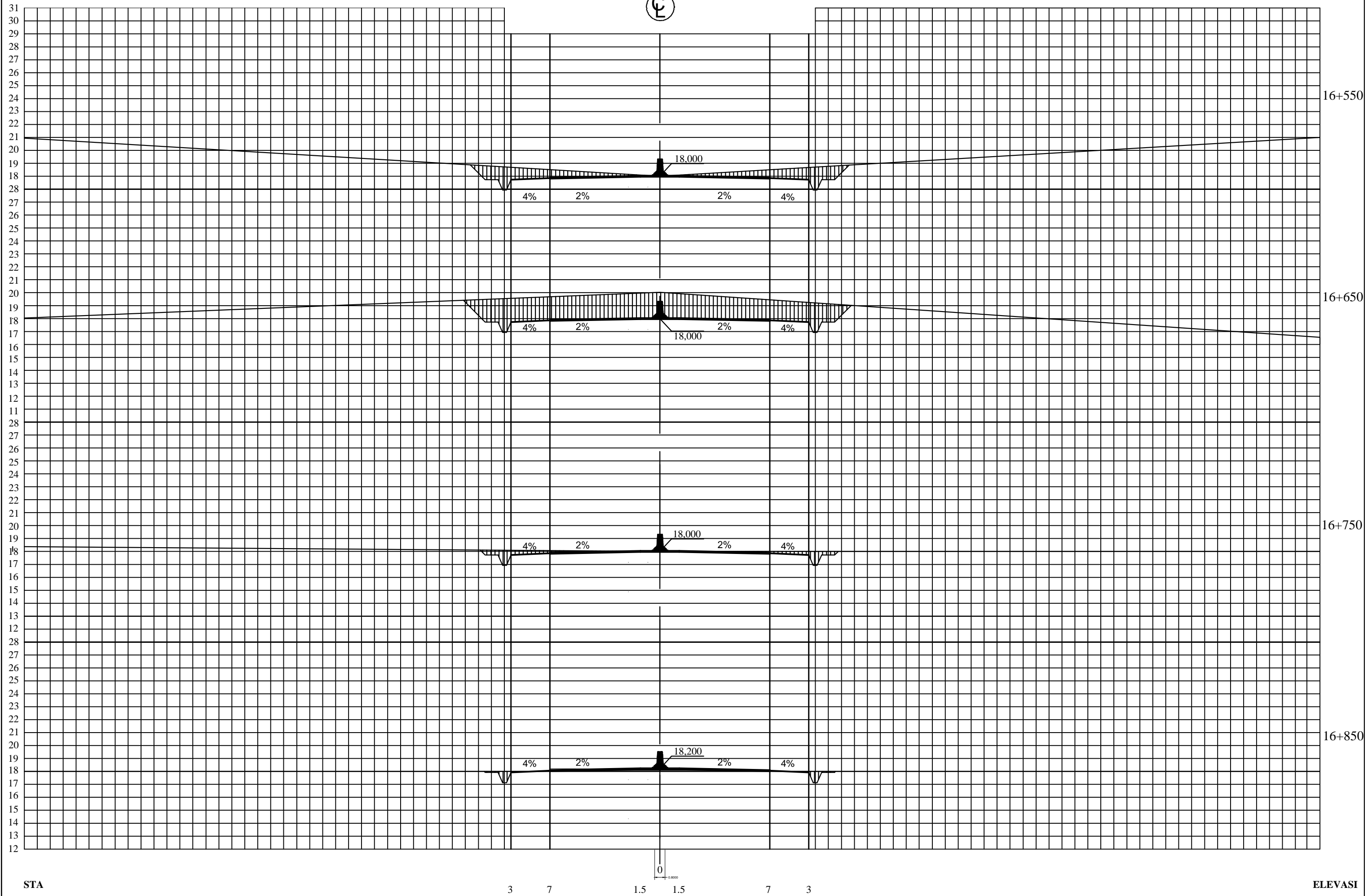
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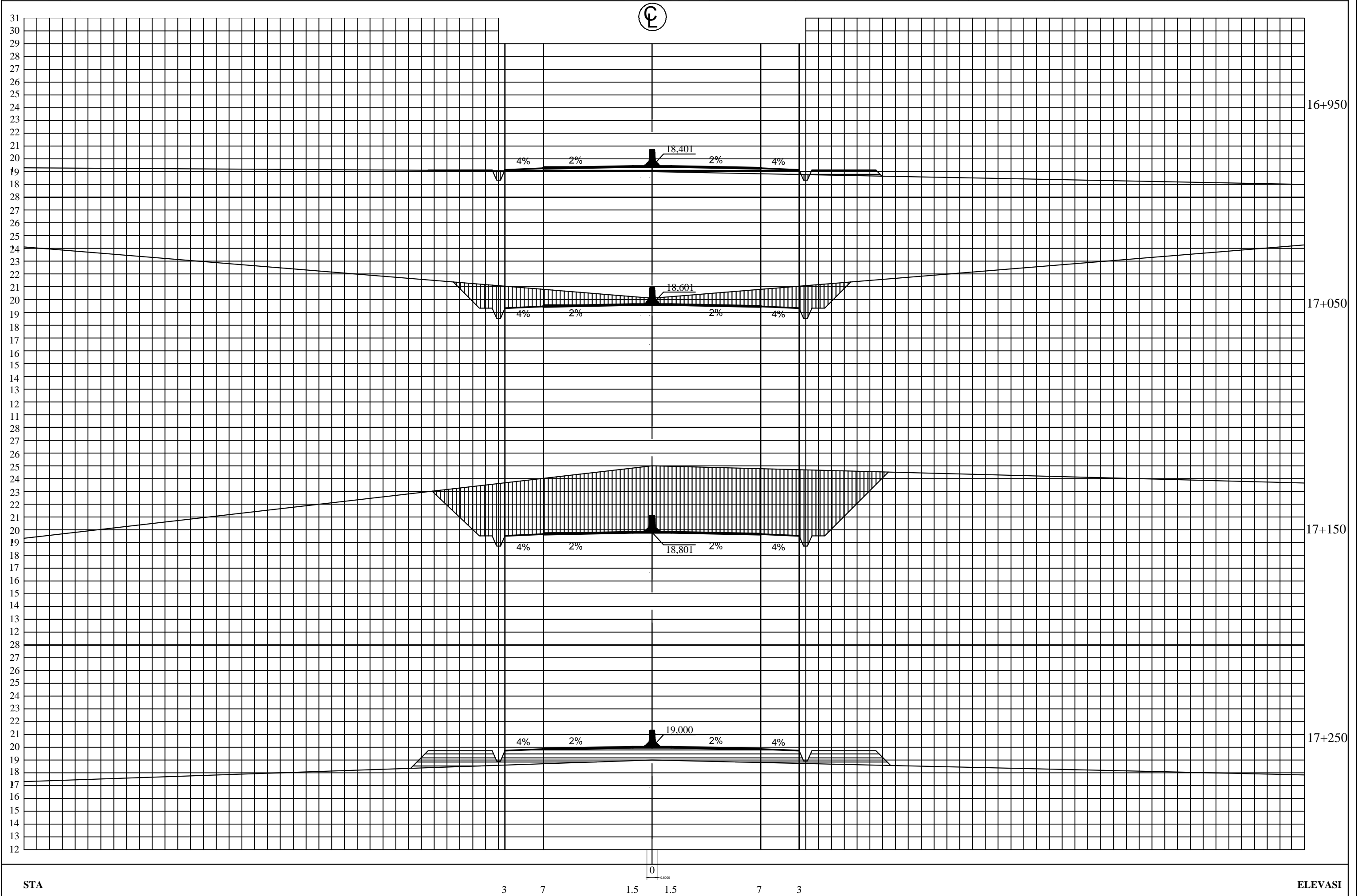


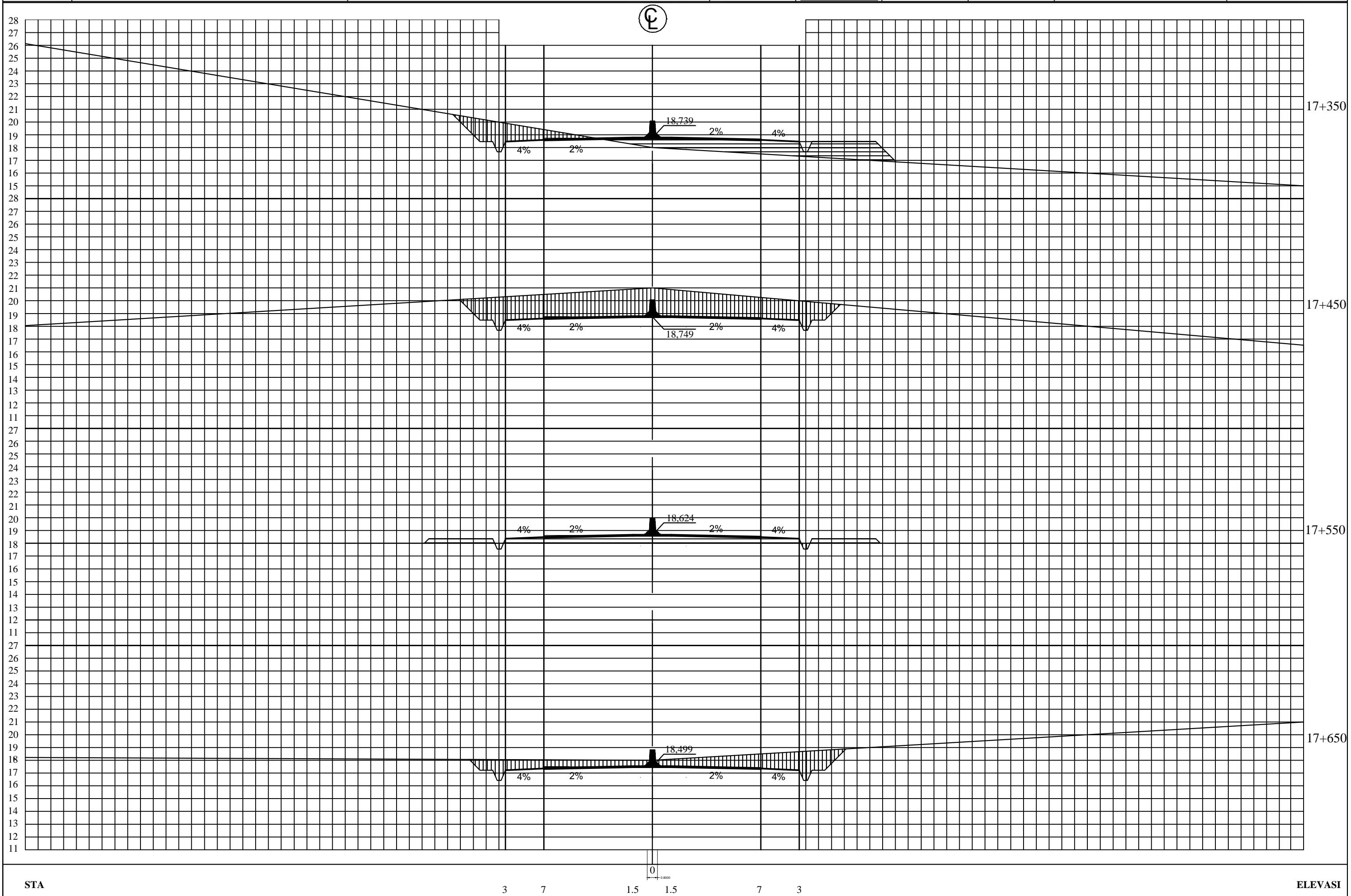
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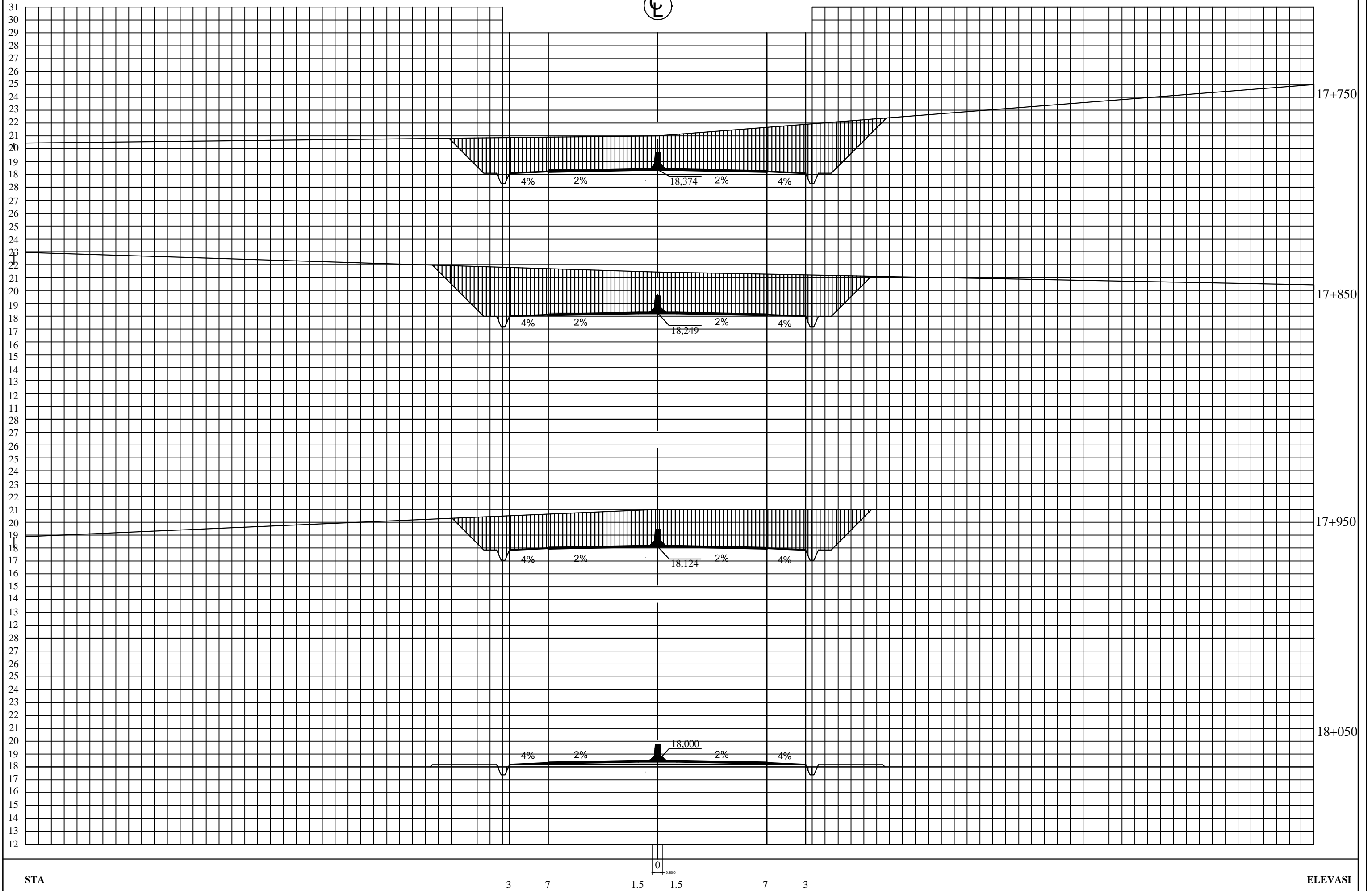


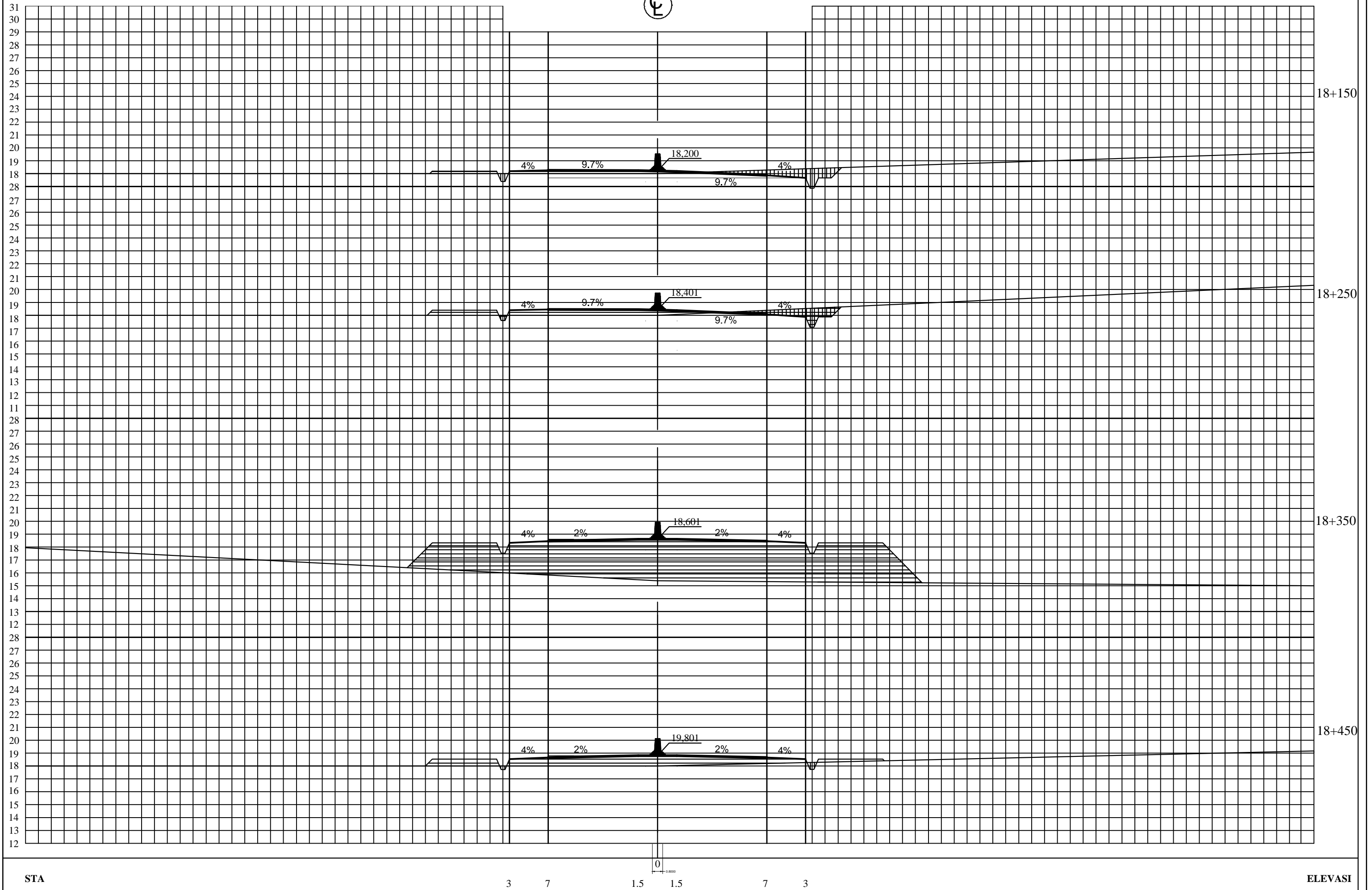


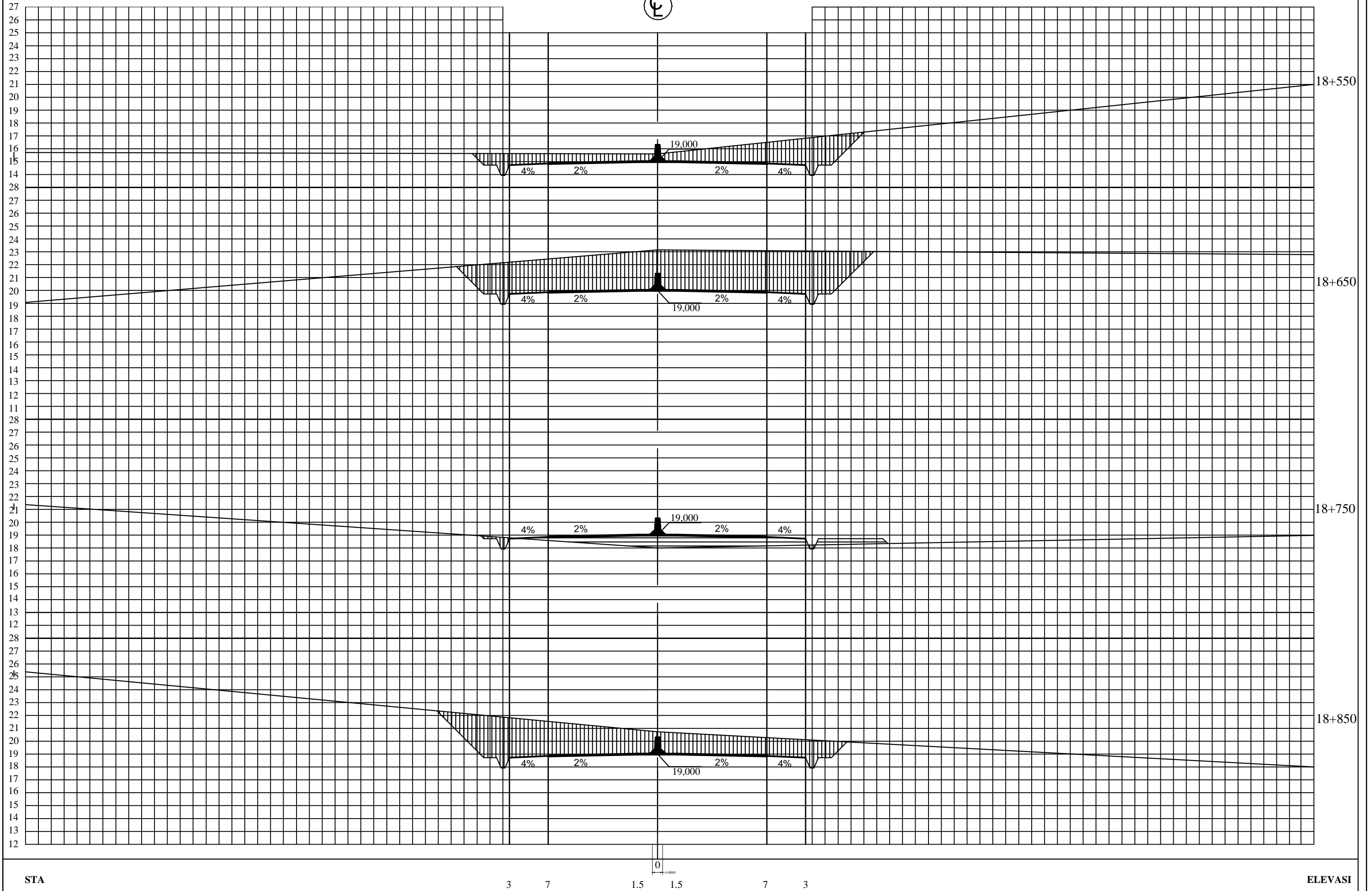


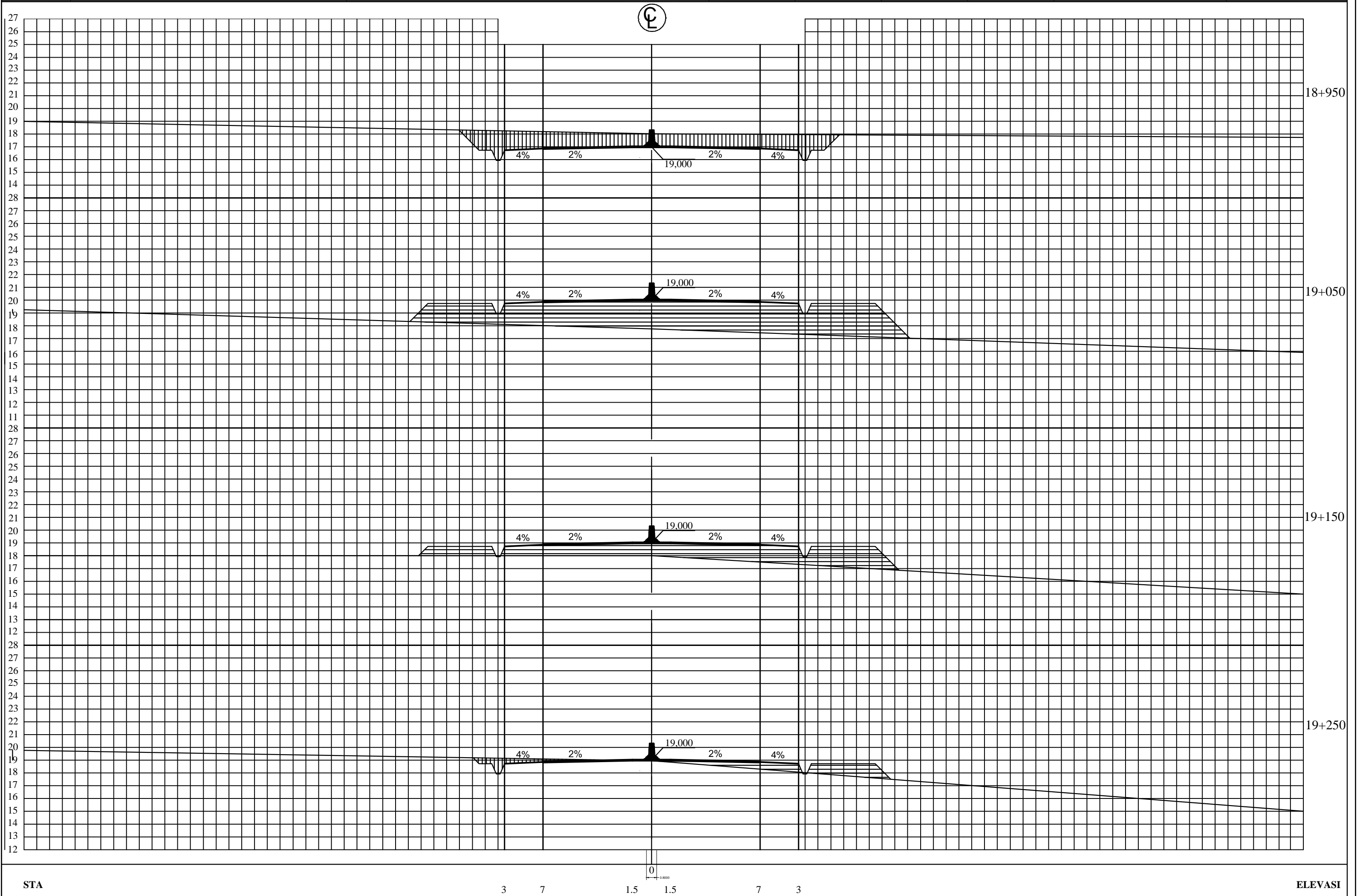
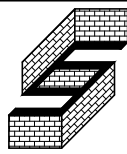
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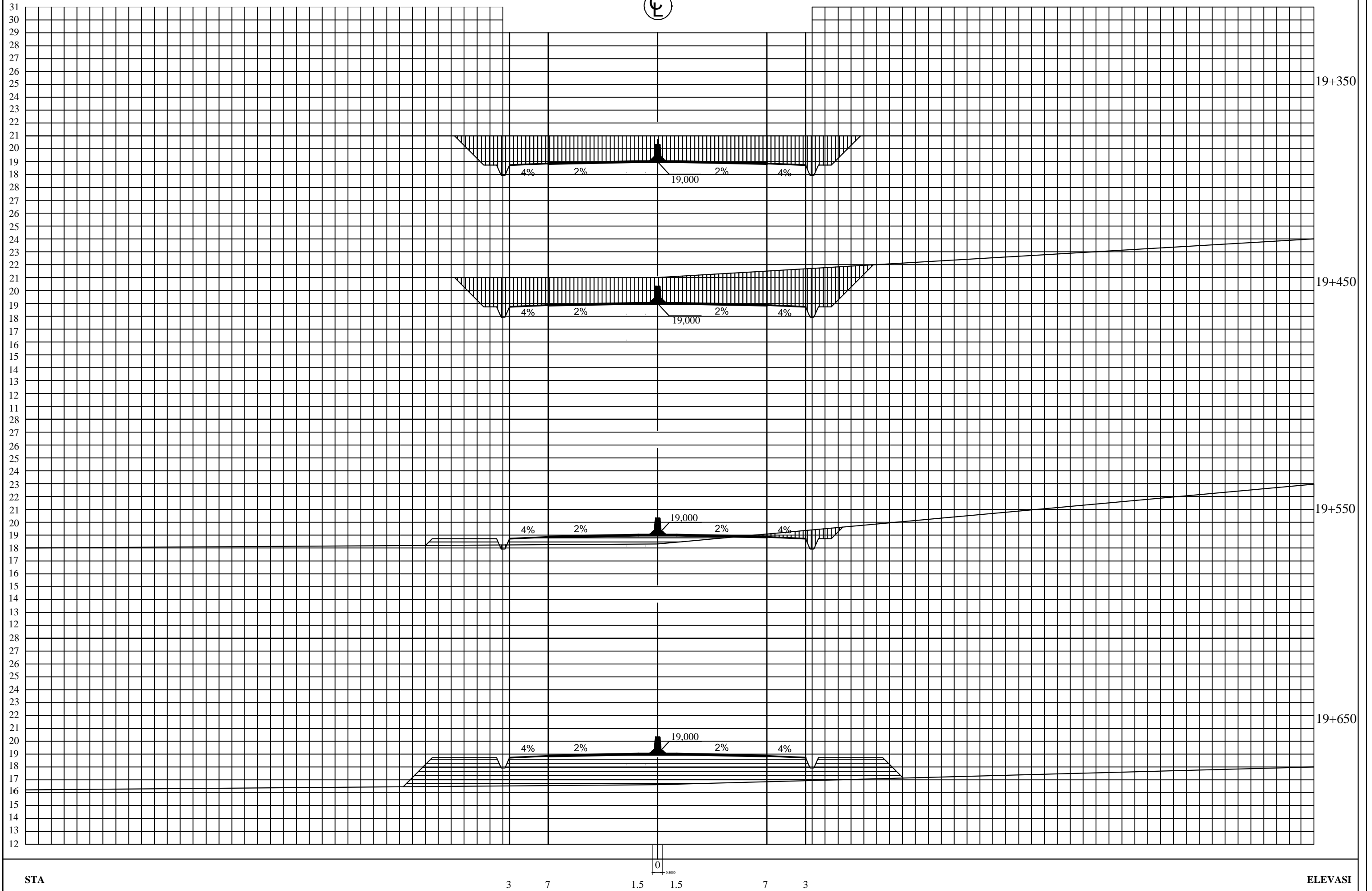


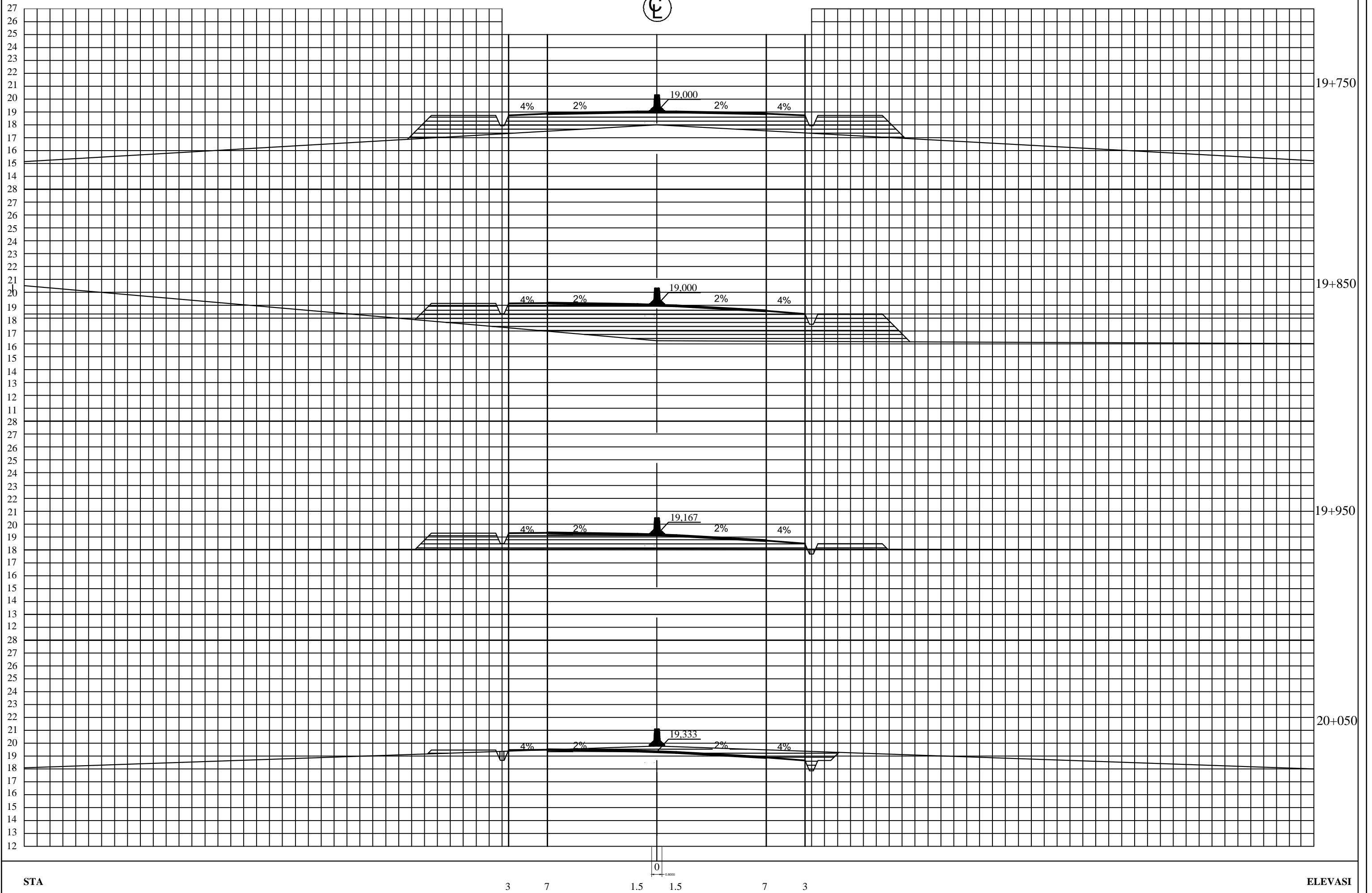


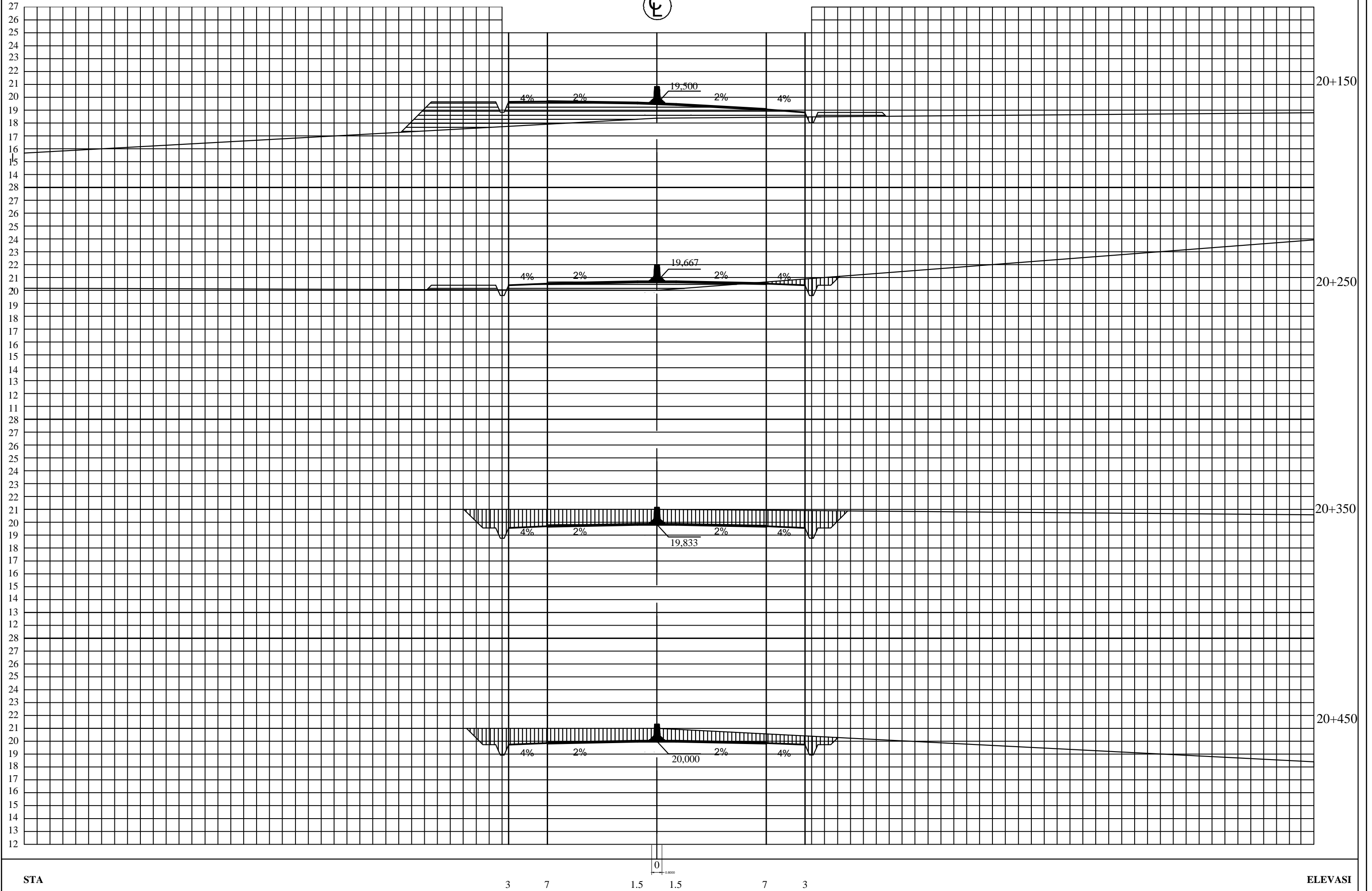


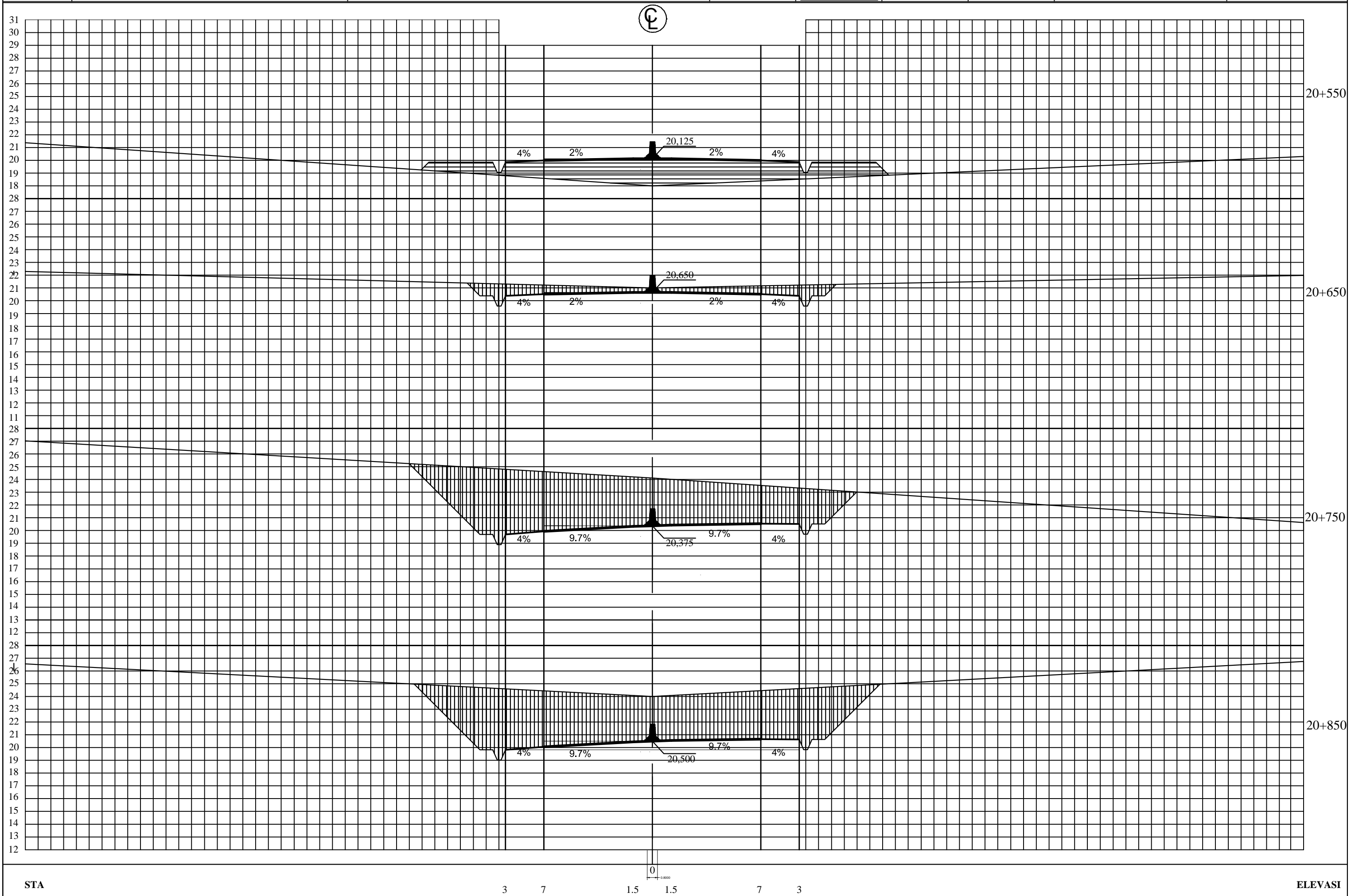
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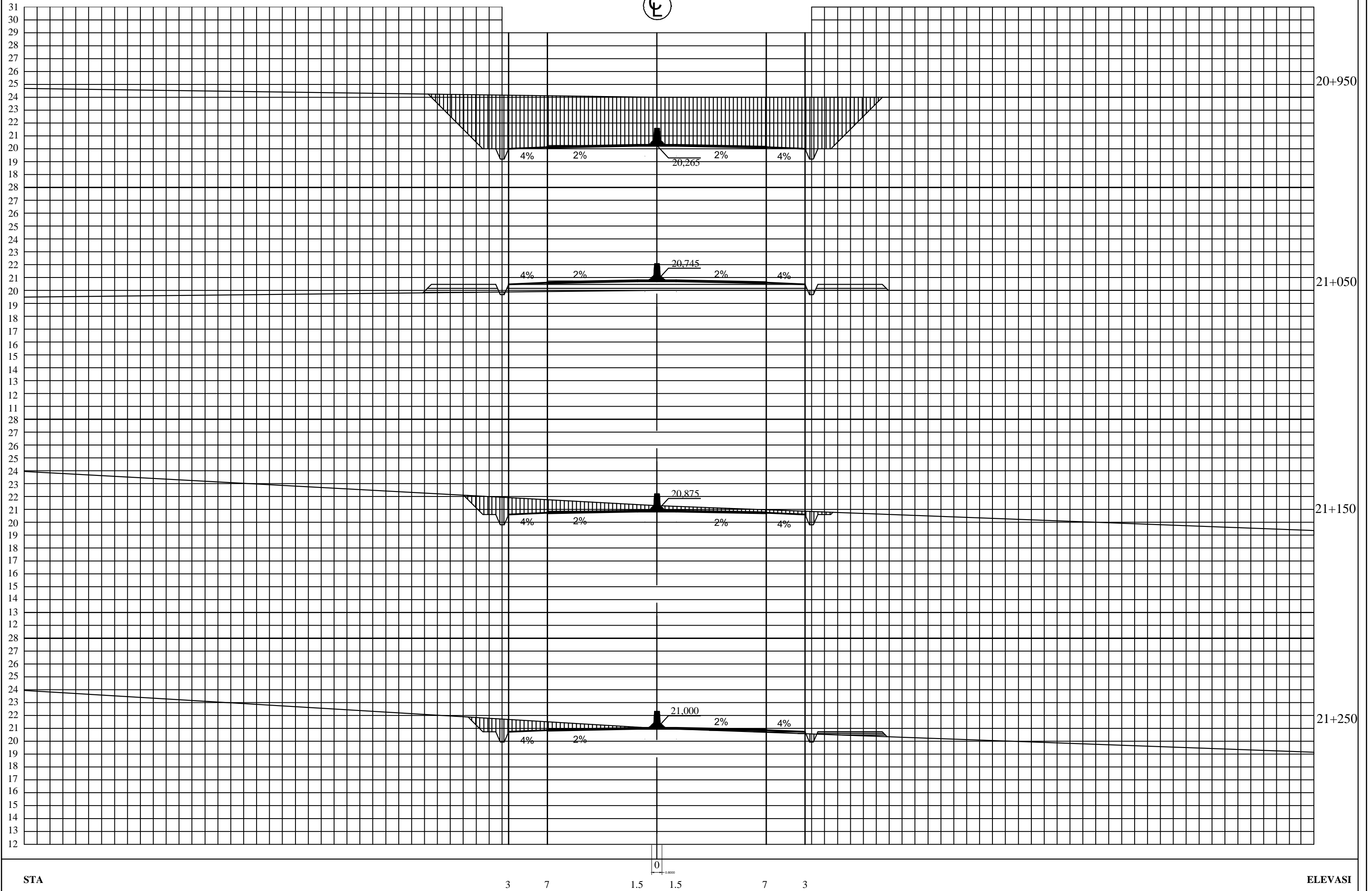


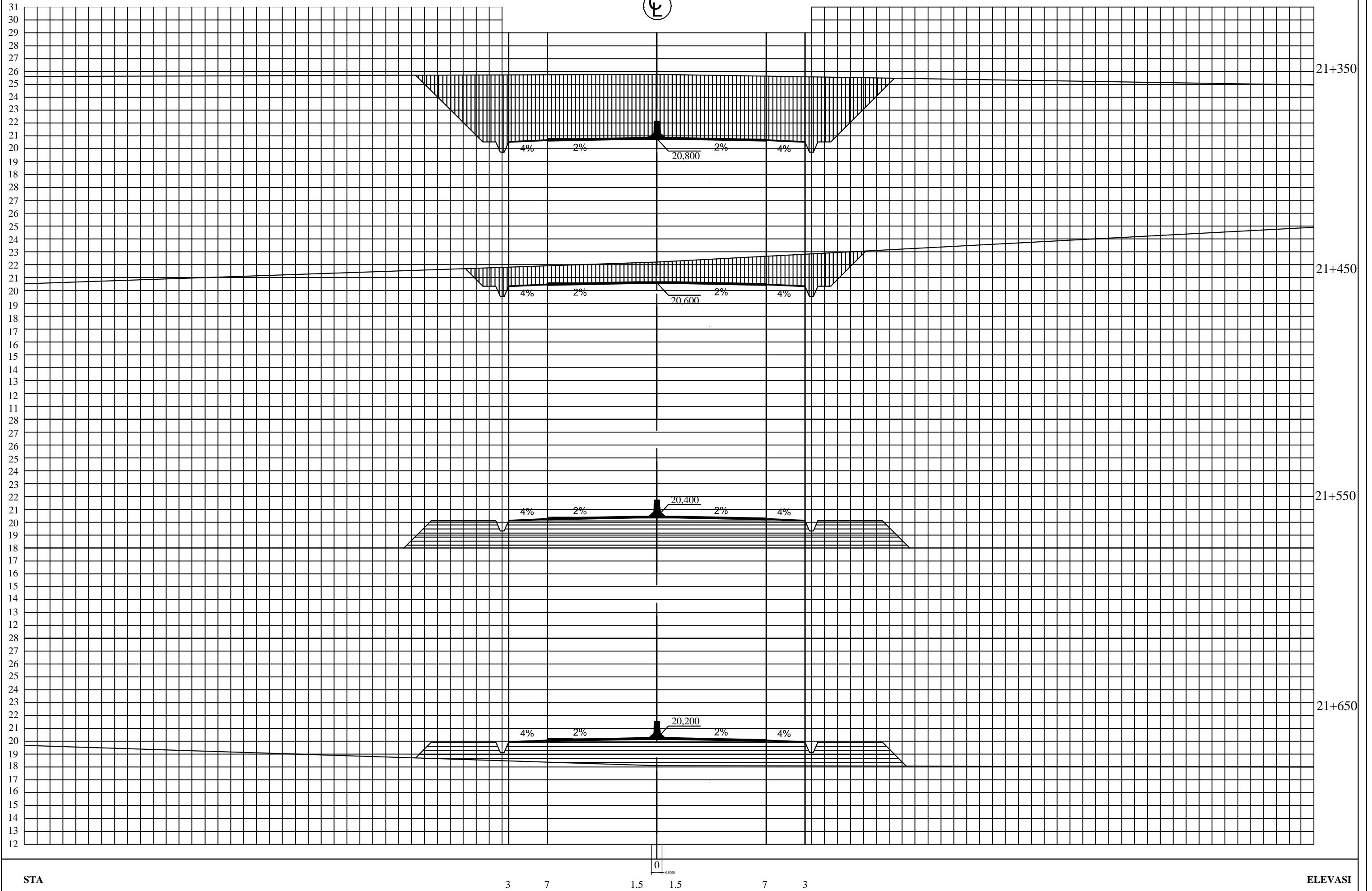


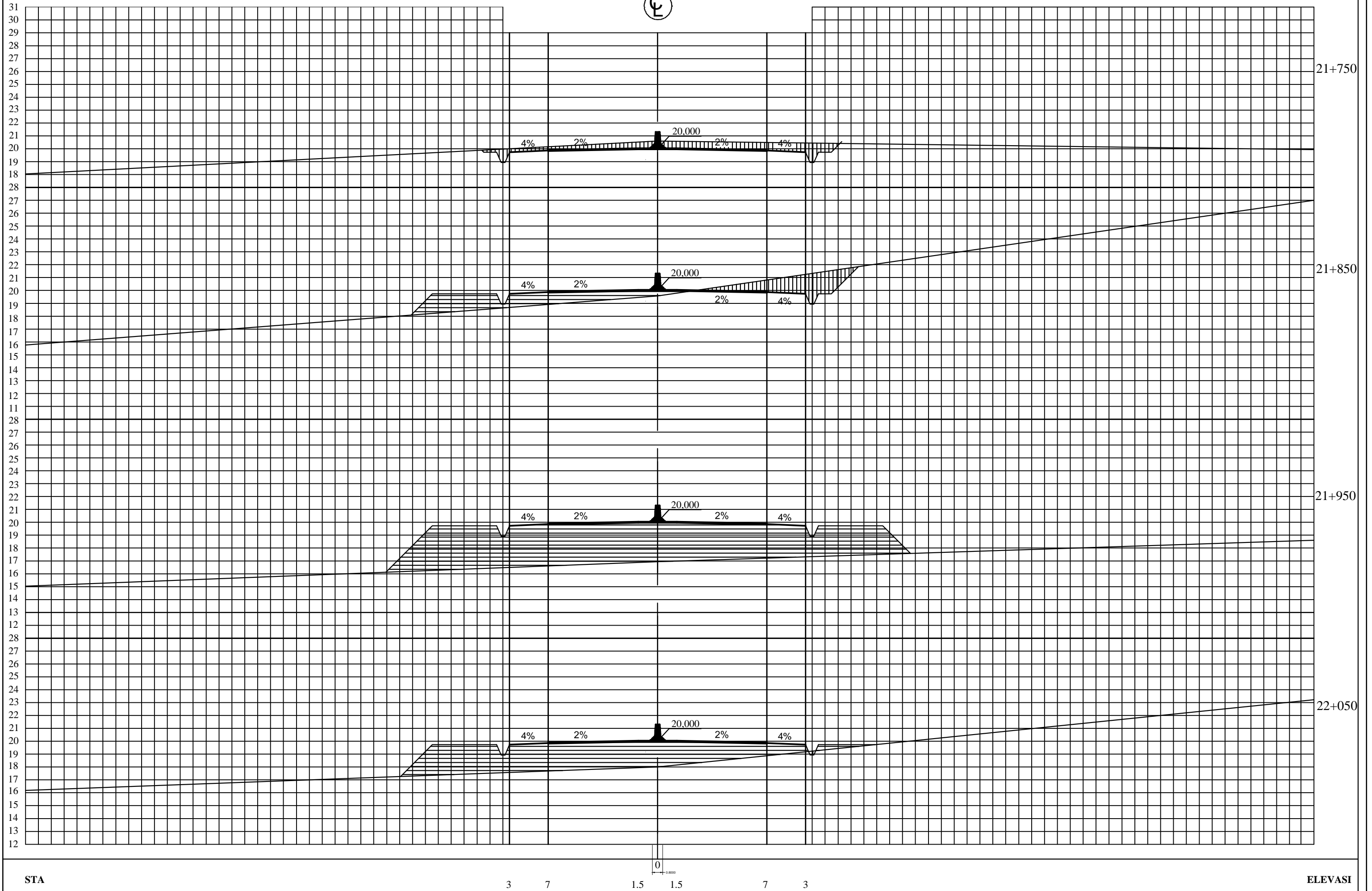
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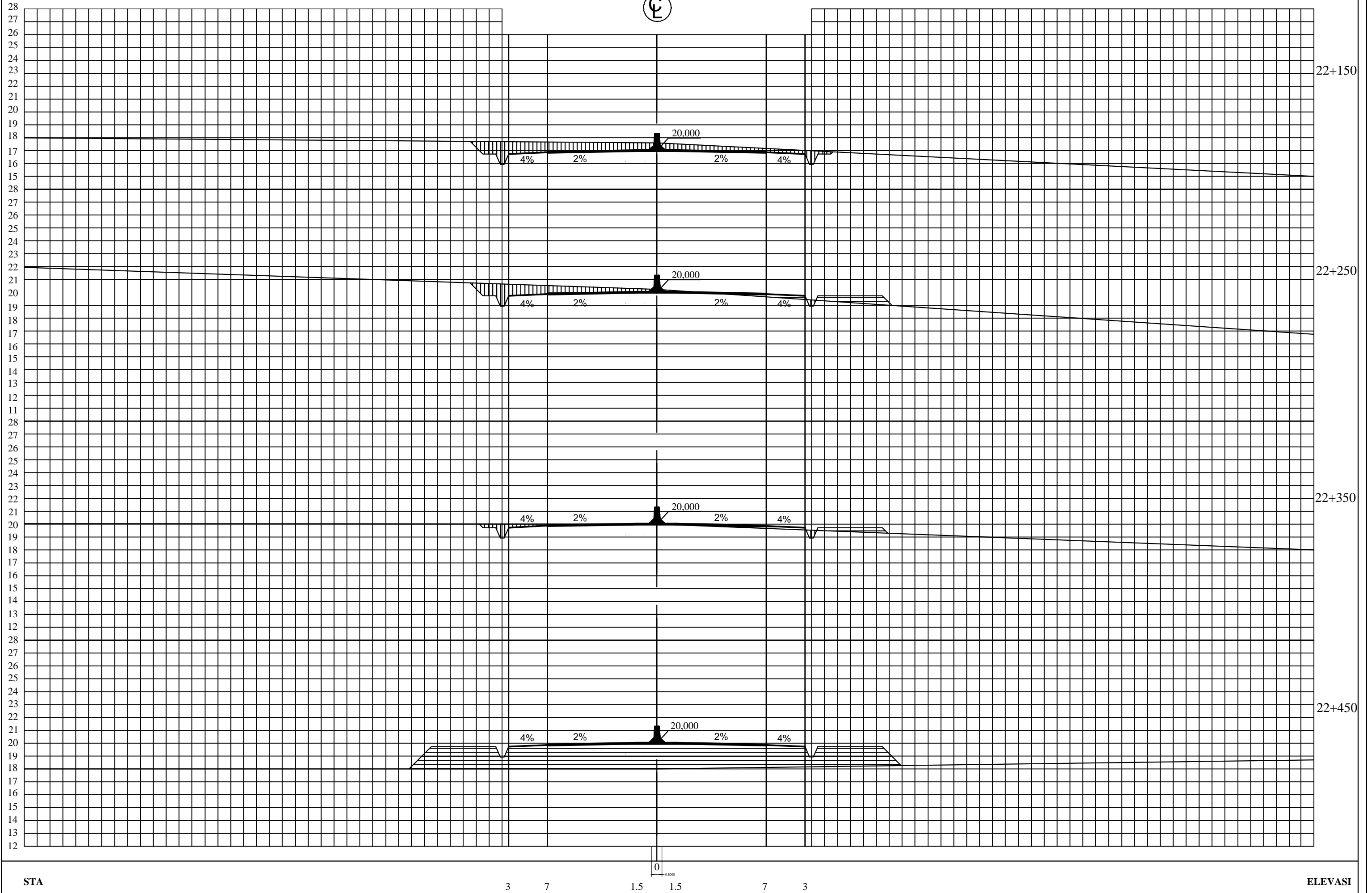
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ELEVASI



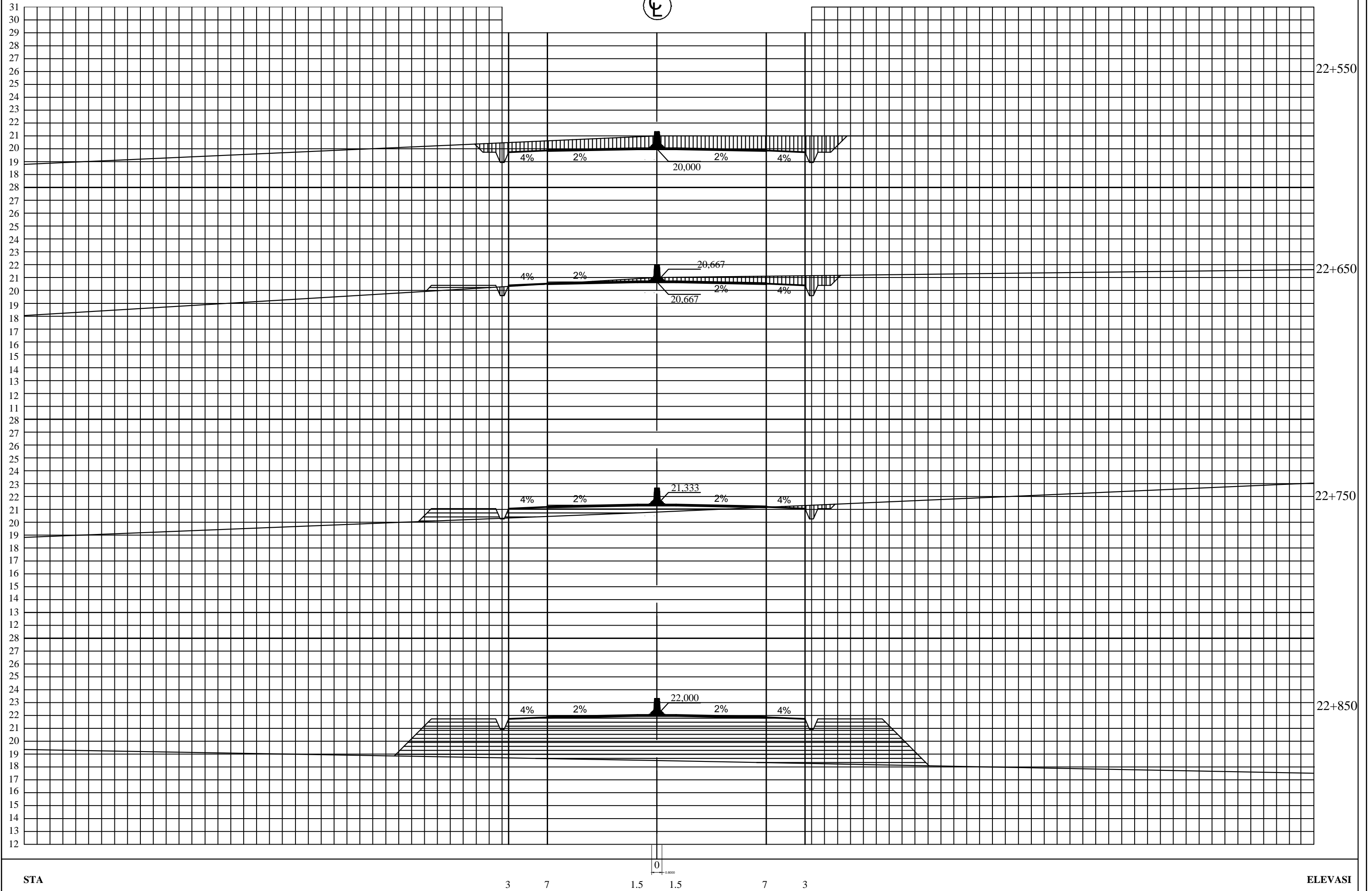


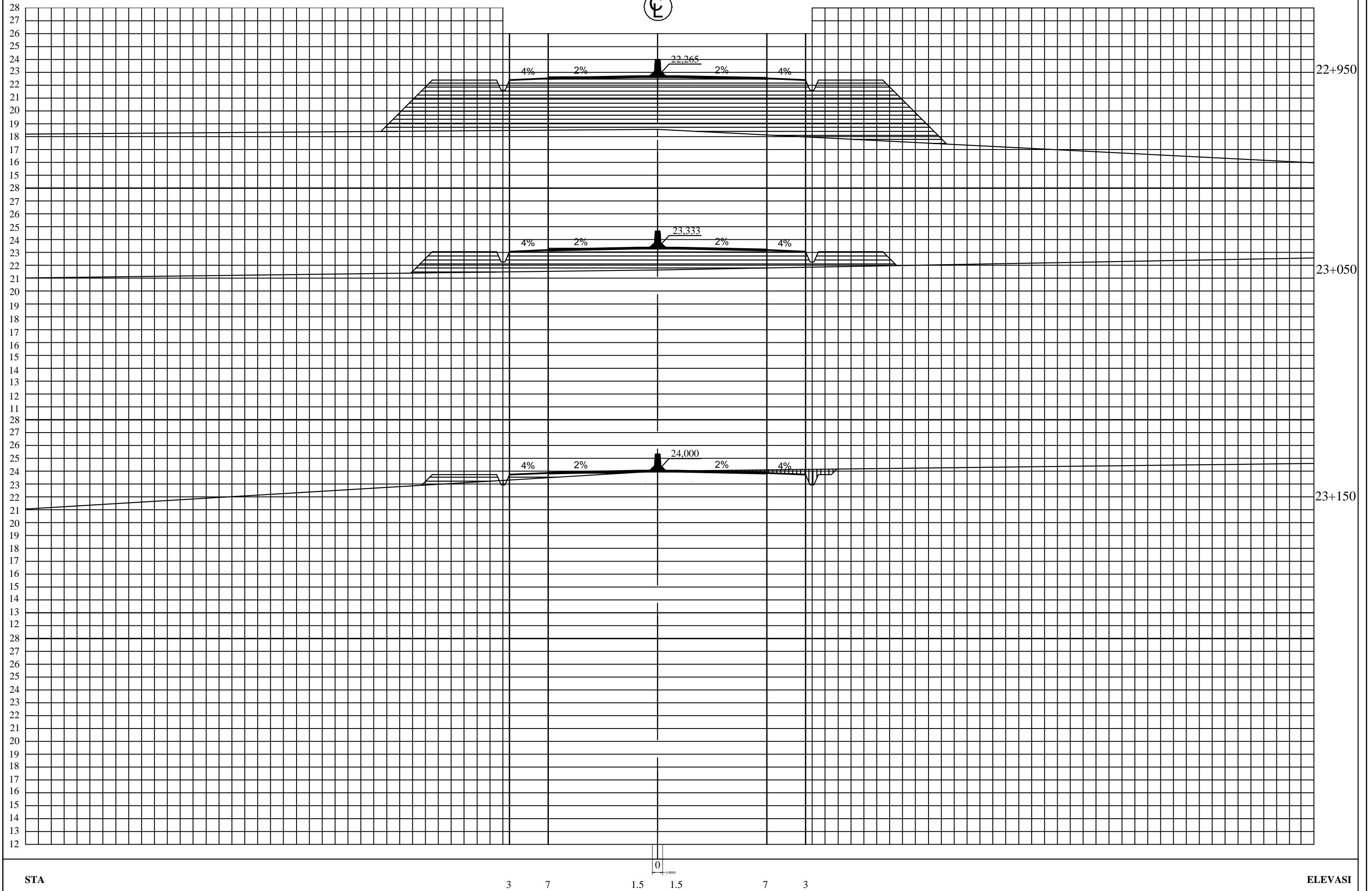




STA

ELEVASI







POLITEKNIK NEGERI SRIWIJAYA
JURUSAN TEKNIK SIPIL
PALEMBANG

PERENCANAAN GEOMETRIK DAN TEBAL
PERKERASAN KAKU JALAN TOL BINJAI -
PANGKALAN BERANDAN PROVINSI
SUMATERA UTARA STA 12+950 - STA
22+150

DIPERIKSA OLEH
PEMBIMBING I
DRS. Mochmad Absor., M.T.
NIP.195801121989031001

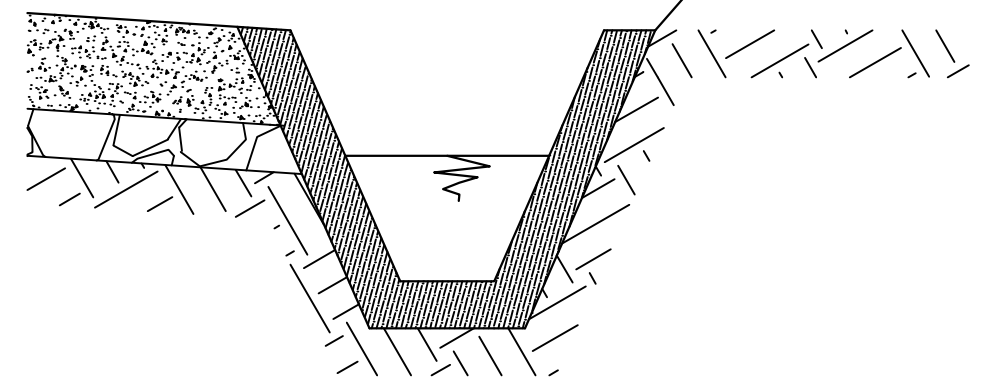
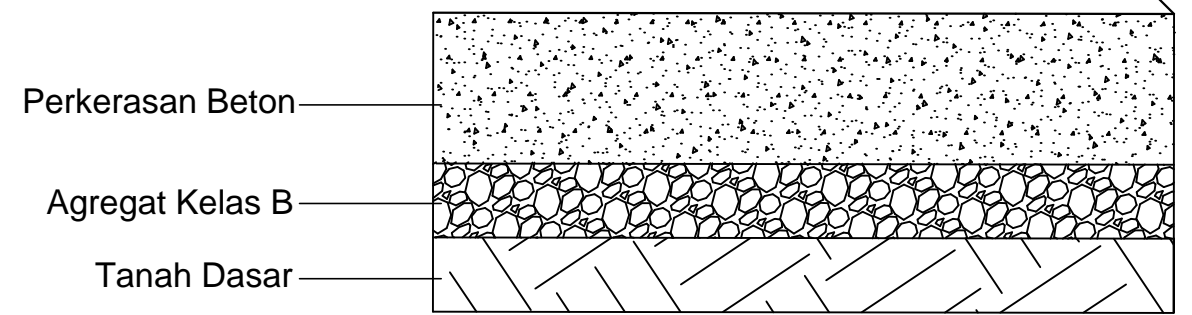
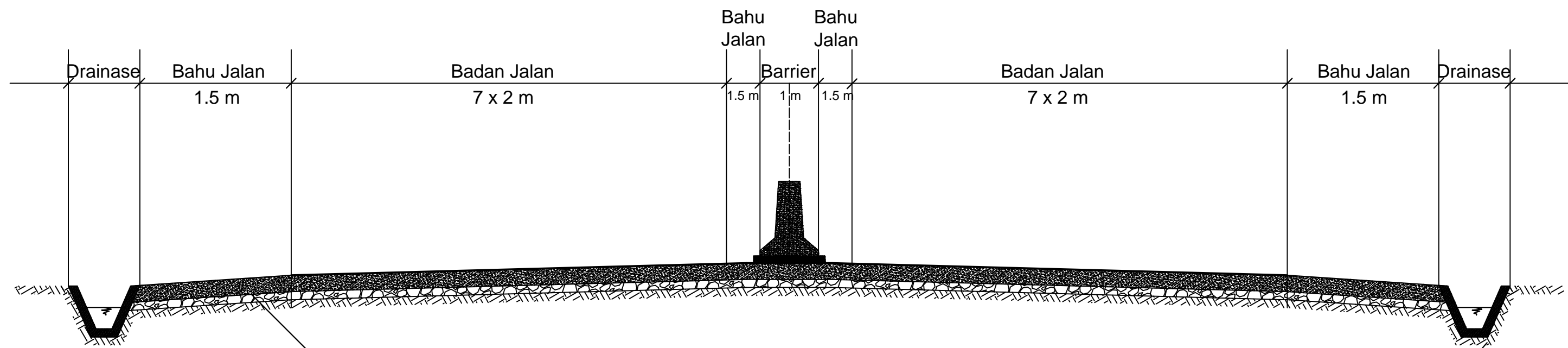
DIRENCANAKAN OLEH
PEMBIMBING II
Fadhila Firdausa, S.T.,M.Eng
NIP.199010302018032001

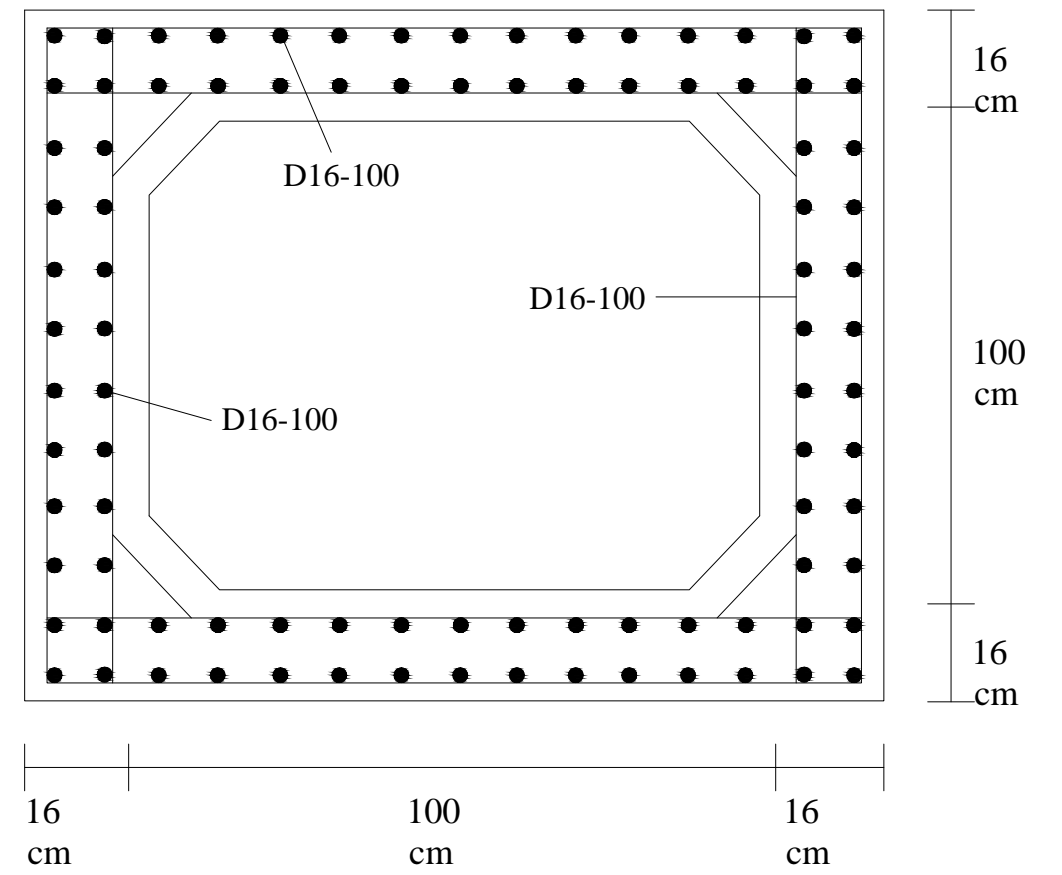
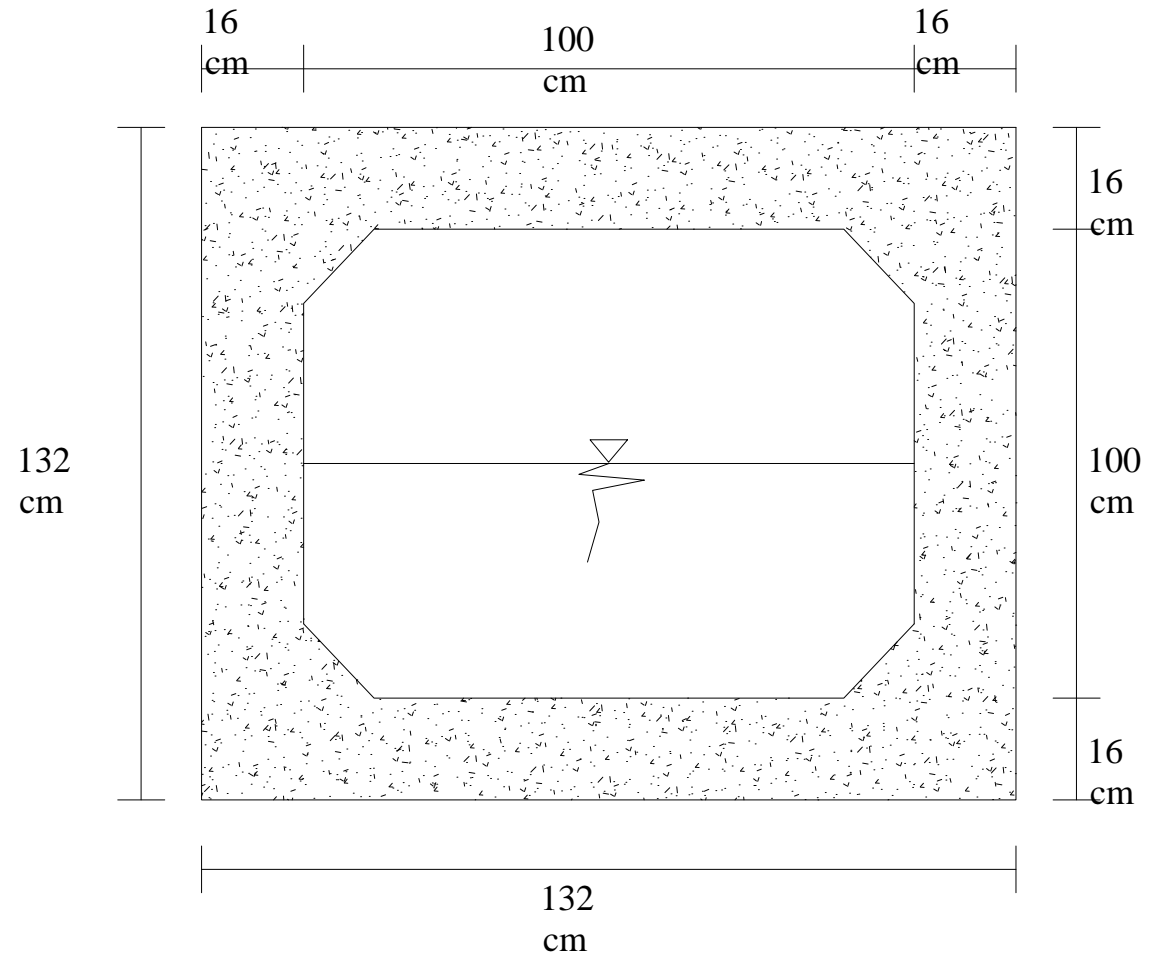
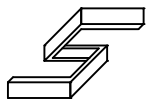
M. Rachmad Septriadi
NPM. 061840111611

Oryza Mayudhira Siregar
NPM. 061840111621

JUDUL GAMBAR
CROSS SECTION

No Lembar : 61
Skala : 1 : 800
Tanggal : 22 Juli 2022







POLITEKNIK NEGERI SRIWIJAYA
JURUSAN TEKNIK SIPIL
PALEMBANG

PERENCANAAN GEOMETRIK DAN TEBAL
PERKERASAN KAKU JALAN TOL BINJAI -
PANGKALAN BERANDAN PROVINSI
SUMATERA UTARA STA 12+950 - STA
22+150

DIPERIKSA OLEH

PEMBIMBING I

DRS. Mochmad Absor., M.T.
NIP.195801121989031001

PEMBIMBING II

Fadhila Firdausa, S.T.,M.Eng
NIP.199010302018032001

DIRENCANAKAN OLEH

M. Rachmad Septriadi
NPM. 061840111611

Oryza Mayudhira Siregar
NPM. 061840111621

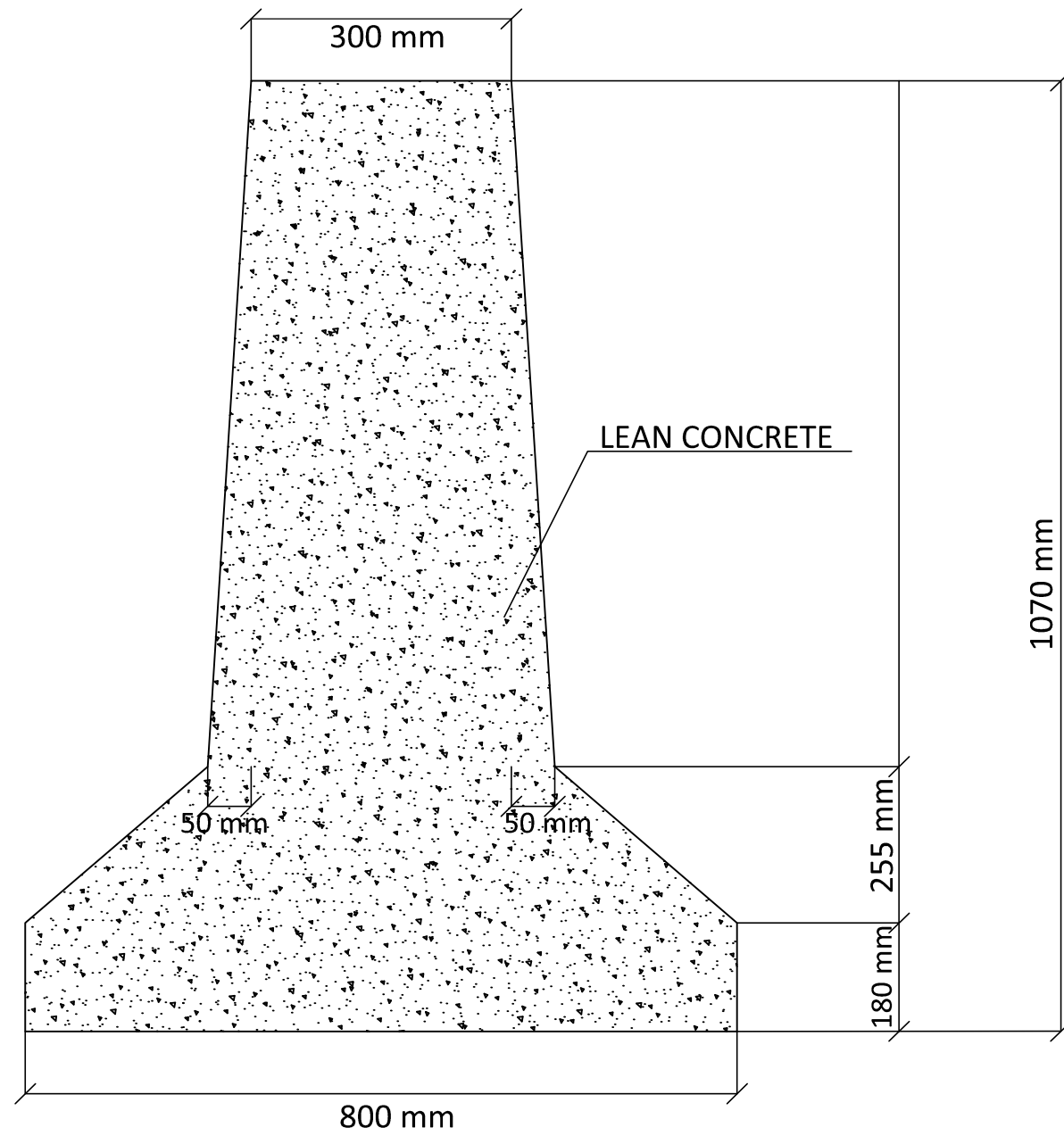
JUDUL GAMBAR

MEDIAN BARRIER

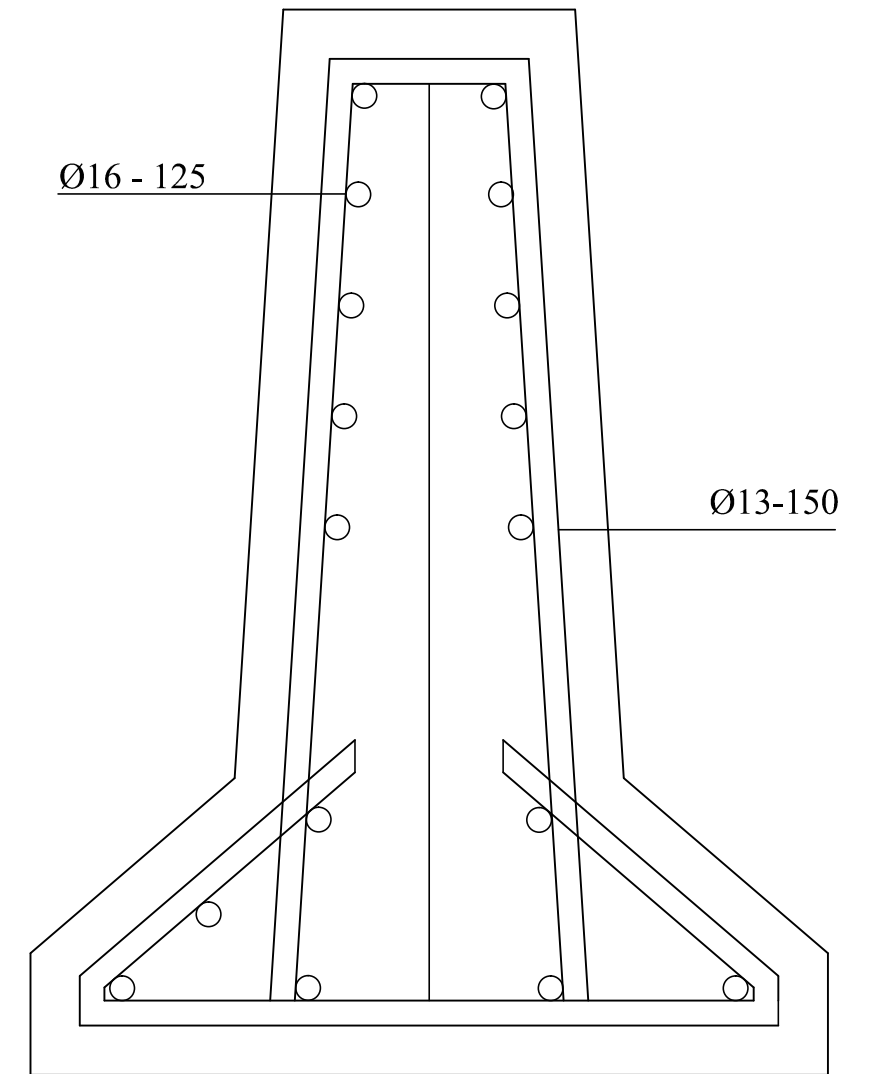
No Lembar : 63

Skala : 1 : 800

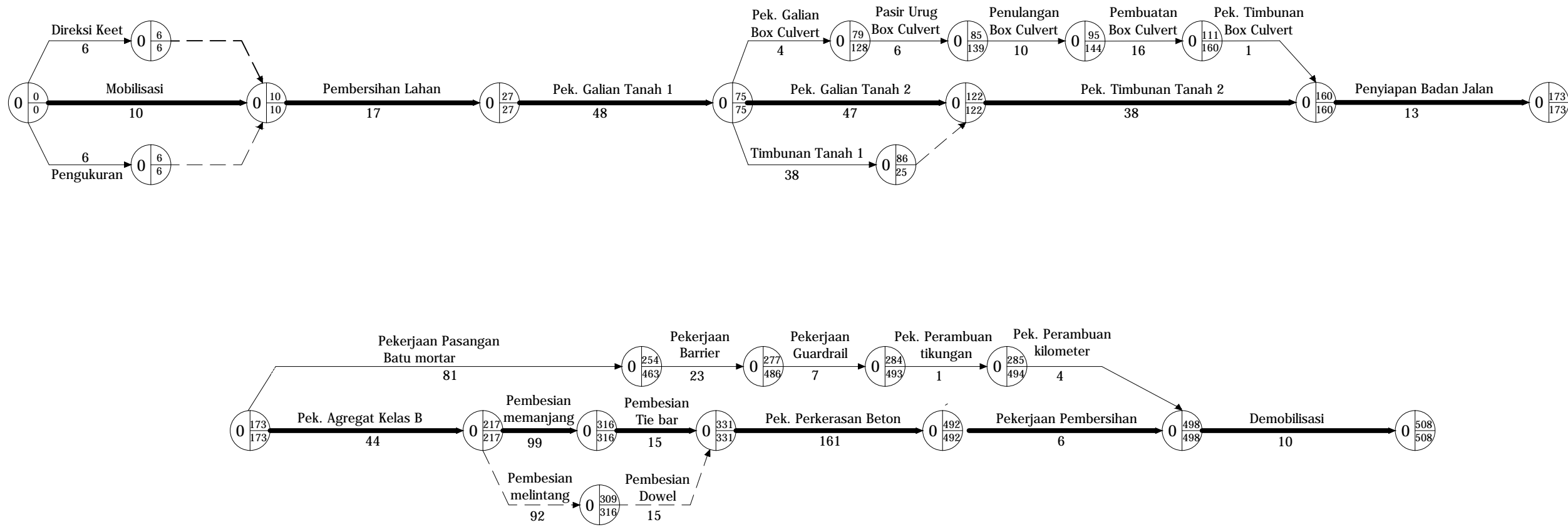
Tanggal : 22 Juli 2022



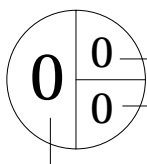
DIMENSI BARRIER



PENULANGAN BARRIER



Keterangan :



Earliest Event Time (EET) : Waktu penyelesaian paling awal

Latest Event Time (LET) : Waktu penyelesaian paling akhir

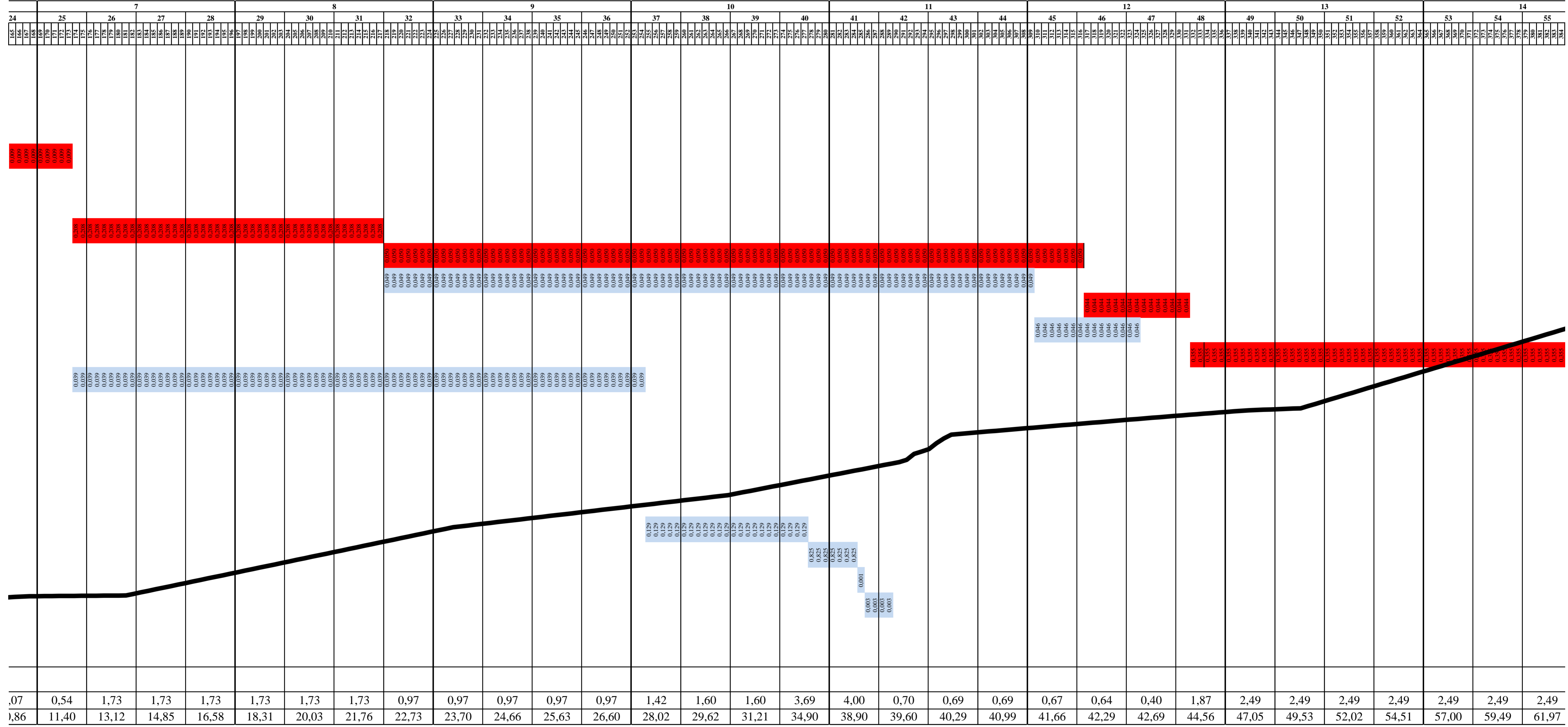
Kejadian (Event) : Urutan pekerjaan

Normal : Menunjukkan mulainya pekerjaan hingga akhir pekerjaan

Kegiatan semu (Dummy) : Menyatakan bahwa antara kegiatan satu dengan yang lainnya masih saling berhubungan

Jalur kritis : Jalur yang menunjukkan pekerjaan yang tidak boleh terlambat walaupun satu hari karena akan menghambat waktu penyelesaian proyek secara keseluruhan

BARCHART DAN KURVA S



	15										16										17										18										19																																																						
	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73					
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